

Sector Allocation as a Management Tool



Sector Allocation as a Management Tool

January 15-16, 2008

The Village Inn Hotel and Conference Center

1 Beach Street

Narragansett, Rhode Island 02882

Presentations

Welcome - Barry Costa-Pierce, Director, Rhode Island Sea Grant

Limited Access Privilege Programs and Sector Allocations- Mark Holliday, Director, Office of Policy, National Marine Fisheries Service

Comparison of Sector Allocations with (Other?) Limited Access Privilege Programs - Drew Kitts, NOAA Fisheries, Northeast Fisheries Science Center

Mid-Atlantic Sectors Update- Jason Didden, Assistant Fishery Plan Coordinator, Mid-Atlantic Fisheries Management Council

Case Study: Shetland Fish Producers' Organisation - Brian Isbister, Chief Executive, Shetland Fish Producers' Organisation

Sector Allocation As a Management Tool - Legal Considerations - Elizabeth R. Butler, Esq., Pierce Atwood LLP

Recreational Fisheries and Sector Allocation - Robert J. Johnston, University of Connecticut

Assessing the Potential for Rights-Based Management in U.S. Fisheries - Kate Bonzon, Fisheries Specialist, Environmental Defense Fund

Sector-Lapp Comparison Table

Elizabeth Butler explains the legal considerations of starting a sector.

Return to [workshop home](#)



Attendees at the Sector Allocation workshop heard from several speakers about the pros and cons of sectors.



Dave Preble discusses the New England Fishery Management Council and their plans



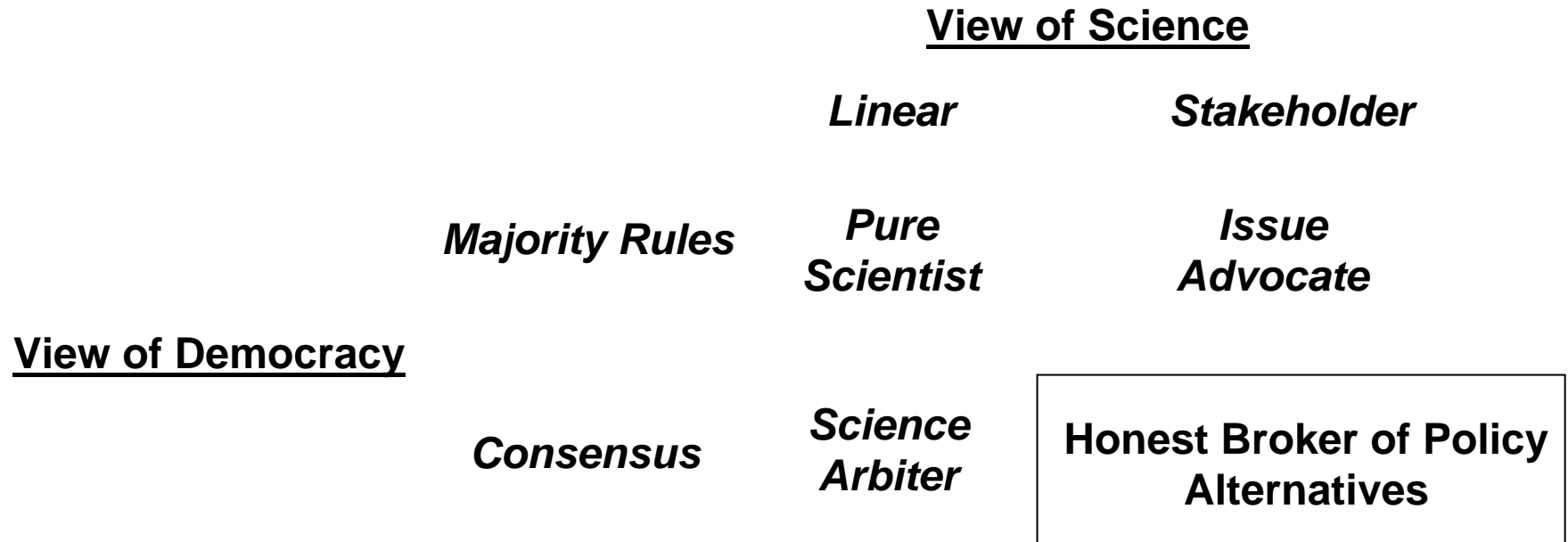
to possibly move forward with sector allocation plans for some fisheries.

Brian Isbister of the Shetland Fish Producers' Organisation speaks about sector management in the Shetland Islands.



Science in Coastal Decision Making

Roger Pilke, Jr. 2007. *The Honest Broker*.

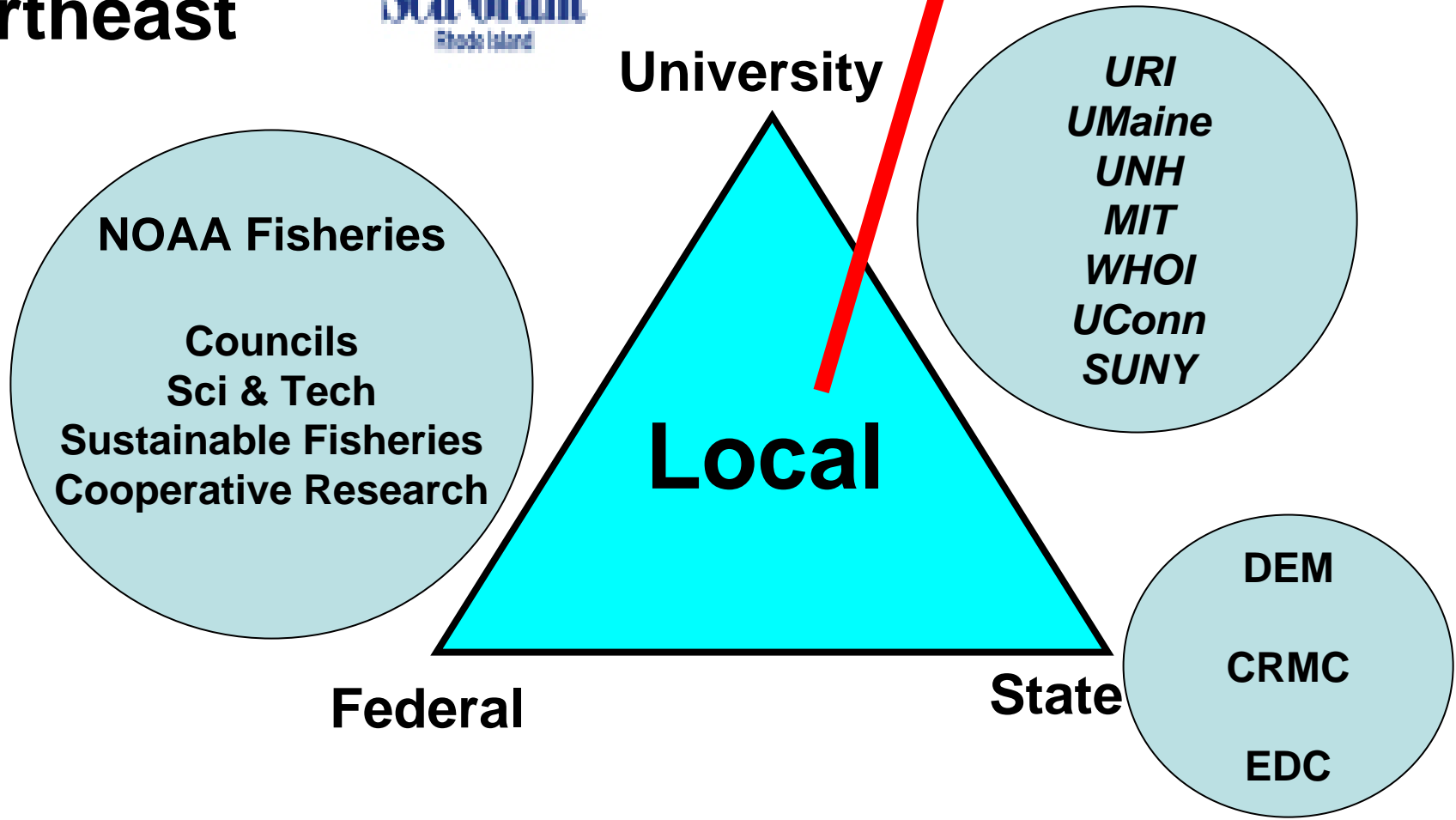


Sea Grant

Rhode Island
Northeast



Regional to International





Sectors



***Innovative
Collaborative Fisheries Management?***

Collaborative fisheries management in the Northeast US: Emerging initiatives and future directions

Patricia da Silva, Andrew Kitts, Northeast Fisheries Science Center 2006. Marine Policy 30(6): 832-841

The nature of participation by fishing organizations in fisheries management in the Northeast US is changing. Evidence of this is the number of groups that are actively seeking opportunities for group governance of marine resources.

Emerging collaborative (co-management) (a process whereby decision-making is shared between federal/council level and fishery stakeholder groups)

Suggest “it is an opportune time for the development of a regional policy in the Northeast that provides an enabling environment in support of decentralized governance of federally managed marine fisheries. It also suggests that these initiatives can play a key role in operationalizing ecosystem-based management.”

Magnuson-Stevens Reauthorization Act, Limited Access Privilege Programs, and Sector Allocations



Workshop on Sector Allocations as a
Management Tool
University of Rhode Island

Dr. Mark Holliday
Director, Office of Policy
National Marine Fisheries Service

Outline of Presentation

- Context - Essentials of fisheries management
- Definition of Terms
- Magnuson-Stevens Act and LAPs

Wide Choice of Policy Tools

What do they really accomplish?

What sort of incentives do they provide?

- **Open Access** ...control activity of participants, but not their number.
- **Limited Access** ...Improvements result from smaller number of participants. Private incentives are *STILL* not compatible with the aims of management.
- **Limited Access Privileges** ...Uses the one traditional control (Hard TACs) that can potentially be biologically successful. Recognizes the necessity of controlling participation. Is structured to make the incentives facing participants to be compatible with the goals of management.

Limited Access Privilege Focus

- Ocean Action Plan directed “NOAA to develop, in consultation with Regional Councils and interested parties, national guidelines for the development and management of IFQ allocations
- Administration seeks to ensure Regional Fishery Management Councils have maximum flexibility/discretion (within legal authority) necessary to implement LAP programs
- U.S. Commerce Secretary Gutierrez pledged to work with Regional Fishery Management Councils to double (to 16) the number of LAP programs by 2010

Wide Choice of Policy Tools

The right fishery management tool should

- Address causes vs. symptoms
- Be feasible to administer and enforce
- Have a high likelihood of success

Definition of Terms

What's the difference?

1. Individual Fishing Quota (Defined in MSRA)
2. Individual Transferable Quota (Not in MSRA)
3. Dedicated Access Privilege (Not in MSRA)
4. Limited Access Privilege (Defined in MSRA)
5. Limited Access System (Defined in MSRA)
6. Fishing Community (Defined in MSRA)
7. Regional Fishery Association (Defined in MSRA)
8. Sector Allocation (Not in MSRA)
9. Fishing Cooperative (Not in MSRA)

Definition of Terms

1. Individual Fishing Quota

[16 USC 1802(23)]

(23) The term "individual fishing quota" means a Federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person. Such term does not include community development quotas as described in section 305(i).

Definition of Terms

2. Individual Transferable Quota

Not defined/used in MSRA; when IFQ privileges can be transferred subsequent to initial allocations, then IFQs are commonly referred to as ITQs.

Definition of Terms

3. Dedicated Access Privilege

Not in the MSRA, but in the US Commission on Ocean Policy Report...

“...a novel form of output control whereby an individual fisherman, community, or other entity is granted the privilege to catch a specified portion of the total allowable catch.

Definition of Terms

3. Dedicated Access Privilege

“There are several different types of dedicated access privileges:

- Individual fishing quotas (IFQs) When the assigned portions can be sold or transferred to other fishermen, they are called individual transferable quotas (ITQs).
- Community quotas grant a specified portion of the allowable catch to a community. For example, the Community Development Quota Program in Alaska.
- Cooperatives split all or part of the available quota among various fishing and processing entities within a fishery via contractual agreements.
- Geographically based programs give an individual or group dedicated access to the fish within a specific area of the ocean.”

Definition of Terms

3. *Dedicated Access Privilege*

- Term highlights it is granting a privilege, not a right
- An umbrella term including privileges assigned to individuals as well as groups or communities
- The dedicated privilege being granted is *access* to the fish, rather than the fish themselves.

Definition of Terms

4. Limited Access Privilege Program

[16 USC 1801(26)]

(26) The term ‘limited access privilege’—

(A) means a Federal permit, issued as part of a limited access system under section 303A to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person; and

(B) includes an individual fishing quota; but

(C) does not include community development quotas as described in section 305(i).

Definition of Terms

5. Limited Access System

[16 USC 1802 (27)]

(27) The term 'limited access system' means a system that limits participation in a fishery to those satisfying certain eligibility criteria or requirements contained in a fishery management plan or associated regulation.

Definition of Terms

6. Fishing Community

[16 USC 1802(17)]

(17) The term "fishing community" means a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.

Definition of Terms

7. Regional Fishery Association

[16 1802(14)]

- (14) The term ‘regional fishery association’ means an association formed for the mutual benefit of members—
- (A) to meet social and economic needs in a region or subregion; and
 - (B) comprised of persons engaging in the harvest or processing of fishery resources in that specific region or subregion or who otherwise own or operate businesses substantially dependent upon a fishery.

Definition of Terms

8. Sector Allocation, not defined in MSRA

Assignment of some portion of the TAC to a group of two or more individuals holding permits in a fishery that have fulfilled Council eligibility and participation criteria, and have agreed to collaborate, voluntarily and for a specified period of time, in order to achieve a common set of objectives.

Definition of Terms

9. Fishing Cooperatives, not in MSRA

Under the Fishermen's Collective Marketing Act (FCMA) of 1934 (15 USC 521), they are comprised of “persons engaged in the fishing industry as fishermen, catching, collecting, or cultivating aquatic products, or as planters of aquatic products on public or private beds, that may act together in association, corporate or otherwise.”

What's the difference between IFQs, LAPs and DAPs?

Conceptually they are talking about the same thing...but subtle legal distinctions in MSRA

- ✓ LAPs include IFQs, RFAs and FCs, as well as any other entity meeting the applicable eligibility and participation requirements specified in the Act and those additionally specified by the Council.
- How will I know a LAP when I see one? Are sectors LAPS? Are Fishing Cooperatives LAPs?

The devil is in the details...

Rather than try to categorically qualify *classes* of entities (e.g., sectors, cooperatives, etc.) where your definitions and my understanding may differ, let's focus on who can acquire or hold a limited access privilege under MSRA...

Who can acquire a LAP?

Requirements in the Act limit acquisition of LAPs to a subset of defined 'persons' at 16 USC 1802(36), limiting them to:

- A U.S. citizen;
- Corporation, partnership, other entities established under U.S., State law; or
- Permanent resident alien.

[New section (303A)(c)(1)(D) of the Act]

- (D) prohibit any person other than a United States citizen, a corporation, partnership, or other entity established under the laws of the United States or any State, or a permanent resident alien, that meets the eligibility and participation requirements established in the program from acquiring a privilege to harvest fish, including any person that acquires a limited access privilege solely for the purpose of perfecting or realizing on a security interest in such privilege;

Who can acquire a LAP?

- The Act specifically defines requirements for two “entities” that are eligible to participate in a LAP program:
(1) Fishing Communities (FC) and (2) Regional Fishery Associations (RFA)
- Notably RFAs are explicitly prohibited from receiving an initial allocation of a LAP, but may acquire such privileges after the initial allocation, and may hold the annual fishing privileges of any LAP it holds or the annual fishing privileges that its members contribute.

Who can acquire a LAP?

- Other “entities” can participate in a LAP program. An entity refers to something other than a natural person that can function legally (e.g., enter into binding contracts, can sue or be sued, and make decisions through agents).
- A corporation is an entity, while a mere collection of individuals acting in concert is not.
- Still must comport with participation criteria, allocation and transferability requirements.

Summary

- Ensure the sector meets the definition of “person” as a legal entity.
- Ensure a sector receives a portion or percentage of the TAC in the form of a federal permit under a limited access system.
- Ensure all participation and eligibility requirements of the statute and Council are satisfied.

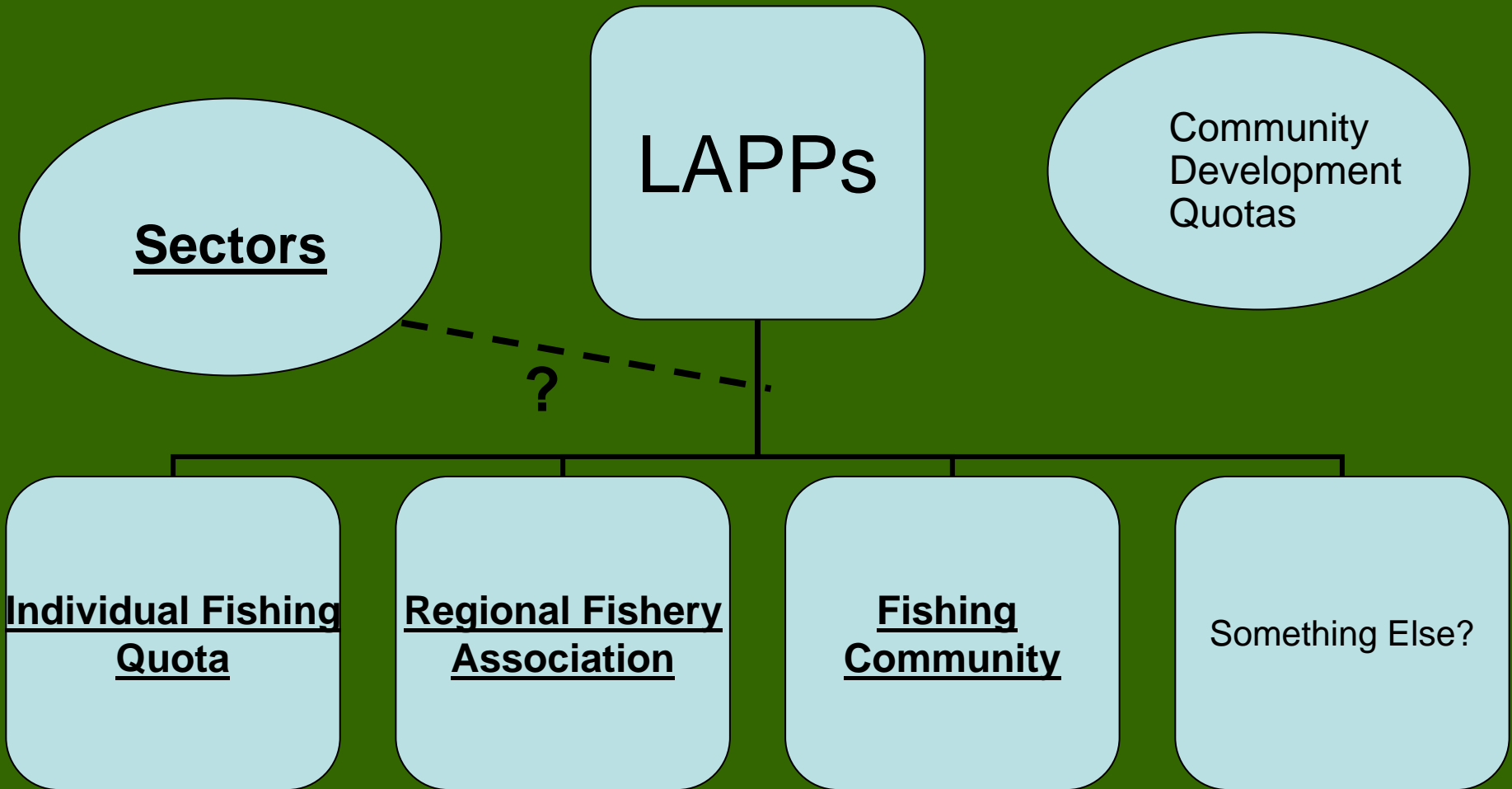
Comparison of Sector Allocations with (Other?) Limited Access Privilege Programs



Andrew Kitts

NOAA Fisheries, NEFSC Woods Hole, MA

Comparisons



Factors for Comparison

- Allocation
- Re-allocation (transferability)
- Management responsibility
- New entrants
- Advantages and disadvantages

Groundfish Sector Definition

From 50 CFR Part 648.2:

Sector, with respect to the NE multispecies fishery, means a group of vessels that have voluntarily signed a contract and agree to certain fishing restrictions, and that have been allocated a portion of the TAC of a species, or an allocation of DAS.

Groundfish Sectors

Operational Features

- Proposal one year in advance. Authorization through Council action and NMFS approval
- Operations plans with binding contract and an Environmental Assessment (EA)
- Allocations based on share of commercial catch the five years prior to establishment of the sector
- Sector could request allocations of only some stocks and limited exemptions for other regulatory controls
- Limited to 20% of a stock without an express exemption
- All sector operations terminate once hard TAC reached. Overages deducted the following year.
- Members are jointly and severally liable and subject to civil penalties and permit sanctions
- Sector members removed from a sector for violation of the sector rules will not be eligible to fish for the remainder of the fishing year

Allocation – IFQ/ITQ (default LAPP)

- Allocation is to a “person”
- Person as defined by the Magnuson-Stevens Act includes:
 - Individual
 - Corporation
 - Partnership
 - Association
 - Other entity
 - Government
- Section 303A (LAPPs) further restricts this to U.S. citizen/corp/partnership/other entity or permanent resident alien

Allocation – Fishing Community

- Allocation is to a “fishing community”
- Definition: community substantially dependent or substantially engaged in harvesting or processing including vessel owners, operators, crew, and processors
- Eligibility: “*residents*” who conduct fish-related businesses (commercial and recreational harvesting, processing, and support)
- Place on map

Allocation – Regional Fishery Association

- Definition: association of “persons” engaged in harvesting, processing, or a business substantially dependent upon a fishery
- Eligibility
 - “participants” who hold quota share (commercial, recreational, processing, support businesses, fishing communities)
 - Cannot receive initial allocation but may acquire

Allocation - Sectors

- Allocation is to the sector
- In groundfish, sector's share is sum of individual shares
- Individual shares have no official standing after that point unless vessel leaves/joins sector (main distinction from IFQ/ITQ)
- A key difference between sectors and FCs/RFAs *may* be that membership changes require the sum of shares approach
- Another key difference from FCs/RFAs is sectors are harvester based

Re-Allocation – ITQ

- Re-allocation is accomplished through quota market
- Quota owners buy/sell according to operating cost structure
- NMFS must have system for tracking individual shares and transfers
- Vessel level catch monitoring

Re-Allocation – Fishing Community

- Must submit a Community Sustainability Plan
 - must address social and economic development needs including those that have not had the resources to participate in the fishery
 - Not clear on who writes the plan
 - Plan will determine how allocation is harvested – many options:
 - Effort allocation
 - Trip Limits
 - Quota allocated by season
 - Quota allocated by vessel
- } Capped by quota allocation

Re-Allocation – Regional Fishery Association and Sectors

- Must submit RFA/operations plan
- Plan will determine how allocation is harvested – many options:
 - Effort allocation
 - Trip Limits } Capped by quota allocation
- Quota allocated by season
- Quota allocated by vessel
- Negotiation of any re-allocation is internal to the group

Management Responsibility

- IFQ/ITQ: NMFS, vessel level monitoring

- FC/RFA/Sector:

NMFS:

- Vessel level catch monitoring (only to track progress towards TAC)
- Monitor other non-exempt rules
- May assess fines/penalties to entire group (joint and several liability)

FC/RFA/Sector:

- Negotiate and enforce plan/agreement/contract

New Entrants

- IFQ/ITQ: must purchase through quota market
- FC/RFA: as specified in plan
- Sectors
 - Can accept new member with eligible permit – vessel share is transferred to new sector
 - New entrant into the fishery must buy eligible permit

Advantages

(non-exhaustive and from many perspectives)

- All
 - Re-capture rents
 - Align economic and conservation incentives
 - Reduce regulatory complexity
- Sector/RFA/FC
 - Allows for greater balance of social and economic goals
 - Local decision making (plan required)
 - Allows for “mixed management” approach

Disadvantages

(non-exhaustive and from many perspectives)

- All
 - Forced to face allocation issue
 - Increased catch monitoring/tracking costs
- ITQ
 - Cost of quota market
 - All or nothing (not self selecting)
- Sectors/FC/RFA
 - Organizational costs
 - NMFS must keep track of varied plans
 - Common pool vessels forced into de-facto sector as more sectors form

Mid-Atlantic Sectors Update



1/15/08 Sea Grant Sector Workshop

Contents

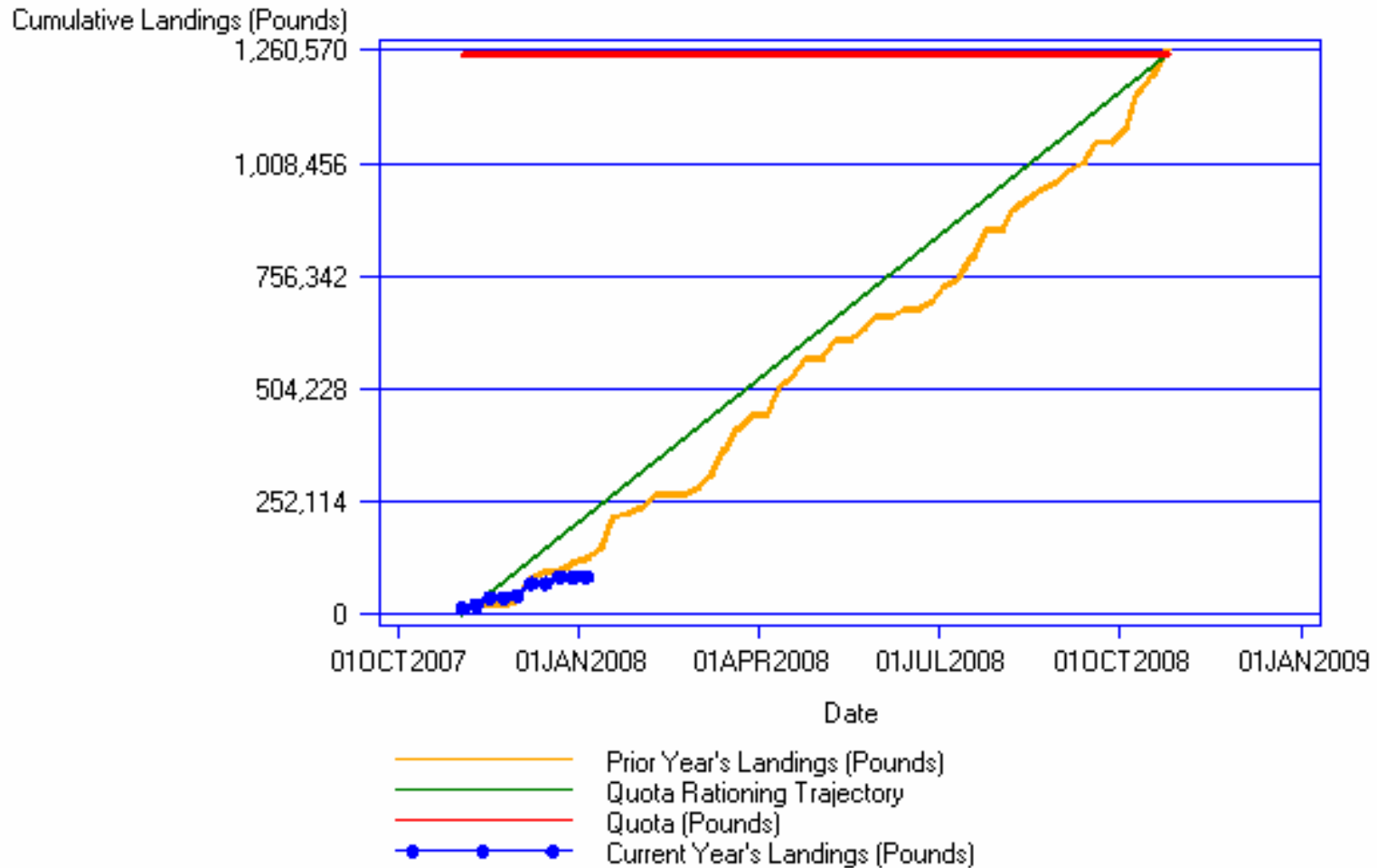
- Tilefish
- Squid/Mackerel
- Butterfish

Tilefish

- 3 vessels who cooperate allocated 66% of quota
- sector in fact if not in name...
- this “sector” likely terminating
 - why? – ITQ

Tilefish

Golden Tilefish Quota Monitoring Report, Permit Category A



Squid/Mackerel

■ Squid

- Committee voted in Feb 07 to proceed with Sectors
- Postponed action in Aug 07 – Butterfish rebuilding

Squid/Mackerel

- ... authorize sectors in the *Illex* and *Loligo* squid fishery and provide a procedural structure for the Council and NMFS to review, approve, and implement such sectors, through a Framework adjustment or other appropriate action
- ...If the Council has developed a sector policy at the time of the sector's application, the application will be reviewed for consistency with that policy. However, the lack of development of such a policy will not prohibit the Council from considering a sector application.

Squid/Mackerel

- Squid
 - Allocation issues hadn't been fully fleshed out
 - Likely included in Am11

Squid/Mackerel

- Mackerel
 - Currently open access
 - Am11 considering limited access
 - may contain sectors for mackerel

Butterfish

- Am10 deals with butterfish rebuilding
- One alternative proposes what amounts to a bycatch cap on the Loligo fishery

Butterfish

- Butterfish catch cap
 - Costly observer program
 - Use sectors to cost-share and optimize use of butterfish catch cap

Questions?

Previous Motion Adds to 10 a Measure to:

- Authorize sectors in *Illex / Loligo*.
- Provide a procedural structure for the Council and NMFS to review, approve, and implement such sectors, through a Framework adjustment or other appropriate action

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Why Sectors?

- The “usual” benefits of allocated harvest
- Not a one-size fits all approach
 - Different rules for different sectors
 - In or out
- Less permanent than ITQ?
 - In then out, switch sectors

Sector Cautions

- It really is an allocation (for everybody)
 - Winners & Losers- depends on allocation process
 - Those not in a sector get what is left over
- Once established perhaps hard to end?
 - Permanent in fact; inertia/entrenchment
- Many sectors = complicated management

Why Sectors in 10

■ PROs

- Momentum for Sectors
- Quick (if you postpone allocation)

■ CONs

- Can not do anything with it...
- Will need an EIS & **Amd** / Fmwk later anyway for allocation *before* any Sectors can apply

General Options: Rights-based Mngt

- Current: sector basics now, allocation later
or
- Do sectors, including allocation later (11)
or
- Do ITQs later (11)

Who: Participation

- How many owners/vessels does it take to make a sector?
 - 2+ (i.e. no restriction)
 - 3→10?

Who: Participation

- Allowed relationships between people/vessels?
 - No restrictions
 - Minimum # of owners w/no ties (2-10)

Who: Participation

■ Entry/Exit

- Once in for a year, must stay in for a year
- Can't join in middle of year
- A vessel may not be a member of more than one Illex sector in a given year

Who: Participation

- Maximum number/share of sectors?
 - Administrative
 - No max, 10, 20, 30
 - Fishery (% of TAC)
 - No max, 33%, 50%, 66%, 75%

Who: How much

- Maximum/Minimum share per sector?
(NE: 20%, Tilefish ITQ: ?25%-49%?)
 - No max, 66%, 50%, 49%, 33%, 25%, 20%
 - No min, 1%, 2%, 3%, 4%, 5%, 10%

Review

- Application timing: 1 year lead time
- Annual Op Plan/EA timing: 3 months
- Annual Sector Reports
- Does Council review and approve each sector application (via framework) ?
- Multi Year Ops Plans?

Operations Plan: (Briefing Book)

- A list of all participants;
- A signed contract indicating agreement to the plan;
- A plan explaining how the sector will harvest its allocation;
- The distribution of catch history used for allocation;
- A plan of how the sector will avoid exceeding its allocation;
- Rules for entry to and exit from the sector;
- Sanctions and procedures for removing members for contract violations;
- NEPA document assessing impacts of sector (responsibility of the applicants).

Quota Overages – In sector

- TAC reduced by the overage next fishing year (3%)
- Sector (and each vessel/operator/owner in it) may be charged for civil penalties and permit sanctions (3%-5% = deduction + penalty, 5%+ = deduction + higher penalty)
- If the Sector repeatedly exceeds TAC, Sector's share may be permanently reduced, or the Sector's authorization withdrawn.
 - Then into common pool or out of fishery for year?

Quota Overages (out of Sector) & underages

- The Sector's allocation of TAC or DAS will not be reduced for the following fishing year as a result of an overage by non-compliant Sectors or by non-Sector vessels.
- A sector's quota will not be reduced because of failure to harvest its allocation (no carryover)

Trading

- Trading within a Sector is an intrinsic part of Sectors
- Allow trading between sectors?
 - Annual (permanent makes for difficult accounting) and at any time, RA approval
 - Trading only to other Sectors

Trading Overages

- Allocations re-set annually (no permanent trades)
- Your quota is reduced by the amount of your own overage
- If you acquire quota via trade and have an overage, payback comes out of your total first and then from whoever you acquired it from if necessary.
 - Sectors need good contracts to cover this possibility

Trading Overages

(why you need a good contract)

■ SECTOR A

■ 5000

-2000

■ 3000

■ Catches 3000

■ (meets quota)

■ Loses 1000 next year

■ SECTOR B

■ 1000

+2000

■ 3000

■ Catches 5000

(Over by 2000)

■ No 1000 next year

Regulation Exemptions

- Regional Administrator may exempt sectors from regs to allow participants to fish in accordance with Operations Plan
 - Except: Year-round closure areas, permitting restrictions (*e.g.*, vessel upgrades, etc.), gear restrictions designed to minimize habitat impacts (*e.g.*, roller gear restrictions, etc.), and reporting requirements.

MSA Reauth Issues – ?LAPPs?

- Cost recovery
- Procedures to address excessive consolidation (maximum shares)
- Auctions for distribution
- Policies to help small entities/communities
- Regional or port-specific landing requirements

Allocation

- Baseline year range (fixed)
- Criteria
- Allocate TAC or Recent Landings (*Illex*)
 - If use TAC allocating fish that have no history
- Use percentage – Poundage floats with TAC

Illex Allocation Issue

Normal year: few freezer trawlers take most landings.
Approx. ½ quota landed.

Boom years ('98, '04): Others (RSWs) jump in,
landings more distributed. Fishery closed in Sept in
2004, Aug in 1998.

A simple historical allocation won't allow RSWs to
jump in during a boom year at the levels they
previously did – their allocation in any one year will
be smaller because their pulsed participation gets
averaged.

Committee/Council may want to consider alternative
allocation methods

NE Sector Catch Accounting

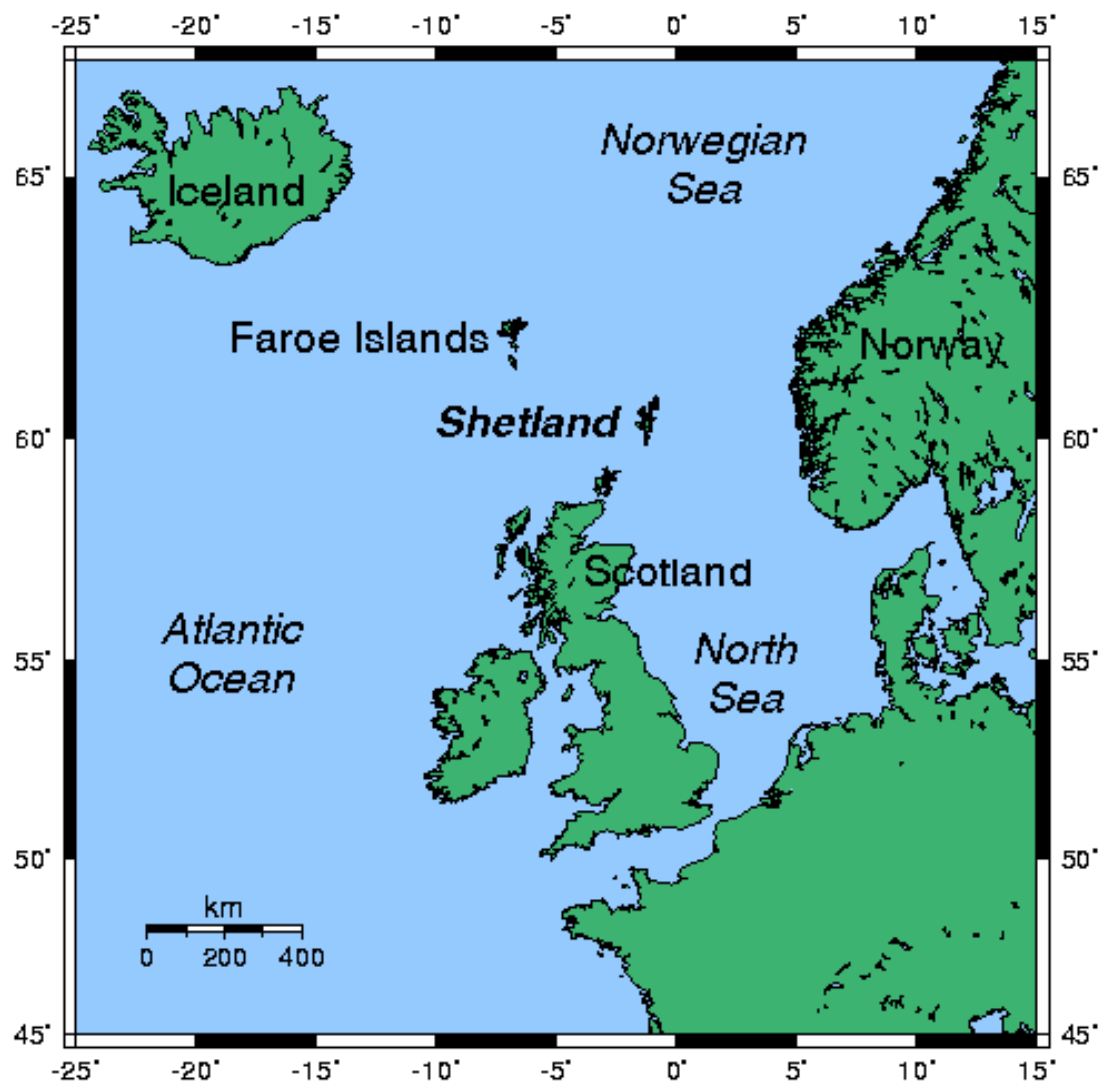
- calculation of allocation based on landings only (not discards)
- when the TAC is calculated each year, and a sector's catch is monitored against the TAC, both landings and discards will be counted (methods in Op. Plan)

Notes

- The possible carryover described on page 20 is infeasible due to the *///ex* lifecycle and monitoring/enforcement issues.

Sector Allocation as a Management Tool

Case Study: Shetland Fish Producers'
Organisation.



Shetland Fleet

Fishery	No. Of Vessels	Vessel Size
Pelagic	8	200ft +
Whitefish	22	55 - 85 ft
Shellfish	90 (active)	20 - 45 ft

Shellfish

	Tonnes – Landed (2006)	Value (\$1,000)
Brown Crab	370	\$690
Velvet Crab	91	\$260
Lobster	20	\$480
Scallops	870	\$2,540





Whitefish

	Tonnes - Landed 2007	Value (\$ m.)
Cod	1141	4.80m
Haddock	2411	6.20m
Hake	67	0.20m
Megrim	320	1.60m
Monk	1731	8.20m
Plaice	165	0.40m
Saithe	1039	1.10m
Whiting	1072	2.40m
Other Whitefish	1067	3.30m









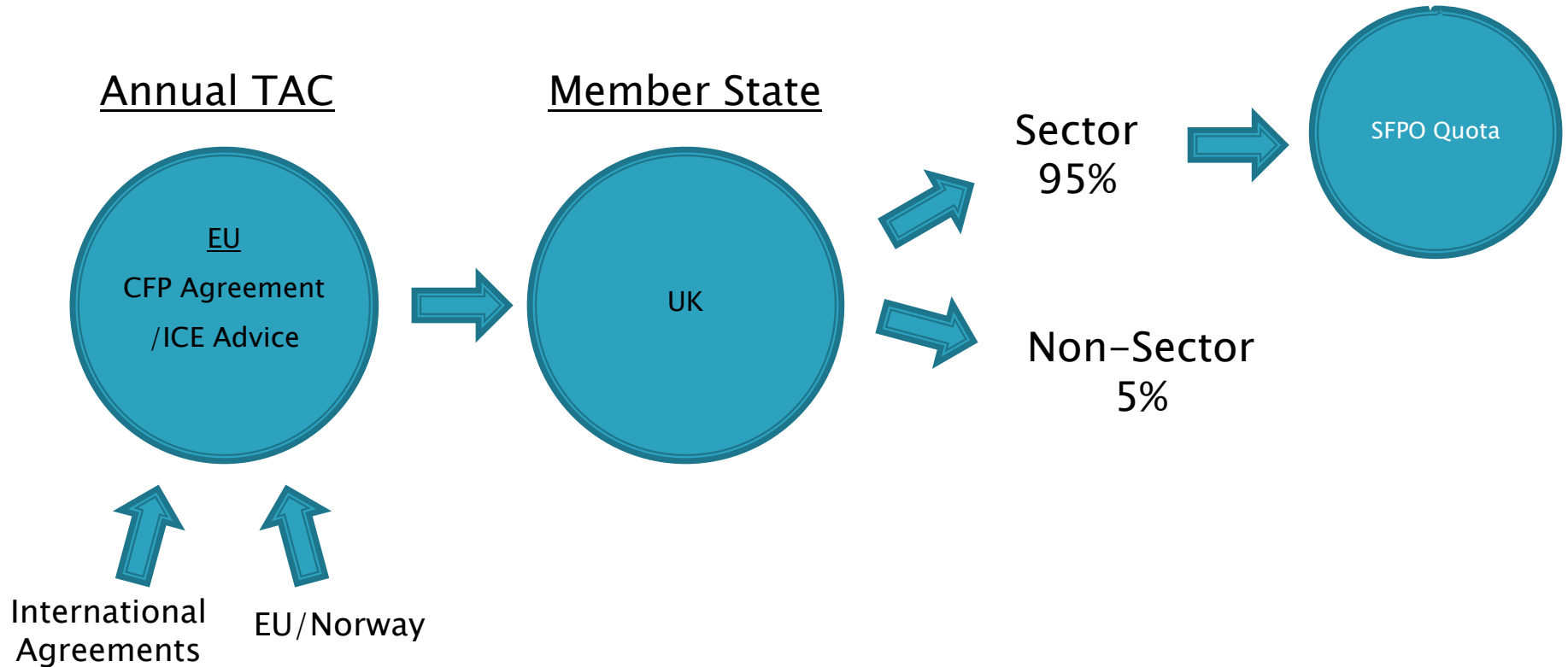


Pelagic

	Tonnes – Landed 2007	Value (\$ m.)
Mackerel	34970	47.5m
Herring	11263	3.9m
Atlanto Scandian Herring	4930	2.0m
Horse Mackerel	18	–
Blue Whiting	11228	2.0m



Quota Allocation Process





SECTOR ALLOCATION AS A MANAGEMENT TOOL

LEGAL CONSIDERATIONS

Narragansett, R.I. Conference
January 16, 2008

Elizabeth R. Butler, Esq.
Pierce Atwood LLP
Portland, Maine



Maine Workshop

- Sector Agreements Workshop 11.1-2.08
 - “Cooperative Harvesting Agreements Workshop for New England Groundfish Fisheries”

 - Sponsors
 - Marine Law Institute University of Maine School of Law
 - Gulf of Maine Research Institute
 - Maine Chapter of the Ocean Conservancy

 - Funded by National Sea Grant Law Center



Maine Workshop (2)

- Objectives
 - Analyze the legal issues and review the transactional tools available to implement sector agreements
 - Build capacity within legal community
 - Build collaborative/ongoing relationships to develop effective solutions



Maine Workshop Presentations

- New England fishing sector economic and regulatory status
- Two Case Studies on Sector Agreement
 - West Coast Pollack (Seattle WA)
 - Cape Cod Hook Sector
- Presentation on New Zealand Cooperative Harvesting Programs
- Panel discussion
 - Fishermen, business managers, attorneys, bankers, and regulators
 - Review of process and issues involved in developing the legal entity and transactional documents to implement a Sector Agreement
- Break-out groups to review these issues in depth
- Review of the specific legal ethical and ADR issues raised
- Proceedings on line @ www.mli.usm.maine.edu

Key Findings



- Regulatory Compliance
 - Input to regulatory decision makers
 - What needed to make SA work
- Legal Entity Establishment
 - Compliance fisheries, antitrust, & tax laws
- Membership Agreement
 - Consensus on membership terms
 - Flexibility



Regulatory Compliance

- Ongoing communication essential
 - Input to regulatory decision makers
 - Fisheries - membership, enforcement
 - Antitrust- Business Review Procedure
- NE multispecies groundfish sector
 - raises complex quota/allocation issues
 - Most WA/AL are single species sectors



Regulatory Compliance - Antitrust

- General Antitrust Law
 - Sherman Act prohibits contracts that unreasonably restrain trade
 - Act includes criminal penalties, treble civil damages, attorneys fees
 - DOJ considers competitor agreements allocating access to raw materials used for production as per se violations, unless exemption
- Fishermen's Cooperative Marketing Act exemption
 - Provides exemption for persons engaged in the fishing industry collectively catching, producing, processing or marketing their fish
 - But courts have raised doubts about whether harvesting sector will qualify for FCMA protection if there is any vertically integrated processing capacity
 - May require reliance upon "rule of reason" exemption to show pro-competitive impact of agreement



Regulatory Compliance-Antitrust

- Western sectors Precedent
 - Used DOJ “Business Review Procedure”
 - After review of facts presented, DOJ confirms does not plan to prosecute
- Bottom line
 - Allow time for DOJ/state antitrust review
 - Antitrust rules apply throughout sector lifecycle
 - Vertically integrated producers make agreements more problematic
 - Both target species and incidental allocations must be limited and fully harvested



Legal Entity Establishment

- Entity to implement Operating Agreement
- Choice of Entity Issues –
 - Could be for Profit or Not for Profit entity
 - Likely that a non-profit will be chosen
 - Fisherman's preference for narrow function organization - divide harvesting rights/efforts
 - Avoid entanglements and taxable events
 - E.g. - capital calls, limits on distribution options



Legal Entity Establishment (2)

- Not for Profit Entities
 - Cooperatives revisited
 - State law controls formation issues - distinct forms
 - Coop laws have restrictions on governance and distributions
 - Western precedent
 - non-stock, non-profit corporations – not “cooperatives” under state law
 - Term confusion – called “cooperatives” – not “Sectors”
- State and federal statutory/tax issues
 - Must apply for income tax exempt status
 - West – IRS Code 501(c)(5) “aquaculture org” or (6) “trade association”
- 1st Generation – Simplicity Rules
 - Flexible governance/administration provisions to respond to highly variable regulatory environment
 - Segment any buying/selling/distribution function in separate entity



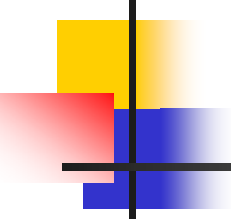
Legal Entity (3)

- Transactional Documents
 - Articles of Incorporation
 - Bylaws
 - Establish member eligibility and voting rights
 - Centralized management most efficient
 - Membership Agreement
 - Contract among members
 - divide fish
 - track and enforce violations



Membership Agreements

- Membership
- Allocation of Quotas
- Administration
- Catch Monitoring and verification
- Enforcement (ADR and Litigation)
- Indemnification of sector members by offending sector member
- Term/Termination
- Controlling Law/Change in Law provisions



Membership – Key Issues

- Who can be a member?
 - *Small group, similar interests, location*
 - *Continuing capacity to deal/negotiate*
- How to decide who can join?
- What do they contribute?
- What restrictions while a sector member?
- Who contributes what?
 - Quotas; capital expenses; annual dues
- Voluntary and involuntary termination



Membership Agreement (2)

- Allocation of Quotas
 - Obtain aggregate sector allocation
 - Aggregate member quotas
 - Sub-allocate sector allocation among members
 - Right of first refusal in event of permit transfers
 - Quota reserve allocations
- Horsetrading on sub-allocation method
- Multiple participating vessels
 - Allow Members to enroll some, not all vessels
- Continuing cooperation obligation
 - Respond to Special Access Program quota changes



Membership Agreements (3)

- Administration – how operate
- Who decides?
 - Board, Sector Manager, or by consensus?
 - Must enable efficient, swift enforcement
 - *Strong sector manager recommended*
- Joint/several liability
 - *Greatest legal concern – uncontrolled risk*
 - Handle with cross indemnification agreements
 - Control with consensus requirement for admission
- Multistate members – jurisdiction issues



Membership Agreements (4)

- Catch Monitoring and Verification
 - Third party services in West (Sea State)
 - Offer near real time aggregation
 - Build regulator confidence in accuracy
 - Added costs, but long term payback
 - Opens door for accessing quota reserve
 - Observer systems costly
 - Limited existing capacity
 - Cost prohibitive for small vessels
 - Strong need for creative third solution
 - Third party monitor service
 - No discard rule – continuous real time photo



Membership Agreements (5)

- Enforcement
 - Need real time reporting and swift action
 - SM/Infractions Committee power to address violations
 - Multiport, multistate membership problematic
 - Liquidated damages for non-compliance
 - Overharvesting (e.g market price x multiplier)
 - Attention to State laws re penalties in contracts, build record on basis for liquidated damages
 - Special attention to incidental bycatch species
 - Consistent application gives credibility
 - Mandate/encourage self-reporting
 - Empower SM to seek injunction to avoid overrun
 - Authorize transfer of quotas between sectors to address



Member Agreements (6)

- Indemnification
 - Biggest stick of group vs noncompliant member
 - Offending member must have capacity to back up the promise
 - Cross agreements to enable Sector to collect and make sector members whole
 - Small, illiquid members can be problematic



Member Agreements (7)

- Termination
 - 1st Generation – 1 year
 - No incentive to make investments, but pilot
 - Allow for unwinding in reasonable time
 - Allow for lack of regulatory approval in time
 - Later generation agreements
 - Capital investments to support upgrades in compliance monitoring and enforcement need longer term agreements
 - Assurance of stable regulatory regime



Issues to Discuss

- Joint & Several Liability
 - NMFS Enforcement Policy possible?
 - EPA Environmental Enforcement Policy
 - If sector demonstrates due diligence in agreement terms and enforcement, NMFS will pursue individual, not sector
 - Essential to allow discretionary membership
- Need to allow inter-sector trades of quota
- Need for ADR/binding arbitration
- Problems of multiparty representation
- Can quota reserves be used as incentive for real time reporting/other upgrades?

Integrating Recreational Fisheries into Sector Allocation and Limited Access Privilege Programs

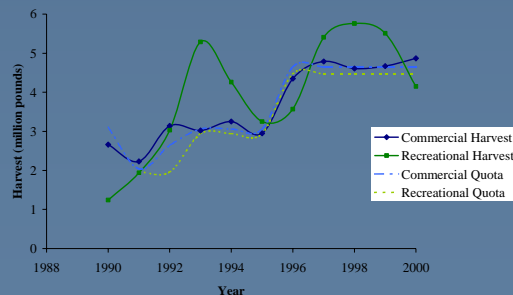
Robert J. Johnston
University of Connecticut



*Presented at Sector Allocation as a Management Tool,
Narragansett, RI. January 15-16, 2008. Sponsored by the Rhode
Island Sea Grant College Program.*

Recreational Fisheries and Sustainability

- ◆ Although historically recreational fisheries have been perceived as having minimal impacts on U.S. marine fish stocks, it is now clear that the recreational sector can have significant impacts.
- ◆ Economic value of recreational fisheries is threatened by regulatory trends towards shorter seasons, smaller bag limits and more restrictive size limits.
- ◆ Weak control of recreational fisheries can have long term effects on both the recreational and commercial sectors.



Sector Allocation in Combined Commercial-Recreational Fisheries

- ◆ Shortcomings of command and control have led managers to consider alternatives including limited access privilege programs and sector allocation.
- ◆ These approaches often focus on commercial sector.
- ◆ Many fisheries, however, support a substantial commercial and recreational presence.
- ◆ In such cases, omission of the recreational sector from limited access or sector allocation programs can have negative consequences.

Integration of the Recreational Sector

- ◆ Why consider integrating the recreational sector into sector allocation or limited access management?
 - Integration can promote maximum economic benefits in combined recreational-commercial fishery.
 - Traditional management often leads to weak control over recreational fishing mortality and the potential to threaten sustainability.
 - Weak control over recreational fishing mortality can destabilize limited access or sector allocation approaches in commercial sector.

Integration of the Recreational Sector

- ◆ Why consider integrating the recreational sector into sector allocation or limited access management?
 - Traditional approaches can encourage ongoing conflict between recreational and commercial sectors.
 - Sector allocation or limited access approaches may give the commercial sector a greater perceived “right” to the fishery, which may be used to lobby for stricter regulation of recreational fisheries.
 - The current tendency to impose homogeneous recreational fishing regulations over large and heterogeneous angler groups can lead to dissatisfaction and loss of economic value.

Examples—Recreational Sector and Actual or Planned Limited Access Privilege Programs

- ◆ Alaska Halibut—weak control over recreational fishing mortality contributed to claims of “open ended reallocation” of harvest from commercial to recreational sector, and complaints that weak recreational management will devalue IFQ shares.
- ◆ Gulf of Mexico Red Snapper—dissatisfaction among recreational anglers, and proposed commercial IFQ, leading to calls to integrate recreational sector into a rights-based approach.

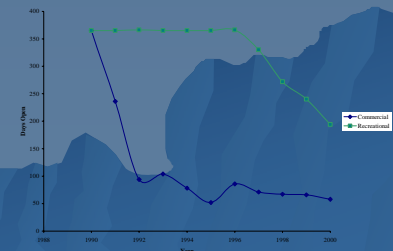


Changes in recreational red snapper size limits, bag limits, season length, and allocation.

Year	Allocation/Quota	Harvest	Size Limit (inches TL)	Daily Bag Limit (No. of fish)	Season Length (days)
1984			13		365
1990		1.24	13	7	365
1991	1.96	1.94	13	7	365
1992	1.96	3.03	13	7	365
1993	2.94	5.29	13	7	365
1994	2.94	4.26	14	7	365
1995	2.94	3.25	15	5	365
1996	4.47	3.57	15	5	365
1997	4.47	5.41	15	5	330
1998	4.47	5.76	15	5	272
1999	4.47	5.51	15 & 18	4	240
2000	4.47	3.92	16	4	188
2001	4.47	4.52	16	4	194
2002	4.47	5.32	16	4	194
2003	4.47	4.58	16	4	194

Gulf of Mexico Reef Fish Fishery

- ◆ Trends in recreational reef fish fishery show evidence that current command and control management is inadequate.
- ◆ Progressively more restrictive management measures (bag & size limits, seasonal closures), with little sign that effective harvest control has been achieved.
- ◆ Particular pressures evident for high-value target species such as red snapper and red grouper.
 - Red snapper recreational TAC routinely violated, despite increasingly restrictive management.



Recreational Sector and Actual or Planned Limited Access Privilege Programs

- ◆ In these and other cases, the recreational fishery accounts for a substantial part of fishing mortality.
- ◆ Weak control over mortality :
 - ◆ Threatens sustainability and has resulted in pattern of more restrictive recreational regulation.
 - ◆ Indirectly affects actual or potential commercial fishery allocations calculated as a percentage of a TAC.
- ◆ Homogeneous and increasingly restrictive management within each recreational fishery has contributed to angler dissatisfaction.

Challenges to Integration

- ◆ Although there are many reasons to consider integration of the recreational sector into sector allocation or limited access privilege programs, there are also many complications and challenges.
 - Integration of (large numbers of) heterogeneous anglers within sectors;
 - Coordination of harvest (limits) among anglers;
 - Monitoring, enforcement and voluntary compliance;
 - Philosophical concerns with “allocating” rights to recreational fishing;
 - Ensuring opportunity to diverse angler groups;
 - Traditions of spontaneous fishing activities.

Heterogeneous Recreational Anglers

- ◆ The composition of the recreational fishery matters.
- ◆ Organized charter or head-boat sectors—as business entities—may be more easily integrated into management that allocates harvests to predefined sectors.
- ◆ Individual anglers are more difficult to integrate into sector allocation.
- ◆ How could myriad individual anglers be organized and monitored such that sector allocation could function appropriately?

Philosophical Concerns, Sport fishing Traditions and Enforcement

- ◆ How can sector allocation be incorporated within sport fishing traditions that often allow more-or-less spontaneous fishing within open seasons, subject only to bag and size limits?
- ◆ Does sector allocation correspond to sport fishing philosophy? Would it be supported by anglers?
- ◆ How would allocated fishing rights be distributed among heterogeneous anglers or angler groups within a defined sector?
- ◆ How would equal access (to different angler groups) be ensured?

When Does Integration Make Sense?

- ◆ Given these advantages and challenges, integration of the recreational fishery into sector allocation makes most sense for recreational fisheries in which:
 - recreational mortality comprises a large proportion of total fishing mortality;
 - a significant proportion of harvest is taken through business entities such as charter and head-boats;
 - some prior organizational structure (e.g., recreational angler associations) is present;
 - harvests are landed in such a way that monitoring and enforcement are at least minimally possible;
 - current management has led to weak control over mortality and/or angler dissatisfaction.

How Could Integration of the Recreational Sector be Accomplished?

- ◆ Some of the key requirements of sector allocation in recreational fisheries include ability to
 1. maintain necessary organizational structure;
 2. maintain recreational harvests within allocated limits (hard harvest limits);
 3. effectively and fairly allocate harvests to anglers within recreational sector(s);
 4. allow for effective monitoring and enforcement;
 5. promote voluntary compliance and angler support.

How Could Integration of the Recreational Sector be Accomplished?

- ◆ Options for integration into limited access or sector allocation include:
 - LAPPs for charter/head-boat sector only
 - Angling Management Organizations (AMOs), as proposed by Sutinen and Johnston (2003)
 - Allocation methods within (or among) recreational sectors using fish tags.



LAPPs for Charter Sector

- ◆ Allocation to charter sector could be accomplished through charter LAPPs, for example as proposed in Alaska halibut fishery.
- ◆ Has many advantages but faces many of the same challenges and issues as the implementation of LAPPs in the commercial sector.
- ◆ Implementation in Alaska halibut fishery has faced a variety of hurdles.
- ◆ Excludes individual recreational anglers.
- ◆ Not technically sector allocation.

Angling Management Organizations

- ◆ Conceived by Sutinen and Johnston (2003) as a large, locally organized group of recreational anglers who would jointly manage a recreational fishery in a specific area.
- ◆ Established in coordination with regional Fishery Management Councils.
- ◆ Provide anglers the ability to cooperatively manage their own fisheries, within limits set by regulators.
- ◆ Designed to function within LAPP or sector allocation.

Angling Management Organizations

- ◆ Private sector entities comprised of recreational fishermen and others who elect a governing board
- ◆ Assigned a fixed share of the recreational quota
- ◆ Given responsibility to manage quota share
- ◆ Region and species specific
- ◆ Subject to oversight by fishery managers
- ◆ Would represent a substantial change to recreational management—in many ways parallel to self-managing sectors in commercial fishery or community development quota programs.

Angling Management Organizations

- ◆ AMOs could offer promising way to integrate recreational sector into sector allocation, but questions and challenges remain:
 - ◆ Do recreational anglers really want to exercise management control over their own fisheries?
 - ◆ How would enforcement activities be coordinated between AMOs and Councils? What authority might be provided to AMOs to allow enforcement? How would enforcement and data collection be funded?
 - ◆ Potentially high set-up and initial transactions costs.
 - ◆ No currently working examples – it's a new idea.

Fish Tags

- ◆ Fish tags could be used as a means to distribute harvests allocated to a recreational sector.
- ◆ Tags or permits represent a common means to manage recreational harvest of wild species.
- ◆ Provide means to maintain harvests of recreational sector(s) within allocated limits.
- ◆ Hunting applications very common; fisheries applications less common but examples exist.
- ◆ Successes (and difficulties) with these programs offer lessons for development of similar programs in large-scale recreational fisheries.

Fish Tags

- ◆ Multi-mode allocation/distribution mechanisms for scarce tags. Most available at nominal cost.
- ◆ Tags expire at the end of the season.
- ◆ Tags denominated in number of animals or fish and allocated to individuals and/or for-hire operators.
- ◆ Limited or no transferability, with a few exceptions (e.g., Kansas transferable deer permit program).
- ◆ Tags must often be obtained before harvest. On-site tags sometimes but not often available.
- ◆ Equity and stakeholder support critical elements.

Examples of Fish Tag Programs

- ◆ Pink snapper in Freycinet Estuary, Western Australia*
- ◆ Paddlefish in Missouri River, South Dakota*
- ◆ Salmon and sea trout in Ireland
- ◆ Cod food-fish program in Newfoundland
- ◆ Tarpon in Florida*
- ◆ Billfish fishery in Maryland and North Carolina
- ◆ Multispecies Sportpac in Oregon

* Impose hard harvest caps

Organization is critical to the success of recreational sectors...

- ◆ A critical requirement for recreational sectors is an *organizational structure* through which agreements could be reached and intra-sector harvest could be coordinated.
- ◆ Such a structure does not currently exist for most recreational fisheries, and interviews with angler representatives suggest hesitance to take on additional organizational burden.
- ◆ Who will coordinate recreational sectors?

Allocation between recreational and commercial sectors is also critical...

- ◆ Any integration method will face challenge of at least initial allocation of harvest between various commercial and recreational sectors.
- ◆ Would there be mechanisms to transfer allocations between sectors (recreational or commercial)?
- ◆ How would non-transferrable sector allocations avoid ongoing lobbying and “rent-seeking” to change allocations?

There is no single answer, but there are lots of opportunities...

- ◆ This presentation summarizes issues surrounding a complex challenge—the integration of recreational fisheries into LAPPs or sector allocation.
- ◆ Although challenges exist, current trends suggest the costs and risks of maintaining the management status quo for large scale recreational fisheries.
- ◆ Integration is only appropriate for some types of recreational fisheries – for others status quo management may suffice.

There is no single answer, but there are lots of opportunities...

- ◆ There are a variety of *possible* means to integrate recreational fisheries into LAPPs or sector allocation.
- ◆ Practical application of such ideas requires the answering of difficult questions, and a cooperative process between Councils and angler representatives
- ◆ When sector allocation is considered for commercial fisheries, potential role of recreational fisheries should be considered.
- ◆ In many cases, significant increases in economic value may be realized by better integration of recreational and commercial management.



Sustaining America's Fisheries and Fishing Communities

AN EVALUATION OF INCENTIVE-BASED MANAGEMENT

e

ENVIRONMENTAL DEFENSE

finding the ways that work

Elements Of Well-Managed Fisheries

- Scientifically set and enforced catch limit
- Controls on bycatch
- Habitat protection



Problems Continue

- Depleted stocks
- Ecosystems stressed
- Fishermen and fishing communities imperiled



The Problem: Tragedy Of The Commons

- Economic survival vs. resource sustainability
- “Race for fish” – wasteful and dangerous



The Solution: Catch Shares

- 
- Aligns economics and resource sustainability
 - Secure, dedicated access to fish
 - Can be allocated to individuals, groups or communities
 - Can also be area-based
 - Result
 - Better for fish and fishermen

Performance Review: 10 Catch Share Fisheries

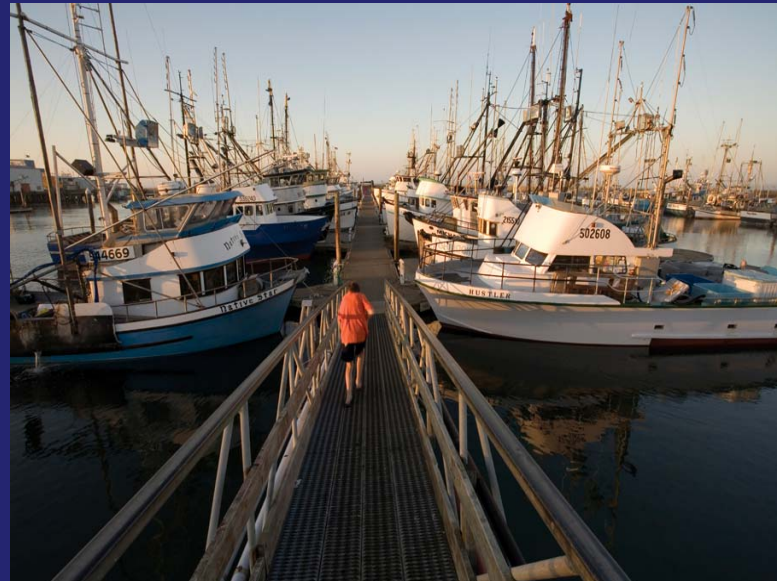
U.S. and shared-stock Canadian
LAPP fisheries analyzed



Source: Redstone Strategy Group, LLC

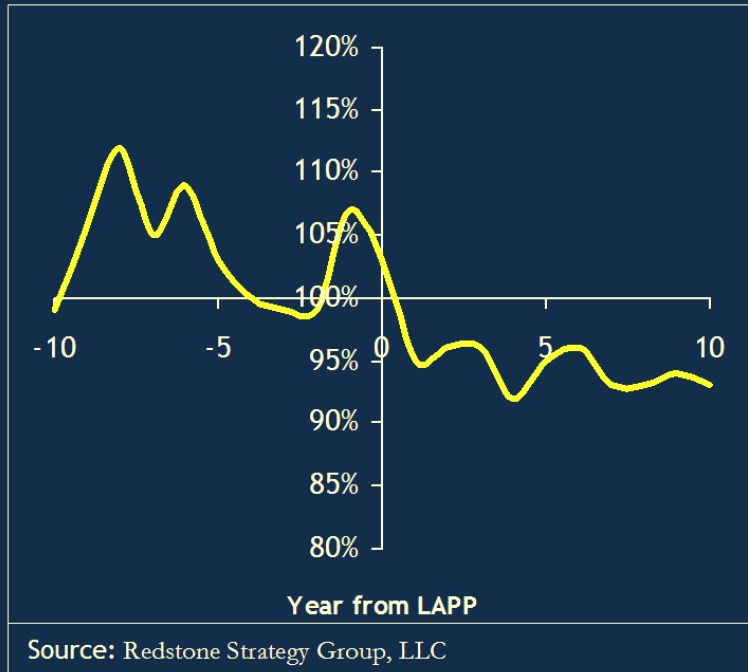
Before: Fisheries Declining

- Catch limits exceeded 65% of the time
- Bycatch up 23%
- Revenues down 10%
- Safety declined 20%
- Employment unstable



After: Fishermen Obey Catch Limits

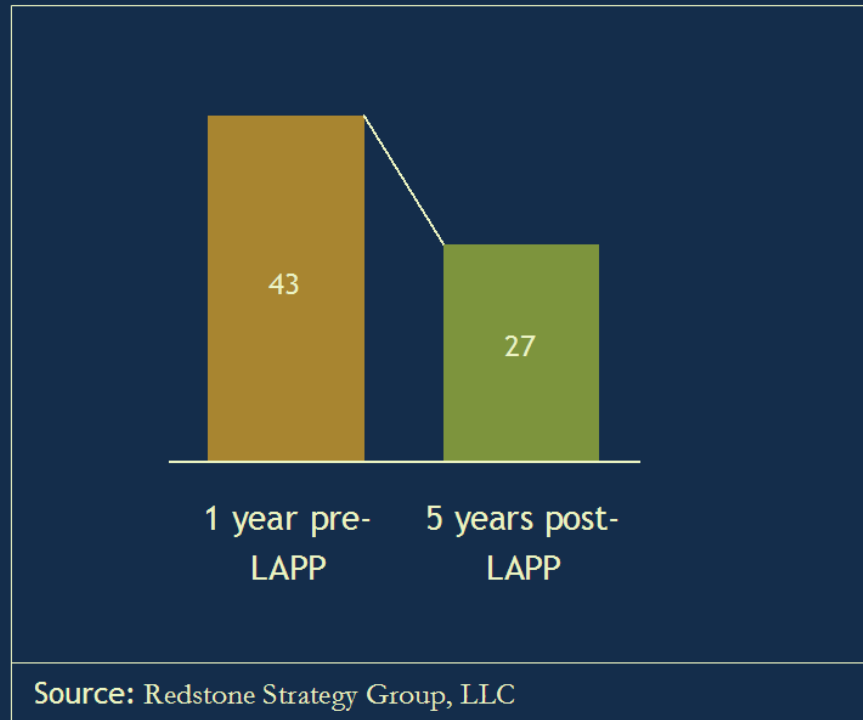
TAC overages significantly reduced
Landings/TAC



Science Improves

Biomass estimates improved

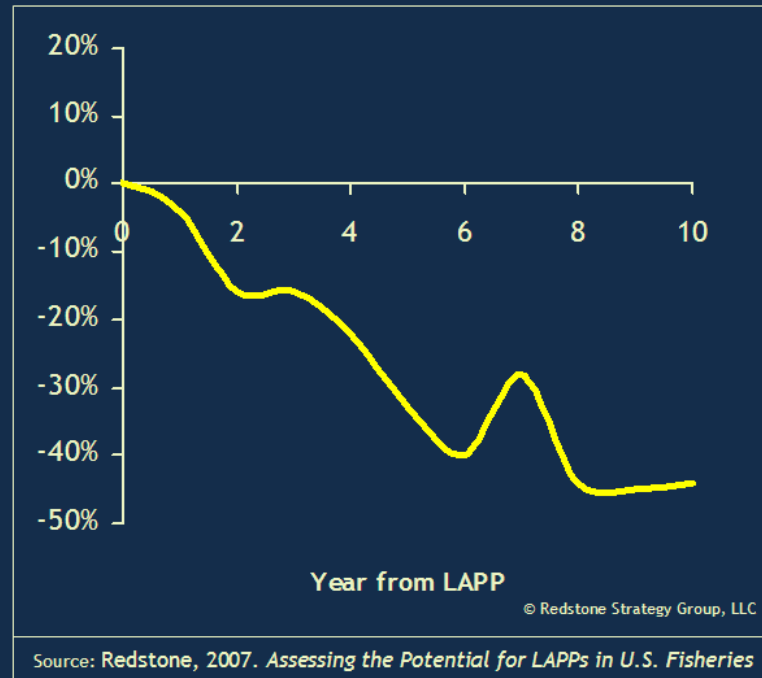
Biomass percent uncertainty*



Less Collateral Damage To Ecosystem – Bycatch

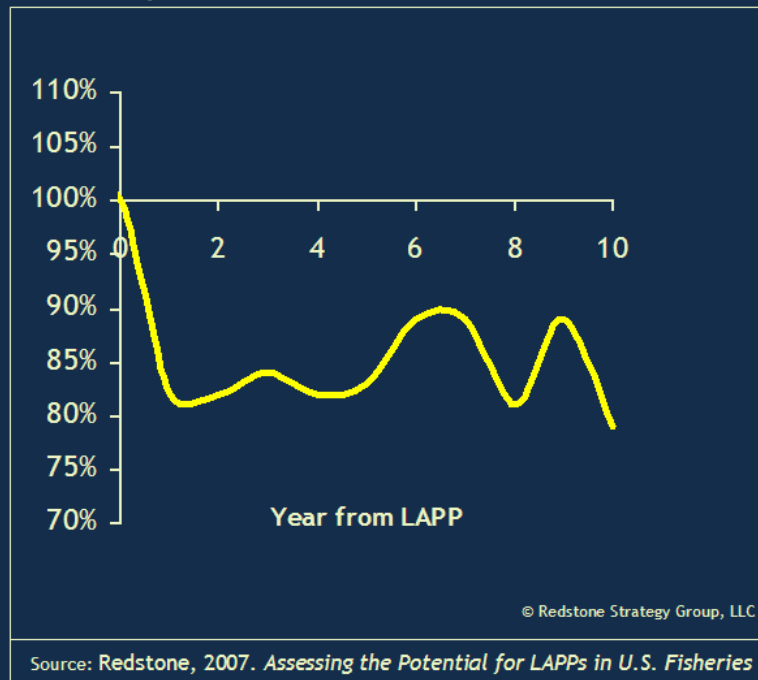
Commercial discards reduced

% reduction in baseline year discards/retained catch



Less Collateral Damage To Ecosystem – Habitat

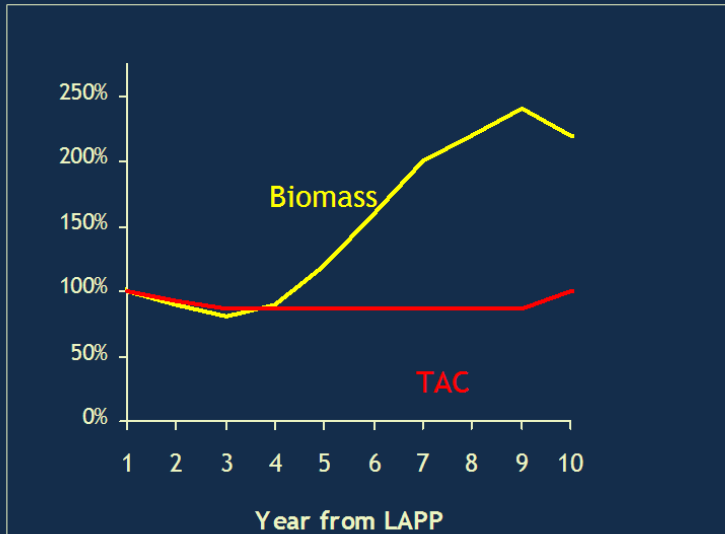
Time and impact of fishing decreased
% effort, time fished, and gear deployed vs.
baseline year



Stocks Recover

Stocks recover as managers adjust TAC

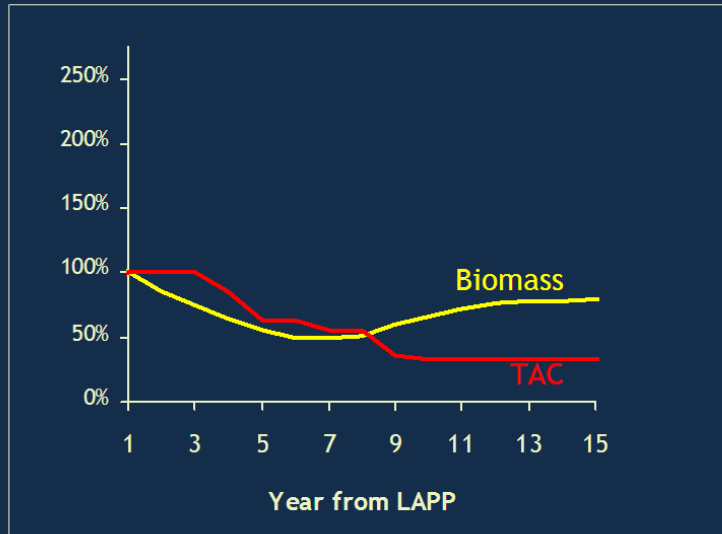
Relative biomass and relative TAC for New Zealand rock lobster*



Source: Redstone Strategy Group, LLC

Long-lived species also recover with TAC management

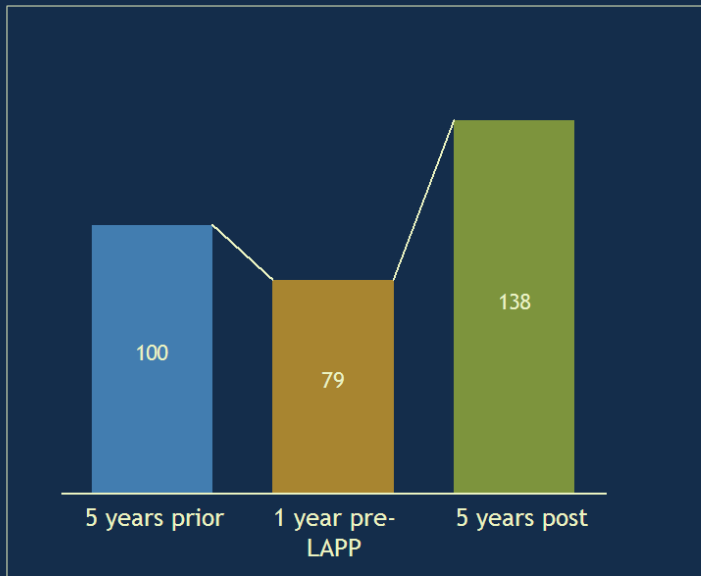
Relative biomass and relative TAC for New Zealand orange roughy, area 3B



Source: Redstone Strategy Group, LLC

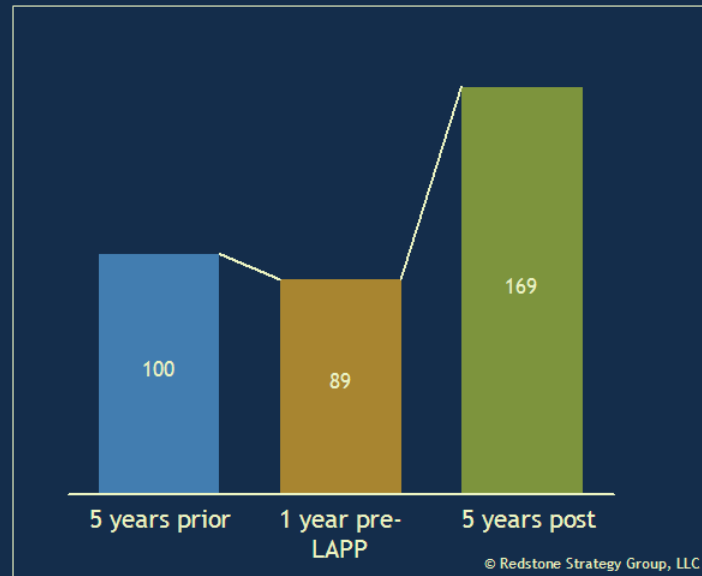
Quality Of Life Improves – Revenues Up

Boat yields rose
% of catch /boat



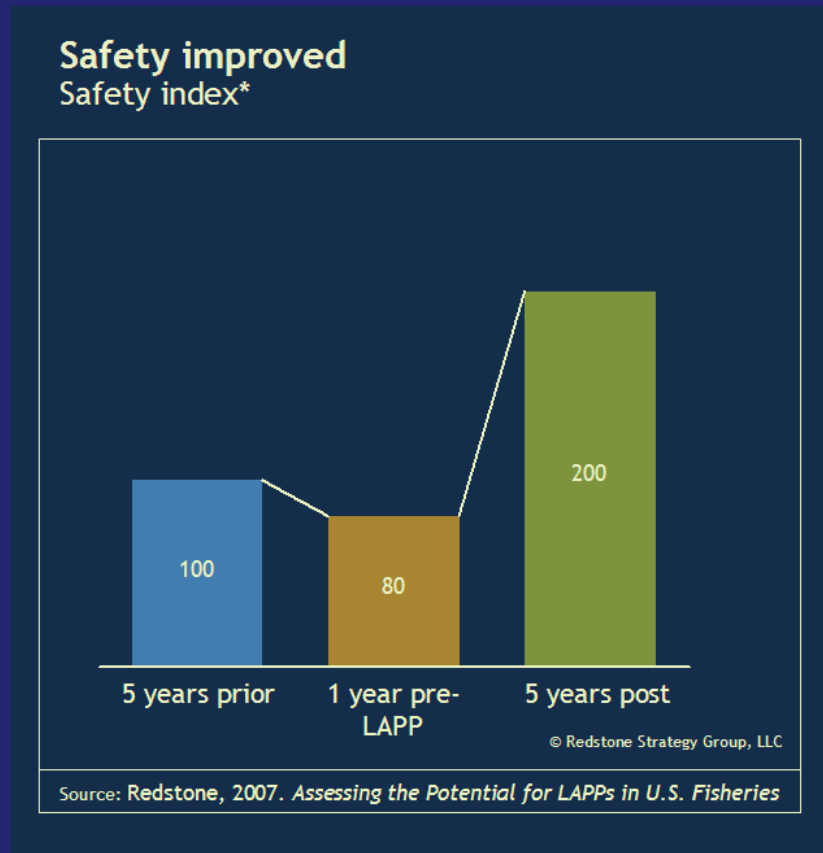
Source: Redstone Strategy Group, LLC

Revenues per boat grew
% of real \$/boat



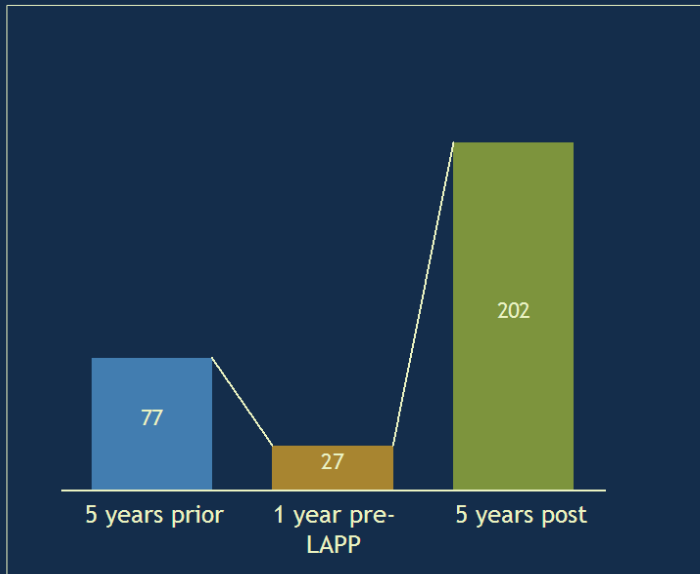
Source: Redstone, 2007. *Assessing the Potential for LAPPs in U.S. Fisheries*

Quality Of Life Improves – Fishing Safer



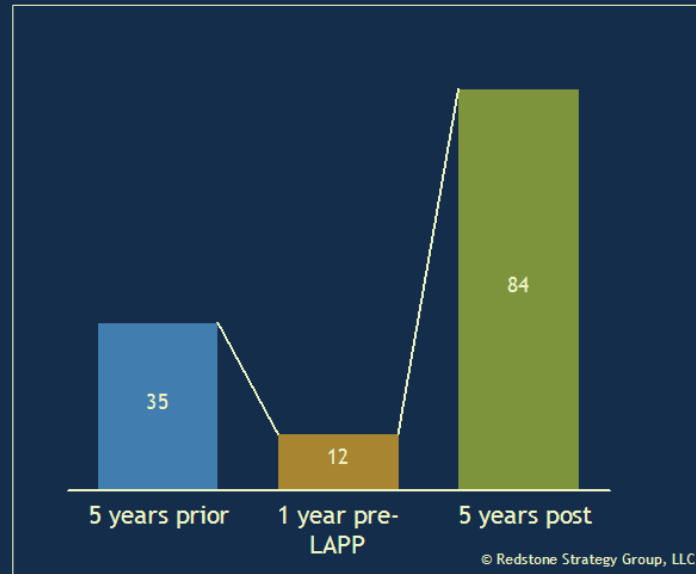
Quality Of Life Improves – Employment Stabilizes

Season extended
days per year



Source: Redstone Strategy Group, LLC

Employment stabilized
% of full-time equivalent employment*



© Redstone Strategy Group, LLC

Source: Redstone, 2007. *Assessing the Potential for LAPPs in U.S. Fisheries*

Transition Costs – Changing Ports

Modest consolidation but wide geographic distribution
Value growth over 10 years, AK halibut & sablefish

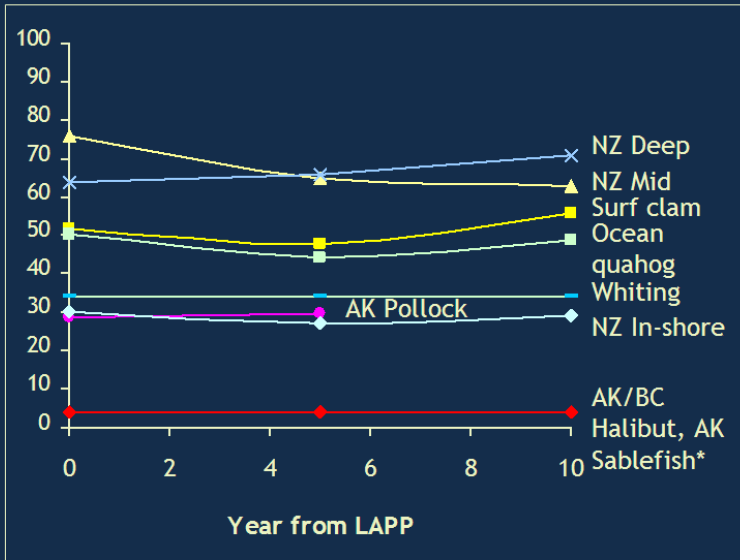


Source: Redstone, 2007. *Assessing the Potential for LAPPs in U.S. Fisheries*

Transition Costs – Minimal Change in Concentration and Consolidation

Minimal change in quota concentration

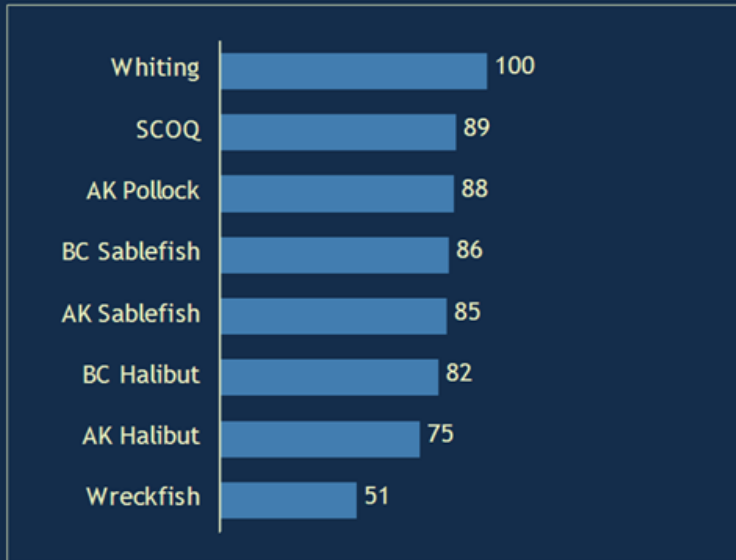
Percent quota owned by top-four firms



Source: Redstone Strategy Group, LLC

Minimal change in owners

% number of LAPP-year quota owners to 5 years post-LAPP



Source: Redstone Strategy Group, LLC

Customized Catch Share Designs

Illustrative public interests	Illustrative design options
Historic industry structure (e.g. gear types, small boat fleets)	<ul style="list-style-type: none">• Concentration limits• Maximum leasing amounts• Vessel category or gear type restrictions
Stewardship	<ul style="list-style-type: none">• Hard catch limits• Significant monitoring
Localize management and economic benefits to preserve fishing heritage	<ul style="list-style-type: none">• Restrict trading within specific management zones• Require fishing experience• Limit to owners on board• Require U.S. citizenship
Promote economic efficiency	<ul style="list-style-type: none">• Allow leasing• Open trades and leases for entire season• Allow middlemen traders
Minimize bureaucratic costs	<ul style="list-style-type: none">• Create minimum transfer blocks• Minimize government involvement in trades

Recommendations For Policy Makers

- Ensure robust and effective design
- Invest in the future
- Review and adapt



Catch Shares Are The Missing Ingredient



Thank You

Kate Bonzon
Program Manager, Oceans Enterprise
Environmental Defense

kbonzon@environmentaldefense.org

415.293.6050

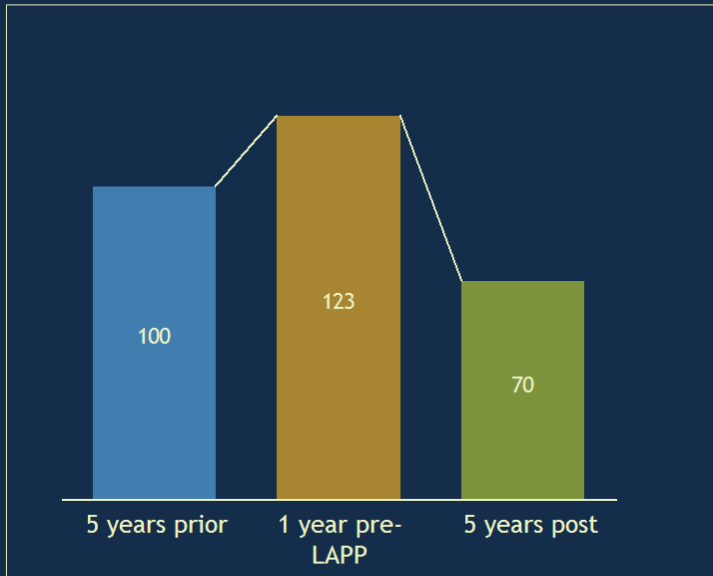
www.sustainingfisheries.com



Bycatch Reduced

Discards decreased

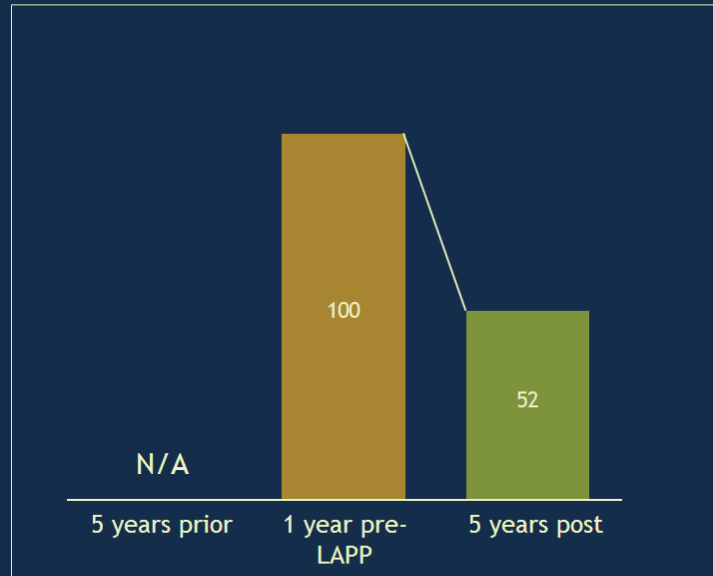
Index of commercial discards/commercial take



Source: Redstone Strategy Group, LLC

Non-commercial discards decreased

Index of non-commercial discards*



Source: Redstone Strategy Group, LLC

**Summary of Comparison of Sector Allocations with
(Other?) Limited Access Privilege Programs – A. Kitts**

	IFQ/ITQ	Fishing Community	Regional Fishery Association	Sector
Allocation	<p>Allocation is to a “person”</p> <p>Person as defined by the Magnuson-Stevens Act includes, individual, corporation, partnership, association, other entity, or government</p> <p>Section 303A (LAPPs) further restricts this to <u>U.S.</u> citizen, corp., partnership, other entity, or permanent resident alien</p>	<p>Allocation is to a “fishing community”</p> <p>Definition: community substantially dependent or substantially engaged in harvesting or processing including vessel owners, operators, crew, and processors</p> <p>Eligibility: “<i>residents</i>” who conduct fish-related businesses (commercial and recreational harvesting, processing, and support)</p> <p>Place on map</p>	<p>Definition: association of “persons” engaged in harvesting, processing, or a business substantially dependent upon a fishery.</p> <p>Eligibility: “participants” who hold quota share (commercial, recreational, processing, support businesses, and fishing communities)</p> <p>Cannot receive initial allocation but may acquire</p>	<p>Allocation is to the sector</p> <p>In <u>groundfish</u>, sector’s share is sum of individual shares.</p> <p>Individual shares have no official standing after that point unless vessel leaves/joins sector (main distinction from IFQ/ITQ)</p> <p>The key difference between sectors and FCs/RFAs <i>may</i> be that membership changes require the sum of shares approach?</p>
Re-allocation (transferability)	<p>Re-allocation is accomplished through quota market.</p> <p>Quota owners buy/sell according to operating cost structure</p> <p>NMFS must have system for tracking individual shares and transfers</p> <p>Vessel level catch monitoring</p>	<p>Must submit a Community Sustainability Plan. Plan must address social and economic development needs including those that have not had the resources to participate in the fishery</p> <p>Not clear on who writes the plan</p> <p>Plan will determine how allocation is harvested. There are many available options such as effort allocation, trip limits, quota allocated by season, and quota allocated by vessel</p>	<p>Must submit RFA/operations plan</p> <p>Plan will determine how allocation is harvested. There are many available options such as effort allocation, trip limits, quota allocated by season, and quota allocated by vessel</p> <p>Negotiation of any re-allocation is internal to the group</p>	
Management responsibility	<p>NMFS, vessel level monitoring</p>	<p>NMFS:</p> <ul style="list-style-type: none"> • Vessel level catch monitoring (only to track progress towards TAC) • Monitor other non-exempt rules • May assess fines/penalties to entire group (joint and several liability) <p>FC/RFA/Sector:</p> <ul style="list-style-type: none"> • Negotiate and enforce plan/agreement/contract 		
New entrants	<p>Must purchase through quota market</p>	<p>As specified in FC or RFA plan</p>		<p>Can accept new <u>member</u> with eligible permit – vessel share is transferred to new sector</p> <p>New <u>entrant</u> into the fishery must buy eligible permit</p>
Advantages	<p>Re-capture rents</p>	<p>Align economic and conservation incentives</p>	<p>Reduce regulatory complexity</p>	
		<p>Allows for greater balance of social and economic goals</p>	<p>Local decision making</p>	<p>Allows for “mixed management” approach</p>
Disadvantages	<p>Forced to face allocation issue</p>	<p>Cost of quota market</p>	<p>Organizational costs</p>	<p>Increased catch monitoring/tracking costs</p>
	<p>All or nothing</p>		<p>NMFS must keep track of varied plans</p>	<p>Common pool vessels forced into de-facto sector as more sectors form</p>