Hawaii Coral Reef Fisheries Management Workshop
Koolau Gulf Course, Kaneohe
Nov. 6 &7, 2003

Results of the Breakout Sessions

(Recorder: Donna Shanefelter)

Section 1: Key Points

November 6, 2003

Improving Data Collection

(Key points relevant to objectives 2, 3, 7)

- Education, outreach, and enforcement are top priorities, and enforcement is the most difficult
- Educating fishermen and key stakeholders is critical, and the important messages to convey are:
  - Fishing is a privilege, not a right
  - Whole community needs to be involved in stewardship of resources
- There is a current lack of data
  - Data from commercial fishermen is understated
  - Incentives need to be created for fishermen to do reporting (power of secrecy needs to be offset by incentives)
- Distinction between commercial and recreational fishing not always clear
  - Lesson from Guam: "In Guam we catch fish or sell fish, we don't play with our food"
- All stakeholders, fishermen, sellers, consumers, should be part of creating a management plan

Research Needs and Management Recommendations for Species of Special Concern

(Key points relevant to objectives 4 and 5)

- Projects listed under objective 5 are more appropriate as additions under objective 4
- This leaves room for developing projects under objective 5:
  - With an ecosystem approach
  - Including socio-economic/human factors
- Ecosystem approach should be expanded to include land-based impacts, i.e., coastal development

- Collaboration needs to be encouraged between those who are developing objective 5 and others who are currently involved in equal efforts on land-based pollution
- Recommendation on wording of objective 4: Change "fish species" to "key fishery species"

November 7, 2003

Enforcement, community outreach and stakeholder involvement

(Key points relevant to objectives 1 and 6)

Objective 1

- Need to add support to limited agency resources
  - Encourage community involvement, enforcement (support legislation that will re-establish community-based watershed councils)
  - Get creative with enforcement and deterrents (see ideas in Group Memory)
- Optimize current infrastructure, fines, technology

Objective 6

- Change wording (inclusive, holistic)
- Recognize that this is an ongoing process
- Identify stakeholders prior to developing a communications plan and
  - Be creative, vary the way message is sent
  - Maximize use of media, e.g. consider non-written forms of communication
- Create a continuum of information:
  - Lead end users through the implications of studies
  - Do NOT just throw materials at folk

Assessing current management initiatives and developing recommendations for improvement

(Key points relevant to objectives 7 and 8)

- Need objective assessment of whole range of current management measures
  - Should be an independent evaluation
  - Should answer the question: Are these measures enforceable?
- Need to increase effectiveness of enforcement
  - Currently lack of memorable, heavy duty penalties
  - Creating meaningful civil penalties is recommended
- Community-based management and input needs to be encouraged

    - Existing laws on books can facilitate community management, e.g., take a look at case of Mo'omomi on Moloka'i
    - Establishing opelu management zone is a goal by next conference
- Marine protected areas (MPAs)/MPA Zoning: ALL uses should complement natural resource goals and work together to increase integrity of ecosystem
    - Not just fishing, but also recreational uses should complement goals
    - Bad example is Pupukea where recreational activities drive fish out of the protected area and into the nets of fishermen

Section 2: Notes from Breakout Sessions

November 6, 2003

Improving Data Collection

(Key points relevant to objectives 2, 3, 7)

Purpose of Session:

1. Validate appropriateness of objectives
    - Assess socioeconomic and cultural impacts (Objective 7)
    - Assessment of the effectiveness of current fishery monitoring (Objective 3)
    - Improve data acquisition, compilation, and rectification
2. Add to the objectives
3. Decide what's most important

Discussion of Objective 2 (appropriateness)

- Commercial data is available. Need recreational information
- What is recreational fishing? Need common ground definition
- One problem, no recreational fishing license, e.g., free permit
- Data acquisition from/to fish sellers
    - Quantity sold, quantity thrown away
    - Species, quantity, spoilage
- American fishery society has definition of recreational fishery
- Commercial licensee (50%), vs. true commercial fisherman
- Recreational vs. commercial fishing isn't enforced by the state. Common in Hawaii for recreational fishermen to sell fish.
- Incomplete data is the issue, e.g., aquarium fish – not being connected at point of export. Fishers might be reporting inaccurately – low/high counts
- Reason for joint fishery data is to make equitable allocation decisions. We don't have that data (commercial and recreational)
- Never get accurate data from fishermen themselves – divers sell without commercial license
    - Need to differentiate recreational from commercial
    - More restrictions on recreational
- Goal should be a sustainable plan taking an ecosystem approach to provide optimal benefits to society
- Need to improve data acquisition and enforcement. What can we do to get information on fishery voluntarily that is accurate? How can we change and get fishermen to buy into need for data?
- If you sell a fish = commercial fishermen w/out license = illegal commercial fishing

- More divers sell fish without commercial licenses. Chinatown restaurants buy lots of fish from divers. Need more restrictions.
- Not establishing accountability
  - Alaska: “limited entry” system – took gear out of water, could sell permit to establish right to % of take.
  - Example: federal takes over water: no more commercial fishing – but “buy back” – amount documented as fished. With no documentation, compromise ability to be compensated
- On Guam there is “subsistence” and “commercial” – no recreational fishing. Concept doesn’t exist in the Pacific: “we don’t play with our food.”
- Enforcement required or not incentive to report
- Many recreational fishermen have sold catch for years on Oahu. Response – they did it illegally
- In Hawaii (vs. Alaska) for illegal commercial fishermen, your power is from people not knowing.” It doesn’t come from government.
- Summary: Need for monitoring; need for definition – recreational/commercial; Right or privilege (underlying value) to fish and steward?
- Need data on subsistence fishing. Amounts aren’t inconsequential
- Is it a right or a privilege to fish? We need to make it a privilege. If we do, we can get data. If people consider it a right, they won’t provide data.
- Commercial fishermen say they are too busy to provide data – need an incentive
- Guam is trying to educate a control group to report good data. People willing to report both what they bring in and what they lost
- Regards places that are buying – monitor and fine for illegal purchasing from unlicensed commercial fishermen. Licenses revoked for non-reporting

Discussion of Objective 3 (current monitoring, effectiveness)

- Should CREEL surveys become a program rather than a project of the DLNR?
- Lobsters: Divers will not report where, how many
- We need to identify the gaps of all current regimes. What is missing? We have telephone surveys and CREEL surveys. What do we need to fill gaps and manage the fishery?
- Biggest issues
  - Authority, enforcement, resources to collect data
  - CREEL survey – needed to get necessary information. Every dealer required to notate license identifications
- More fishery – independent monitoring? Test areas and monitor populations rather than rely on data collection from fishermen

- Other states – monitor
    - Fish are in decline – look at enforcing regulations to improve habitat. Need program to improve coral reef
- When fishery is in decline, don't have luxury of time. Probable cause is now needed legally to look in coolers. We need to change that law.

Discussion of Objective 7 (cultural impacts)

- Are there more fish today than 5 years ago? We don't know, despite current data collection.

Discussion of Socioeconomic impacts

- Laws = guidelines. Two-prong approach:
    - Enforcement for recalcitrant
    - Outreach/education for cooperative
- Three key words:
    - Improve
    - Assess
    - Impact
- Know long/short term effects of
- Identify users, legal, illegal

Most Important Points

- Convince people of need to manage
- More enforcement, regulations
- Convince fishermen that what we're trying to do will benefit them in the long run
- Education – resources, sustaining
- Surveys are important, but we can waste time with them. Need to enforce
- Fees generated from licensing
- Community-based management and education
- Compliance with regulation – convince fishermen
- Educate fishermen why surveys are important
- Use media to education
    - Institute licenses
    - Enforcement for illegal sales
- Get fishermen to accept more responsibility for the resource
- Effective collaboration among all stakeholders
- More emphasis on monitoring techniques, fisher – independent
- Premise: natural capital – ecosystem. Hawaiian culture – need to support and sustain both

- Don't only look at fishermen, consider run-offs and other things that impact reef
- Education, outreach, enforcement in numerical order
- More $ and people for effort
- More $ and people for enforcement, reliable data on all fishing effort and catch by discrete area
- Fishing must be perceived as a privilege, not a right
- More regional fishery management councils supported by government like WHFMC and Kaneohe Bay
- Foster Community Stewardship through direct interaction between resource users and managers

Sound Bites (Reoccurring ideas?)

- Resource belongs to everyone – all stakeholders should have share in management
- Never enough $ -- develop management methods to be implemented with limited available data

Topics for future discussion

- Goal: to work towards the development of an integrated and sustainable fishery management plan, taking an ecosystem and community-based approach, to provide optimal benefits to society

Research Needs and Management Recommendations for Species of Special Concern

(Key points relevant to objectives 4 and 5)

Purpose of Session

1. Validate appropriateness of objectives
   - Assess the current status of key fish species (Objective 4)
   - Develop ecosystem approaches and conduct pertinent research activities to assess overall ecosystems (Objective 5)
2. Add to the objectives
3. Decide what's most important

General Discussion

- Need category of "non-food" fish added to objective. All categories are equal (ornamental, food) and other non-fish species in project area
- Key species already there, yes?
- Plenty of overlap with two objectives

- Does objective 4 sidetrack us from 5? Should “fish” refer to other species?
- Fish = inclusive, not only fin fish. SUGGESTION: change wording of Objective 4 to “fishery” species, or “resource” species
- Look at whole ecosystem, not only from human point of view, but from point of view of every component of the system
- Shouldn’t humans be part of ecosystem? May need to add other species. Or maybe it doesn’t preclude anything?
- May be philosophically satisfying (see above), but resources are not unlimited. There has to be selection.
- This is a fisheries related agenda. May need to identify indicator species.
- Objective 5 better covers concerns about including whole ecosystem vs. citing specific key species
- Need to consider key species resources – what they need to survive (i.e., life cycle requirements, environment, food)
- By focusing on key species, you realize everything is connected to everything in the ecosystem. Let’s recognize that these were considerations in developing these objectives. Don’t want to go backwards.
- We are coming from standard species – hard to apply to coral reef system (hundreds of species). But maybe single species need special protection. Balancing needed.
- Ecosystem approach is an evolution from single/key species approach. Need to keep a balance. If we keep ecosystem in good shape, don’t have to worry so much about individual species.
- Need to aggregate up! Single species as key.
- From fishermen’s viewpoint: want to know if fish I focus on is safe, healthy, etc. Therefore, concentration on the species is appropriate.
- Isn’t fisherman also a part of the ecosystem? Yes. Integral.
- Would a focus on other attributes help us test the safety of the ecosystem? Yes.
- Take away messages: you better know what is going on
- Both objectives are important
- Key species are indicators that ecosystem is related (ecosystems are taken into consideration. Objective is single-species oriented but not exclusive of ecosystem)
- Aren’t you taking ecosystem concerns into account when you look at single species? Yes, don’t have to be only relevant to single species.
- Combination of two objectives is necessary
- If we want to develop key strategies, specific species do not belong in objective 5. In 5, what we need is a way the different pieces of the puzzle fit together (see objective 7 for other factors)
- Objective 5 is what you do when you are assess for objective 4

- Consider listing #5 projects under #4. They will only tell us that these species are over-harvested. Will only confirm what we already know.
- Objective 4 is general, #5 is what you would do. They go well together (put projects from #5 under #4)
- Do we need Objective 4 to get a benchmark? Yes, all the projects need to be done.
- We don't really know how to manager an ecosystem

Key Messages

- If we take projects under #5 as more appropriate additions to #4 (look at life cycle, etc), we leave room for developing projects under #5 with an ecosystem approach
- Expand ecosystem approach to include land-based impact, i.e., coastal development
- Whole equal effort on land-based pollution. Don't have to reinvent the wheel, but incorporate it. Need to incorporate existing work on land-based pollution

November 7, 2003

Enforcement, community outreach and stakeholder involvement

(Key points relevant to objectives 1 and 6)

Purpose of Session

1. Validate appropriateness of objectives
   - Effective enforcement of current regulations (Objective 1)
   - Improving communication and dissemination with stakeholders and decision makers (Objective 6)
2. Add to the objectives
3. Decide what's most important

Discussion of Enforcement

- Haunama Bay is best example – resources, signage, people, $$
  - Volunteer cadre can be organized
  - Programs work and can be applied elsewhere
- Mo'omomi – community enforces, they're right there, partnership with enforcement agency
- Konahiki program – apply cultural values
- Programs, Big Island
  - Waiopae, Miloli'i, Ho'okena
  - Officers train communities to record violations
  - Communities understand regulations, constraints

    - Creates bond between community and enforcement
    - Some overtime $ available
    - Huge payoff
- "Talk Story" public forums assist enforcement, interface education with other public forums, e.g., neighborhood boards
- Fishermen, not outsiders, should help enforce the rules (peer pressure)
- Self-regulation of fishermen by fishermen (or their organizations).
    - Fishermen know the rules
    - Need more clubs, associations, etc., that have power to work with members
- Community involvement
    - DOECARE – seminars
    - Also City and County, provide info
    - Other players
- How do you increase number of volunteers involved in DOECARE?
    - Requires hundreds of hours in training
    - Big commitment, takes 6 months
    - Investment of $1500 for equipment
    - Fundraising?
- Deterrence – hard to get judges to give sentences when offenses are criminal natural resource violations
    - Small fines – "just cost of doing business"
    - Importance of resource violations needs to be communicated to judges and prosecutors
    - Need larger fines, e.g., $10,000
- Santa Fe – problems
    - Violation examples: DD, spouse abuse, animal abuse
    - Effective deterrent: color-coded hat worn during community service
    - Result: incidence of repeat offense has dropped dramatically
- Kona Advice: natural resource court
- Communications – after hours phones aren't staffed, need cell phones, need 24/7 staffing, more responsiveness
- Getting community involved, empowered, informed – they need contact information, basic information passed along to enforcers
- American Samoa
    - Workshops, all stakeholders
    - Volunteers to enforce regulations
    - Villagers, eyes and ears of enforcement
    - Fines go back to community to help with programs
    - All stakeholders should be informed and take part in enforcement

Discussion of Communication and Dissemination

- Need to provide information to make fishermen more effective, e.g., ways to not catch undesirable species.
    - Be helpful

    - Fisherman wants practical information
- Establish traditional management areas and forming watershed community-based partnerships with government to promote sustainable reef fisheries management – issues need to be raised
- Hawaii is most-wired state
    - Great information on internet
    - Lots of information, lots of people online
    - Need to make good use of the internet, "incredible resource"
- Information should be put into brochures in native language
- Fishing community is very diverse – materials should be in other languages, e.g., Marshallese. Need to better inform non-English speakers/readers, e.g., reach out through churches.
    - Populations increase
    - Identify stakeholders
    - Concur with native language used in materials
- "Living in Water" curriculum on web – create a site for science teachers with links to such resources for K-12 education
- Non-written sources of information for areas on non-literacy
- Hawaii fishing news and other publications are great ways to get word out
- Scientific findings being disseminated in wrong places, i.e., journals, not written for practitioners
- Parallel effort is happening with land-based pollution – need to integrate fishing management with other activities that are related
- Two-way communication – probably meant "between" not "to"
- PBS Hawaii series on coral reef and its fishery? Like the one on ice
- Fishermen feel like they are being pressured by concentration of attention – broaden attention to other stakeholders

Important Points

- Enforcement
    - Need to supplement limited resources, community involvement, become eyes and ears
    - Optimize current infrastructure
    - Deterrence
- Communication
    - Use technology and media – and other methods
    - Improve stakeholder base – be holistic
    - Get out in the field
    - Ongoing process – not one shot
    - Communicate <u>between</u> stakeholders and decision makers
    - Ahupua'a approach – link land and water efforts
    - Statewide campaign by DLNR and other agencies

- Other
  - Support legislative bill that will re-establish community-based watershed councils (historic AHA councils) to develop sustainable fishery management plans that provide optimal benefits to the community

Key Messages

- Creative Enforcement
  - Community involvement
  - Deterrents
- Identify stakeholders and vary the way message is sent
- Maximize use of media
  - Keep leading folks through the process, don't just throw material at folks
  - Use multiple mechanisms for target audiences
- Get out into the field
- Discover, e.g., "discover boxes"

Assessing current management initiatives and developing recommendations for improvement

(Key points relevant to objectives 7 and 8)

Purpose of Session

1. Validate that the objectives relating to current management initiatives are appropriate
   - Assess socio-economic and cultural impacts (Objective 7)
   - Assess current and future management measures and adapt as data suggests (Objective 8)
2. Add to the objectives
3. Decide what's most important

General Discussion

- Economic evaluation has been changed by tourism (which is also part of problem)
  - Not valuing resources as they were in the past (e.g., fishing as sustainable, clean H20)
  - What constitutes "normal" has changed, as well as what the resource are
- Emphasis is currently on MPAs and that may not reflect community needs – options other than MPAs should be considered

- Other things should be listed: lay nets, scuba fishing at might, MPA licensure, night spear fishing (look at Guam and Commonwealth of the Northern Mariana Islands (CNMI) as examples)
- Need to do evaluation of number of management options that go through and check feasibility of other things not currently in document (i.e. issues brought up in CNMI, Guam)
- MPAs – need more on "no take" areas. Is it reasonable to incorporate?
- MPAs – can talk all we want, but current enforcement strategies not in place
    - Need $ to enforce
    - License fees should be used for database of how many, who are out there
    - Need input from people involved, fishermen, those engaged in fishing practices, esp. those who don't generally share catch information
- Ten percent in 10 years (20% in 20 years): this was set up by the U.S. Coral Reef Task Force. Has no force, but is based on science and community input. How it would be implemented would be different from place to place
- Would like to see DLNR chairman state where he wants to go (give direction) and ensure his staff knows/understands that direction/prompt unified implementation in accordance with it.
- Coastal Watch, Big Island, seems to be working as a model. Community took initiative and talked to DOECARE
- Must have significant penalties and consequences as well as enforcement to ensure results
- Enforcement, DAR needs to incorporate DOECARE earlier in process to develop formation of rules. As early as possible to ensure rules are enforceable
- Hire independent contractor to evaluate effectiveness of what we are doing now
    - Totally independent, objective view – is it working?
    - Socially, biologically effective, etc.?
- Define "effective." Different layers of concepts (awareness, compliance, etc.)
- Marine Management Areas – cannot only focus on fishing issues.
    - Make clear what the management is for
    - Confused by other issues, i.e., revenue generation
    - Dedicate proceeds from marine licenses and other fees to benefit fishery issues
    - Recognize that activities may generate income, but may also have impact on fishing issues (i.e., scuba diving)
- Trying to accommodate incompatible activities: Pupukea example – incompatible activities of scuba diving, fishing, and protection (Divers drive fish outside of the area into the nets of fishermen)

- Decriminalize fishing violations – consider civil track with significant penalties
- Different options and action strategies need to be combined and integrated to create a management matrix. Look for areas of overlap, complement and synergy
- Land-based pollution (local area process) not currently tied to coral reef management issues. Health of reef not necessarily limited to fishing issues. Might get information indirectly, but land-based issues have not yet been a direct focus.
- Consider choosing three specific ahupua'a to test these strategies that look at land-based pollution and ecosystem approach to health of coral reef
- Community policing – some communities have formal way of deputizing community members
- State laws already exist to support community-based stewardship and management plans, e.g., Mo'omomi
- Hawaiian perspective – community involved in proposing culturally meaningful strategies – e.g., Kapu system, or working with government to set aside designated KOAs for monitoring use of community
- Hope by next conference we can say that we have established an KOA opelu zone (DLNR does not currently have process in place for doing so)
- What is the definition of community? Tricky, but may have "best practice" approach

Key Messages

- Enforcement: lack of memorable, heavy duty, meaningful civic penalties
- MPAs/MMAs –
  - Involve community in determining where and how to set up
  - Address problems of lots of uses and maintaining ecosystem integrity
- Incorporate community input, Coastal Watch, deputizing community members, expert witnesses to assist
- Assessment – conduct independent objective evaluation and make recommendations

Post- Session Comment

- Regards data acquisition, how complete or comprehensive is the data needed to adequately manage the fishery? The more the better – stronger statistics, more certain conclusions. BUT, must also consider or balance this with the administrative burden and intrusiveness on fishermen, plus limited funds (how cost effective). Sometimes money spent on research management/enforcement is much more than the fisher is worth.