

# **Co-Managing the Commons: Creating Effective Linkages Among Stakeholders: Lessons from Small-Scale Fisheries**

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# “Traditional” Resource Management

- Utilitarian values
- Production-oriented (MSY)
- Single-species and deterministic models
- Scientific expertise
- Top-down
- Advisory, consultative roles for users and communities

# Ecosystem “Management”

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- “Land ethic” values
- Multiple-species, discontinuities, ecological interactions, habitat
- Humbler science, accept uncertainty
- Adaptive management, learn while doing
- Active, engaged human communities
- Knowledge and expertise of users
- Bottom-up, collaborative

“Market Failure”  
or  
“Community Failure”

# Market Failure

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- Open access
- Imperfect, poorly defined property rights
- Perverse incentive structure
- Individual rationality vs. social/ecological rationality
- Correct by:
  - (1) Regulating the commons, or
  - (2) Privatizing the commons

# Community Failure - 1

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- Responsibilities and tools for resource management
  - Trust and reciprocity
  - Boundaries and membership criteria
  - Jurisdiction and authority
  - Capacity to monitor and enforce
  - Adequate knowledge and feedback
  - Distribution of power and resources

# Community Failure - 2

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- Disembeddedness of resource uses and users
- Role of the state and its agencies
  - Vertical linkages versus horizontal linkages
  - Patronage, graft, corruption
  - Erosion of conditions conducive to social action
    - Trust, reciprocity, egalitarianism

# Community Failure - 3

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- Role of markets
  - Breakdown of local authority through commercialization of exchange
  - Redefinition of social relations as strategic and ego-centered
  - Opening up boundaries, spheres of exchange
  - Globalization, liberalization, and privatization

# User Participation in Management

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- Community-based management
- Advisory/consultative systems
- Co-management
- Informal or shadow management
- Management through political influence

# Conditions for Successful Communal Management

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- Clear eligibility and boundaries
- Regular and open meetings
- Semi-autonomy
- Limited transferability of rights
- Ability to handle social and economic differences
- Adequate monitoring and enforcement

# Conditions for Successful Co-Management

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- Clear boundaries
  - Membership criteria
  - Scope and scale
  - Intercept/overlap
  - Local all-stakeholder board
  - Coordinating regional board
  - Cost-sharing “in kind” and out-of-pocket
  - Cost recovery for local management
  - Voluntary action
- AND
- Local autonomy
  - Legal definition

# Why Co-Management for Fisheries?

## Problems with Centralized Management

- Poor design of regulations
- Lack of stakeholder buy-in
- Low levels of compliance
- Ineffective controls

# Why Co-Management for Small-Scale Fisheries?

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## 1. Fishery Context

- Near-shore locality
- Tradition of user design

# Why Co-Management for Small-Scale Fisheries?

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## 2. Spillover Effects

- Effects of large-scale fisheries
- Non-point pollution
- Population pressures

# Why Co-Management for Small-Scale Fisheries?

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## 3. Contemporary Pressures

- Population growth
- Technological change
- Food security

# Driving the Interest in Co-management

- Problems With Top-Down Management
- Problems With Small-Scale Fisheries

# Co-Management Alternative

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Co-management is the sharing of authority and responsibility among government and stakeholders

- Stakeholders can be consultants, advisors, partners, decision-makers
- Linkages are fundamental
  - Horizontal
  - Vertical

# Co-Management's Operating Assumption

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People who participate and are vested in planning and decision-making are more likely to pay attention to long-term objectives and system-level effects than those who are not

# Focus of Co-Management

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- Expected Benefits of Linkages
- Costs
- Requirements

# What Do We Ask of Fisheries Co-Management?

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## Fishery Management Functions

- Conserve
- Allocate
- Implement
- Monitor
- Enforce

All involve linkages

# Elements of Co-Management

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- Background Conditions
- Management Structure
- Transactions Costs
- Human Capital

# Transactions Costs in Fishery Co-Management

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## Derived From Management Actions

- Information gathering
- Coordination of stakeholders
- Design of management plans
- Implementation of regulations
- Enforcement

# Human Capital in Fishery Co-Management

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- Stock
  - Education
  - Knowledge
  - Skills
- Flow
  - Data gathering
  - Review
  - Design
  - Negotiation
  - Monitoring

# Fishery Co-Management Linkages in Practice

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- **Lake Kariba, Zambia**
  - Arbitrary boundaries
  - New communities
  - Undeveloped human capital
- **San Miguel Bay, Philippines**
  - Coordination focus
  - Advisory to government
  - Existing structure
  - Participation skills
- **Lake Chapala, Mexico**
  - Undefined property rights
  - Undefined boundaries
  - Inconsistent enforcement

# Fishery Co-Management Linkages in Practice

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- **James Bay, Canada**
  - Homogeneous groups
  - Inadequate scientific information
- **Lofoten Islands, Norway**
  - Long-standing system
  - Democratic tradition
  - Common interests in resolving conflict
- **Barbados**
  - Importance of social and economic context
  - Costs of creating decision structure
  - Development of human capital

# Challenges of Considering Transactions Costs and Human Capital

- Economics avoidance
- Time
- Wishful thinking
- Desperation