A Hypothesis of Multistage Management for “Sato–umi” as Integrated Coastal Management

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Content

• Governance structure of Integrated Coastal Management
• Dynamics of ICM development
• Case 1: the first stage
• Case 2: the second stage
• Case 3: the third stage
• Complex of three management stages
Complexity of ownership on a coastal area

- Private land
  - Coast 1: non-legal national property
  - Coast 2: legal national property

- Shallow sea
  - Aquatic resources
  - Non-legal national property

- Offshore sea
  - Ownerless property
Result of questionnaire research on prefecture governments about coastal management

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Source: Questionnaire Research for Prefecture Government held by authors in 2013-2014
Governance Structure of Fisheries Management

Standard Structure

Governments

Constitutional-choice Rules

Collective-choice Rules

Operational Rules

Users

Trawl Fishery Management in GBR

ESD Guideline

GBRMPA

Fisheries Act

Fisheries Management Plan for Trawl Fishery

Regulations

Actual Rules on Sea

By Hidaka2000
# Governance Structure for ICM

<table>
<thead>
<tr>
<th>Management Body</th>
<th>Contents of Governance</th>
<th>Management Type</th>
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<tr>
<td>Local Residents</td>
<td>Day-to-day management of using, Environment Creation, Adjustment of Utilization</td>
<td>Voluntary Management</td>
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<tr>
<td>Municipalities</td>
<td>Adjustment of Users and Gov. Management of Local Resources</td>
<td>Voluntary Management Co-management</td>
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| Prefecture Government | Environment Conservation  
                        | Land Conservation  
                        | Disaster measures      | Top-down Management    |
| Central Government  | Adjustment among Prefectures  
                        | Establishment of Institutions      | Top-down management    |
Dynamics of ICM

The First Step
- Hinase-mati
- Fishery- Leisure
- Envi. Conservation

The Second Step
- Shiraho Kotohikiham
- ICM by Municipalities

The third Step
- Ejima-Bouze
- ICM by Prefectures
- Omura Bay
- Kagawa Pref.

The forth Step
- ICM of Prefecture alliance
- Chesapeake Bay
- Sawara Fisheries
- Management in Seto

Range of Targeting Area
- Local Area
- Municipality Area
- Prefecture Area
- Area over Prefecture Area

Source: Hidaka 2013
The First Step: proto-type of Sato-umi Fishing Right Ground Management by Fishing Communities
The First Step: Sato-umi Management by Diverse Users

Joint management between stakeholders and governments

- Hinase FCA
- Fishers
- Integrated Coastal Management Committee At Hinase
  - Rule-making
  - Monitoring
  - Adjustment
- Commerce Association
- Relevant industries Local residents
- Research Institutes Universities NPOs
- Government Bizen City, Okayama Prefecture

Whole of Region Approach
Network Organization of Sato-umi Management

Governance
- Sharing Principles and Vision
- Co-resolving mechanism
- Continual mutual relationship

Inter-mediating
- Neutral standing
- Shuttle negotiation
- Sharing information

Secretaries

Self-organizing

Learning Organization

Adaptability

Connecting land and sea

Value Creation

Injection of new viewpoint
The Second Step: Sato-umi Network
Management Organization networking plural Sato-umi

Users
- Governments
- Industries
- NPO
- Local residents
- Schools

Sato-umi Network

Source: Shima City Sato-umi Creation Basic Plan
MPAs Network by Hyogo Prefecture

Source: Hyogo Prefecture Fisheries Division
The Third Step: Top-down Management

Management Organization by top-down approach combining whole of relevant government divisions

- Omura Bay Environment Conservation and Revitalization Promotion Headquarters
  - Vice-governor
  - 6 Directors
  - Relevant 29 Division managers
  - Promotion Headquarters Secretary meeting
  - Fisheries Management Division
  - Environment Division
  - Secretary
  - Fishers Groups
    - For Conserving tidal flat and Sea Grass-bed

- Whole of government approach

Source: Nagasaki Prefecture Environment Division
The Third Step: Supporting measures
Connecting and Supporting Other Entities
Activities by the prefecture government

Support Providing Approach

Vision of Kagawa “Sato-umi” Creating

Measures by the vision

Complementary Relation

Environment Plan of Kagawa Pref.

Human Resource Promoting
Model Field for Satoumi
Networking Activities
Material Circulation Model

Marin Debris Reducing
Sewage facility Promoting
Bamboo Resource Using

Committee for Kagawa Satoumi Creation

Secretaries

Prefecture Board Meeting for Kagawa “Satoumi” Creation

Environmental Target
Sewage regulations
Water Quality Standard

Source: Kagawa Prefecture Environment Division
Combination of whole of government approach and whole of region approach through support providing approach

Coastal Infrastructure

Centralized Management by Prefecture Governments  
⇓  
Whole of Government Approach (Top-down)

Whole of Region Approach (Bottom-up)  
⇑  
Joint Management by Residents and Municipalities

Sato-umi and Sato-umi Network

Connection Support  
⇓  
Support Providing Approach

1. Whole of government approach  
2. Whole of region approach  
3. Support providing approach

Institutional design to combine three approaches
Combining the first step, the second step and the third step

Whole of Government Approach by Top-down

Coastal Infrastructure
- Conservation
- Protection
- Adjustment

Sato-umi Network
- Support Providing Approach
- Wide and Smooth Material Circulation
- Whole of Region Approach

Co-management by Residents and Municipalities
The Forth Step: Prefecture Alliance at a wider area

Prefectures Alliance
(Ex.; Chesapeake Bay Program)

Management by governance-network
Summary of a hypothesis of multistage management of Sato-umi as ICM

- The combination of different management approaches adapting to range of targeting area and layers of governance will be effective to manage environment.
- In prefecture areas, coastal infrastructures will be developed by centralized management through top-down and whole of government approach.
- In domestic regions, Sato-umi will be created by spontaneous or joint management through bottom-up and whole of region approach.
- Two approaches will be combined by support providing approach and cover the whole of coastal area.
- In wide areas beyond prefecture jurisdictions, coastal infrastructure will be made common through a prefecture alliance supported by the central government.