Outline

1. About the book
2. Historical developments
3. Thematic issues
4. Small-scale fisheries
5. Selected conclusions
6. Additional thoughts
## 1.1 The authors

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<tr>
<th>Name</th>
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<tr>
<td>Armada N.</td>
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57 experts in governance of biodiversity conservation and fisheries
1.2 Book content

PART I - GOVERNANCE TRENDS: history, convergence, coevolution, integration challenge

PART II - GOVERNANCE DIMENSIONS: bioecological, economic, social, legal, spatial, scientific

PART III - GLOBAL GOVERNANCE: Institutions, processes, roles, conflictual issues (risk perceptions, parallel initiatives, missed opportunities)

PART IV – REGIONAL GOVERNANCE: Institutions, NEAFC-OSPAR, Mediterranean, CCAMLR, Benguela current, European waters.

PART V – NATIONAL GOVERNANCE: integrative frameworks, SSFs vulnerability, stewardship, space-based management, role of ENGOs, capacity-building, role of fisher’s organizations, role of courts

PART VI – CONCLUSION AND SYNTHESIS
1.3 Chapters – Parts I and II

PART I: GOVERNANCE TRENDS AND CHALLENGES

   S.M. Garcia, J. Rice and A. Charles
2. Governance of marine fisheries and biodiversity conservation: Convergence or coevolution? S.M. Garcia, J. Rice and A. Charles
3. Governance of marine fisheries and biodiversity conservation: the integration challenge  
   S.M. Garcia, J. Rice and A. Charles

PART II: GOVERNANCE DIMENSIONS

   J. Rice and P. Mace
5. The economic dimension: addressing behaviour, incentives and context for effective governance. S. Hanna
6. The social dimension: the challenge of dealing with equity. B. Hersoug
7. The global legal dimension: navigating the legal currents of rights and responsibilities. A.H. Hoel and D. VanderZwaag
8. Spatial dimensions of fisheries and biodiversity governance.  
   R. Kenchington, O. Vestergaard and S.M. Garcia
PART III: GLOBAL GOVERNANCE
10. Global level institutions and processes: frameworks for understanding critical roles and foundations of cooperation and integration. L. Ridgeway
11. Global level institutions and processes: assessment of critical roles, foundations of cooperation and integration and their contribution to integrated marine governance. L. Ridgeway
12. Integrative policy and legal instruments, approaches and tools: fisheries and biodiversity conservation. B. Kuemlengan, J. Sanders, P. Deupmann and C. De Young
14. Parallel initiatives: CBD’s Ecologically or Biologically Significant Areas and FAO’s Vulnerable Marine Ecosystems criteria and processes. J. Rice, J. Lee and M. Tandstad

PART IV: REGIONAL GOVERNANCE
15. Regional governance for fisheries and biodiversity. R. Warner, K.M. Gjerde, D. Freestone
18. CCAMLR and Antarctic conservation: the leader to follow? D. Miller and N.M. Slicer
PART V: NATIONAL GOVERNANCE
22. Small-scale fisheries: importance, vulnerability and deficient knowledge. J. Kolding, C. Béné and M. Bavinck
25. ENGOs and SIDS: environmental interventions in small island developing states. P. McConney, R. Pomeroy and Z. Khan
26. The role of capacity building for improving governance of fisheries and conservation of marine ecosystems. J.C. Seljo and S. Salas
27. Fishers' organizations: their role in decision-making for fisheries and conservation. M. Makino, A.S. Cabanban and S. Jentoft
28. The role of courts in fisheries management and marine biodiversity protection: US and EU systems. P. Shelley and T. van Rijn

PART VI: CONCLUSION
2.1 Premises

**Definitions:**
- **Convergence** results from common forcing
- **Coevolution** results from interactive adaptation
- They reduce **functional distance** and facilitate **integration**.

**Assumptions:**
- Understanding their evolution may help finding future solutions
- Reducing functional distance is good for both streams
- A sustainable outcome should optimize the costs/benefit ratio for society.

**Challenges:**
- Finding the right degree of integration
- Achieving equitable distribution of costs and benefits
- Paying attention to vulnerability and risk in both domains
2.2 Historical phases

- **1850-1970**: Aggressive industrial development with limited concern for environmental degradation and stewardship. Subsidized growth. Tensions. Wars. The governance streams diverge!


- **In the 1990s**: Global policy commitments following formal recognition of the failure. UNCED. Agenda 21. Sluggish implementation.

- **In the 2000s**: Recognition of little progress. Renewed commitments (WSSD, MDGs; Aichi Targets; Rio+20). Rising control by the private sector as States falter.

- **In the 2010s**: Impact of the energy, economic and financial crises. Increased social and environmental tensions. Opening the “Last Frontier”.

**Overarching drivers**: demography and coastal drift; Competing demands; and Economic and market globalisation and privatization..
## 2.3 Overarching policies

<table>
<thead>
<tr>
<th>Year</th>
<th>Dev. policy</th>
<th>Economic Policy</th>
<th>Public policy</th>
<th>Legal framework</th>
<th>Env. Policy</th>
<th>Fishery Science</th>
<th>Fishery policy</th>
<th>Conservation policy</th>
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<tbody>
<tr>
<td>1945</td>
<td>Fordist dev. Model/Growth/innovation/infrastructure dev.</td>
<td>Support to growth/subsidies</td>
<td>Centralized/bureaucratic</td>
<td>Pre-UNCLOS process</td>
<td>Little concern</td>
<td>Discovery/Stock focus</td>
<td>Conflict reduction/Technical optimization</td>
<td>Limited interest in marine conservation</td>
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<tr>
<td>1955</td>
<td>Sustainable development/Integration</td>
<td>Lowering tariff barriers/Equity</td>
<td>Decentralized/Contractual</td>
<td>UNCLOS process</td>
<td>Focus on pollution</td>
<td>Multispecies focus</td>
<td>Catch control</td>
<td>Growing interest for MPAs</td>
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<td>1965</td>
<td>Investment</td>
<td>Poverty reduction programmes/Entitlements</td>
<td>Participative/shared/delegated</td>
<td>UN LOSC is adopted</td>
<td>Focus on biodiversity</td>
<td>System/Ecosystem focus</td>
<td>Licensing/Effort control</td>
<td>MPAs in fisheries</td>
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<td>1975</td>
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<td>Liberalization/Structural adjustment/Privatization</td>
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<td>UN LOSC is in force</td>
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<td>Post-modern/uncertainty</td>
<td>Capacity control/Fishing rights/Subsidized expansion</td>
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<td>1985</td>
<td></td>
<td>Green growth</td>
<td></td>
<td>CBD CCRF UNFSA</td>
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<td>Adaptive flexibility/Dynamics</td>
<td>Crisis</td>
<td>New focus in SSFs</td>
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<td>1995</td>
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<td>Reduction of environmental impact</td>
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<td>2005</td>
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<td>High seas</td>
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</table>
2.4 Shifts in strategies

- **Ecological**: Responsible fisheries. Rebuild ecosystem structure/function, productivity & resilience
- **Economic**: reduce subsidies & externalities: long-term economic efficiency
- **Social**: improve livelihoods, food security, vulnerable groups. Equity
- **Governance**: Good governance principles: democracy, justice
- **Common emerging goal**: Resilience, capacity to adapt

Each stream **broadens its objective**, facing internal & external tensions

It “discovers” the need for a more **ecosystemic approach and precaution**

and increases attention to **economic and social performance**
2.5 Global governance process

Agreed collective outcomes (MDGs, SDGs, etc.)

Compliant sectoral activities

Planning & Implementation

Global Integrative institutional mechanisms

Compliance with human rights
Achieved food security
People’s Safety & Security
Sustainable development
Healthy ecosystems

- Food; Livelihoods; Other services
- Good practices
- Sectoral specialized knowledge

- Regulations, plans, indicators, MCS

Regions, Ecosystems

Countries

Shared goals / objectives / norms/ trade-offs
Integrated knowledge, assessments, indicators
Legal / regulatory frameworks;

Inspired from Chapter 10-Ridgeway
2.6 New common grounds

Low Risk for intrinsic bioecological vulnerability

Risk from market value and management

High Risk from market value and management

Protection first

Low Risk

Protection first

High Risk

Risk for intrinsic bioecological vulnerability
2.7 Tensions

- Sustainable development versus sustainable use
- What acceptable impact and reversibility within what timeframes?
- Perceptions of the state of the ecosystem
- Perception and tolerance of risk
- Distribution of risks, costs and benefits (Equity)
- Reluctance for common data systems & joint assessments?
- Development vs Environment primacy
- Modalities of integration (who controls?)
- Acceptable levels of impact
- Role of the States vs Role of the Market and Private Sector (in both streams)
- Etc.

Agreement on endpoint and general approaches is easier than on short term ones and specific pathways
2.8 Pathways

Without a better integration of assessment, decision and performance evaluation processes, both streams are likely to fail to achieve their main goals.

2.9 Evolutionary field

Purely utilitarian

Human rights; Social legitimacy; Failures

Ecosystem and Human well being

Resource degradation; Environmental ethics; Failures

Purely preservationist

Ecologically unsustainable

Ecologically unstable

Sustainable

Socially unstable

Socially unsustainable

MIN                              Protection                         MAX

MIN                                   Use                               MAX
2.10 Evolution

Utilitarian conservation

1850s

Untsustainable growth

Fisheries

WWII

Sustainable development

Biodiversity

1970s

Sustainable development

Aesthetic conservation

2012

Sustainable use

Unsustainable protection

MAX

MIN

Protection

Use

MIN

MAX
2.11 Modern convergence

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<td>Preservation</td>
<td>EA; MSP; MPAs</td>
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- ICD: Integrated Coastal Development
- SLA: Sustainable Local Authorities
- CCRF: Coastal Community Rights Foundation
- ICFM: Integrated Coastal Fisheries Management
- ICAM: Integrated Coastal Area Management
- MPAs: Marine Protected Areas
- EA: Environmental Assessment
- MSP: Marine Spatial Planning
- PPPs: Public Private Partnerships
- Biodiversity Sustainable use
2.12 Fishery governance trends

Overfishing is named

Pribilof conv.

London conf. overfishing

ICES

1st EEZ

TACs

UNCED, CBD

Licensing; Limited entry

ITQs; Fishing rights

Centralized
Top-down
CFM

Rights-based
RBFM

“Centralized”
SSFs Laissez-
faire

Shared
CBFM (SSF)

Biodiv. ABNJ

EAF

CCAMLR; SLAF; Traditional

UNCLOS adopted

CCRF; PAF; UNFSA

Relative importance

Fishery science

Colonization

Decolonization

2.13 Biodiversity conservation trend

Controversies on national parks; UNCHE; UNEP
IUCN
IUPN
WCS; WCED
UNCED
UNCED, CBD
WSSD; CBD EA
UNCLOS
MEA
IPBES

Traditional
Self-governance

Neo-populist
CBC

Neo-liberal
MBM

Fortress conservation

Colonization

Decolonization

1st MPAs
UNICPOLOS
EBSA; VME; ABNJ


WWI
WWII

Relative importance
Outline

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3.1 Convergence and coevolution

- **Convergence** is “forced” by external drivers imposing common direction of change
- **Coevolution** is an emergent property: directions are less certain
- **Convergence and coevolution co-exist; convergence may reduce functional distance enough to permit coevolution.**
- Coevolution increases with **interdependence** (e.g. VME-EBSA).
- Viable coevolution should have **net positive impact** on streams.

**Simard, Camilleri and Sbai (Ch 17):**

“Regional governance issues and differences between relevant organizations need to be resolved in order to guarantee a sound integrated approach to the sustainable use and management of living marine resources, and the conservation of biodiversity and marine ecosystems.”
3.2 Limitations of coevolution

- **There are limits to coevolution; a full merger would be costly and probably non-viable. Furthermore, pushing for too great a reduction in functional distance may be counter-productive, in creating a ‘monoculture’ of thinking.**

- It is more difficult to reduce functional distance when:
  - *Issues touch on core values of the streams*
  - *Decisions have real-world consequences at ground level*

- Agreement on global concepts are easier than pathways, targets.

- Decision that change status quo in distribution of resources, costs and opportunities are toughest (equity).

- Agreement at high conceptual level facilitates progress at implementation level but the latter show practical problems.
3.3 Misses and false alarms

- Biodiversity bears costs of misses (undue damage). Fishers bear the cost of false alarms (Undue costs).
- The asymmetric cost allocation leads to a bias in tolerance of the streams for the two types of errors.
- This asymmetry introduces a bias in response of the streams to risk.
- The reverse asymmetry exists in relation to socioeconomic risk.
- The accumulation of errors has long term costs to both streams.

It should be in the interest of both streams to jointly make the best assessment possible, balancing misses and false alarms, and costs to both streams.

In real life, both parties try to exploit uncertainty to their advantage.
3.4 Integration

Integration = f(Convergence, coevolution)

Degree of integration is a result of convergence and coevolution:

• Requires cross-scale processes & active consensus building
• May be fostered through opportunistic and strategic alliances
• Is improved by use of common data, tools and processes
• Is enhanced by cross sectoral frameworks (global to national)
• Stops when fundamentals are threatened (e.g. risk perception)

Hoydal, Johnson and Hoel (Ch 16):

“Interaction of fisheries & biodiversity conservation [between] the North East Atlantic Fisheries Commission, an RFMO, and the OSPAR Commission, a Regional Seas Convention [is an example of] agreed governance systems for both utilisation of marine resources and protection of biodiversity”.
3.5 Integrative instruments
Legal, institutional, procedural, methodological

**FISHERIES**
- Global Policy Development
- National policy development
- Management planning
  - Scoping
  - Integrated assessment
  - Options analysis - Advice
  - Decision
- Formulating action & rules
- Implementation, enforcement & monitoring

**Biodiversity**
- Global Policy Development
- National policy development
- Management planning
  - Scoping
  - Integrated assessment
  - Options analysis - Advice
  - Decision
- Formulating action & rules
- Implementation, enforcement & monitoring

**LOS, UNGA, FAO, CBD**
- National framework
- Institutional bridges
- Principles and norms
- Good governance
- Joint ranking of objectives

**EA, MSP**
- Integrated assessments, GIS; Multicriteria analysis
- Stakeholder analysis

**Common mechanism**
- Cost/benefit allocation
- Common MCS
- Data warehouse
- Info systems - Portals
- Common indicators
- Joint ranking of objectives
- EA, MSP
- Integrated assessments, GIS; Multicriteria analysis
- Stakeholder analysis

**Common indicators**
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**Joint ranking of objectives**
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**Common mechanism**
- Cost/benefit allocation
- Common MCS
- Data warehouse
- Info systems - Portals
- Common indicators
3.6 The 3 SD pillars and the win-win-win illusion

- ‘Win-win’ (e.g. “Blue Economy”) tends to ignore SD’s 3 pillars, and need for acceptable trade-offs (UNCED/Rio+20)
- ‘Win-win’ tends to hide trade-offs and distributional issues
- Need to deal explicitly with social component of Responsible Fisheries, Biodiversity Conservation, Market-based Approach.
- Fisheries and conservation must fit in broader goals: poverty alleviation, food security, equity / distribution (see Hersoug).
- Better but unlikely goal: ‘win-win-win’ solutions.
- Avoid most undesirable social outcomes (precautionary approach) especially for most vulnerable communities.
- Note that most ‘wins’ (or “success stories”) have been transient because sustainability is a complex dynamic process itself.
3.7 Governance streams complexity

- The 2-streams framework has provided a conceptual framework with assumptions to test. It allows one to understand better and rationalize what has happened with time, what is going on, how things might move and how to accelerate progress. There have been ‘emergent insights’ on governance dimensions and scales; frameworks structure and roles; policy-making processes; risk perceptions; and mechanisms of convergence and co-evolution.

- The streams metaphor may be oversimplified. Governance streams have self capacity to decide on where to go and how; they are not merely water driven downhill by gravity.

- A third stream? The ‘integrated management’ governance stream focuses not on fisheries or biodiversity conservation per se, but instead on a multi-sectoral governance perspective.
3.8 Governance streams: Quotes

Augustyn, Petersen, Shannon and Hamukuaya (Ch 19):
“At the national level, the institutional arrangements and levels of interaction between environmental and fisheries management agencies vary significantly. Bridging the gap between classical single-species approaches and broader ecosystem approaches necessitates respectful collaboration across and within multiple disciplines… increased focus on and strengthening of the human dimension and transdisciplinary approaches is also required.”

Shelley and van Rijn (Ch 28):
“In the US, the courts have played a bigger role integrating marine conservation considerations into fisheries management. In the EU arbitrage between fisheries management and conservation of marine resources is made by the legislator and the courts can only influence achievement of those objectives after rules are adopted.”
1. About the book
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Historic Day for Small Scale Fisheries
First ever international instrument dedicated to promoting and defending small scale fisheries adopted by 143 Member States of FAO’s Committee on Fisheries.

Rome, Italy, Tuesday 10 June. Today, meeting at the 31st Session of FAO’s Committee on Fisheries (COFI 31), COFI’s 143 Members States adopted the first international instrument dedicated to defending and promoting small scale fisheries.

(from ICSF press release)
4.1 FAO’s SSF Guidelines

Historic Day for Small Scale Fisheries
First ever international instrument dedicated to promoting and defending small scale fisheries adopted by 143 Member States of FAO’s Committee on Fisheries (COFI) on 10 June in Rome, Italy.

Today, meeting at the 31st Session of FAO’s Committee on Fisheries (COFI 31), COFI’s 143 Member States adopted the first international instrument dedicated to defending and promoting small scale fisheries.

(from ICSF press release)
4.2 Key Benefits of the SSF Guidelines

1. Uses best practices of modern fishery science and governance
2. Complements FAO Code of Conduct for Responsible Fisheries
3. Compatible with global commitments such as the CBD
4. Focus on long term sustainable use of fisheries resources
5. Ecosystem Approach to Fisheries, and integrated management
6. Good governance, and “responsible governance of tenure”
7. Locally-acceptable alternative livelihoods for sustainability.
22. Small-scale fisheries: importance, vulnerability and deficient knowledge. *J. Kolding, C. Béné and M. Bavinck*


25. ENGOs and SIDS: environmental interventions in small island developing states. *P. McConney, R. Pomeroy and Z. Khan*

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27. Fishers’ organizations: their role in decision-making for fisheries and conservation. *M. Makino, A.S. Cabanban, S. Jentoft*
Kolding, Bene and Bavinck (Ch 22):
“…many SSFs possess their own self-governance structures that show significant conservation value; these institutions should not only be taken for their face value – they can also be seen as ‘learning organizations’ that adapt to new circumstances”.

Christie, Campbell and Armada (Ch 23):
“engagement of resource managers as co-managers… balances local needs for employment and food with conservation goals …many tropical coastal communities are ‘natural integrators’ - they do not commonly separate their activities and concerns by ecosystem boundaries, they do not commonly dichotomize resource management and environmental stewardship. But this must be combined with integration across levels of governance”.
Sowman, Rajagopalan, Sharma and Sunde (Ch 24):
“[In both India and South Africa] failure to ensure a ‘bottom-up’ approach to the planning of spatially-based measures, whether primarily for fisheries management or conservation objectives, has undermined not only the policy objectives of such measures, but most importantly, the human rights and livelihoods of local communities, thereby compromising long-term sustainability.”

McConney, Pomeroy and Khan (Ch 25):
“Big ENGOs operating at very large geographic scales… tend to be more conservation oriented while SIDS NGOs and fisheries NGOs attempt to balance conservation with livelihood and development objectives. If environmental NGOs partner with fisheries NGOs there are likely to be mutual benefits to all and ultimately outcomes reflecting improved well-being.”
4.4 SSF-Related quotes (3)

Seijo and Salas (Ch 26):
“It seems essential that future governance of fisheries and the ecosystems that sustain them, undertakes joint training and capacity building of conservation officials, fishery managers, fishers, local scientists, and other stakeholders.”

Makino, Cabanban and Jentoft (Chapter 27):
“...the Philippines’ national economy is rapidly growing, and coastal areas are rapidly developed and polluted, so fishermen organizations represent the interest of coastal marine conservation in order to protect local resources. In Tokyo bay, where the coastal areas are heavily reclaimed, a local fishermen organization has participated in environmental restoration activities with other sectors, including environmental NGOs and local people.”
1. About the book
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5.1 In a nutshell

- Since WWII, the functional distance between streams has decreased
- Overarching policies have forced convergence, generating tensions
- Efforts to release tension and resolve conflicts have facilitated coevolution
- Marginal differences are ironed out but hard-core differences will be harder to resolve
- Good governance and market incentives are expected to facilitate further progress
## 5.2 Elements of similarity

<table>
<thead>
<tr>
<th>Common problems</th>
<th>Similar solutions</th>
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<td>Excessive harvest rates</td>
<td>Access agreements</td>
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<td>Sovereign rights</td>
<td>New accounting</td>
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<td>Common pool resources</td>
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<td>Transient equilibriums</td>
<td>Multiple scales governance links</td>
</tr>
<tr>
<td>Reduced predictability</td>
<td>Area-based integration</td>
</tr>
<tr>
<td>Low controllability</td>
<td>Communication, Education</td>
</tr>
<tr>
<td>Reduced resilience</td>
<td>Reduced consumption</td>
</tr>
<tr>
<td>Variability and change</td>
<td>Performance assessment</td>
</tr>
<tr>
<td>High costs &amp; Poor performance</td>
<td>Capacity-building</td>
</tr>
</tbody>
</table>

Kimbal 2001, MEA 2005
Outline

1. About the book
2. Historical developments
3. Thematic issues
4. Small-scale fisheries
5. Selected conclusions
6. Additional thoughts
The ENGO network

Adapted from Yan Giron. 2014. Les trusts caritatifs anglo-saxons comme instruments de pouvoir dans les espaces maritimes. https://www.youtube.com/watch?v=ZPFdYiejLh8
21\textsuperscript{th} Century integration challenge

- Mining
- Navigation
- Oil & Gas
- Pollution
- Coastal dev.
- Cables
- Eolian
THANK YOU FOR YOUR ATTENTION