

Legal & Policy Tools to Adapt Biodiversity Management to Climate Change





The Need for Climate Change Adaptation

- Climate change is already having widespread impacts on biodiversity
- By 2050, the projected impacts of climate change may drive 30% of all species to extinction
- These impacts on biodiversity also pose threats to human livelihoods, communities, and economic development
- Growing recognition that managing climate risk is necessary for sustainable development



Distinguishing Climate Adaptation from Climate Mitigation

Climate Mitigation: reducing greenhouse gas emissions to help prevent climate change

Climate Adaptation: coping with climate change impacts that cannot be avoided

Examples: raising coastal sea walls; introducing plants that are more resistant to changes in temperature

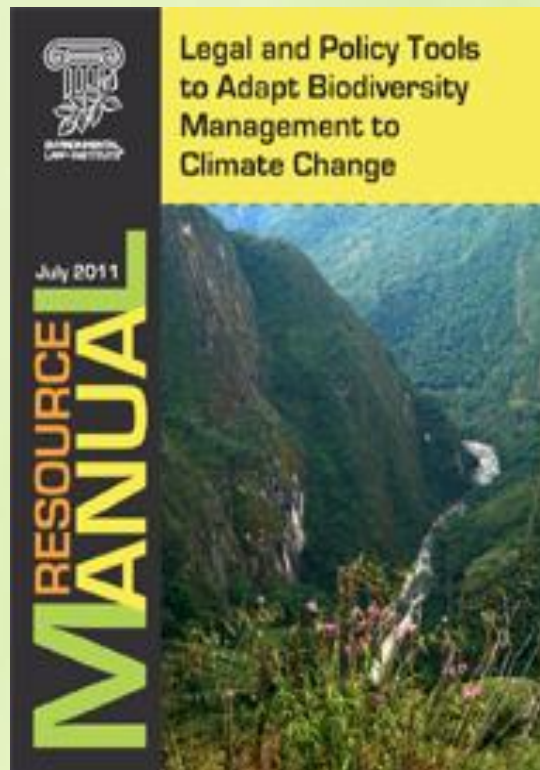


Distinguishing Adaptation from Adaptive Management

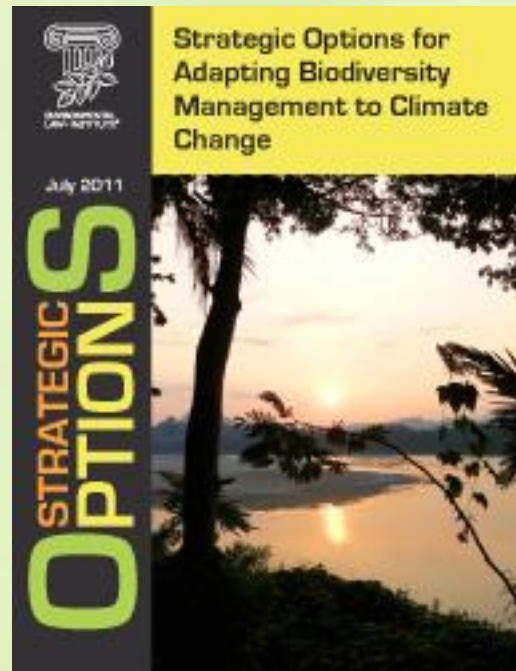
Adaptation: Actions taken to reduce the vulnerability of natural and human systems against actual or expected climate change effects

Adaptive management: an active, iterative process of decision-making in the face of uncertainty. Uses monitoring, flexibility, and information-gathering to improve decision-making over time.

Project Output 1: Resource Manual on Legal & Policy Tools to Adapt Biodiversity Management to Climate Change



Project Output 2: Strategic Options Paper



Resource Manual

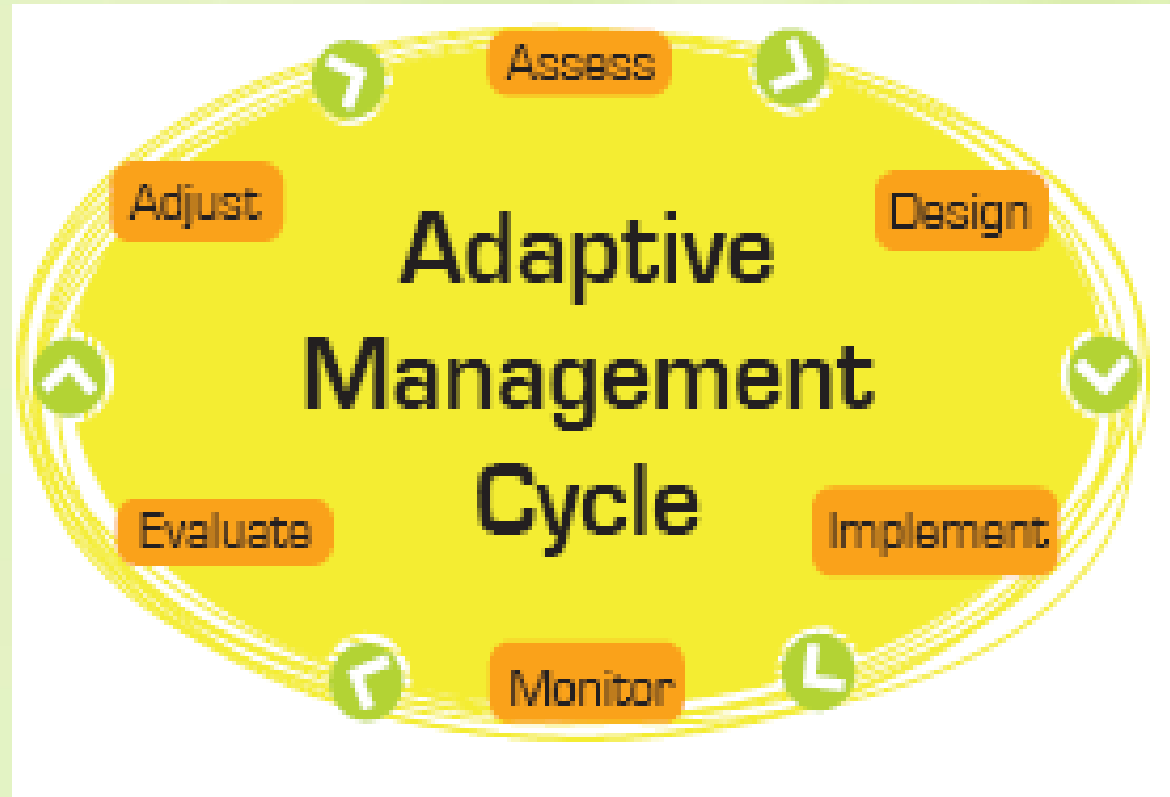
Part 1: The key elements of adaptive, ecosystem-based management

Part 2: Introduction of legal, regulatory, and planning tools for adapting to climate change.

Part 3: Applying these tools to four areas of natural resource management:

- Permitting, licensing, and concessions
- Community-based natural resource management
- Protected areas on public lands and waters
- Private lands conservation.

1. The key elements of adaptive, ecosystem-based management





Six-Step Process for Adaptive Resource Management

1. **Assess** existing situation, information, stakeholders, and collective objectives
2. **Design** and adopt measures (e.g. law, policy, permit, or program) which are necessarily provisional
3. **Implement** management as an experiment to test theories and learn best practices
4. **Monitor** key trends, compliance, and effectiveness of measures
5. **Evaluate** effectiveness through periodic reviews using new information
6. **Adjust** strategies and continue the cycle; reassess overall situation periodically

Part 2: Legal and Regulatory Options for Adaptive Resource Management






Adaptive Legal Frameworks v. Adaptive Management Plans

Legal and policy framework should include **fixed requirements**:

- mandatory reporting requirements
- audits
- inspections
- compliance & enforcement mechanisms

In contrast, resource management plans under this framework must be **flexible**.

Goal: use the legal framework to enable flexible, adaptive management to take place.



Six Functional Areas for Adaptive Legal Frameworks

- 1. Vision and Planning**
- 2. Information Management**
- 3. Periodic Review**
- 4. Coordination of Policies and Activities**
- 5. Compliance and enforcement**
- 6. Enforceable Rights and Duties**



1. Vision & Planning

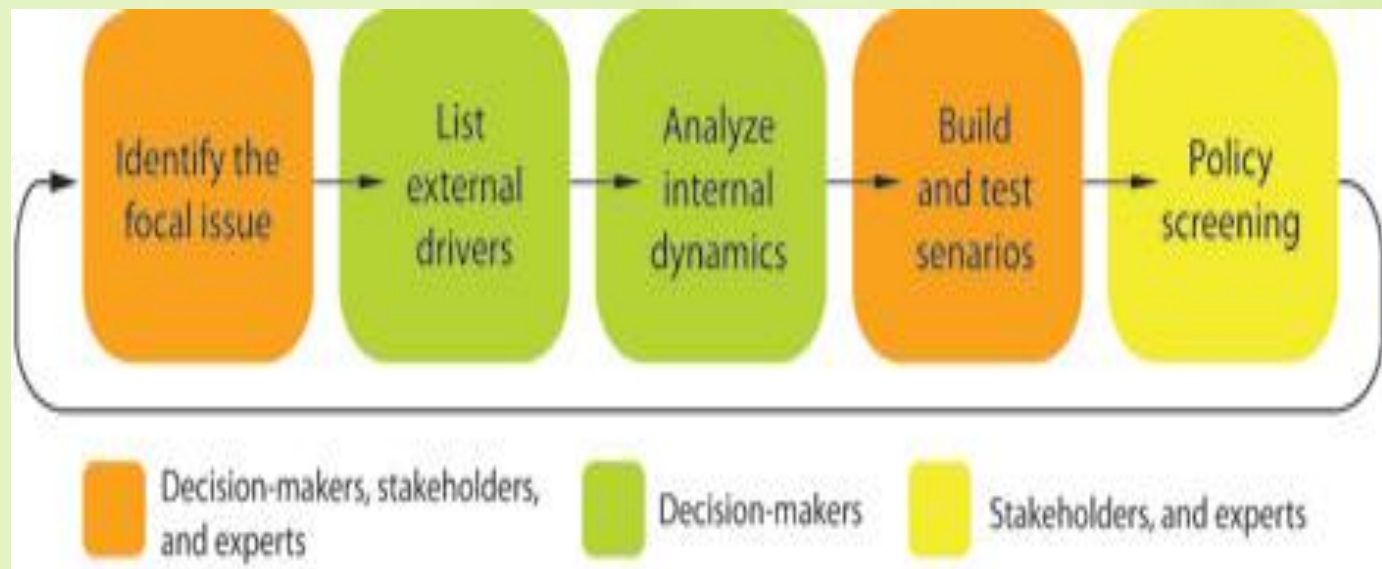
What is it?

- a process of creating scenarios, setting goals, and testing policies to allow for uncertainty

3 main steps

- Creating scenarios**
- Evaluate current & proposed policies**
- Define core conservation objectives**

Steps & Participants in the Scenario Planning Process





2. Information Management

What is it?

- **legal requirements for monitoring & using data**

3 elements for establishing monitoring approaches

- **Establish baselines & identify information gaps**
- **Choose indicators**
- **Decide who does the monitoring**

3. Periodic Review

What is it?

- Requirements for effective reviews & adjustments

2 steps

1. Building continuous decision-making processes and institutions
2. Reviews set at periodic intervals or by triggering events



4. Coordination of Policies & Activities

What is it?

- Integrating adaptation efforts across institutions

2 types of relationships to focus on

1) within government

2) across different economic sectors



5. Compliance & Enforcement

What is it?

- **Mechanisms to balance flexibility with accountability**

2 elements

- Setting and enforcing climate-resilient management objectives
- Insulating flexibility mechanisms from misuse

6. Enforceable Rights & Duties



What is this?

-Substantive and procedural rights and the role of courts in climate adaptation



Examples of Procedural Rights

- **Access to Information** about government agency activities regarding biodiversity and climate change
- **Public Participation** in decisions concerning resource management (e.g. environmental clearance and permitting)
- **Citizen Enforcement Power** to help enforce environmental laws



Part 3: Implementing Adaptive Rules and Policies in Four Areas of Natural Resource Management

- 1. Permitting, licensing, and concessions for natural resource access and extraction**
- 2. Community-based natural resource management**
- 3. Protected areas on public lands and waters**
- 4. Private lands conservation**

1. Permitting, Licensing, and Concessions for Natural Resource Access and Extraction



Five considerations

- Establishing the legal entitlement: a privilege or a right?
- Authority to evaluate and adjust permits: **reopener clauses**
- **Flexibility** to allow permit holders to adapt to climate change
- Including **stakeholder input** in permitting processes
- Ensuring compliance with monitoring & reporting requirements

2. Community-Based Natural Resource Management





CBNRM: 3 Considerations

- **Promoting community awareness about climate change**
- **Using local knowledge of climate and adaptation strategies**
- **Policy concerns surrounding community-based management**

3. Protected Areas on Public Lands and Waters





Five Areas of Focus

- 1. Building climate resilience into the design of protected areas**
- 2. Improving connectivity between protected areas**
- 3. Aligning community roles and benefit sharing with adaptation**
- 4. Creating transboundary and international protected area networks**
- 5. Translocating species: legal and policy considerations**

4. Private Lands Conservation





Elements of Private Lands Conservation

- **Private conservation easements**
- **Public law tools to support adaptation and conservation on private lands**
- **Mechanisms for adapting private conservation areas to climate change**
- **Rolling easements**