Linkage-Based International Environmental Law: Regulating Through Convergent Programs

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8th IUCN Academy of Environmental Law Colloquium
14 September 2010
Ghent, Belgium

Overview of Presentation

I. Natural Linkages & Environmental Meta-Issues

II. Overcoming Issue Fragmentation in International Environmental Law: Building Convergent Programs

I.

Natural Linkages & Environmental Meta-Issues

Linkages and Convergent Regulation

- Many global environmental concerns are inter-related. Addressing them in tandem can increase efficacy & efficiency.

- Programs that address multiple issues in tandem can be described as "convergent."

- Example used:
  - Legal approaches to addressing biodiversity & human well-being through climate regime programs.

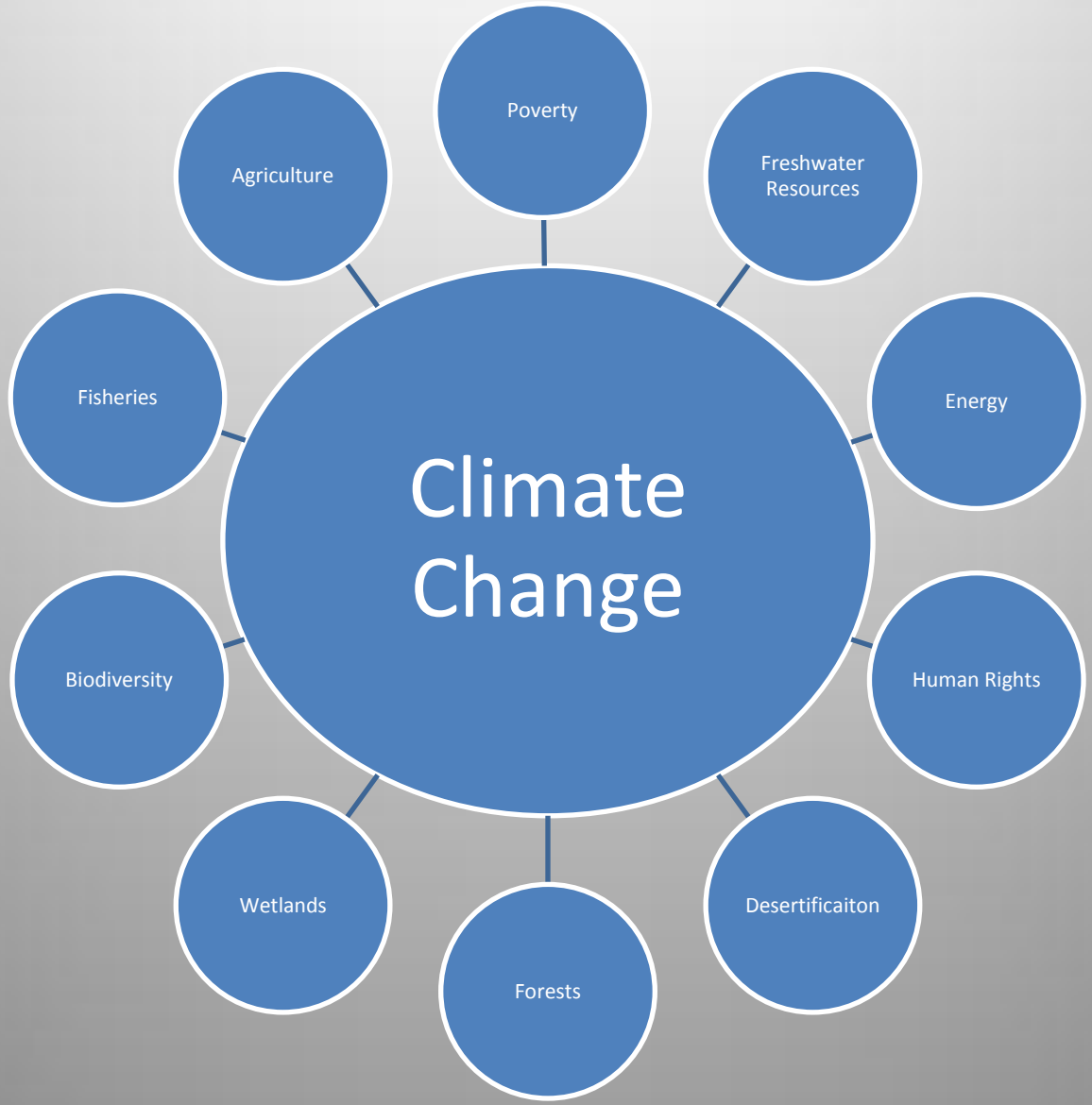
Issue Linkages

- Certain global environmental issues can be seen as “meta-issues” because of their linkage to many other issues, allowing broad-based regulation and evaluation.

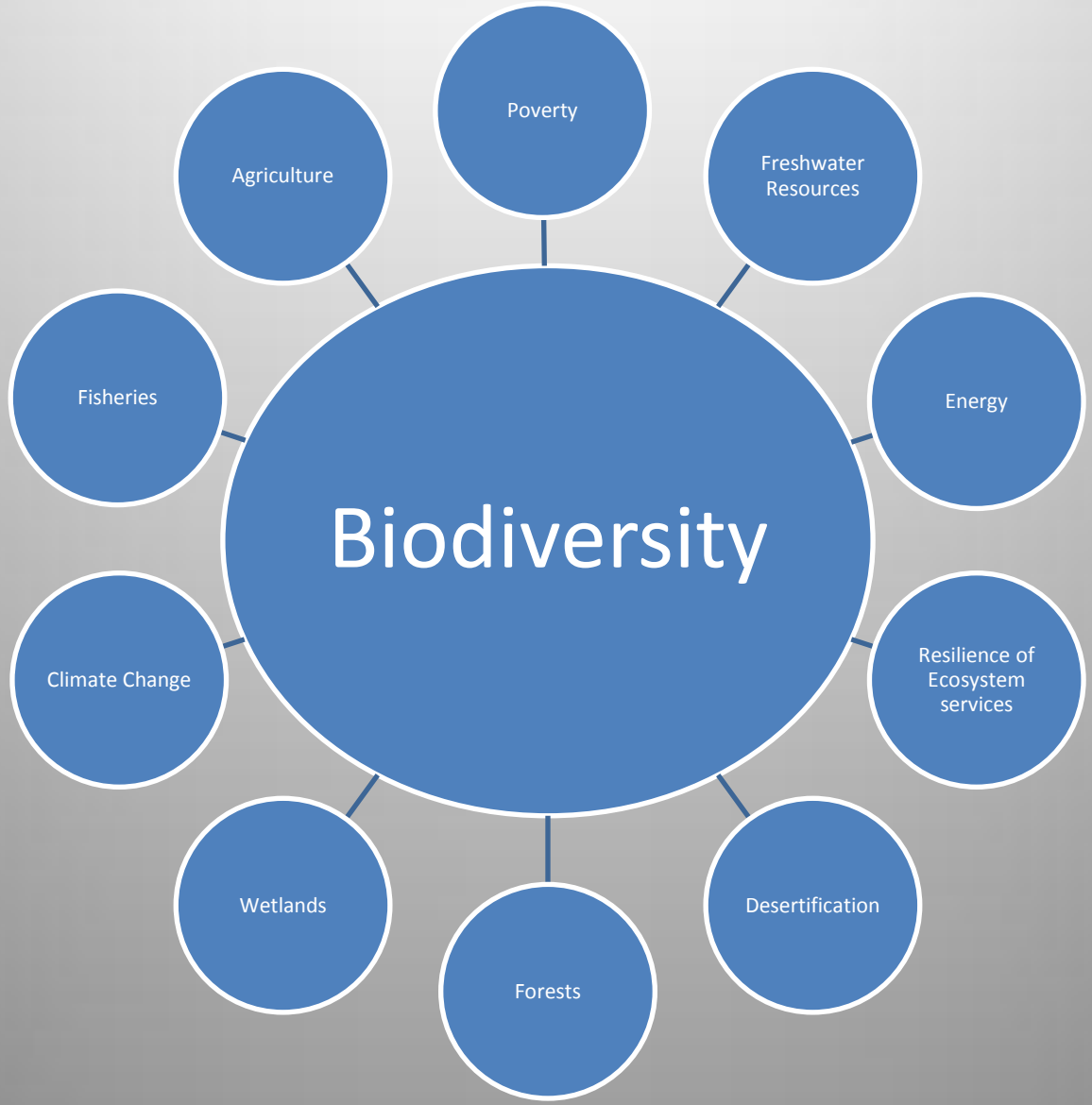
- Meta-Issues:
  - Climate Change
  - Biodiversity
  - Human Well-Being

- These meta-issues can serve as an umbrella over most concerns governed by international environmental law.
  - Most other environmental concerns are primarily sectoral in scope:
    - Affect only certain types of activities or regions
    - Can be separated from other sectoral concerns in many instances

Climate Change as a Meta-Issue



Biodiversity as a Meta-Issue



Human Well-Being as a Meta-Issue

Key Considerations for Climate Regime

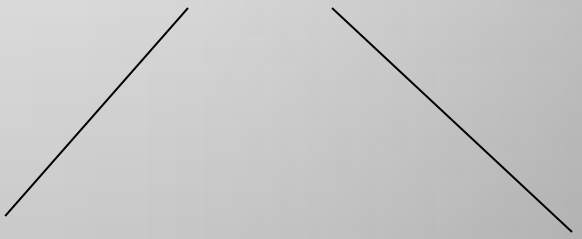
Climate Change

Mitigation

e.g.,

- Energy
- Forestry & land use
- Feedback loops

Adaptation



Natural Systems

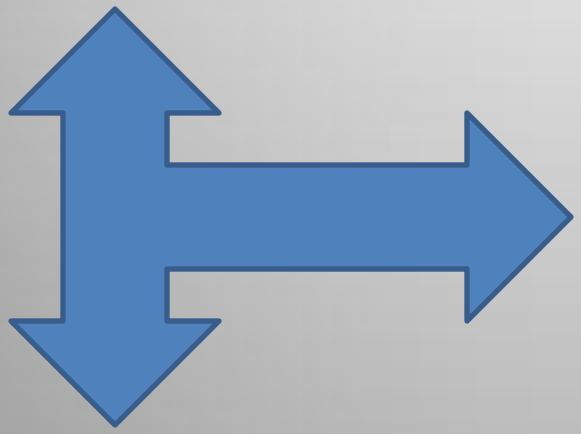
Biodiversity
& Ecosystem Services

Human Systems

Human Well-Being

Value of Convergent Mechanisms for the Climate Regime: Enhanced Long-term Adaptation & Mitigation

Ecologically Sustainable Activities

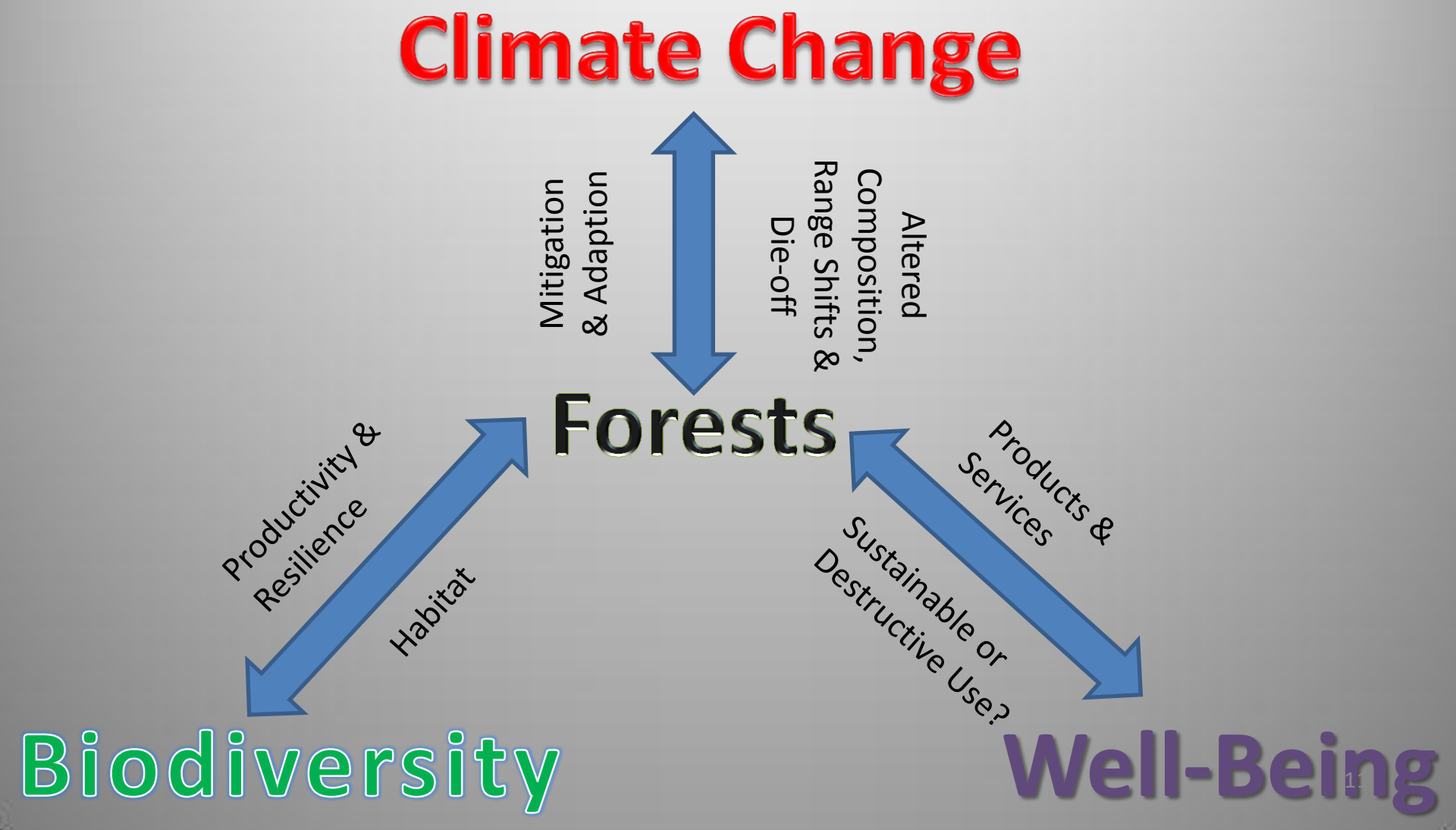


Socioeconomic Sustainability:
- Governance Improvements
- Sustainable Livelihoods

Enhanced Resilience of Natural & Human Systems

Long-term Benefits for Adaptation & Mitigation

Sectoral Application: Meta-issue Linkages to Forests



Example: Relationship of Meta-Issues to Forests

- Climate Change
  - Deforestation & Degradation produce significant emissions (17%)
  - Forest ecosystems store vast amounts of carbon, and can provide a sink
- Biodiversity
  - Tropical forests are among the most biodiverse terrestrial ecosystems
  - 16 of 25 biodiversity hotspots are tropical forests
  - Biodiversity underlies the scope and resilience of ecosystem services
- Human Well-Being
  - 60 million indigenous forest-dependant people; 350 million subsistence users
    - Rely on forests for food, fuel, other basic needs
  - Forests as key ecosystem service providers:
    - Hydrological cycle & flood regulation
    - Soil conservation
    - Climate regulation (regional and global)
  - Forests as key economic resource
    - 1 billion people depend on agro-forestry

Example: Relationship of Meta-Issues to Agriculture

- Climate Change:
  - Impacts on productivity, including increased desertification
  - Impacts on water supply (and demand)
  - Increased concerns regarding food security
  - Changes in suitability of crops, growing seasons, pollinator activity, etc.
  - Soils provide extensive carbon storage and potential carbon sinks
  - Agricultural techniques affect GHG emissions
  - Energy use
- Biodiversity:
  - Supports ecosystem services underlying successful agriculture
  - Habitat impacts (preservation or destruction)
  - Pollution impacts: pesticide, herbicides, fertilizers
  - Role in desertification (depending on technique)
- Well-Being:
  - Hunger, nutrition, & food security
  - Livelihoods

Example: Relationship of Meta-Issues to Coastal Ecosystems

- Climate Change:
  - Potential carbon sinks (e.g., seagrass “forests”)
  - Acidification
  - Sea level rise
- Biodiversity
  - Important habitats, multiple threats
  - Impacts of climate change & of mitigation/adaptation activities
- Well-Being:
  - Fisheries as major food source
  - Economic value (fisheries, tourism, etc.)
  - Additional ecosystem services (e.g., reduce storm impacts)

II.

Overcoming Issue Fragmentation in International Environmental Law: Building Convergent Programs

Issue Fragmentation

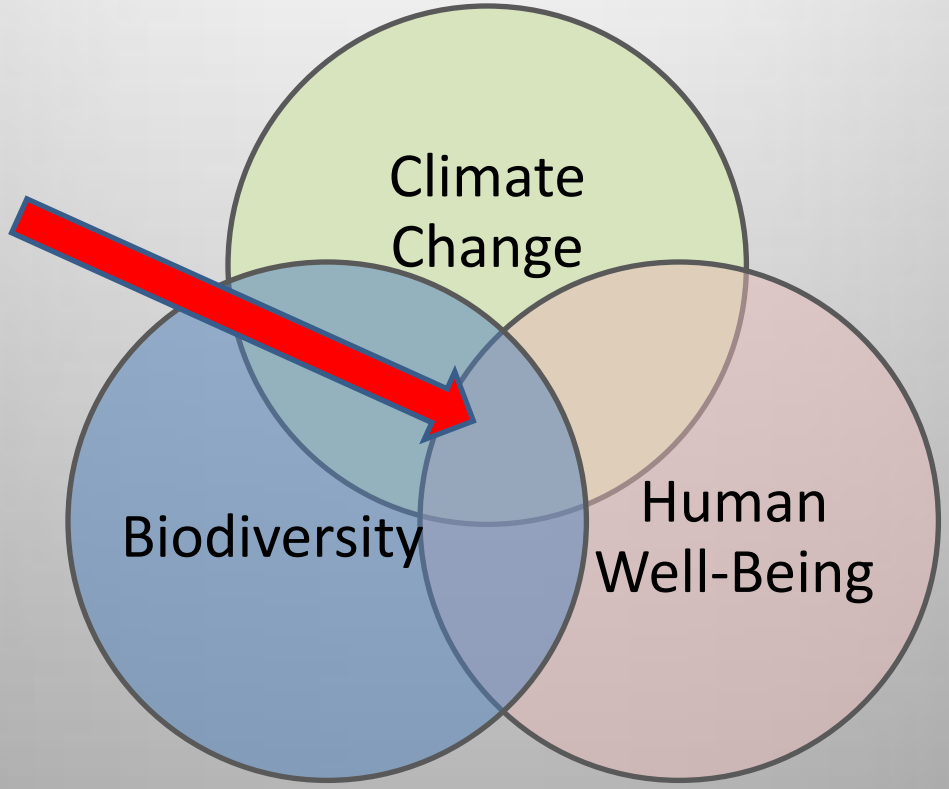
- Current international environmental law is fragmented.
    - Regimes created when sufficient momentum builds for a particular issue.
- Regimes address single issue areas with limited cross-over.
- The lack of regulation at the linkages constitutes a fundamental missed opportunity for global regulatory design.

Fragmentation

- Many existing (single-issue) regimes are chronically ineffective at changing incentives and behaviors.
  - Forests: many agreements & forums, minimal progress
  - CBD: no effective preservation mechanism
- Minimal communication between existing single-issue regimes.
  - Some attention to linkages, but few if any mechanisms to address
  - No formal convergent programs
- Can we design better regulation by targeting linkages between multiple issues?

Targeting Regulation at the Linkages

Area of Overlapping Meta-issues (Ideal target of regulation)



Directing regulation at the linkage of meta-issues can be more effective and efficient than the current fragmented system of single-issue regulation.

Creating Incentives: Climate Regime Programs

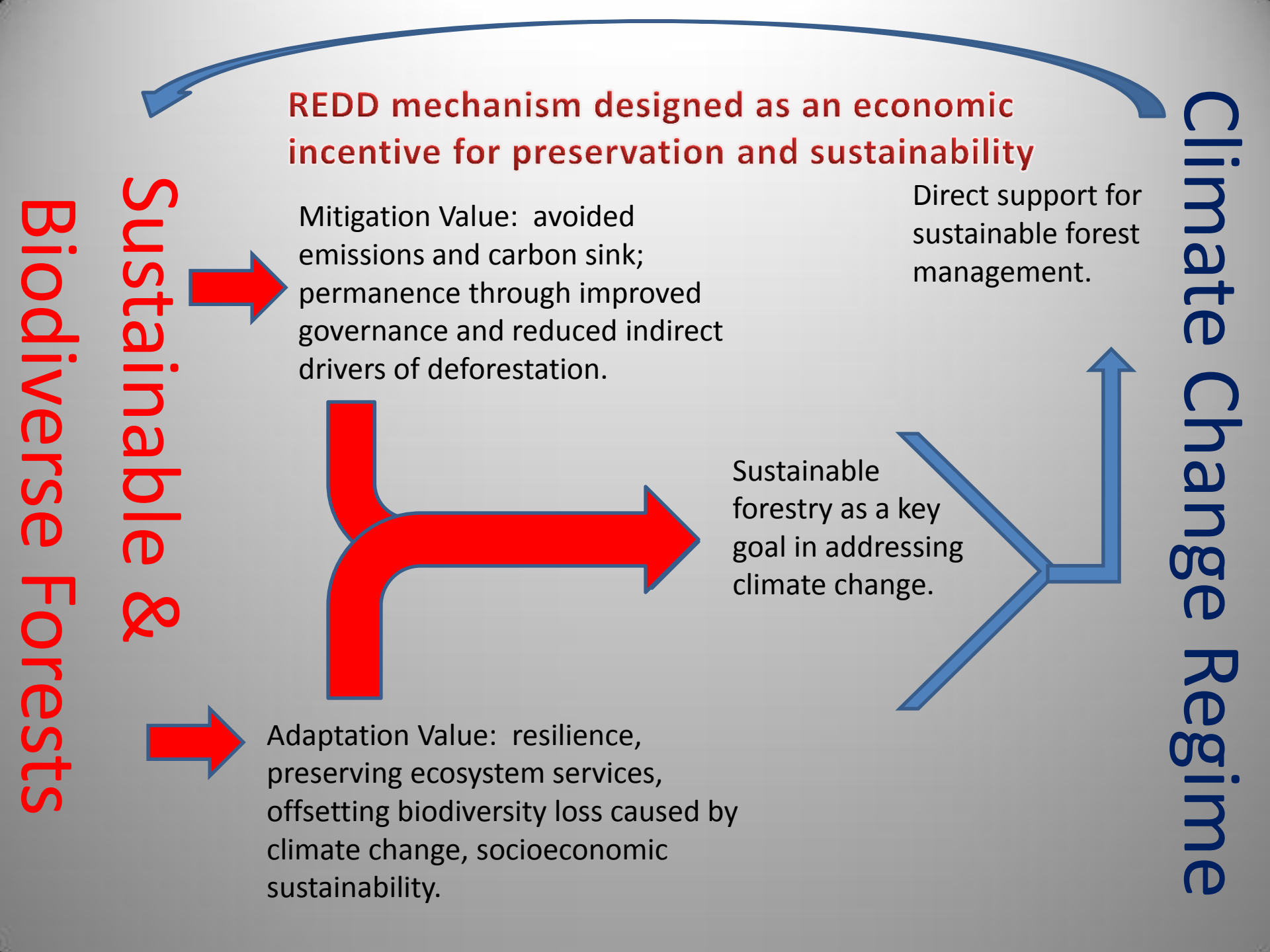
- Carbon markets under a climate regime can provide a major source of financing for convergent projects.

- Convergent projects must go beyond carbon, providing adaptation-related benefits that are relevant and appropriate for climate regime consideration and financial or technological support.

- Climate change as opportunity: adaptation-related regulation can be an impetus for better regulation of many global environmental issues (e.g., biodiversity).

Building Convergent Programs

- Target the Linkages
  - Develop sector-specific mechanisms that regulate holistically
- Develop Economic Incentives Based on Relationship of Issues
  - Sustainable and biodiversity-sensitive projects will have climate change related benefits
  - We can create payments schemes based on multiple factors related to climate
- Measure Value & Success Through a Holistic Matrix Based on Meta-Issues

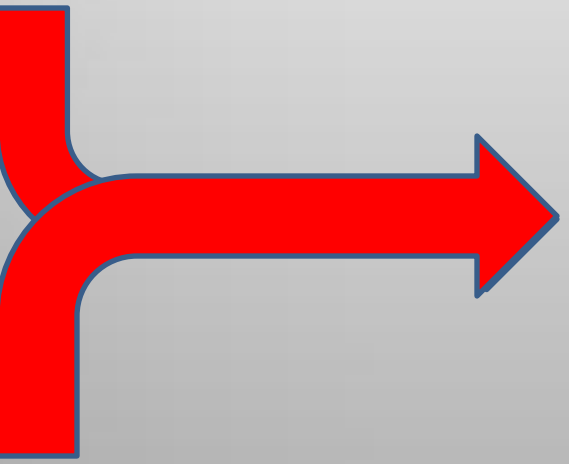

REDD mechanism designed as an economic incentive for preservation and sustainability
Sustainable & Biodiverse Forests
Climate Change Regime
Mitigation Value: avoided emissions and carbon sink; permanence through improved governance and reduced indirect drivers of deforestation.
Direct support for sustainable forest management.
Sustainable forestry as a key goal in addressing climate change.
Adaptation Value: resilience, preserving ecosystem services, offsetting biodiversity loss caused by climate change, socioeconomic sustainability.

Sustainable Agricultural Practices

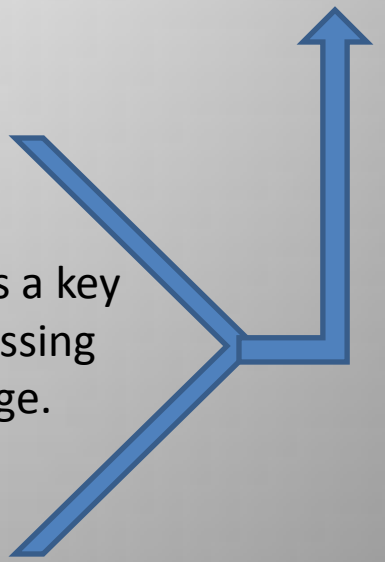
Mechanism to create economic incentive for sustainable agriculture

Mitigation Value: carbon storage and sink; potential to avoid emissions.

Adaptation Value: resilience to climate impacts, preservation of ecosystem services.

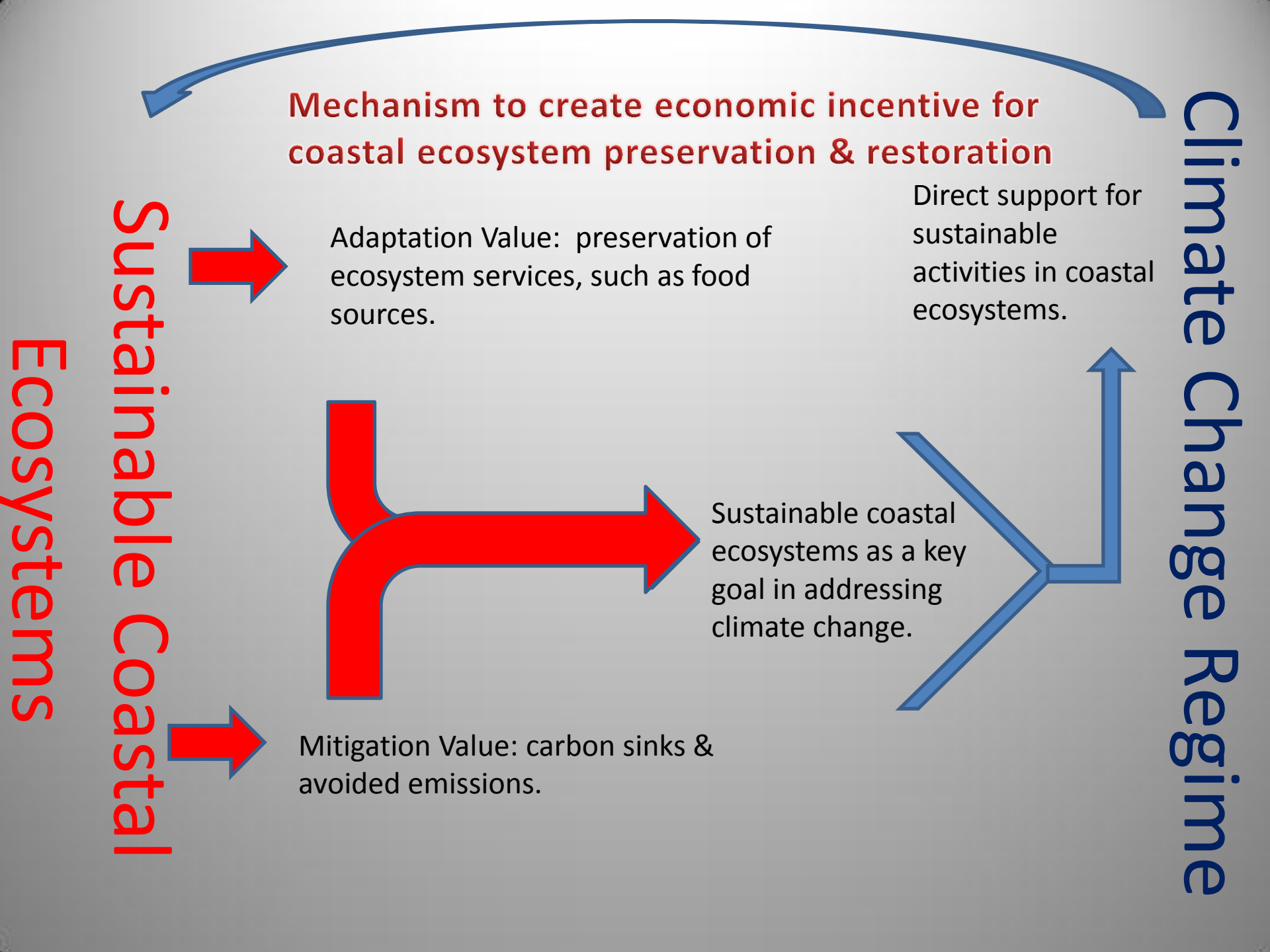


Sustainable agriculture as a key goal in addressing climate change.



Direct support for sustainable agriculture.

Climate Change Regime


Mechanism to create economic incentive for coastal ecosystem preservation & restoration
Climate Change Regime
Sustainable Coastal Ecosystems
Adaptation Value: preservation of ecosystem services, such as food sources.
Direct support for sustainable activities in coastal ecosystems.
Sustainable coastal ecosystems as a key goal in addressing climate change.
Mitigation Value: carbon sinks & avoided emissions.

Creating Support for Convergence: Financing Mechanisms

- Financing options:
  - Market-based (direct payments for carbon credits)
  - Market-linked (tax on transfers)
  - Fund-Based (pooling resources to global public goods)

- Provide a mix of private-market & public funding:
  - Private markets: mitigation benefits
  - Public funding: adaptation benefits (including biodiversity and human well-being)

Measuring Value & Success: A Matrix

Meta-Issues for Evaluation

Impact Assessment

	Climate Change	Biodiversity	Human Well-Being	Cumulative Assessment
Beneficial Impacts				
Negative Impacts				
Net Impact				Key determinate of public funding.

Allocating Finance

- Primarily market funding for mitigation
- Public funding for adaptation (biodiversity & well-being):
  - Use cumulative net impact assessment to determine the value of the project
  - Base amount of public funding on this value
- This approach will incentivize convergent programs with holistic benefits across the three meta-issues.

Bridges between existing conventions

- Along with programs developed within the climate regime, linkages between existing regimes should be strengthened.
- Examples of regimes with potential linkages:
  - UN Convention on the Law of the Sea
  - UN Convention to Combat Desertification
  - Convention on Biological Diversity
  - UN Forum on Forests
- These other regimes can lend expertise in developing & assessing convergent programs.
- They can also provide resources to enhance public funding available to valuable convergent programs.

Conclusions

- Opportunities exist to create truly convergent global environmental regulation.
  - Momentum to address climate change, and the scope of its impacts, creates opportunities to transform global environmental regulation.

- To increase efficacy and efficiency, climate regime programs (and other environmental mechanisms) should concentrate on regulating at the linkage of climate change, biodiversity, and human well-being.

Thank You!

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