Mainstreaming Biodiversity An overview



Jamison Ervin, UNDP Senior Advisor

We know that mainstreaming is important...



...and we know that we should do it...

Aichi Target #2

 "By 2020...biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes...

Article 6b:

 "Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs and policies."



Today's objectives

Each participant will:

- Be able to clearly define biodiversity mainstreaming
- Identify and share at least one effective example of mainstreaming from his/her country
- Develop a preliminary outline for the NBSAP chapter on mainstreaming
- Identify and share strategies to overcome challenges and seize opportunities in biodiversity mainstreaming



Definition of Biodiversity Mainstreaming "Integrating biodiversity into sectoral plans and policies using a variety of methods and approaches"

Mainstreaming Biodiversity – J. Ervin, UNDP

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Defining biodiversity mainstreaming

Integrating biodiversity...



Integrating the components of biodiversity in order to achieve specific biodiversity goals....

...into sectoral plans and policies...



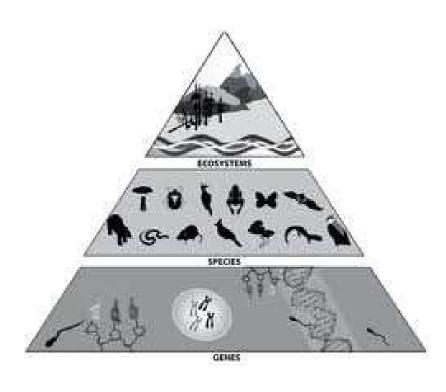
...into the plans, policies and practices of natural resource sectors, and economic/social development sectors at all levels...

...using a variety of methods



...through approaches that rely on changes in policies and plans, on economic instruments and on education, among other methods.

Identifying specific components of biodiversity....



- Genetic diversity
- Species and their habitats
- Populations
- Ecological processes, functions
- Landscapes, ecosystems
- Ecosystem goods and services

...and identifying specific goals of biodiversity use and conservation...



- Minimize or mitigate threats
- Restore, improve or maintain ecological integrity
- Improve protection status
- Ensure ecological resilience and adaptation
- Maintain ecosystem services

...and integrate these into natural resource sectors



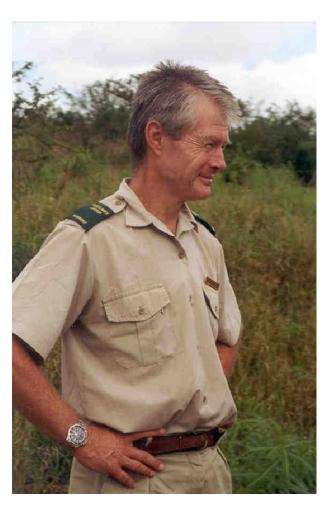
- Agriculture
- Forestry
- Fisheries, marine
- Freshwater, rivers
- Grazing, grassland
- Wildlife management

...and into economic and social development sectors



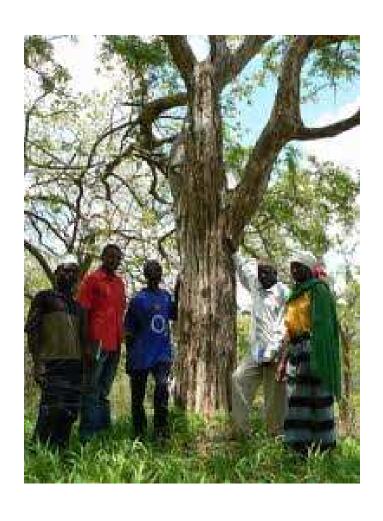
- Transportation
- Poverty alleviation
- Health
- Tourism, recreation
- Energy
- Climate adaptation
- Private businesses
- Food and water security

...using a variety of approaches, such as by creating or modifying policies and plans...



- Reform or create policies, plans, laws
- Create protected areas, buffer zones, corridors
- Modify management plans and practices
- Incorporate into strategic environmental assessments (SEAs)
- Incorporate into spatial and landuse planning

...and/or by using economic instruments, education, incentives, partnerships



- Public-private partnerships
- Market-based certification
- Voluntary best practices
- Economic valuation
- Payments for ecosystem services
- Communication, education
- Biodiversity offsets



1. Mainstreaming biodiversity into private game reserve management in South Africa



Biodiversity aspect: Improve habitat connectivity for wide-ranging species

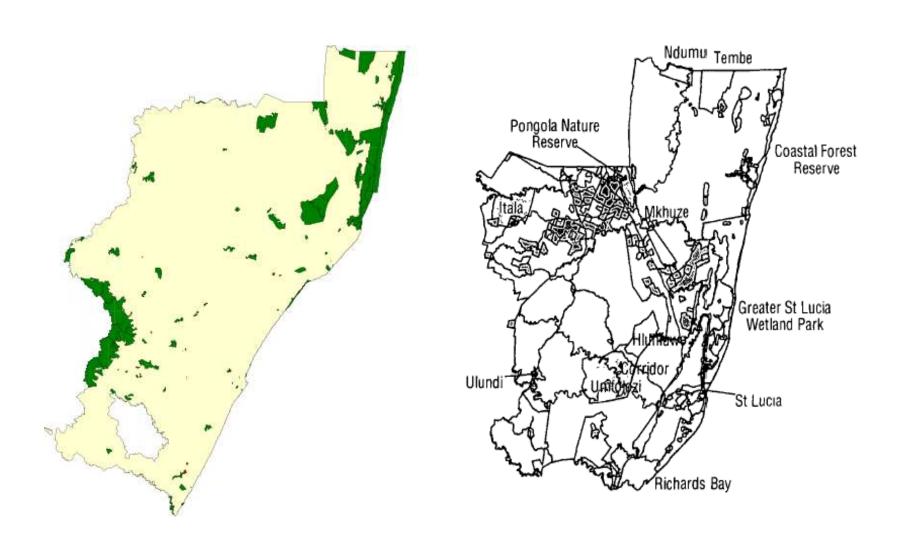




MAJOR OPPORTUNITY: Landscape linkages between formal protected areas and private game ranches



Game reserves provide potential landscape connectivity in KZN Province

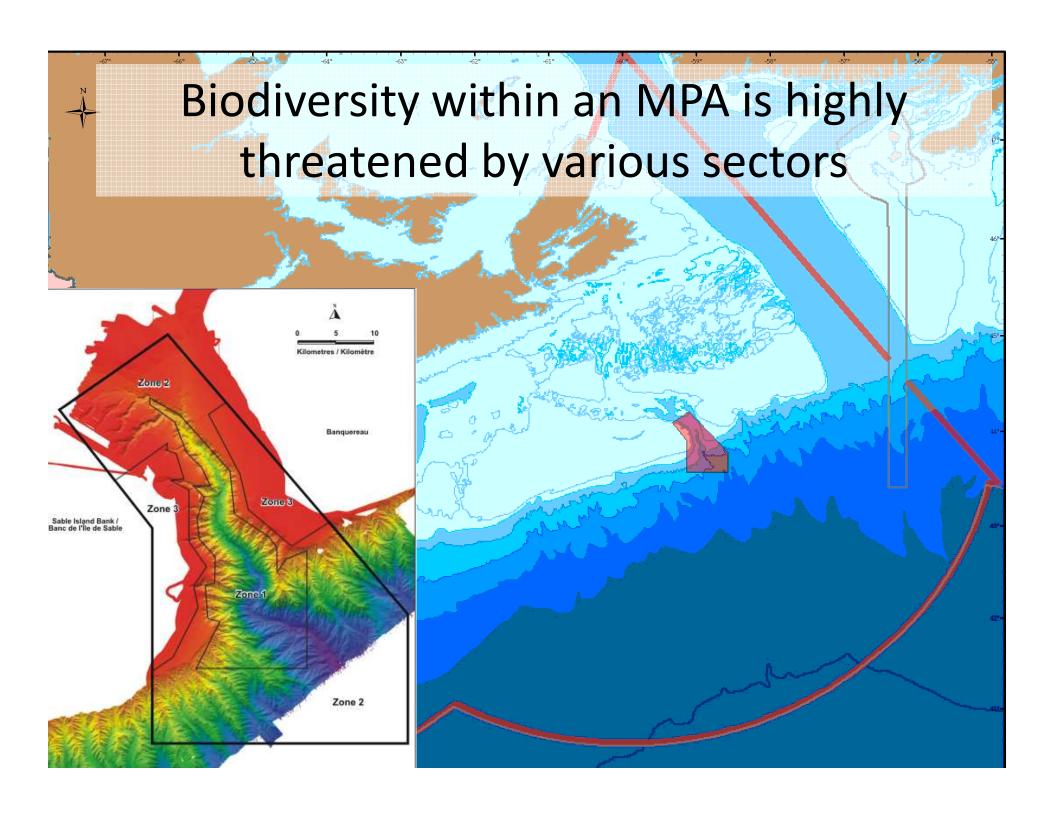


Approach to biodiversity mainstreaming: public-private partnership

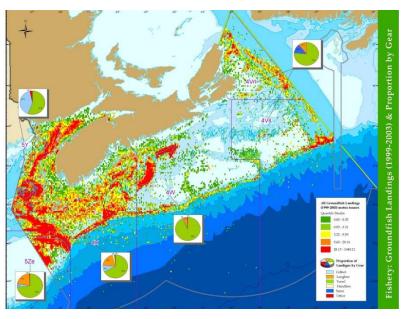
- KZN Wildlife helped develop a game ranchers' association
- KZN Wildlife helped create a legal framework to support private ownership of land and wildlife
- KZN Wildlife provided technical support and financial incentives to private game reserve owners
- KZN helped to remove physical barriers between reserves
- Game reserve owners used income from tourism to help fund protected areas

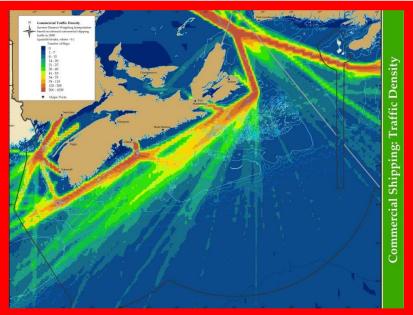
2. Mainstreaming biodiversity into shipping policies and practices

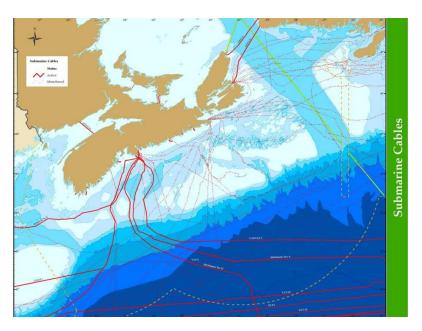


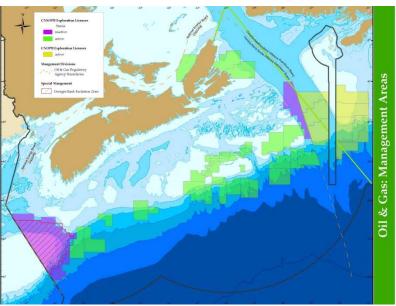


Including by transportation and shipping



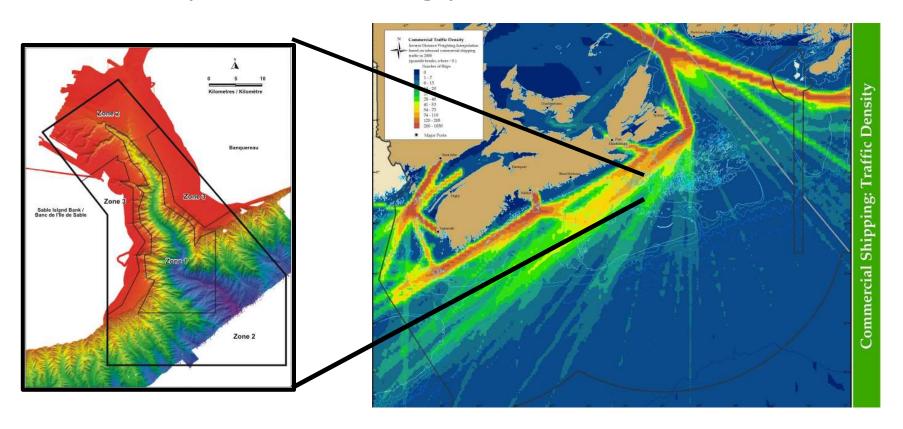






Mainstream by reforming policies

Transportation: a) created new regulations on ballast water exchange; b) developed Coast Guard guidance on MPA avoidance, mammals, discharges; c) developed monitoring protocol



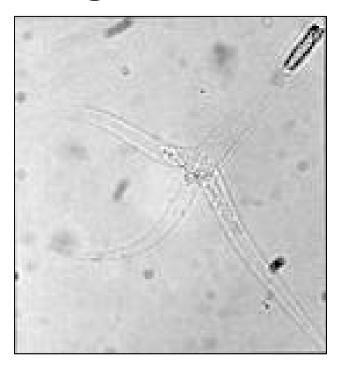
3. Mainstreaming biodiversity into sport fishing and recreation policies



Biodiversity issue: Protect the health and genetic diversity of native fish populations

Sector: Recreational fisheries were stocking streams with invasive alien species, causing disease, displacement and genetic erosion





Approach: Legal and Policy Reform



Fish Health Management Policy

September 12, 2003 Oregon Department of Fish and Wildlife



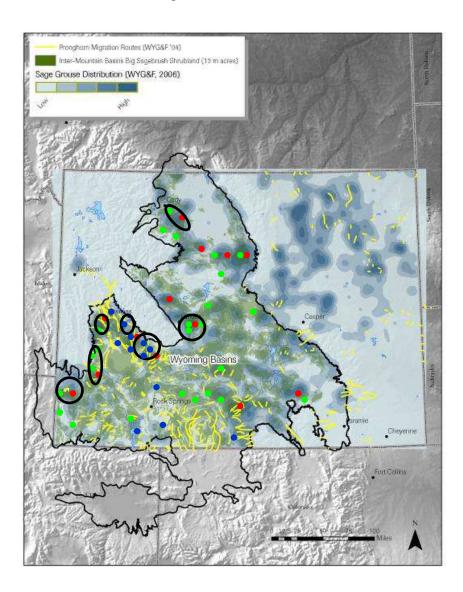
Laws and policies to:

- Monitor all released fish for disease
- Conduct annual health exams of brood stock
- Require licensing of hatcheries
- Restrict timing and placement of fish stock

4. Mainstreaming biodiversity into oil and gas drilling



Biodiversity issue: Protecting habitat for key species, including sage grouse





Sector: Oil and gas (Jonah Field gas exploration, BP)



Approach: Biodiversity Offsets

- An environmental NGO shared information with BP on areas of high biodiversity value
- BP developed a voluntary biodiversity offset program and paired with the NGO to measure and mitigate impacts on biodiversity
- BP incorporated connectivity and biodiversity issues into environmental assessments and standard operating procedures
- BP contributed \$25 million in mitigation funding, protecting 80,000 new acres of habitat



Improving habitat connectivity by creating public-private partnerships with game reserve owners



Safeguarding key marine habitat by reforming policies for ballast discharge of cargo container ships







Mitigating the impacts of gas drilling on sage grouse habitat by creating biodiversity offsets in order to establish new protected areas

Mainstreaming Biodiversity Identifying examples and case studies



Jamison Ervin, UNDP Senior Advisor

Defining biodiversity mainstreaming

Integrating biodiversity...



Integrating the components of biodiversity in order to achieve specific biodiversity goals....

...into sectoral plans and policies...



...into the plans, policies and practices of natural resource sectors, and economic/social development sectors at all levels...

...using a variety of methods



...through approaches that rely on changes in policies and plans, on economic instruments and on education, among other methods.



Improving habitat connectivity by creating public-private partnerships with game reserve owners

Safeguarding key marine habitat by reforming policies for ballast discharge of cargo container ships

Protecting native fish species from invasive alien rainbow trout by reforming policies on fish stocking for recreational fisheries

Mitigating the impacts of gas drilling on sage grouse habitat by creating biodiversity offsets in order to establish new protected areas



Safeguarding sensitive headwaters from logging by establishing water fees for downstream users and investing in protection

Protecting medicinal plant populations as a source for local medicine by including these plants in management plans

Maintaining water
quantity in times of
drought by including
water recharge areas in
climate adaptation plans

Minimizing the impacts of tourism on key biodiversity within protected areas by developing a national eco tourism plan

MAINSTREAMING BIODIVERSITY - HANDOUT 1 (OVERVIEW)

DEFINITION OF MAINSTREAMING: Integrating biodiversity into sectoral plans and policies, through a variety of approaches

Integrating biodiversity	
Biodiversity goal	Components of
	biodiversity
Minimize or mitigate threats Restore, improve or maintain ecological integrity	 Genetic diversity Species and species habitats
Improve protection status Ensure ecological resilience and adaptation	 Populations Ecological processes, functions Landscapes Ecosystems

into sectoral plans and policies	
Natural resource	Development plans,
sectoral plans	cross-sectoral plans
 Agriculture 	 Transportation
 Forestry 	 Poverty alleviation
 Fisheries 	Health
 Freshwater 	 Tourism and
management	recreation
 Grazing, 	 Energy
grassland	 Climate adaptation
management	 Private businesses
 Wildlife 	 Food and water
management	security plans

through a variety of approaches		
Policy and planning	Economic approaches and	
	education	
 Policy and legal reform 	 Public-private 	
 Protected areas, 	partnerships	
corridors, buffer zones	 Certification 	
 Management 	 Voluntary best 	
practices and policies	practices	
Strategic	 Economic valuation 	
environmental	 Payment for ecosystem 	
assessments (SEA/EIA)	services	
 Spatial planning and 	 Communication, 	
land use planning	education, technical	
	support	
	 Biodiversity offsets 	

Think of an example of effective biodiversity mainstreaming in your country.

- 1. What specific aspect of biodiversity was integrated?
- 2. What sectoral plans and strategies were involved?
- 3. What approaches to mainstreaming were used?
- Briefly describe why this is an effective example of biodiversity mainstreaming
- 5. Is there a website for more information?

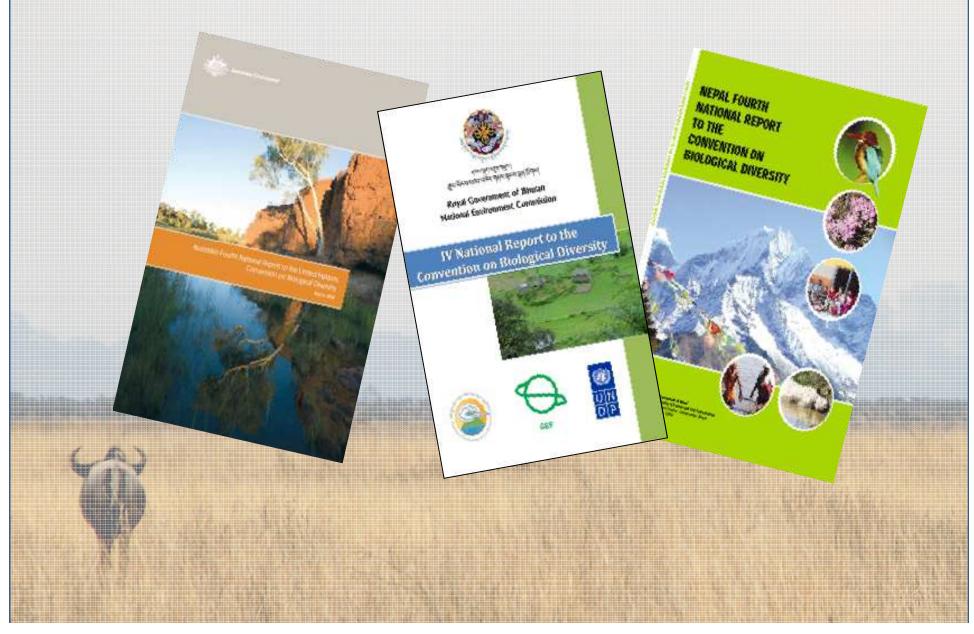
(Don't forget to write your name and country)

Mainstreaming Biodiversity Developing an NBSAP chapter on mainstreaming



Jamison Ervin, UNDP Senior Advisor

Mainstreaming Biodiversity and NBSAPs





Mainstreaming Biodiversity and NBSAPs

NBSAPs

Plans and strategies for **protected** areas

Plans and strategies for climate resilience and adaptation

Plans and strategies for positive and negative **incentives**

Plans and strategies for mainstreaming biodiversity



Mainstreaming Biodiversity and NBSAPs

Mainstreaming chapter of NBSAPs

Identification of critical biodiversity components and goals for mainstreaming

Identification of critical natural resource and development sectors

Identification of the most feasible methods

Specific strategies and action plans

Identification of challenges and opportunities

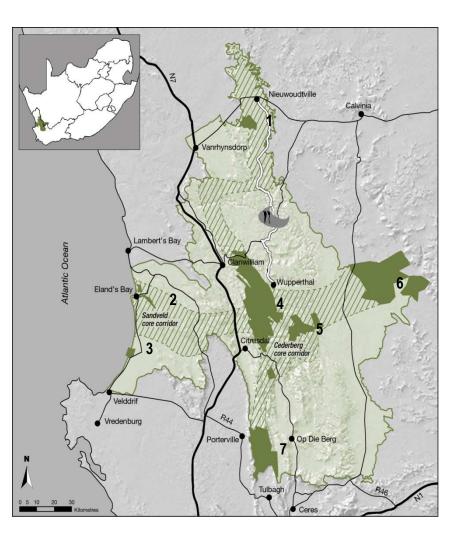
1. Most important aspects of biodiversity to be mainstreamed





- Cases where biodiversity is particularly threatened
- Cases where ecological restoration is most critical
- Cases where climate resilience and adaptation are most important

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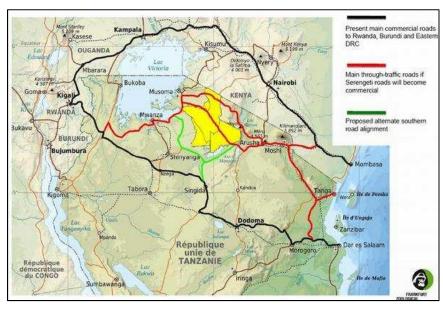
2. Most important aspects sectors in which biodiversity should be mainstreamed



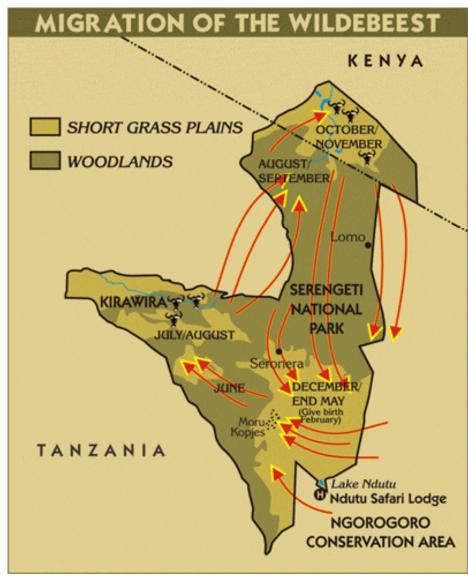


- Sectors causing the most damage to biodiversity
- Sectors with the most potential to conserve biodiversity in the future
- Sectors with the strongest linkages to national agendas

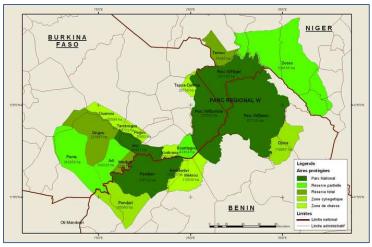
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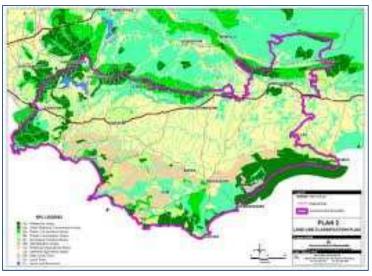






3. Most important approaches to mainstreaming biodiversity





- Approaches with a track record of success in the country or region
- Approaches that are feasible given the political context
- Approaches that are consistent with the national context

3. Most important approaches to mainstreaming biodiversity



Airport departure tax in Belize funds protected area system

- Approaches with a track record of success in the country or region
- Approaches that are feasible given the political context
- Approaches that are consistent with the national context

MAINSTREAMING BIODIVERSITY - HANDOUT 2 (WRITING AN NBSAP CHAPTER ON BIODIVERSITY MAINSTREAMING

ELEMENTS OF AN NBSAP CHAPTER ON BIODIVERSITY MAINSTREAMING	EXAMPLES
 Identification of the most important aspects of biodiversity to 	
mainstream and integrate	
 a) Cases where biodiversity is particularly threatened 	Mangrove forests are being destroyed
b) Cases where ecological restoration is most critical	 Degraded forests important for maintaining water security
c) Cases where climate resilience and adaptation are most important	 Altered grasslands impacting large-scale migrations
2. Identification of the most important sectors in which to mainstream	
biodiversity	
 a) Sectors causing the most damage to biodiversity 	 Agriculture, transportation, mining
b) Sectors with the most potential to conserve biodiversity	Tourism
c) Sectors with the strongest linkages to the national agenda • Food security, rural livelihoods,	
3. Identification of the most important mainstreaming approaches	
a) Approaches with a track record of success in the country or region	 Payment for ecosystem services
b) Approaches that are feasible given political context	Education and communication
c) Approaches that are consistent with national context	Public-private partnerships where much of land is private
4 Identification of the most important strategies and action plans for	
mainstreaming biodiversity	

IDENTIFICATION OF STRATEGIES AND ACTION PLANS

STRATEGY	ACTION PLANS
 Minimize threats to key marine habitats by working with the transportation agency to develop 	 Revise shipping ballast policies to prohibit ballast discharge near or within marine protected areas Educate key shipping stakeholders about impacts of ballast discharge (invasive species, contamination)
policies related to ballast discharge.	Revise monitoring protocol to include monitoring of ballast discharge
 Incorporate wild crop relatives into food security plans through land use planning, protected areas and buffer zones. 	 Identify areas important for wild crop relatives, focusing on areas of high density, intact populations, genetic diversity, and focusing on most important food crops Ensure areas important for wild crop relatives are included in core protection zones within protected areas, and managed to maintain genetic diversity and minimize threats Work with local communities to incorporate these areas into buffer zones and corridors Develop 'wild food' tourism program, in partnership with local restaurants, to help pay for protection

What are the 3 most important elements of biodiversity to mainstream into sectoral plans and policies? Why?

	resity to mainst earning sectoral plans and policies: why:	
Biodiversity element or aspect	Rationale	
1.		
2.		
3.		
What are the 3 most important sectors within whi	ch biodiversity should be mainstreamed? Why?	
Natural resource or development sector	Rationale	
1.		
2.		
3.		
What are the 3 most important/feasible approaches for mainstreaming biodiversity in your country? Why?		
Mainstreaming approach	Rationale	
1.		
2.		
3.		

• Fill in the template, including rationale

What are the 3 most important elements of biodiversity to mainstream into sectoral plans and policies? Why?

Biodiversity element or aspect	Rationale
^{1.} Protect mangroves	They are among the most threatened ecosystem, and are
2.	critical for maintaining fisheries, an important food source.
3.	They are threatened by conversion to shrimp farms

↓ What are the 3 most important sectors within which biodiversity should be mainstreamed? Why?

Natural resource or development sector	Rationale
Shrimp farming	Shrimp farming has already converted most of the coastal
2.	mangroves, and threatens to convert remaining mangroves
3.	within the next 10 years

What are the 3 most important/feasible approaches for mainstreaming biodiversity in your country? Why?

Mainstreaming approach	Rationale
Policies – create coastal zone management plan, new coastal reserves	The country has a public commitment to increase marine protected areas, and there is a strong history of integrated terrestrial management

Fill in the template, including rationale

4. Developing strategies and action plans



BIODIVERSITY: Mangrove forests



SECTOR: Shrimp farming industry



APPROACH: Coastal zone planning, protected areas

STRATEGY: Safeguard the integrity of mangrove forests and critical fish nursery habitats by working with shrimp farmers and land use planners to develop an integrated coastal zone plan and new PAs

4. Developing strategies and action plans



BIODIVERSITY: Marine habitats important for fisheries (because they are threatened by ship ballast)



SECTOR: Marine transportation and shipping because they are causing the most damage to marine habitats



APPROACH: Policy reform (because there is an opportunity to revise transportation policies and good marine governance)

STRATEGY: Minimize threats to marine habitats by working with the transportation agency to develop policies related to ballast discharge

Identify at least one strategy for mainstreaming biodiversity, and list at least 2-3 action plans

Mainstreaming strategy	Action plans	
1.	•	
	•	
	•	
2.	•	
	•	
	•	

- Develop at least one strategy for mainstreaming biodiversity, based on the previous exercise
- Identify at least 2-3 specific action plans

STRATEGY	ACTION PLANS
Minimize threats to marine habitats by working with the transportation agency to develop policies related to ballast discharge	

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Protect the genetic diversity of wild crop relatives into food security plans through land use planning, protected areas and buffer zones	 Identify areas important for wild crop relatives Include areas within core protection zones Work with local communities to incorporate these areas into buffer zones and corridors Develop 'wild tourism' program to help pay for protection

Mainstreaming Biodiversity Implementation challenges and opportunities



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Mainstreaming Biodiversity and NBSAPs

Mainstreaming chapter of NBSAPs

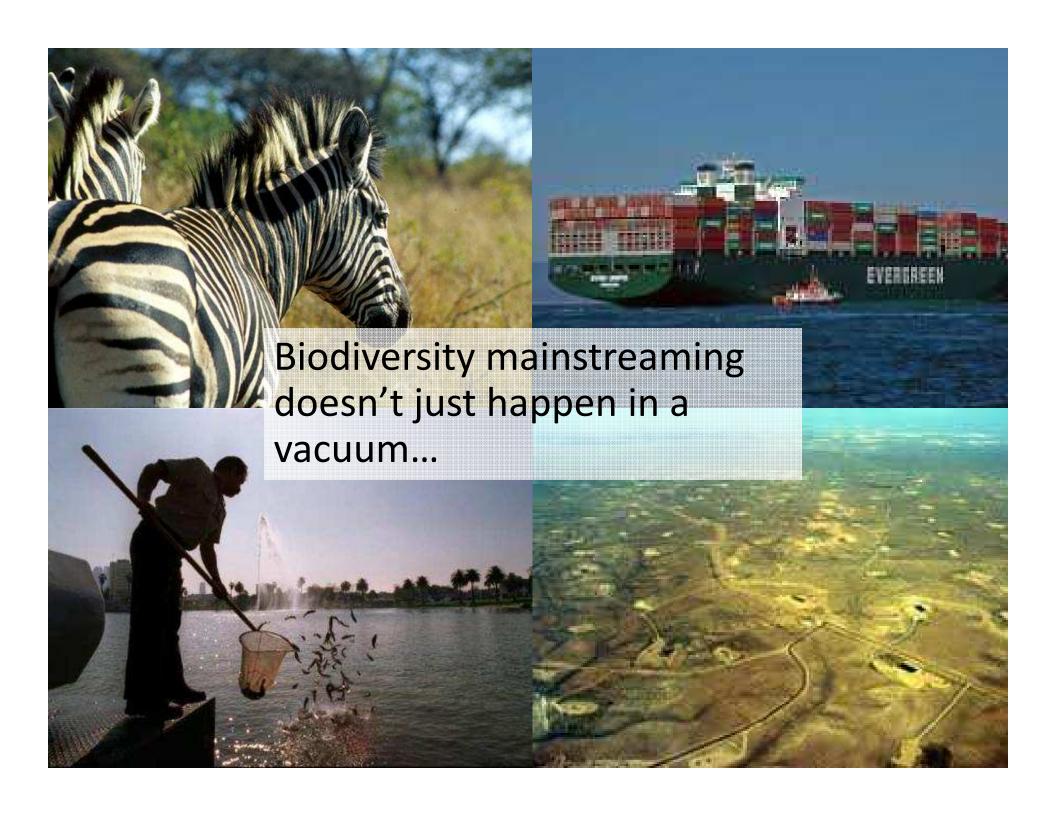
Identification of critical biodiversity components and goals for mainstreaming

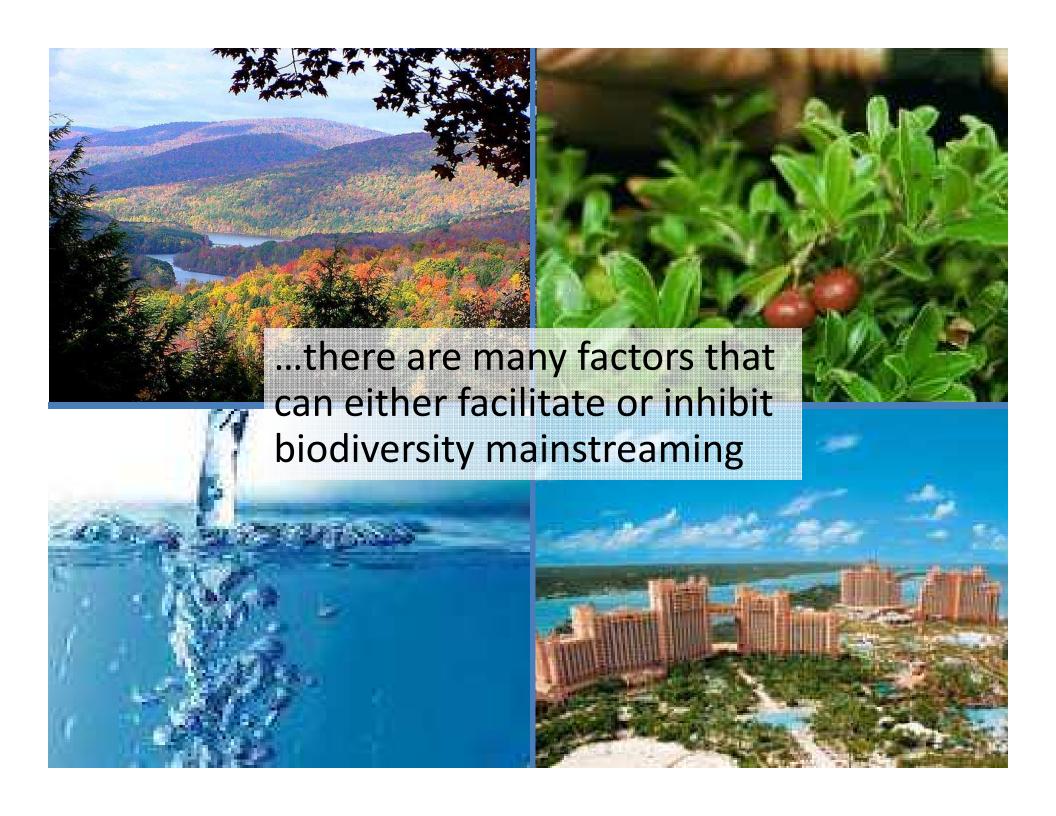
Identification of critical natural resource and development sectors

Identification of the most feasible methods

Specific strategies and action plans

Identification of challenges and opportunities





- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 A government lacks political will to mainstream biodiversity; does not place biodiversity high on agenda

OPPORTUNITY

- A new government is elected
- A politician commits to ambitious goals at a high-level meeting

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

Powerful interests (e.g., mining)
do not acknowledge the value
of biodiversity, and lobby
against it

OPPORTUNITY

 Powerful interests (e.g., tourism) recognize and promote the value of biodiversity to their industry

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 The public is unaware of biodiversity issues, and biodiversity is not covered by local media

OPPORTUNITY

 The public understands key biodiversity issues, and is supportive of biodiversity conservation

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 Corruption within government agencies and law enforcement prevents effective decisions about biodiversity

OPPORTUNITY

 The government routinely upholds biodiversity-related laws and policies, and is transparent about the costs and tradeoffs of decisions

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 There is competition between sectors (e.g., mining vs. forestry vs. biodiversity), and little or no coordination

OPPORTUNITY

 There is an effective multisectoral working group in place, and sectors coordinate information well

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 There are no effective means of engaging the public in key biodiversity decisions

OPPORTUNITY

 Public decision-making procedures and mechanisms are developed and fully used

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 The government and public are unaware of the true value of biodiversity to their societal goals and agenda

OPPORTUNITY

 There is clear and compelling information about the value of biodiversity, and the government is aware of these values

- Political will, leadership
- Lobbying by interest groups
- Public media, perception
- Good governance
- Inter-sectoral coordination
- Public participation
- Information about values
- Utilization of GEF funding

CHALLENGE

 The government does not strategically and fully take advantage of GEF and other funding

OPPORTUNITY

 All funding proposals to GEF and other sources are fully aligned with national priorities for biodiversity and mainstreaming

EXERCISE 3 – Challenge and opportunities

ENABLING FACTOR	CHALLENGES	OPPORTUNITIES
Political will, political leadership	 A government lacks political will to integrate and mainstream biodiversity, and does not consider biodiversity high on its agenda 	 A new government is elected, and they want to implement a biodiversity agenda A high-level official announces ambitious goals at influential meetings (national, regional, global)
Financial and economic lobbying by powerful interest groups	 Powerful interests (e.g., mining) do not acknowledge the importance of biodiversity, and lobby against it 	 Powerful interests (e.g., tourism) recognize and promote the value of biodiversity to their industry
Public media, communication, perception and attitudes	 The public is not aware of biodiversity issues, and biodiversity issues are not routinely covered in national media 	 The public mostly understands, and is supportive of, the importance of biodiversity conservation and mainstreaming
Principles of good governance (rule of law, transparency)	 Corruption within government agencies and/or economic sectors prevents effective decisions from being made regarding safeguarding and integrating biodiversity 	 Biodiversity-related laws (e.g., environmental impact assessments) are routinely upheld The government clearly identifies tradeoffs between biodiversity and development
Inter-sectoral coordination, steering group, communication	 There is competition between government agencies, and poor coordination and communication 	 There is an effective inter-sectoral advisory group that coordinates the development of the NBSAP
Public participation in decision making	 There are no effective means of engaging the public in decision making 	 Public decision making procedures and mechanisms are well established
Information about biodiversity values, threats	 The government and public are unaware of the true value of biodiversity to most or all sectors 	 There is clear and compelling information about the value of biodiversity to a wide range of social and economic sectors
Utilization of GEF and other funding	 Governments do not take full advantage of GEF funding, and their proposals are not aligned with national priorities for mainstreaming 	 Governments understand the GEF funding process, and align their proposals to take advantage of funding for mainstreaming

EXERCISE 3 – Challenge and opportunities

Name: Country:

ENABLING FACTOR	CHALLENGES	OPPORTUNITIES
Political will, political leadership		
Financial and economic lobbying by powerful interest groups		
Public media, communication, perception and attitudes		
Principles of good governance (rule of law, transparency)		
Inter-sectoral coordination, steering group, communication		
Public participation in decision making		
Information about biodiversity values, threats		
Utilization of GEF and other funding		

 Identify whether each factor is a challenge or opportunity in your country (or both), and explain why

Developing strategies to address challenges and take advantage of opportunities

CHALLENGE --

 A government does not appreciate the value of biodiversity, and places biodiversity low on the government agenda

STRATEGY --

 Conduct a biodiversity valuation study, focusing on the issues most important to the government's agenda (e.g. job creation, food security)

Developing strategies to address challenges and take advantage of opportunities

OPPORTUNITY --

 There is effective inter-sectoral coordination, and a multisectoral advisory committee

STRATEGY --

 Involve key sectoral leaders in the process of developing biodiversity mainstreaming strategies

EXERCISE 3 – Challenge and opportunities

l	Most critical challenges to mainstreaming:	Strategies to address these challenges:
	1.	
	2.	
ľ	3.	
٠		
	Most critical opportunities for mainstreaming:	Strategies to take advantage of these opportunities:
	Most critical opportunities for mainstreaming: 1.	Strategies to take advantage of these opportunities:
		Strategies to take advantage of these opportunities:

- Identify the most critical challenges for mainstreaming biodiversity, and some strategies to overcome these challenges
- Identify the most critical opportunities for mainstreaming biodiversity, and some strategies to take advantage of these opportunities