

IPBESをふまえた野生生物管理の課題と社会対応 Challenges and Social Responses to Wildlife Management Taking into Account IPBES Initiatives



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Outline

1. IPBES: Current Status

- Four Key Functions
- Development of a New Conceptual Framework: how to treat ecosystem disservice? → Thematic assessment?

2. Challenges and Social Responses Required to Wildlife Management

- Human wildlife conflict as ‘ecosystem disservices’
- Unpacking human-wildlife conflict and their consequences
- Challenges and social responses

Summary

1. Intergovernmental Platform for Biodiversity and Ecosystem Services (IPBES): Current Status

Scientific Background:

- Many ecosystem services related assessments
- Fragmented, multiple frameworks and methodologies
- Scientific credibility varies
- Regularize the Millennium Ecosystem Assessment (MA) which focused on ecosystem services and human well-being

Institutional Background:

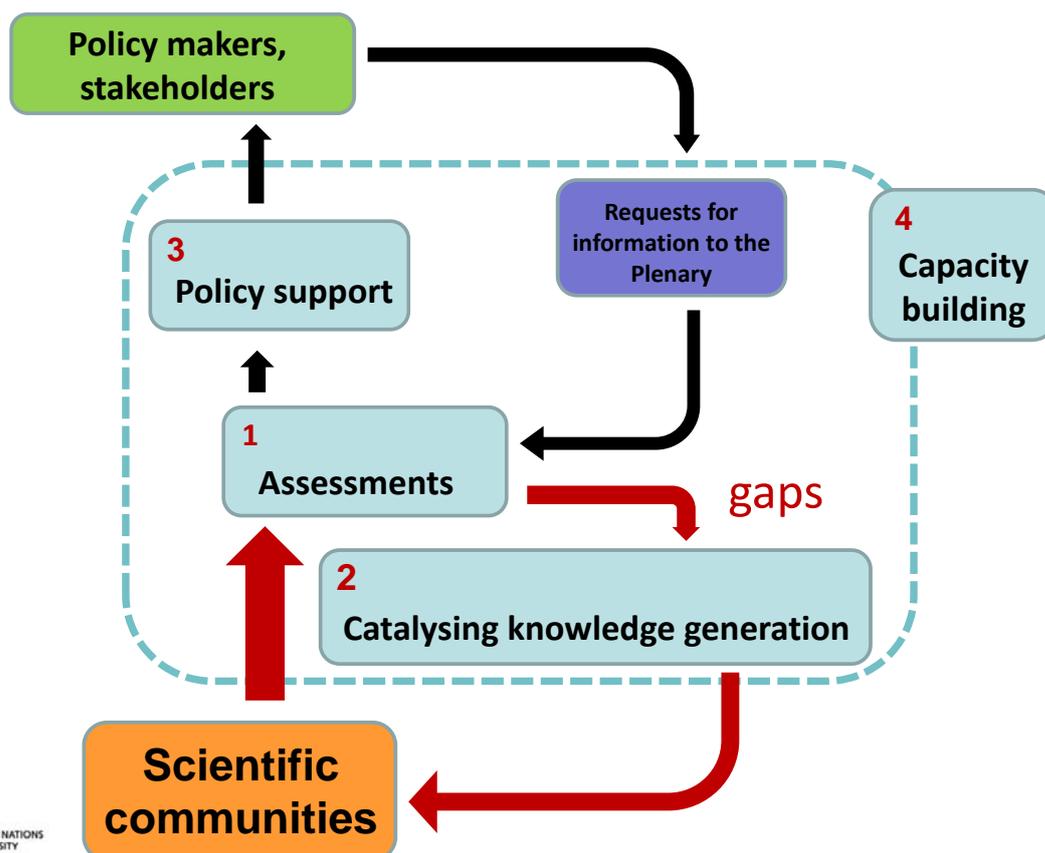
Established in April 2012, Panama, with the four work programme areas:

1. Knowledge generation
2. Regular and timely assessments
3. Support policy formulation and implementation
4. Capacity building

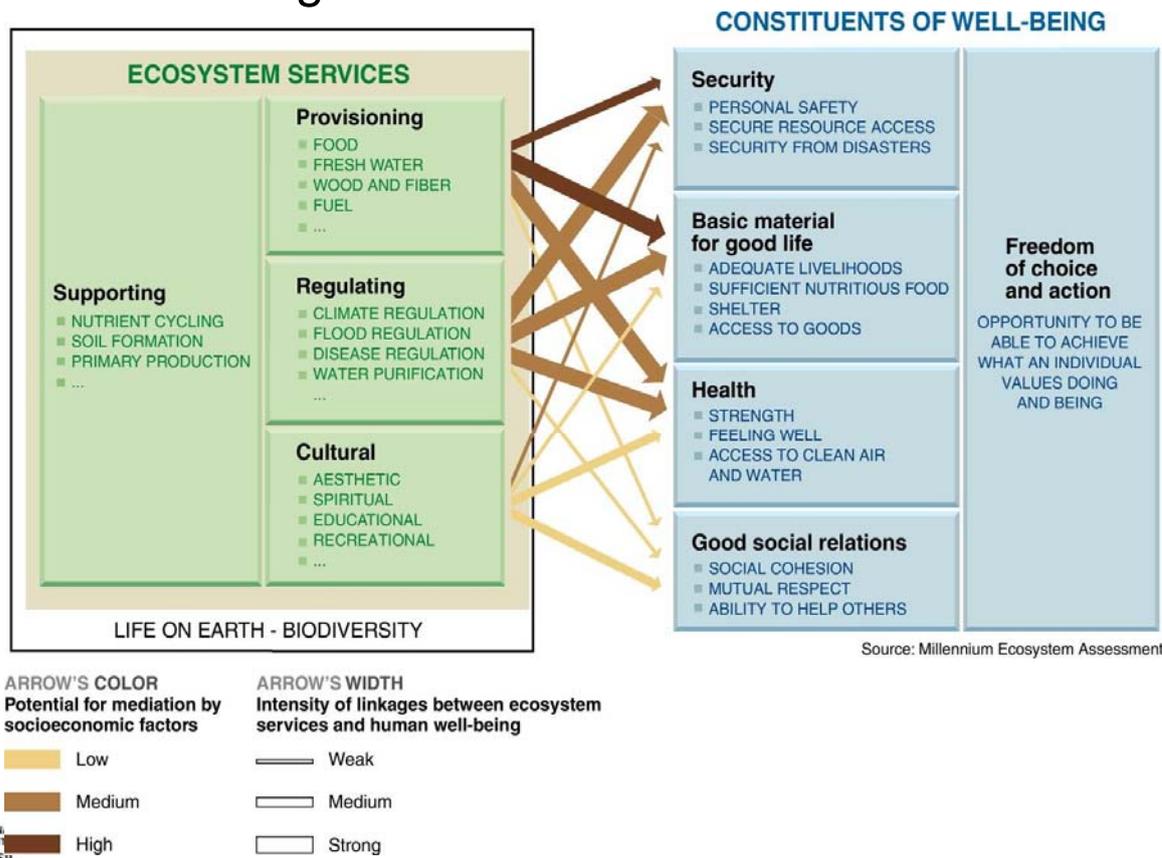


IPBES Plenary-1 in Bonn, Germany, 21-26 Feb. 2013

IPBES and Scientific communities



MA Focus: Consequences of Ecosystem Change for Human Well-being

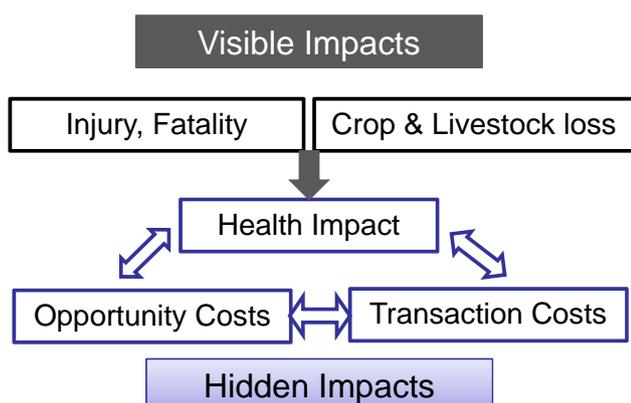


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2. Challenges and Social Responses Required to Wildlife Management

Human-wildlife conflict as 'ecosystem disservices'

- 'ecosystem disservices': negative impact that are poorly articulated, but vital to address if ecosystem services-based arguments for conservation are to be effective (Dunn, 2010)
- Visible impacts of human-wildlife conflict and their hidden consequences (Barua et al. 2013)

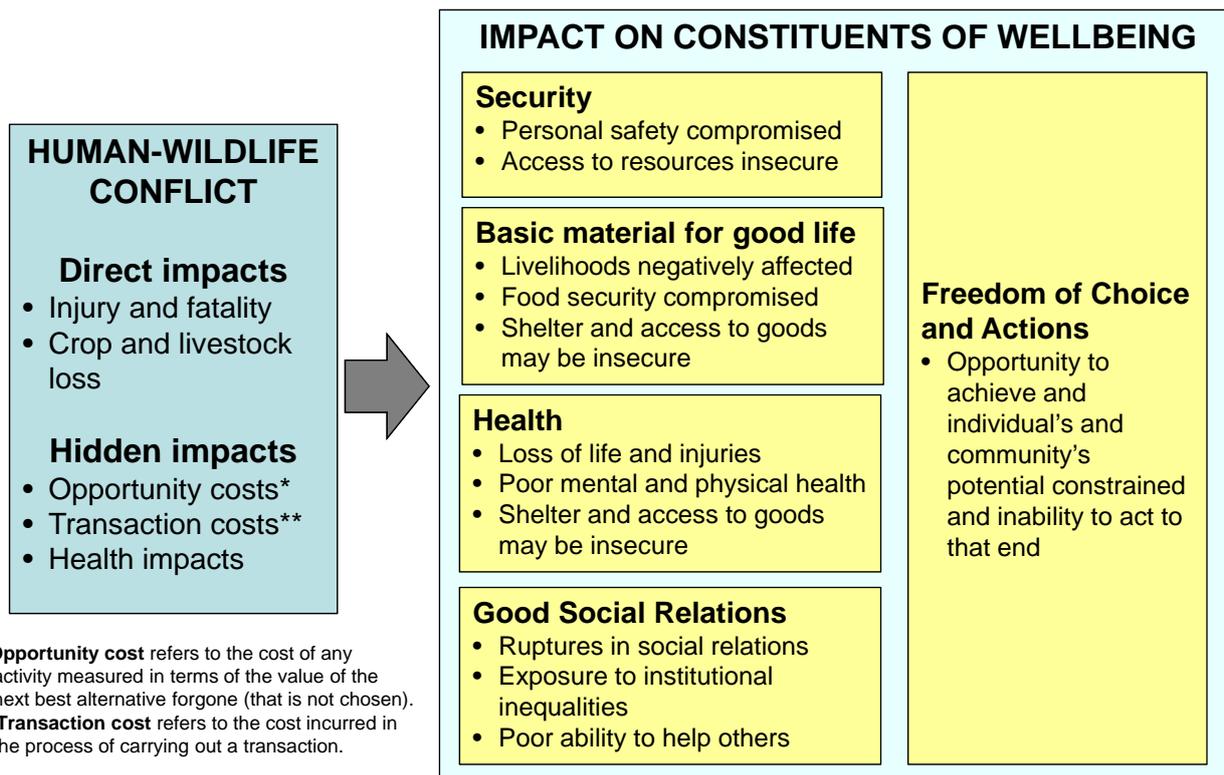


Impact	Injury, fatality	Crop-damage and loss of livestock
Mediators	Injury or fatality as a result of encounter with wildlife	Loss of crops or livestock to wildlife
Consequences	Diminished physical and psychological well-being of individual and family; poor employment opportunities; burden of livelihood shifted to women and children	Food security and agricultural sustainability compromised; economic and social capital diminished

(Source) Barua et al. (2013) The hidden dimensions of human-wildlife conflict: Health impacts, opportunity and transaction costs. *Biological Conservation*, 157:309-316.

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Human-wildlife conflict and its adverse impact on components of human wellbeing identified by MA (Barua et al. 2013)



(Source) Barua et al. (2013) The hidden dimensions of human-wildlife conflict: Health impacts, opportunity and transaction costs. *Biological Conservation*, 157:309-316.

Hidden impacts of human-wildlife conflict (Barua et al. 2013)

Impact	Mediators	Consequences
Opportunity costs	Costs incurred through restriction of movement, increased guarding	Poor physical health resulting from loss of sleep, reduced school attendance and employment opportunities; greater exposure to disease vectors
Transaction costs	Costs incurred due to bureaucratic inadequacies and delays associated with compensation	Increase debt generated by human-wildlife conflicts; greater exposure to new forms of social inequity
Health impacts	Mental health stressors	Diminished wellbeing of individual and family; increased mental health morbidity; social ruptures; loss of paid employment
	Physical health stressors including physical injury, increased guarding, loss of food security	Diminished physical wellbeing; poor nutritional status; greater exposure to vector-borne diseases; loss of sleep; deficient childcare and poor maternal bonding



(Source) Barua et al. (2013) The hidden dimensions of human-wildlife conflict: Health impacts, opportunity and transaction costs. *Biological Conservation*, 157:309-316.

Challenges and Social Responses

	Existing mitigation actions and policies	Areas for future studies
Visible impacts		
Injury, fatality	<ul style="list-style-type: none"> Physical separation of conflicting species and resources Relocation of people Compensation schemes 	<ul style="list-style-type: none"> Comparative study of different mitigation actions and policy schemes Scenario analysis of human-wildlife conflict
Crop-damage and loss of livestock	<ul style="list-style-type: none"> Crop and livestock guarding Physical barriers, deterrents Use of buffer crops Compensation schemes Loans to offset loss 	
Hidden impacts		<ul style="list-style-type: none"> Systematic assessment of the extent and scale of hidden impacts Identification of cause-and-effect relationships Interdisciplinary dialog and stronger links between conservation, health and the social sciences
Opportunity costs	<ul style="list-style-type: none"> Increasing economic benefits of wildlife, e.g. tourism, revenue-sharing schemes, wildlife-related employment 	
Transaction costs	<ul style="list-style-type: none"> Alternatives to compensation schemes proposed 	
Health impacts	<ul style="list-style-type: none"> None 	

SUMMARY

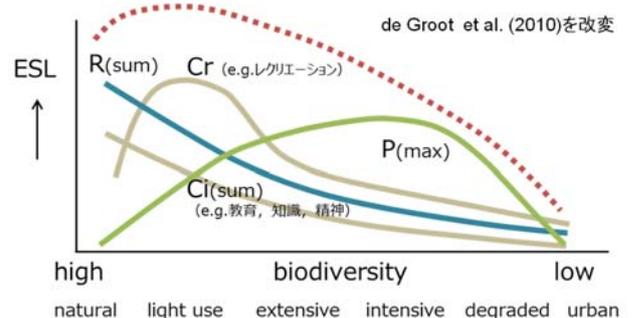
1. IPBES: Current Status

- ❑ No discussion on disservices and human-wildlife conflict

2. Challenges and Social Responses Required to Wildlife Management

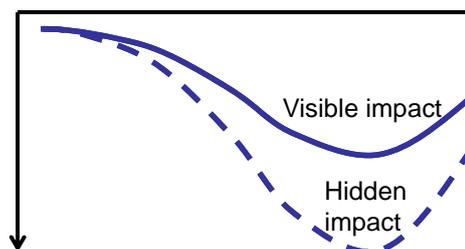
- ❑ Human wildlife conflict as 'ecosystem disservices'
- ❑ Unpacking human-wildlife conflict and their consequences
- ❑ Challenges and social responses:
 - Lack of comprehensive assessment on ecosystem disservices from human-wildlife conflict
 - Lack of integrated institution to oversee and manage ecosystem disservices from human-wildlife conflict

Ecosystem Service Level



Abandoned farmland and forests

Weak social relations



Ecosystem Disservice Level associate with human-wildlife conflict