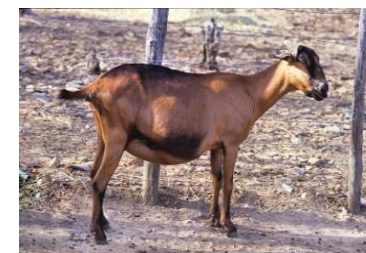


Conceitos da Coexistência Humano-Fauna



Silvio Marchini
WildCRU-Oxford University
LEMaC-ESALQ-USP
Chester Zoo
IUCN



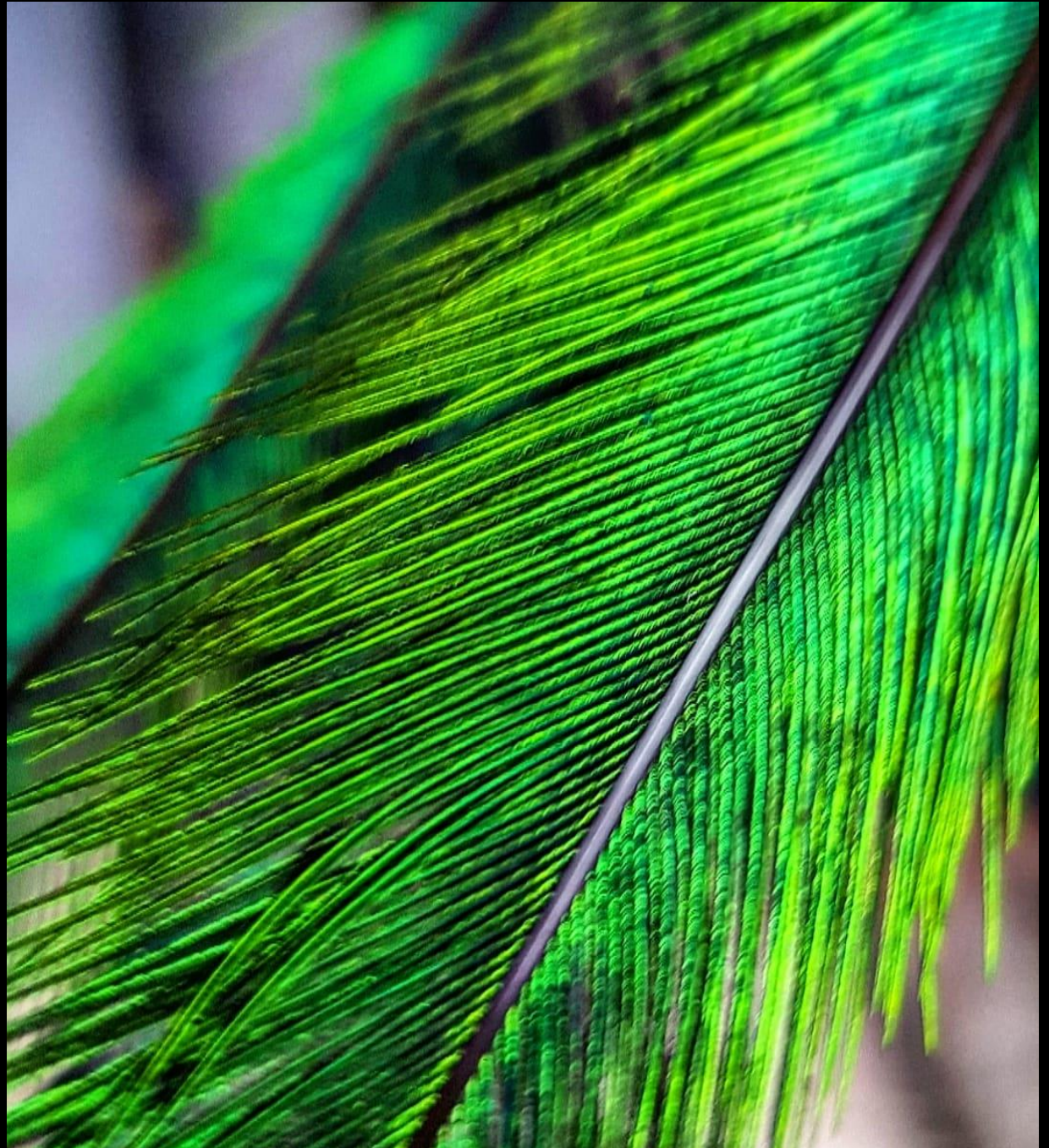
Costa
Rica
wildlife
Foundation



Costa
Rica
wildlife
Foundation



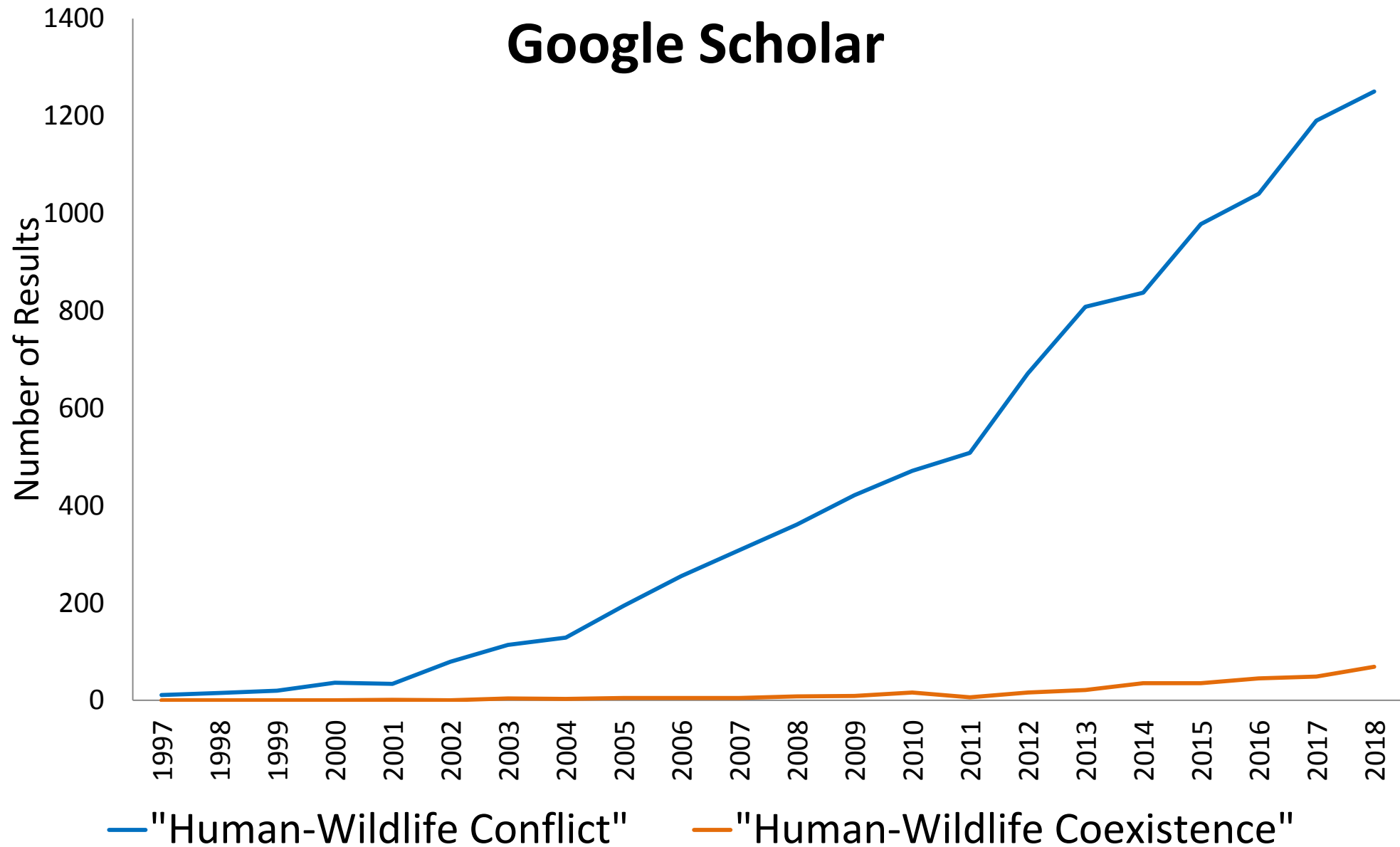






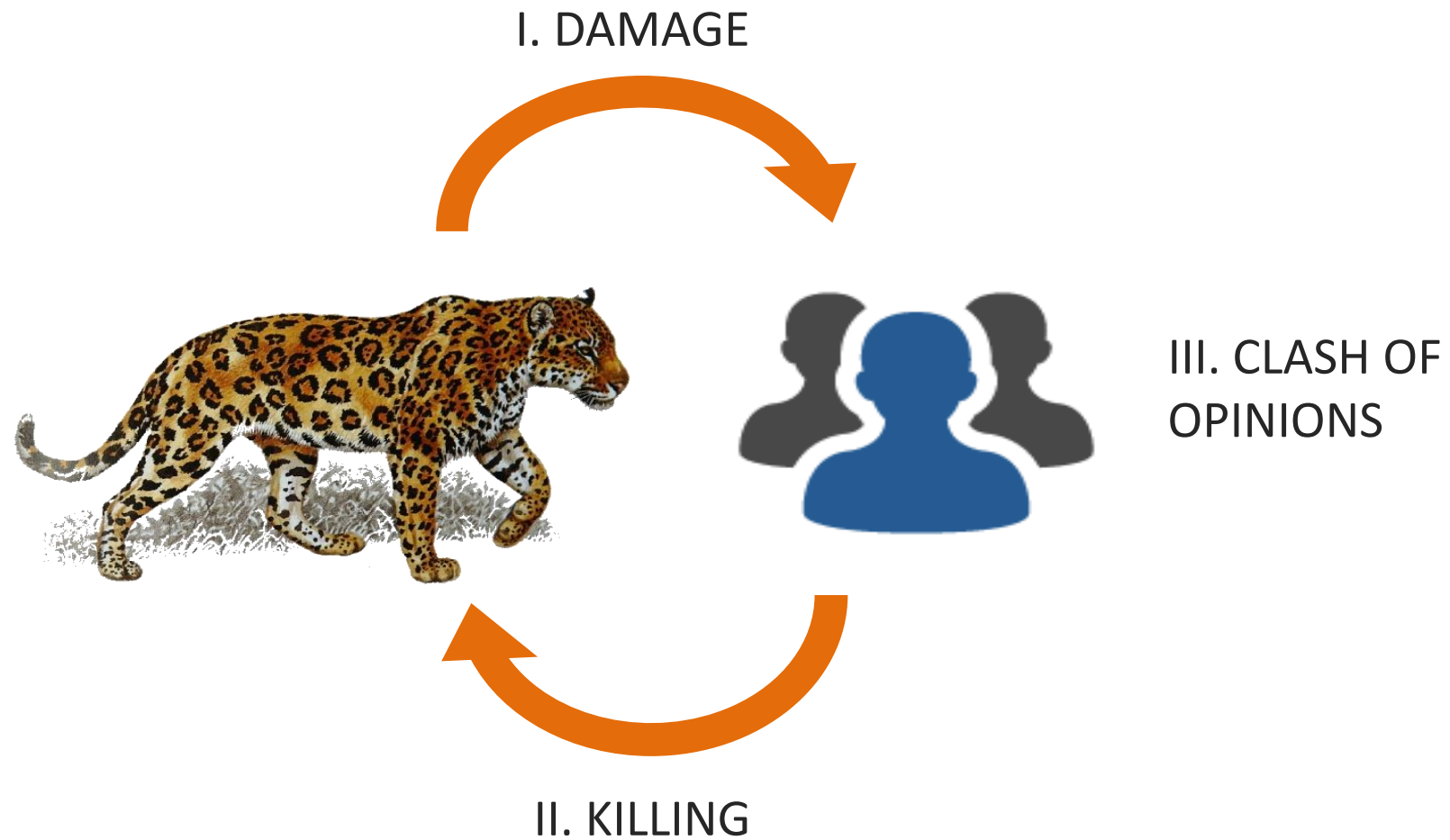
HUMAN-WILDLIFE CONFLICT

Google Scholar



Human-Wildlife Conflict

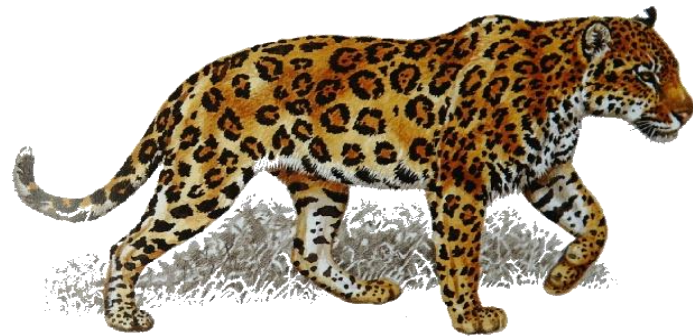
a complex phenomenon



Human-Wildlife Conflict

a complex phenomenon

I. PREDATION/COMPETITION/HERBIVORY
Ecology and economics > Technical solutions



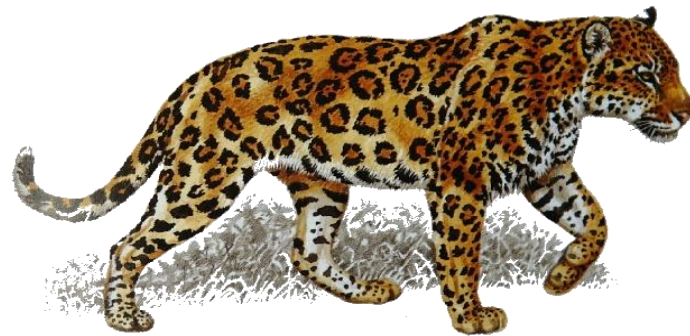
III. CLASH OF
OPINIONS

II. KILLING

Human-Wildlife Conflict

a complex phenomenon

I. PREDATION/COMPETITION/HERBIVORY
Ecology and economics > Technical solutions



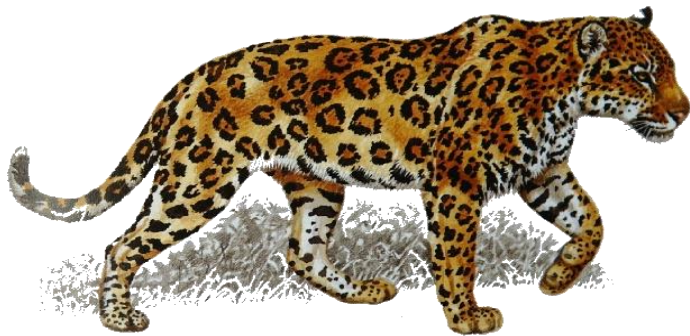
III. CLASH OF
OPINIONS

II. HUMAN BEHAVIOUR
Behavioural sciences > Behaviour change

Human-Wildlife Conflict

a complex phenomenon

I. PREDATION/COMPETITION/HERBIVORY
Ecology and economics > Technical solutions



III. SOCIAL CONFLICT
Social/political sciences
> Negotiation

II. HUMAN BEHAVIOUR
Behavioural sciences > Behaviour change

Definition of HWC

“Struggles involving conservation and other human interests that emerge when the behaviour and needs of wildlife are at odds with human goals or ideals, leading to negative impacts on people and/or wildlife”.

IUCN Task Force on HWC, 2019



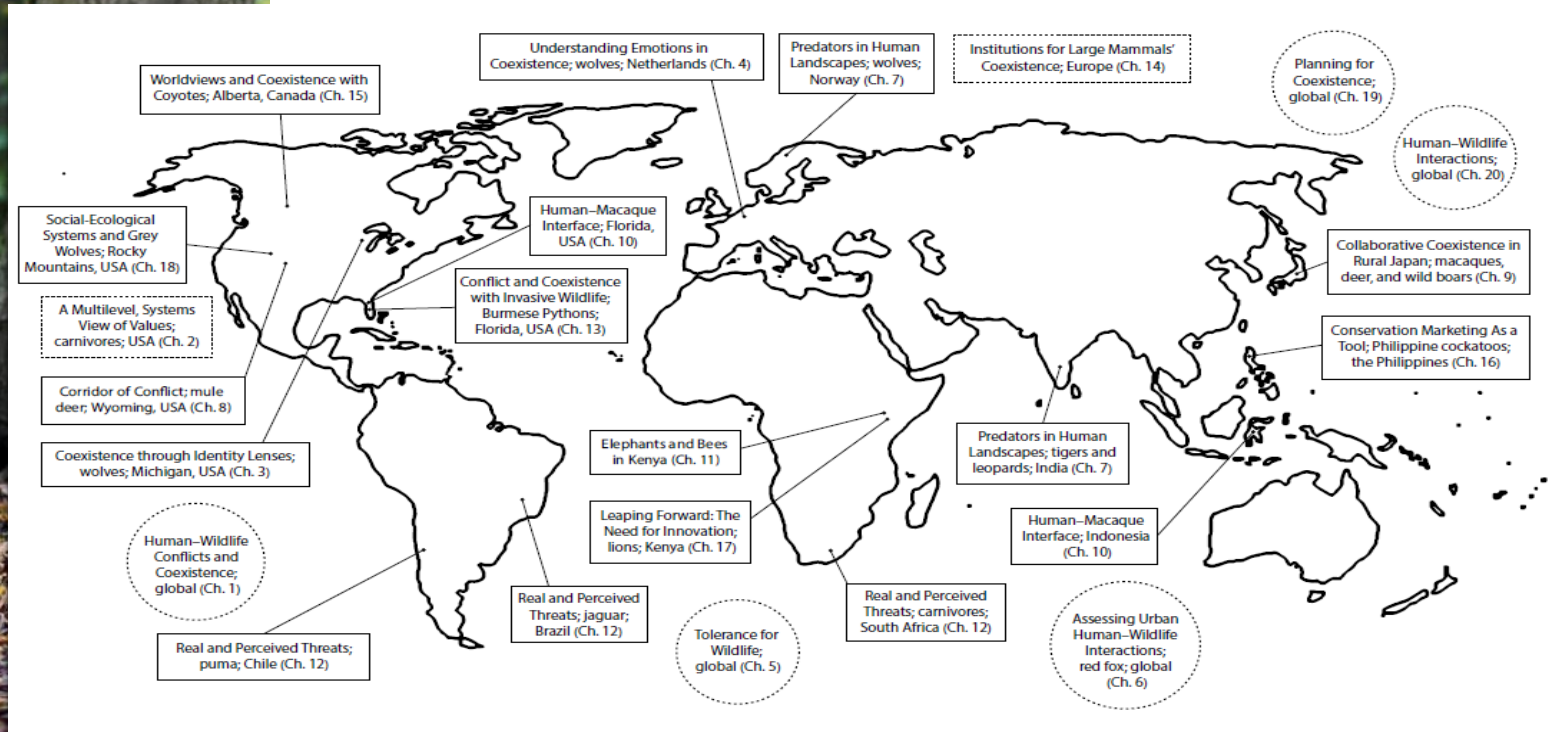
CONSERVATION BIOLOGY 23

Human-Wildlife Interactions

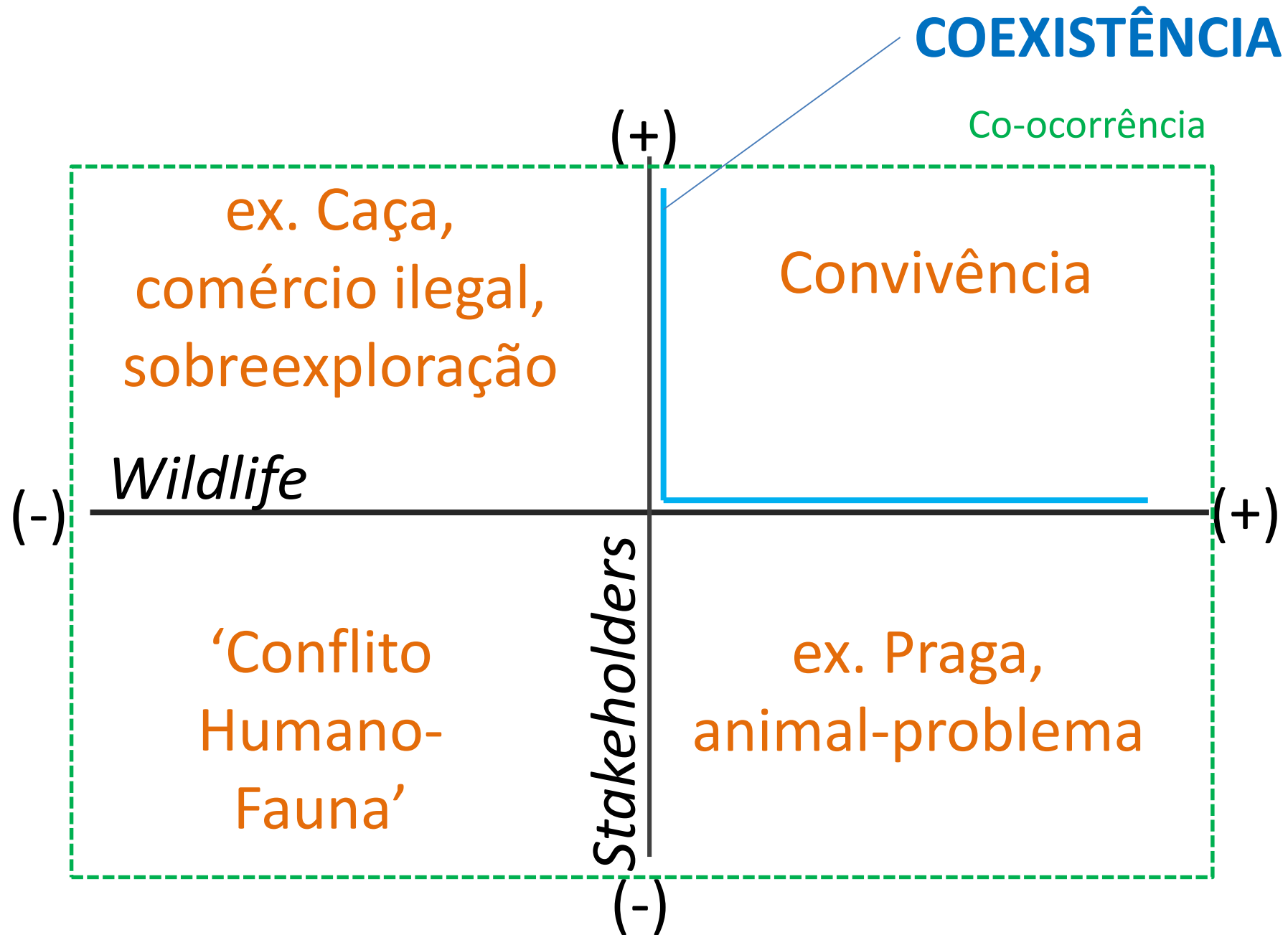
Turning Conflict into Coexistence

Edited by Beatrice Frank,
Jenny A. Glikman and Silvio Marchini

Conflict-to-coexistence continuum



Human-Wildlife Relationships



Human-wildlife relationship



(+)



(-) *Wildlife*

(+)



Humans

(-)



The proper goal

CONSERVATION

Human ↔ Wildlife

The proper goal

CONSERVATION

Human  **Wildlife**

CO-EXISTENCE

Human  Wildlife

The proper goal

CONSERVATION

Human  **Wildlife**

CO-EXISTENCE

Human  **Wildlife**

The proper goal

CONSERVATION

Human  Wildlife

CO-EXISTENCE

Human  Wildlife

The proper goal

CONSERVATION

Human ↔ Wildlife

CO-EXISTENCE

Human ↔ Wildlife





COEXPROJECT



WILDCRU
Wildlife Conservation Research Unit

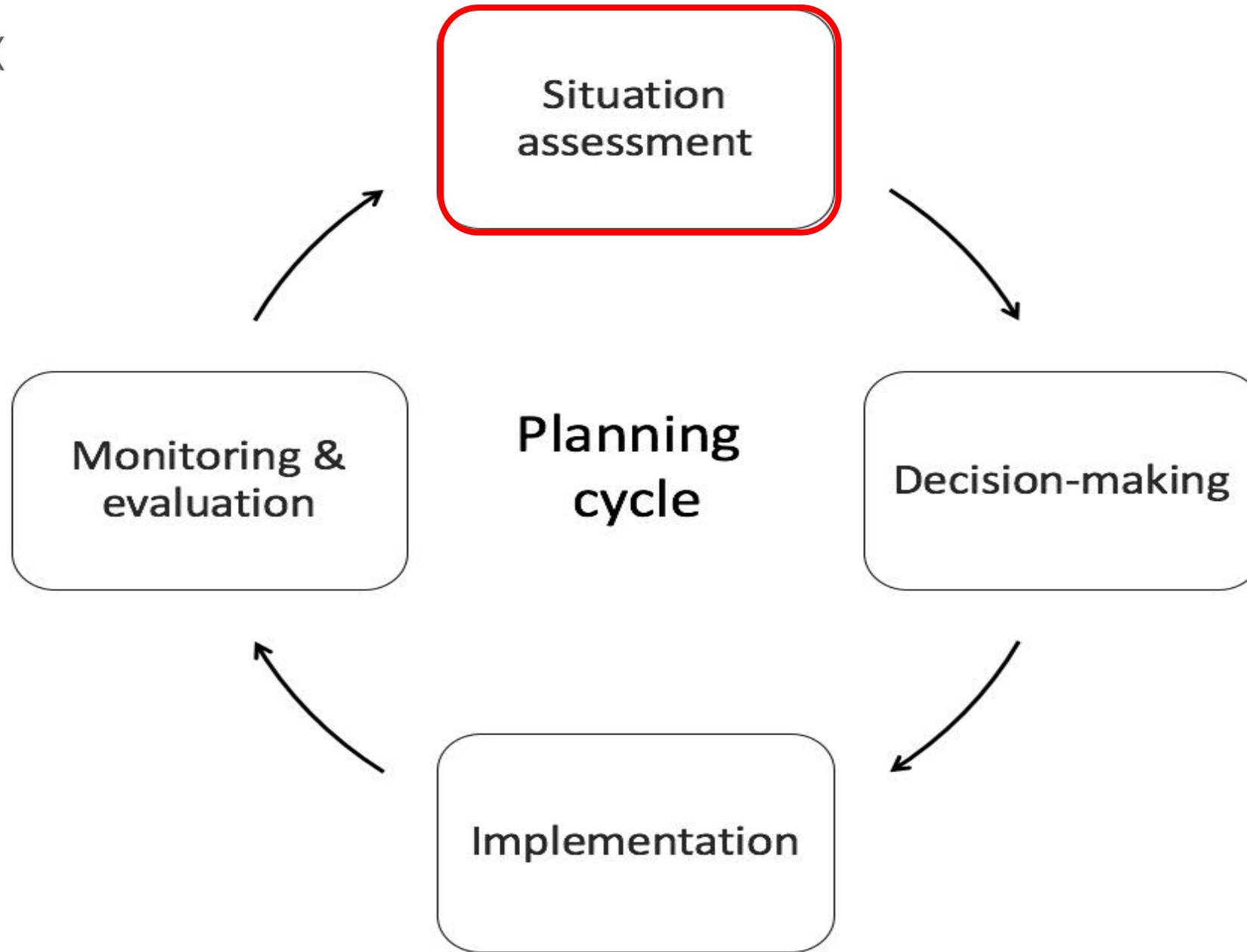


USP
Universidade de São Paulo

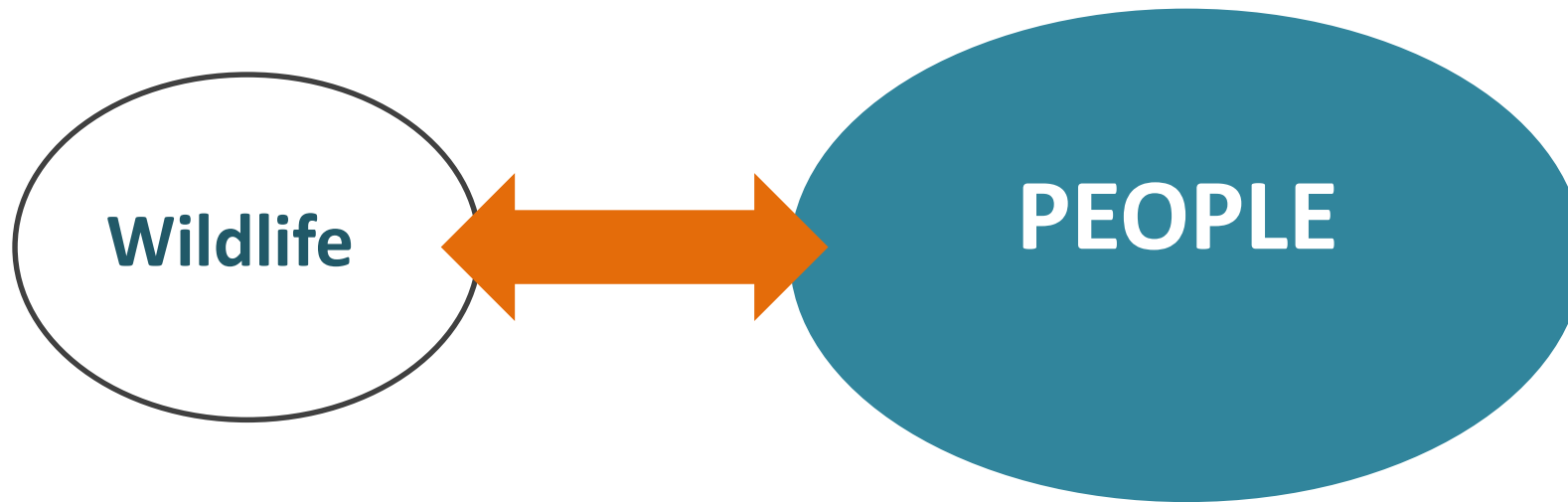


IUCN SSC
**Human-Wildlife
Conflict**
TASK FORCE





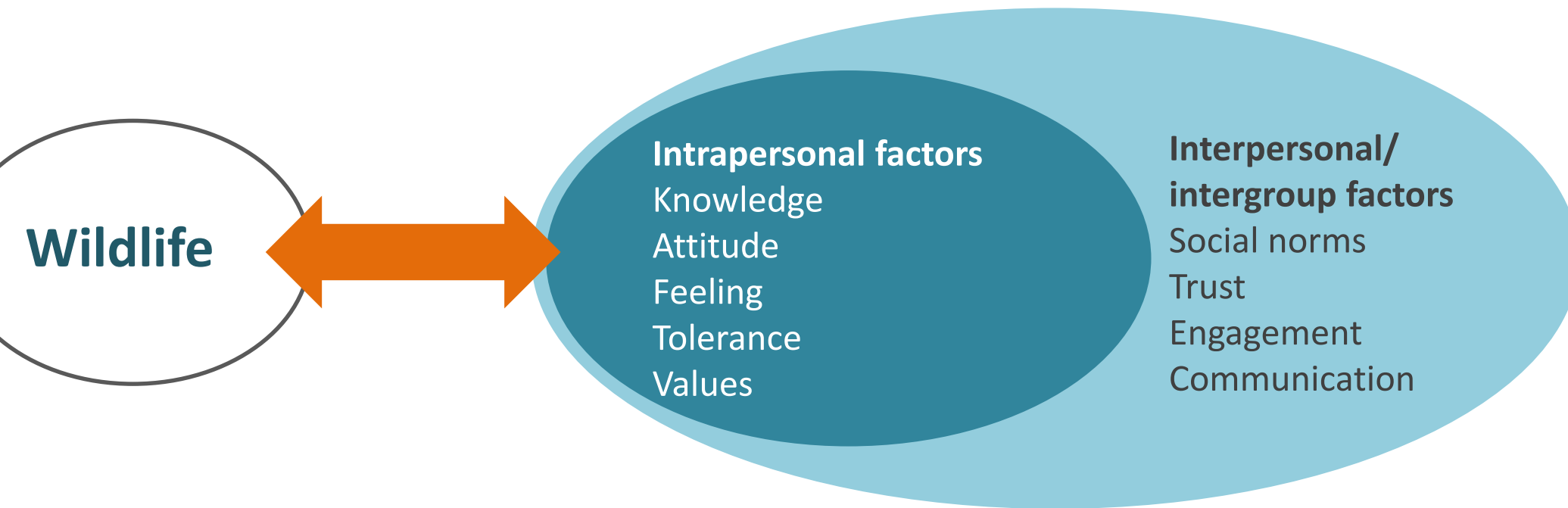
Situation Assessment: Human Dimension



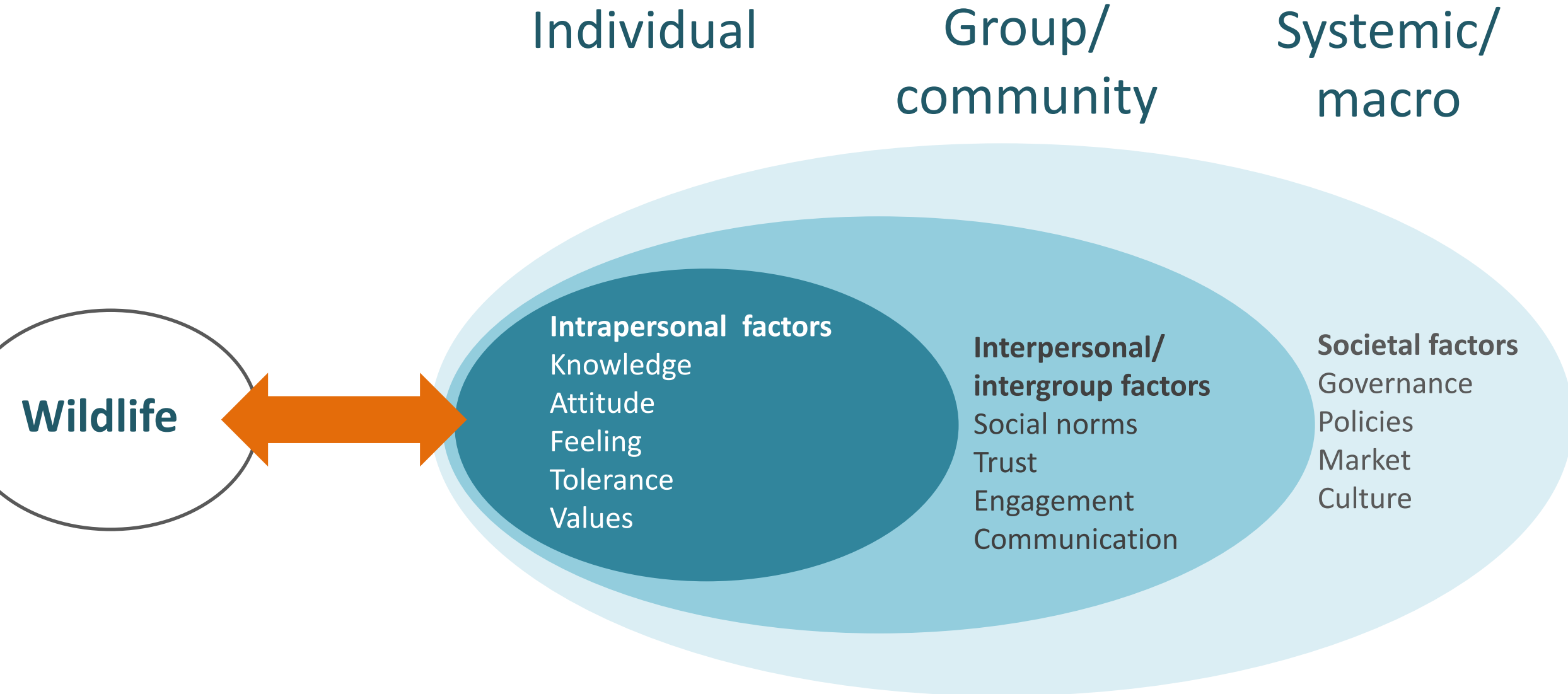
Levels of assessment

Individual

Group/
community

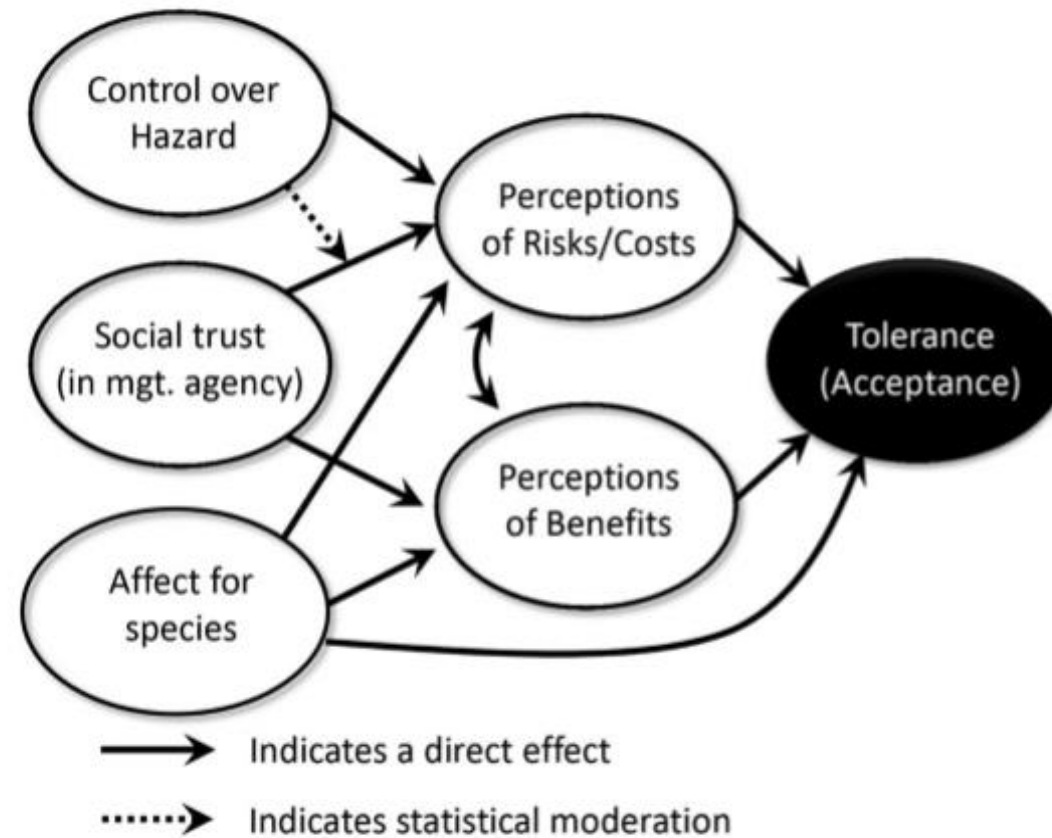


Levels of assessment



Determining where the wild things will be: using psychological theory to find tolerance for large carnivores

Jeremy T. Bruskotter & Robyn S. Wilson



Predicting Acceptability of Jaguars and Pumas in the Atlantic Forest, Brazil

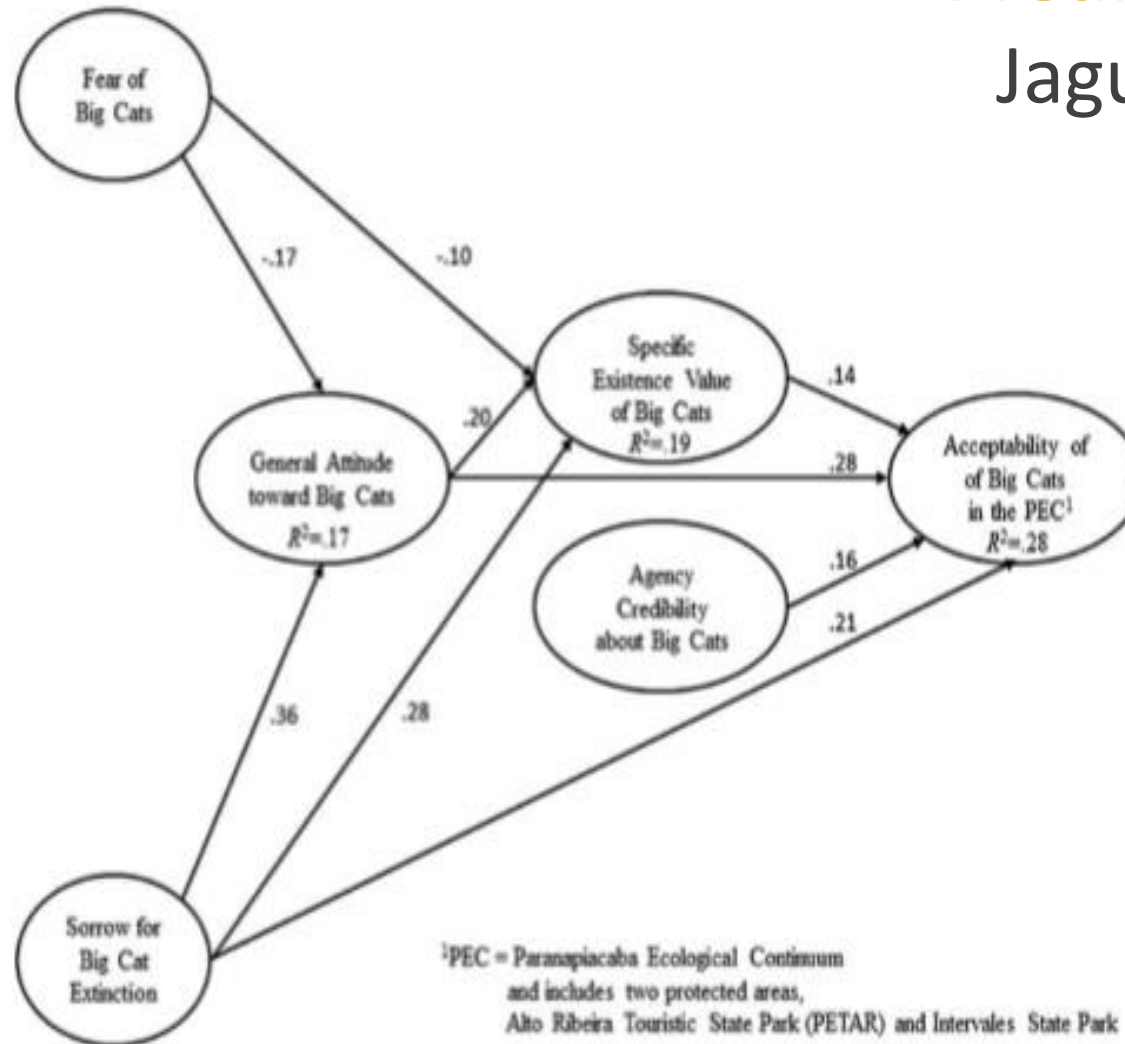


Figure 3. Model relationship results. Only statistically significant ($p < .05$) paths are shown.

HOW TO CHANGE BEHAVIOUR

IF PEOPLE...

THEN

Do not know enough to understand the
problem

Provide information

HOW TO CHANGE BEHAVIOUR

IF PEOPLE...

THEN

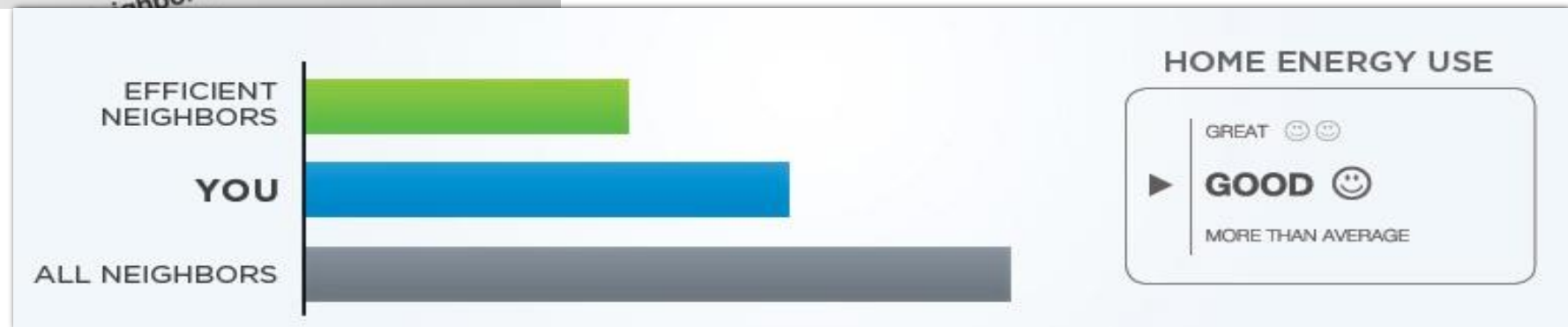
Do not know enough to understand the problem

Provide information

Know about the problem, BUT do not care about it

Change incentive, feelings, social norms (eg persuasive communication, social marketing)

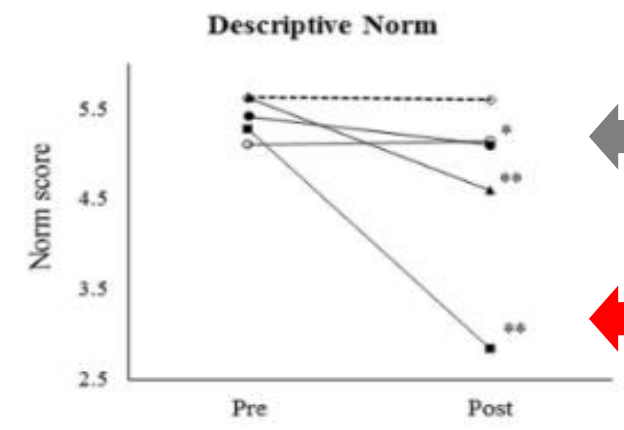
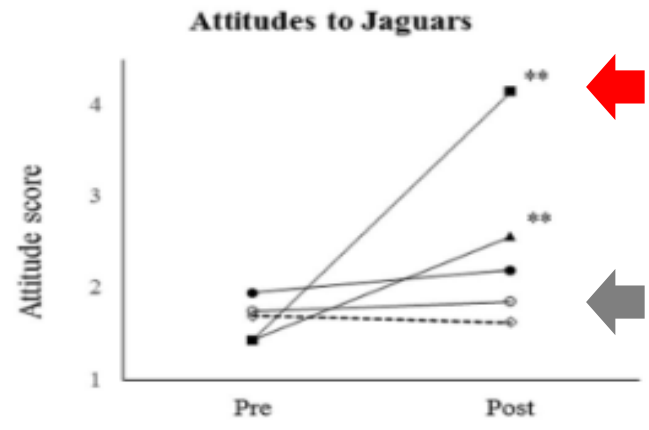
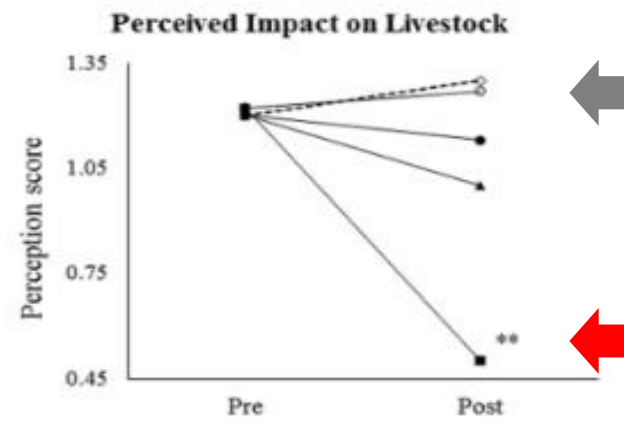
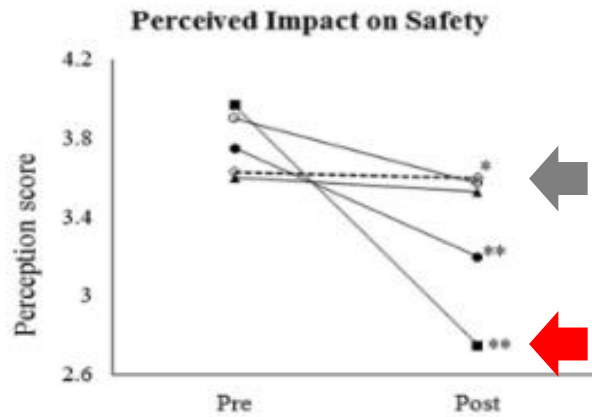
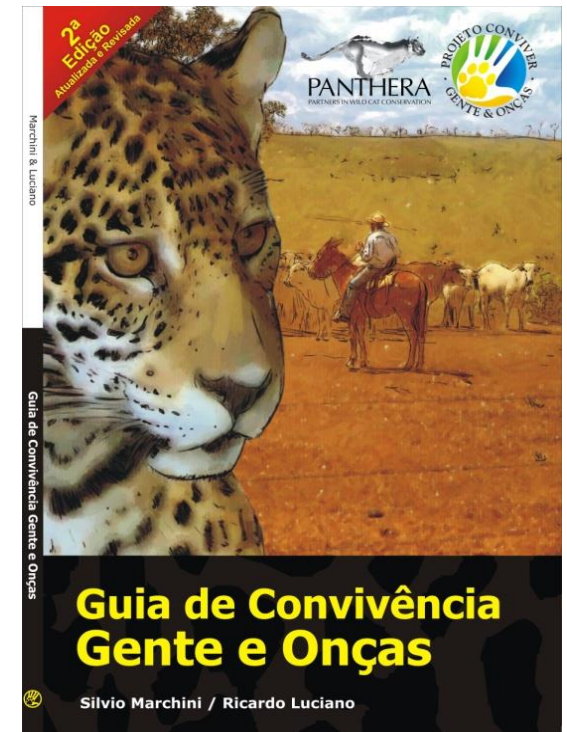
Social norms approach to behaviour change



RESEARCH ARTICLE

Can school children influence adults' behavior toward jaguars? Evidence of intergenerational learning in education for conservation

Silvio Marchini , David W. Macdonald



The Moral Economy

Why Good Incentives Are No Substitute for Good Citizens

SAMUEL BOWLES



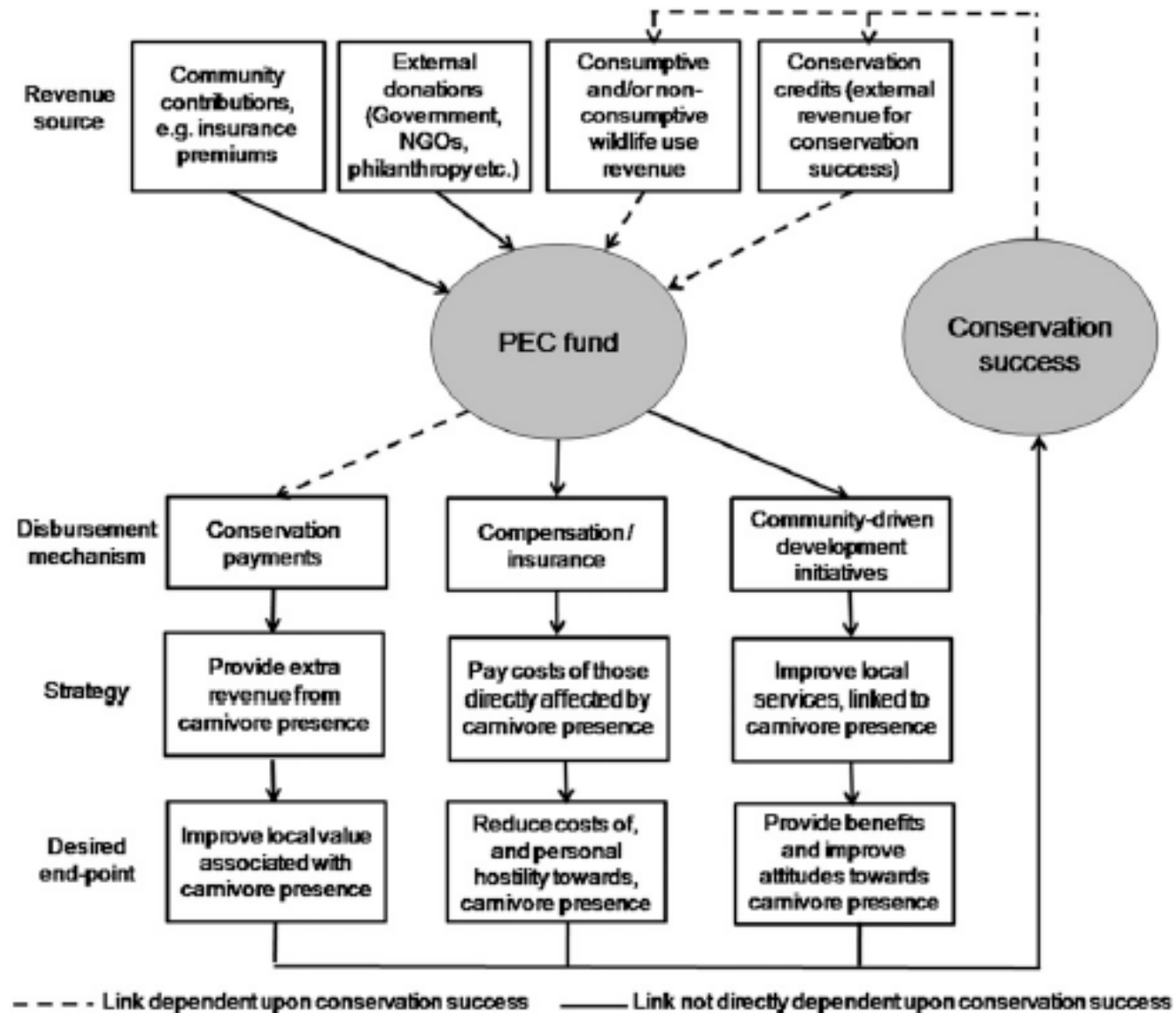
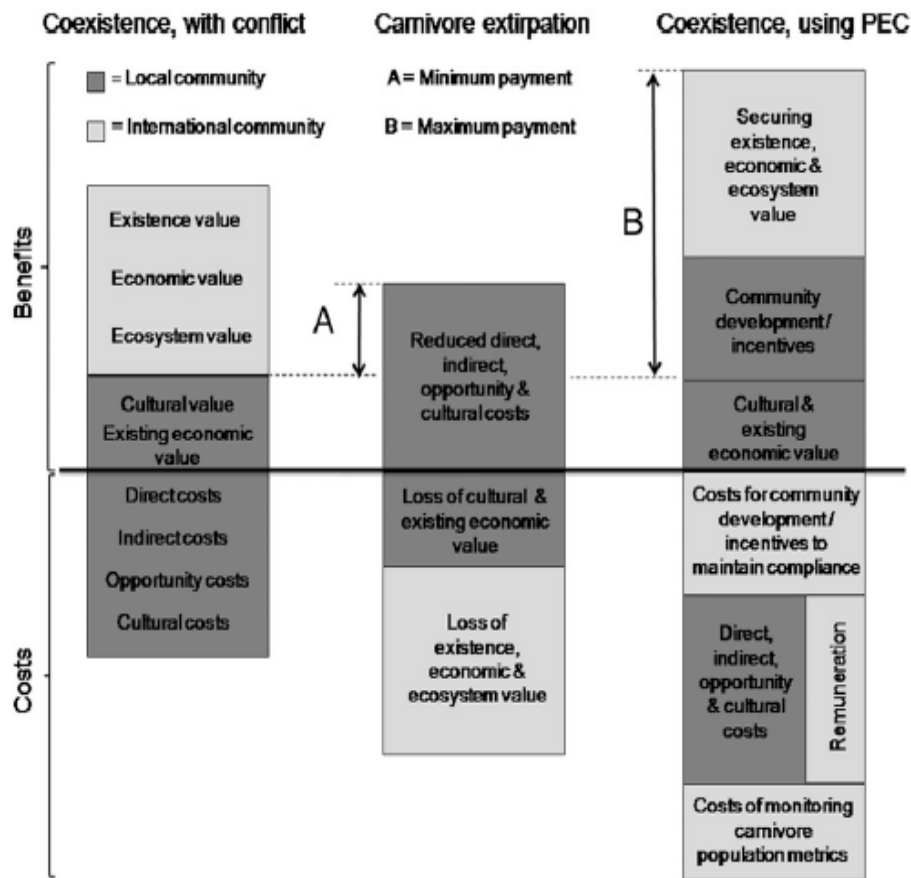
- the pleasure we take in doing the right thing (or avoiding the shame of doing the wrong thing) is often a more effective incentive than money.
- “to encourage civic action by appealing to both material interests and moral sentiments, framed so that the two work synergistically rather than at cross-purposes.”

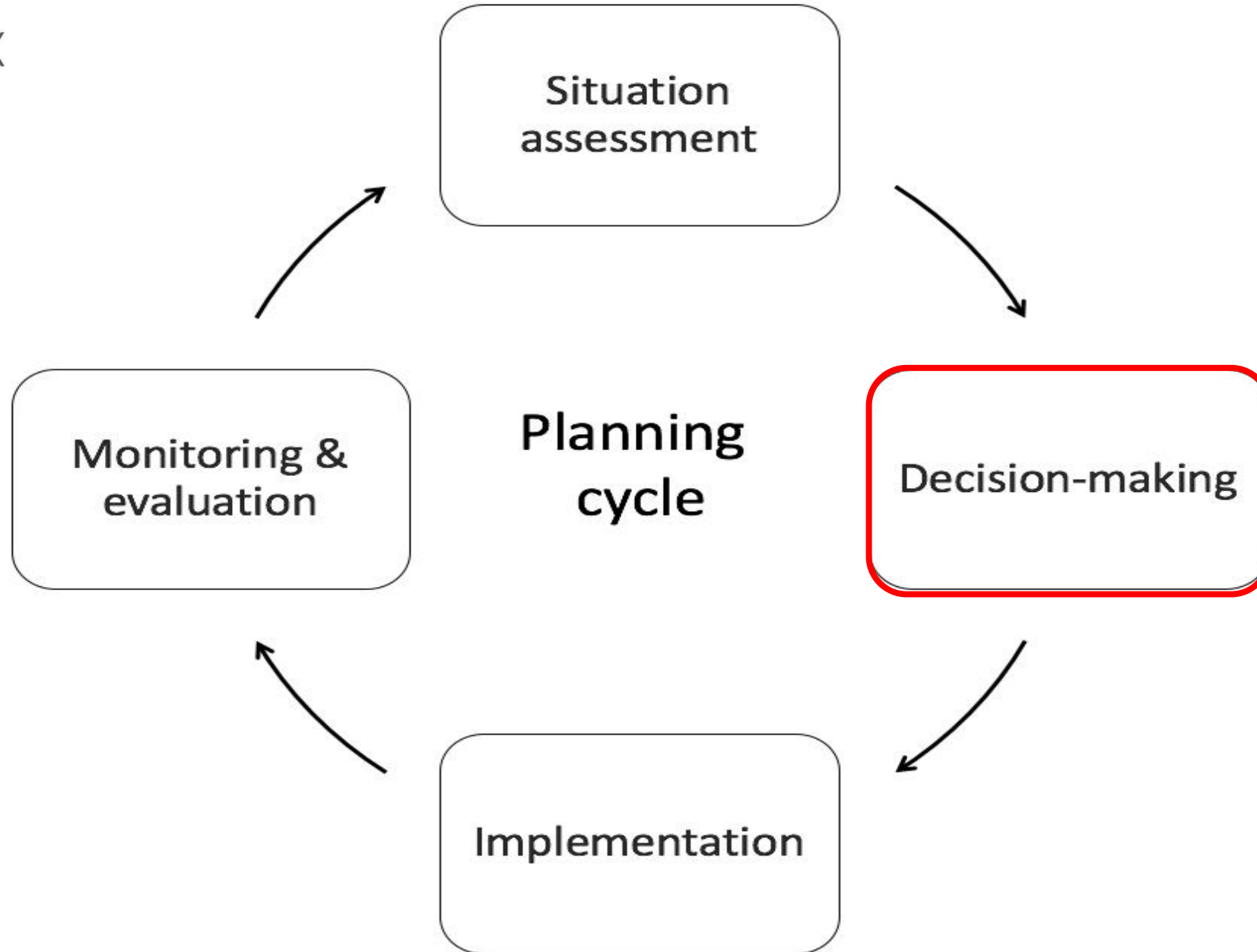
2016

A review of financial instruments to pay for predator conservation and encourage human–carnivore coexistence

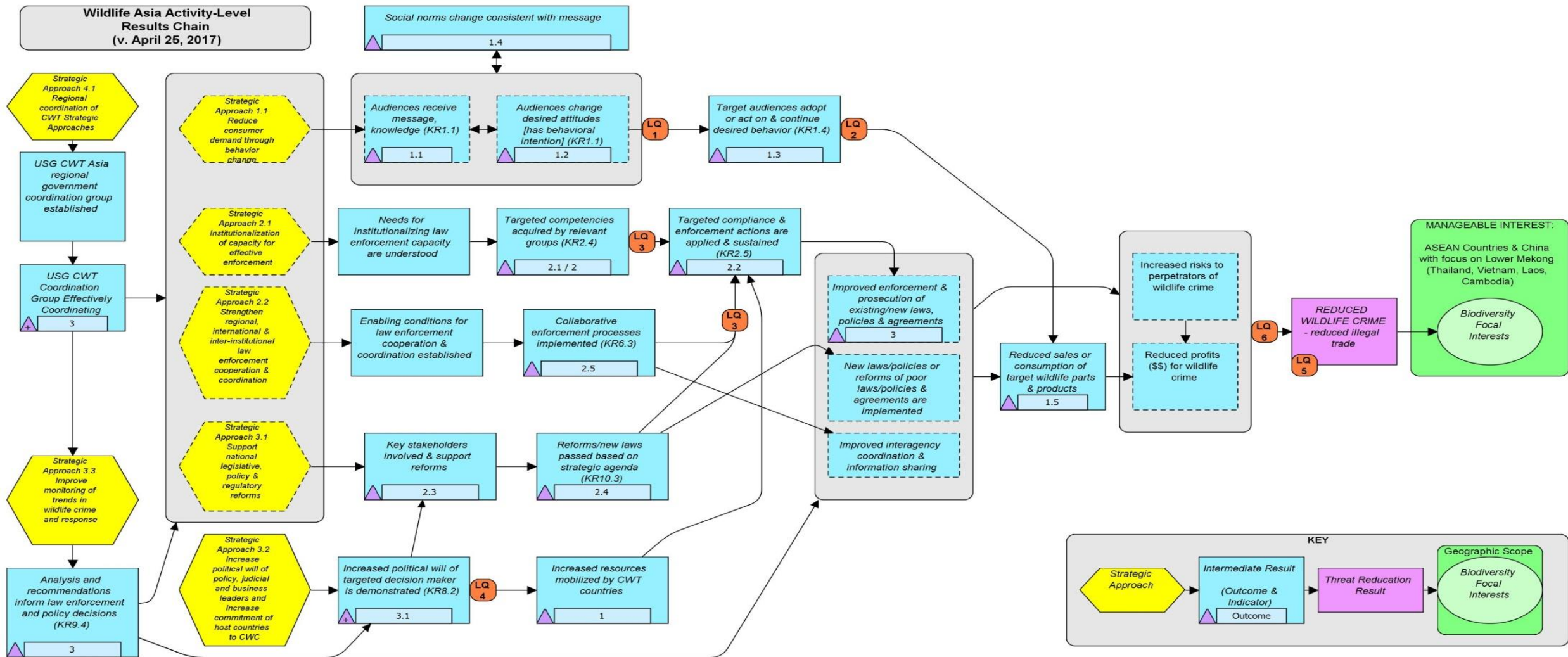
Amy J. Dickman, Ewan A. Macdonald, and David W. Macdonald

PNAS August 23, 2011 108 (34) 13937-13944; <https://doi.org/10.1073/pnas.1012972108>





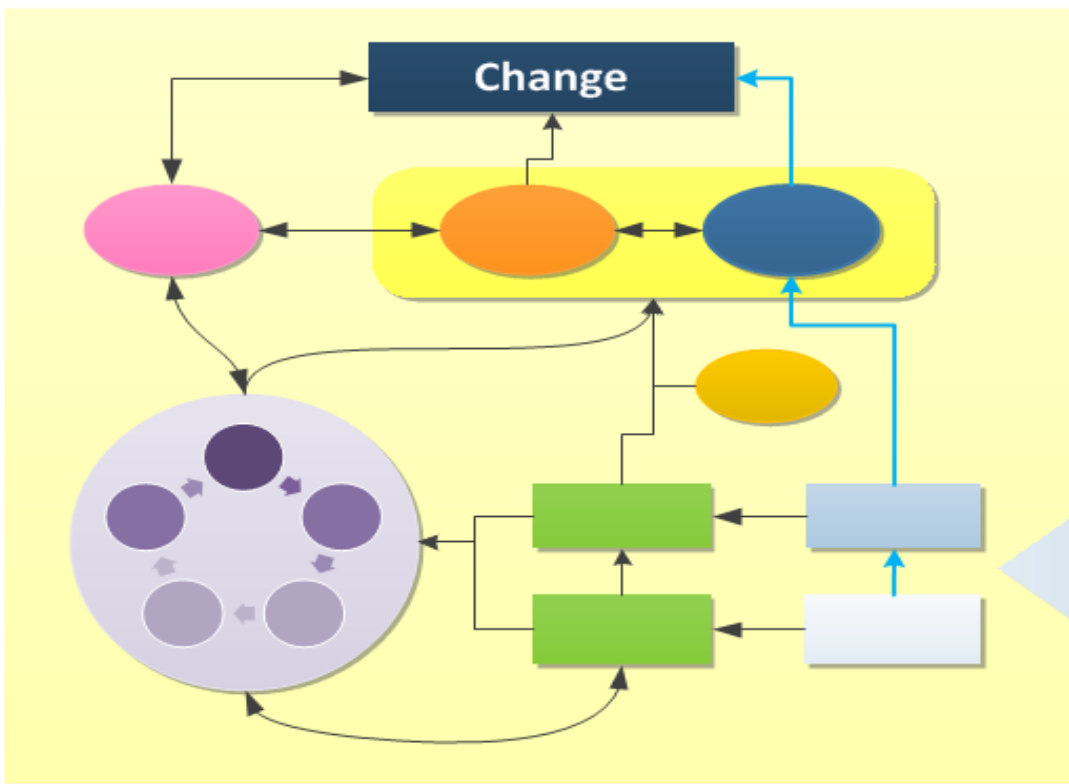
Theory of Change



Theory of Change (ToC) x Logical Framework

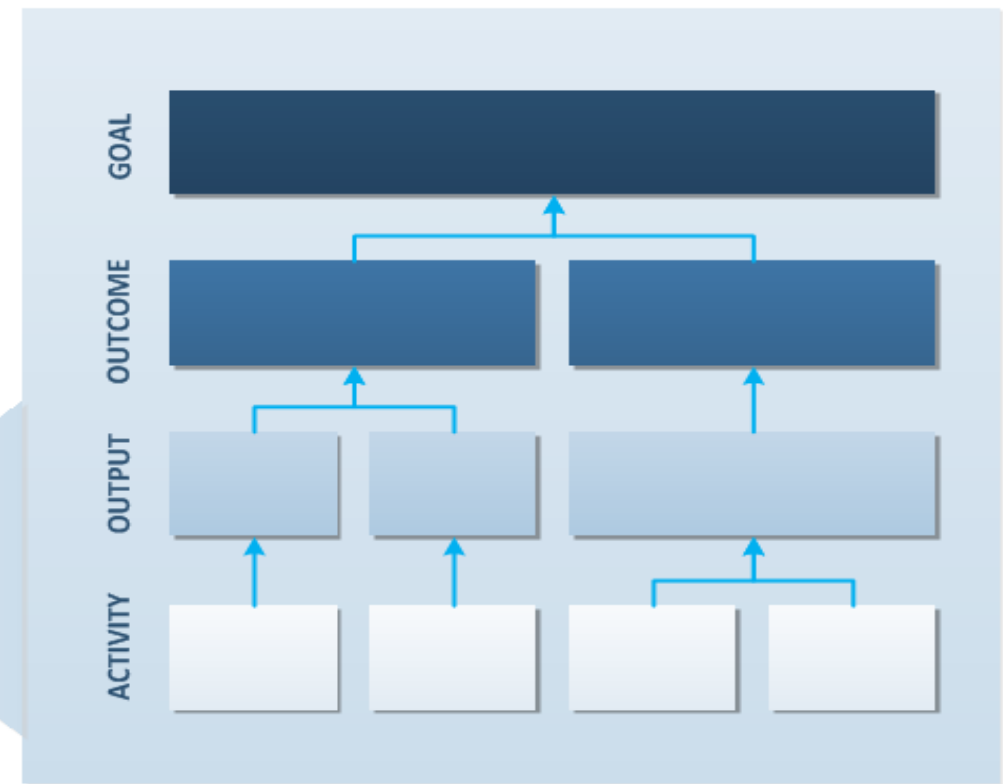
Theory of Change

Shows the big picture with all possible pathways – messy and complex

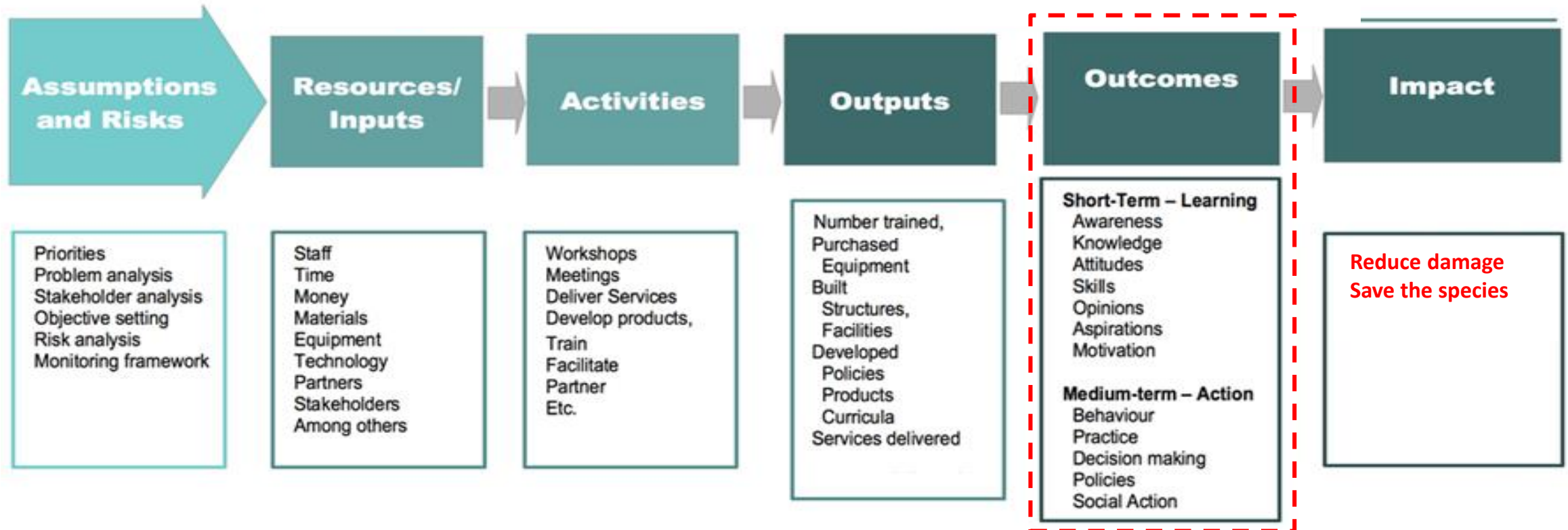


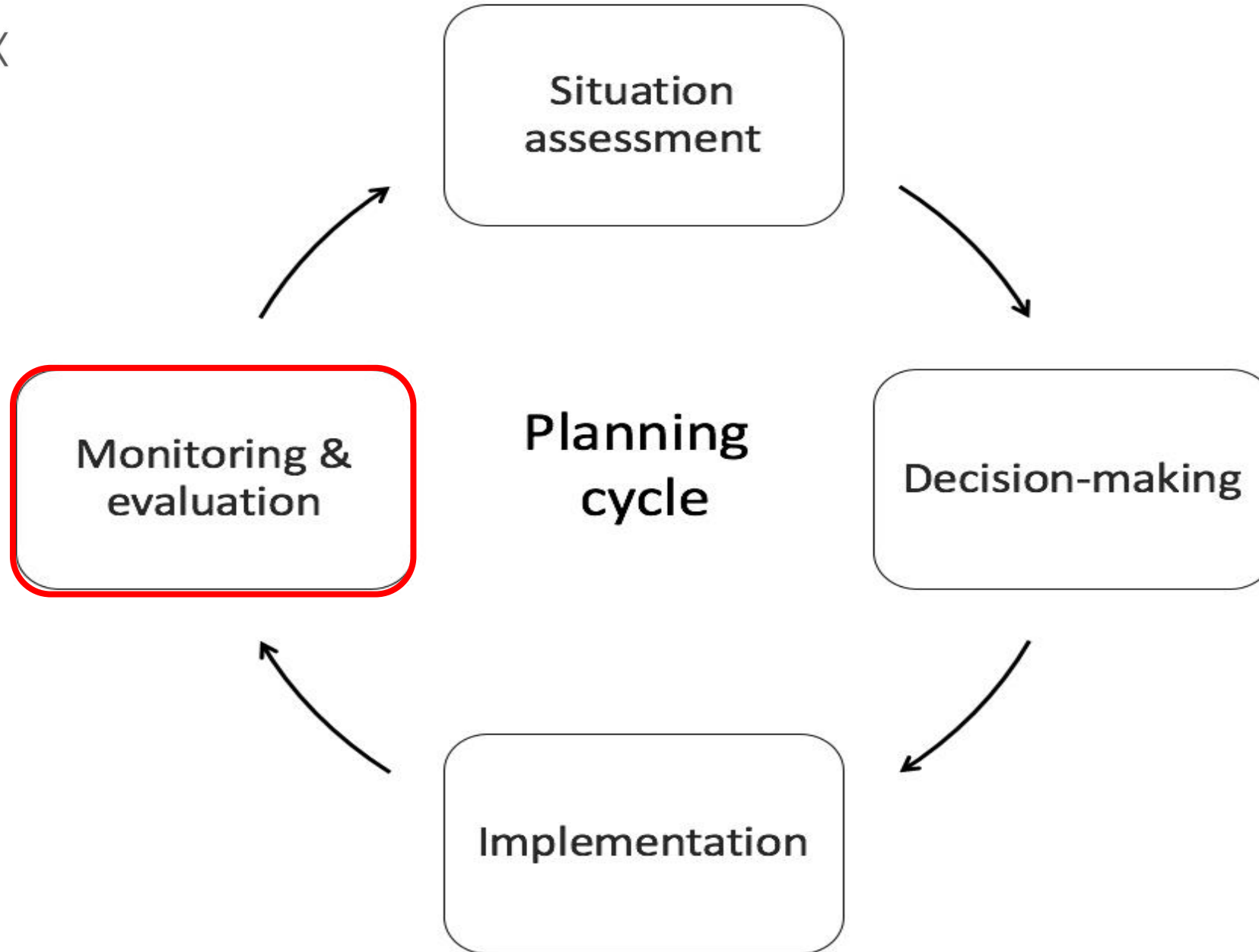
Logical Framework

Shows just the pathway that your program deals with – neat and tidy

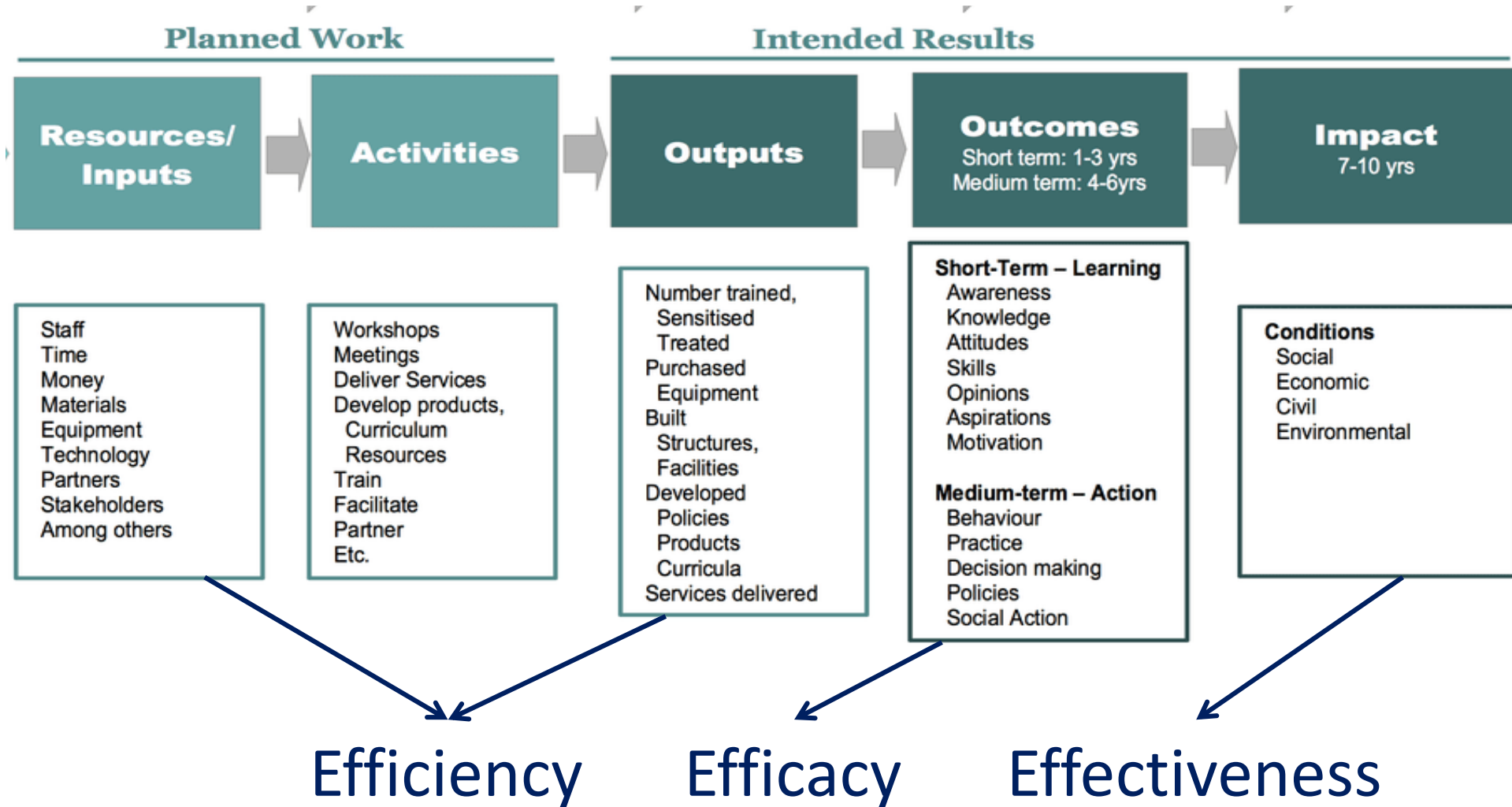


Results chain





Monitoring & Evaluation





PERROS ASILVESTRADOS EN LA CIUDAD DE AREQUIPA

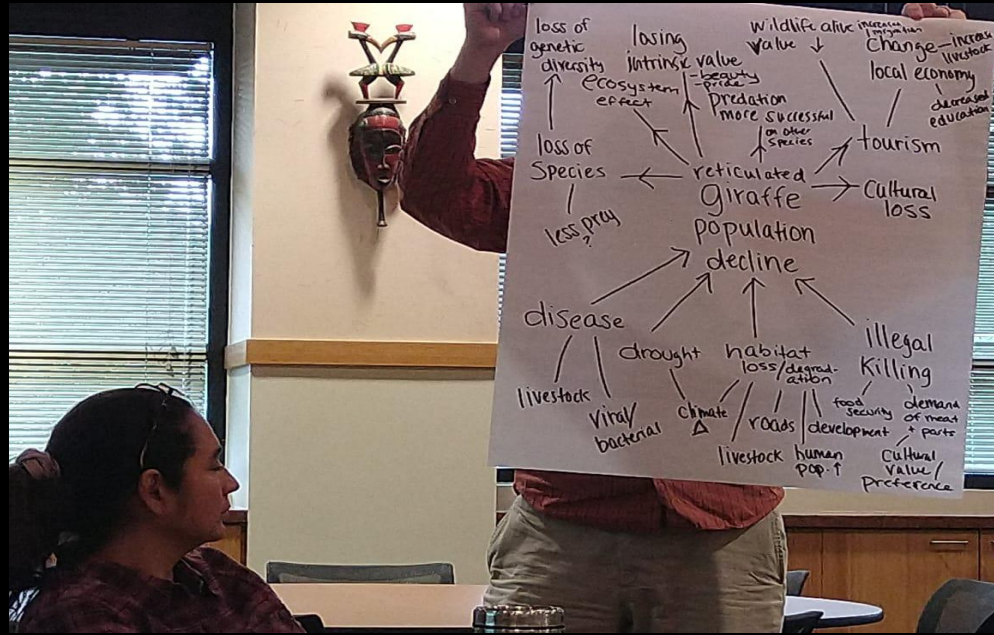
PERIODO: AÑO 2018-2028
ASOCIACIÓN 6 PATAS

ACTIVIDAD	PRODUCTO	EFFECTO	IMPACTO
↳ Alianza Muni	Convenio macro	TENENCIA RESPONSABLE	REDUCCIÓN DE CARNES ASILVESTRADAS A UN 60% PARA EL 2028
↳ Eutanasia perros enfermos	Nº perros muertos	MONITOREO DEL COLECTIVO	
↳ Captura, esterilización, liberación	Nº perros esterilizados		
↳ Campañas educativas/sensibilización	Nº personas que participaron en campañas de sensibilización-colectivo		
↳ VACUNACIÓN ANTIRÁBICA	Nº perros inmunizados contra rabia		
↳ DIFUSIÓN DEL PROYECTO/AP			



CUSCO

SAN DIEGO ZOO INSTITUTE FOR CONSERVATION RESEARCH



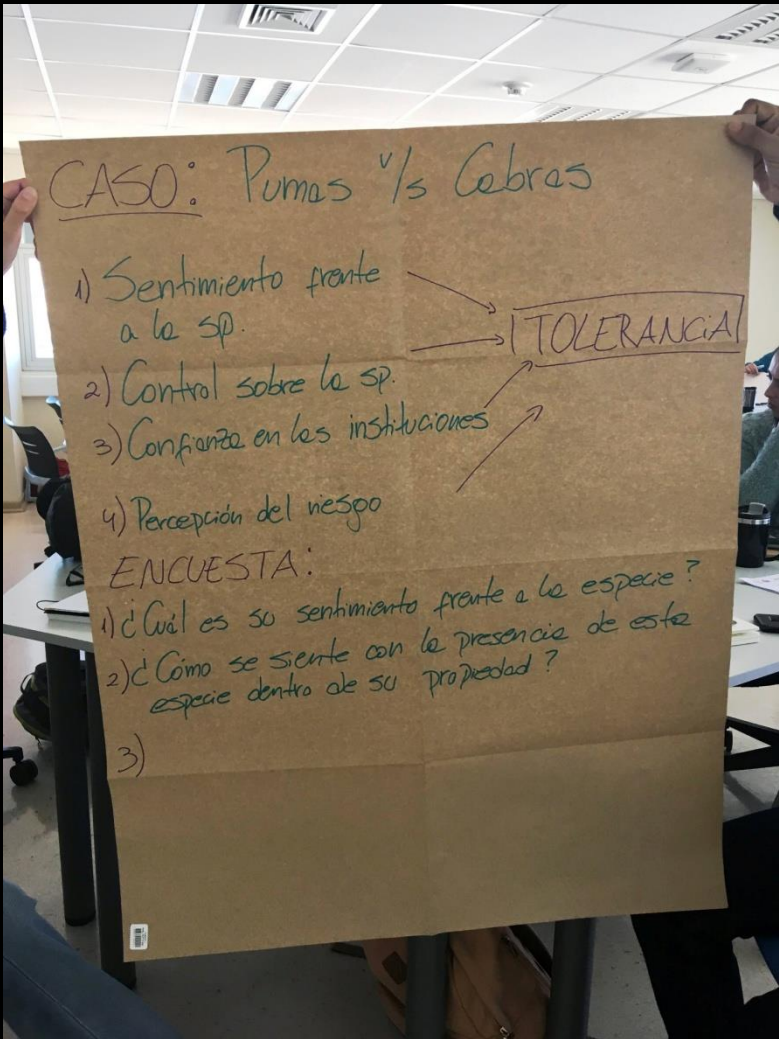
San Diego



	Physical Summary	Indicators	Means of Verification	Risks and Assumptions	Risk/Assumptions
Goal	3 native CO species	Percentage of giraffes in primary habitats	Comparison of primary and high school enrollment trends	The monthly meeting productivity index using the regional assessment tool	Regional meeting productivity index and conference material index at school children apply what they learn in the summer camp
Outcomes	3 native CO species	Percentage of giraffes in primary habitats	Comparison of primary and high school enrollment trends	The monthly meeting productivity index using the regional assessment tool	Regional meeting productivity index and conference material index at school children apply what they learn in the summer camp
Activities	3 native CO species	Percentage of giraffes in primary habitats	Comparison of primary and high school enrollment trends	The monthly meeting productivity index using the regional assessment tool	Regional meeting productivity index and conference material index at school children apply what they learn in the summer camp



Kuala Lumpur



Coquimbo

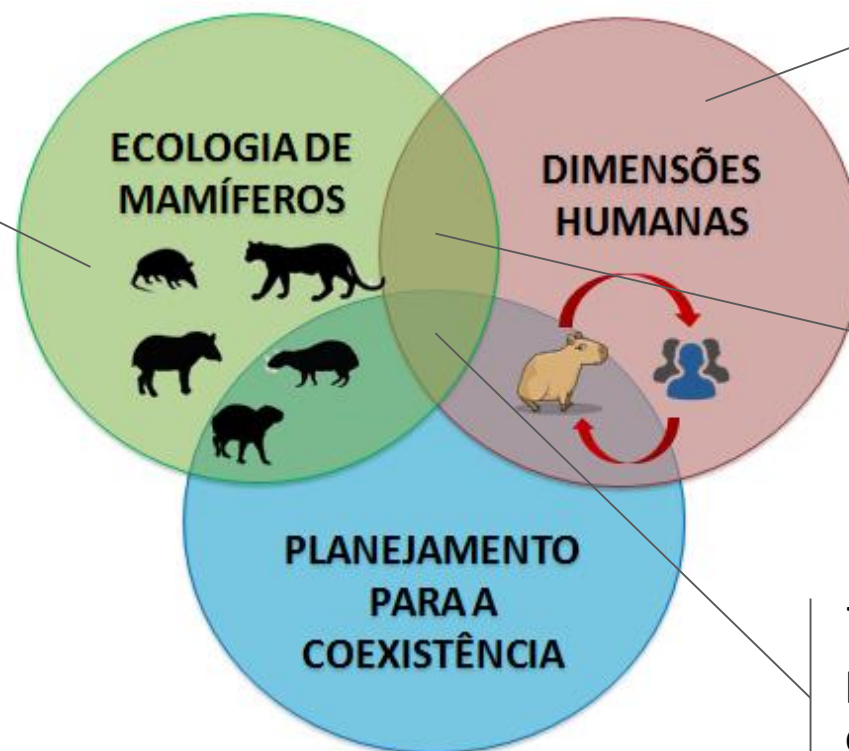
Padrões de diversidade biológica e coexistência humano-fauna: componentes que sustentam os serviços ecossistêmicos

1. Caracterizar as assembléias de mamíferos

2. Analisar padrões de diversidade das assembléias de mamíferos

3. Verificar a ocorrência de estruturação populacional e fluxo gênico e inferir sobre a conectividade funcional

4. Descrever a dieta de mamíferos carnívoros, o uso dos recursos e habitat



5. Desenvolver e implementar um modelo para avaliação da percepção social dos serviços ecossistêmicos;

6. Desenvolver e implementar modelos para minimizar o conflito entre produtores rurais e mamíferos predadores

7. Fazer recomendações para políticas públicas que minimizem os conflitos e ameaças e maximizem a conservação da biodiversidade e a coexistência humano-fauna

Armadilhamento fotográfico



Protocolo TEAM
Estações amostrais
Grid de 60 km²
1 Km de espaçamento
Estações de seca e chuva

Desenho de estudo

Corredor
sudeste MA

Bacia Hidrográfica do
Paraíba do Sul

APA São Francisco
Xavier

Sub-
bacia
Rios
Pomba
e
Muriaé

Mb Ouro e Varre-
Sai (Porciúncula e
Varre-Sai)

Mb Coléginho;
Olho d'água e
Valão Grande
(Cambuci e Itaiya)

Mb Rio das Flores (Valença e Barra
do Piraí)

Estação Ecológica de
Bananal

PESM – Núcleo Santa
Virgínia

PESM – Núcleo
Itariru

Google Earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus

300 km



DIMENSÕES HUMANAS

SAO PAULO

PESM-NSV-VG (2)

PESM-NITA (23)

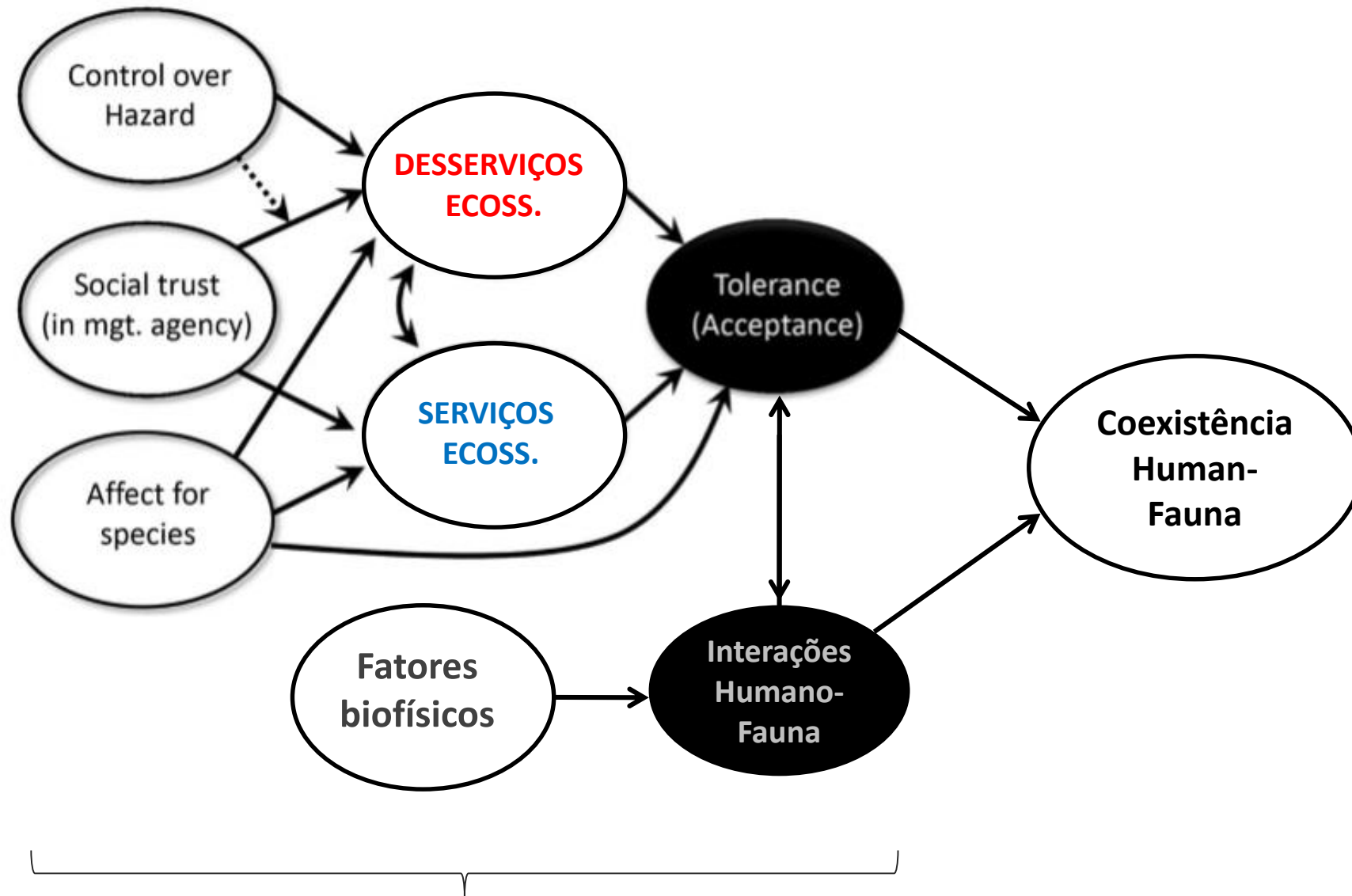
PECB (60)

PETAR (40)

PARANA



Modelo Conceitual



Com PSA x Sem PSA

Ecosystem Disservices



Available online at www.sciencedirect.com



Urban Forestry & Urban Greening 8 (2009) 309–315



www.elsevier.de/ufug

SHORT COMMUNICATION

Hopping on one leg – The challenge of ecosystem disservices for urban green management

Jari Lyytimäki*, Maija Sipilä

Finnish Environment Institute, Finland




[Ambio](#)

..... March 2017, Volume 46, [Issue 2](#), pp 173–183 | [Cite as](#)

From food to pest: Conversion factors determine switches between ecosystem services and disservices

Authors

[Authors and affiliations](#)

Laura Vang Rasmussen , Andreas E. Christensen, Finn Danielsen, Neil Dawson, Adrian Martin, Ole Mertz, Thomas Sikor, Sithong Thongmanivong, Pheang Xaydongvanh

[Ecological Indicators 106 \(2019\) 105454](#)



Contents lists available at [ScienceDirect](#)

Ecological Indicators

journal homepage: www.elsevier.com/locate/ecolind



iconic manakins and despicable grackles: Comparing cultural ecosystem services and disservices across stakeholders in Costa Rica

Alejandra Echeverri^{a,*}, Robin Naidoo^{a,b}, Daniel S. Karp^c, Kai M.A. Chan^a, Jiaying Zhao^{a,d}



Unpacking Pandora's Box: Understanding and Categorising Ecosystem Disservices for Environmental Management and Human Wellbeing

C. M. Shackleton,* S. Ruwanza, G. K. Sinasson Sanni, S. Bennett,
P. De Lacy, R. Modipa, N. Mtati, M. Sachikonye, and G. Thondhlana

Table 2. Categories and Examples of Ecosystem Disservices According to Origin and Nature of Impacts

	Primary dimension of human wellbeing affected		
	Economy	Physical and mental health and safety ('health')	Aesthetic and cultural ('Cultural')
Ecosystem origin			
Biological	<ul style="list-style-type: none"> • Invasive species • Agricultural and fisheries pests and diseases • Red tide 	<ul style="list-style-type: none"> • Human diseases from pathogens • Allergens • Dangerous or poisonous plants and animals • Trees scratching on windowpanes 	<ul style="list-style-type: none"> • Bird droppings on stonework and outdoor sculptures • Tree roots cracking pavements • Scattering of human rubbish by foraging wild animals • Unpleasant odours from rotting organic matter
Abiotic¹	<ul style="list-style-type: none"> • Droughts • Fires • Siltation • Leaching of nutrients 	<ul style="list-style-type: none"> • Floods • Storms 	<ul style="list-style-type: none"> • Soil erosion • Mud/landslide scar




[Ambio](#)

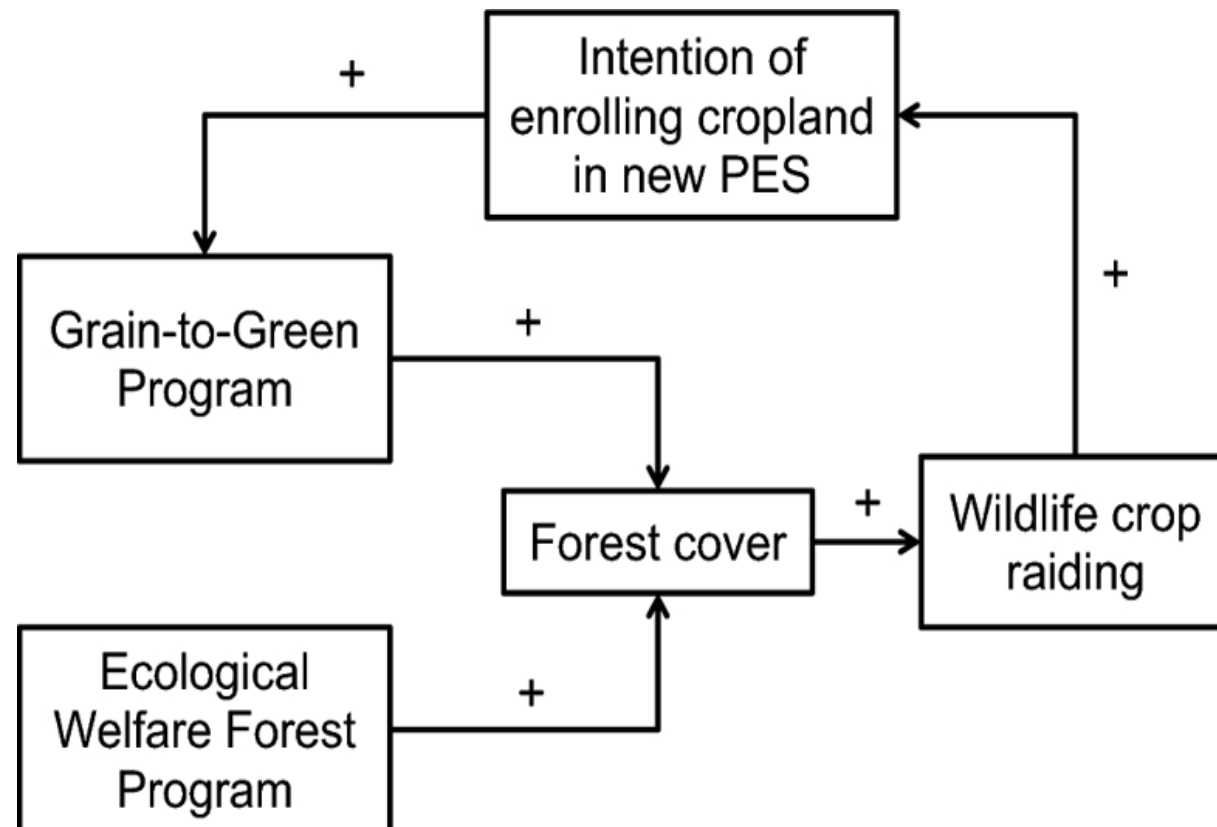
July 2019, Volume 48, [Issue 7](#), pp 732–740 | [Cite as](#)

Feedback effect of crop raiding in payments for ecosystem services

Authors

[Authors and affiliations](#)

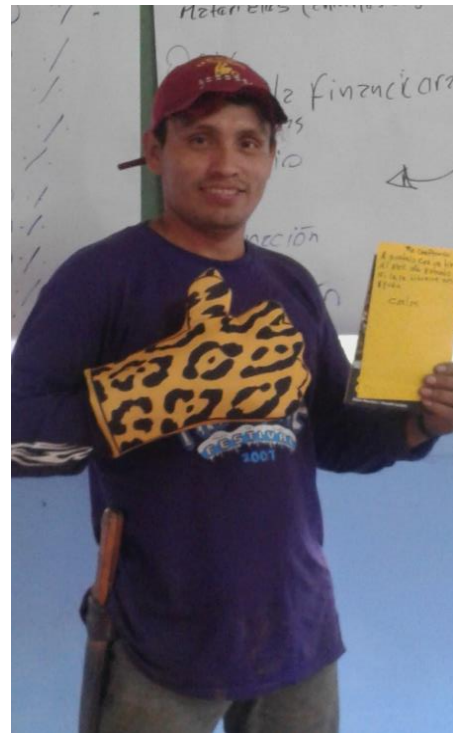
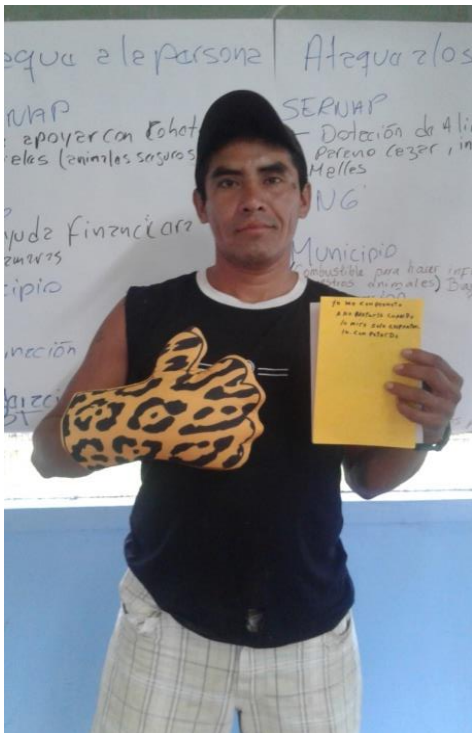
Xiaodong Chen , Qi Zhang, M. Nils Peterson, Conghe Song



Envolvendo stakeholders na escolha das soluções na escolha das soluções



Participatory design of “good practices” protocol.



Envolvendo stakeholders na escolha das soluções

LUZ AMÉRICA

DICE **SI** A LA **CONVIVENCIA** CON EL **TIGRE**



aceaa
ASOCIACIÓN BOLIVIANA PARA LA
INVESTIGACIÓN Y CONSERVACIÓN DE
ECOSISTEMAS ANDINO-AMAZONICOS

2016



Envolvendo stakeholders na escolha das soluções

adaptações



RESILIÊNCIA

LUZ AMÉRICA

DICE SI A LA CONVIVENCIA CON EL TIGRE



aceaa
ASOCIACIÓN BOLIVIANA PARA LA
INVESTIGACIÓN Y CONSERVACIÓN DE
ECOSISTEMAS ANDINO-AMAZONICOS

2016

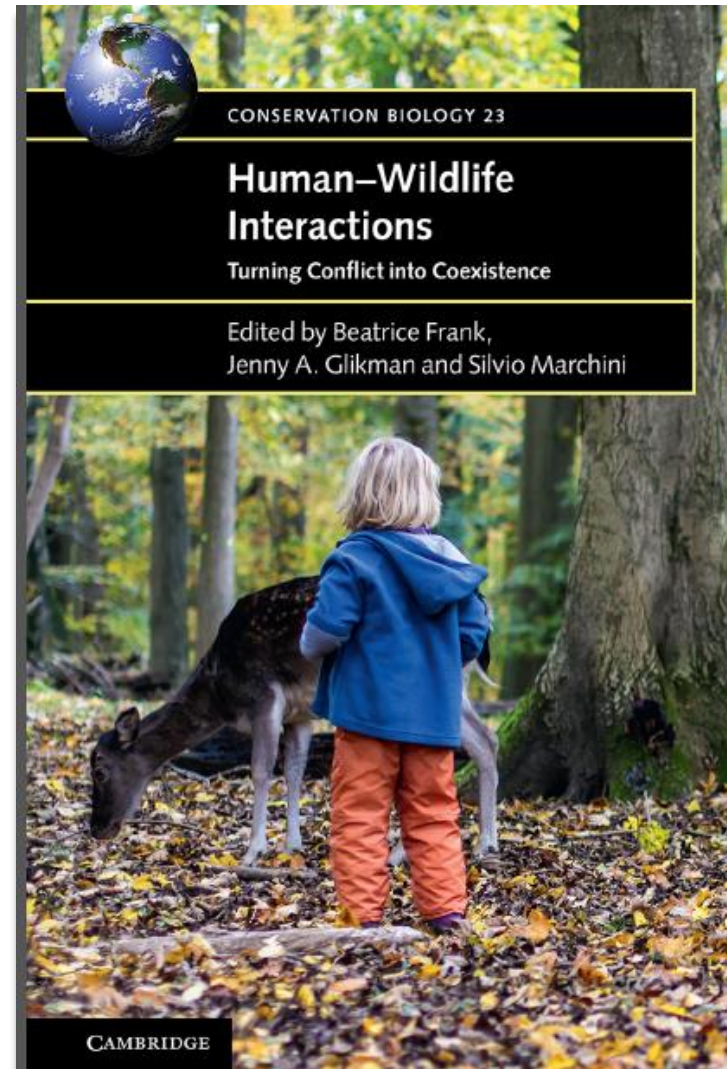




COEXPROJECT



Saiba mais



19

Planning for Coexistence in a Complex Human-Dominated World

SILVIO MARCHINI, KATIA M. P. M. B. FERRAZ, ALEXANDRA ZIMMERMANN, THAIS GUIMARÃES-LUIZ, RONALDO MORATO, PEDRO L. P. CORREA AND DAVID W. MACDONALD

The interdisciplinary field of research focusing on human-wildlife conflict (HWC) and ways to turn conflict into coexistence, although relatively new, is developing fast. In the last 20 years, the number of scientific publications addressing HWC has increased almost exponentially (Figure 19.1). Initially focused on the ecological and economic aspects of wildlife damage (Woodroffe et al. 2005), the emphasis of this literature has been gradually shifting to the human dimensions of HWC. Examples of issues that have been addressed recently include the roles of cognition and feelings such as attitudes (Kansky & Knight 2014), values (Manfredo et al. 2016), risk perception (Decker et al. 2010) and emotions (Jacobs 2012) about single species or groups of related species (e.g. large carnivores), models to predict tolerance (Bruskotter & Wilson 2014; Kansky et al. 2016) and behaviours (Marchini & Macdonald 2012) towards the species involved, and approaches to understanding conflicts between groups of people over wildlife management (Madden & McQuinn 2014). There has been, indeed, considerable progress in the understanding of the ecology and economics of wildlife damage and of the drivers of tolerance and hostility towards wildlife at small scales (i.e. individual to household to community level). Nonetheless, this understanding has not translated significantly into management and policy at larger scales. In the meantime, HWC is escalating in the world in general, and in developing countries in particular (Hoare 2015; Marchini & Crawshaw Jr 2015; Manral et al. 2016).

Two important factors behind this research-implementation gap are complexity and limited resources. Whereas researchers have understandably focused mostly on local, single-species issues and individual-

Alexandra Zimmermann
Carolina Bolaños
Claudia Martins
Daniel Rocha
David Macdonald
Emiliano Ramalho
Esteban Brenes-Mora
Iara Ramos
Jenny A. Glikman
Katia Ferraz
Leticia Prado
Mariana Catapani
Mariana Landis

Nuno Negrões
Pedro Correia
Ricardo Boulhosa
Roberta Paolino
Rogerio de Paula
Ronaldo Morato
Santiago Zuluaga
Solange Vargas
Thais Guimaraes
Thiago Reginato
Wezddy del Toro
Yara Barros
Yuri Ribeiro