

# Co-generation of Ecosystem Services by Nature and Indigenous Peoples / TKs Guidelines

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CULTURAL RELATIONSHIPS TO MOTHER EARTH, TRADITIONAL  
KNOWLEDGES AND SAFEGUARDS

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## Frameworks and Guidelines

This presentation will cover two topics:

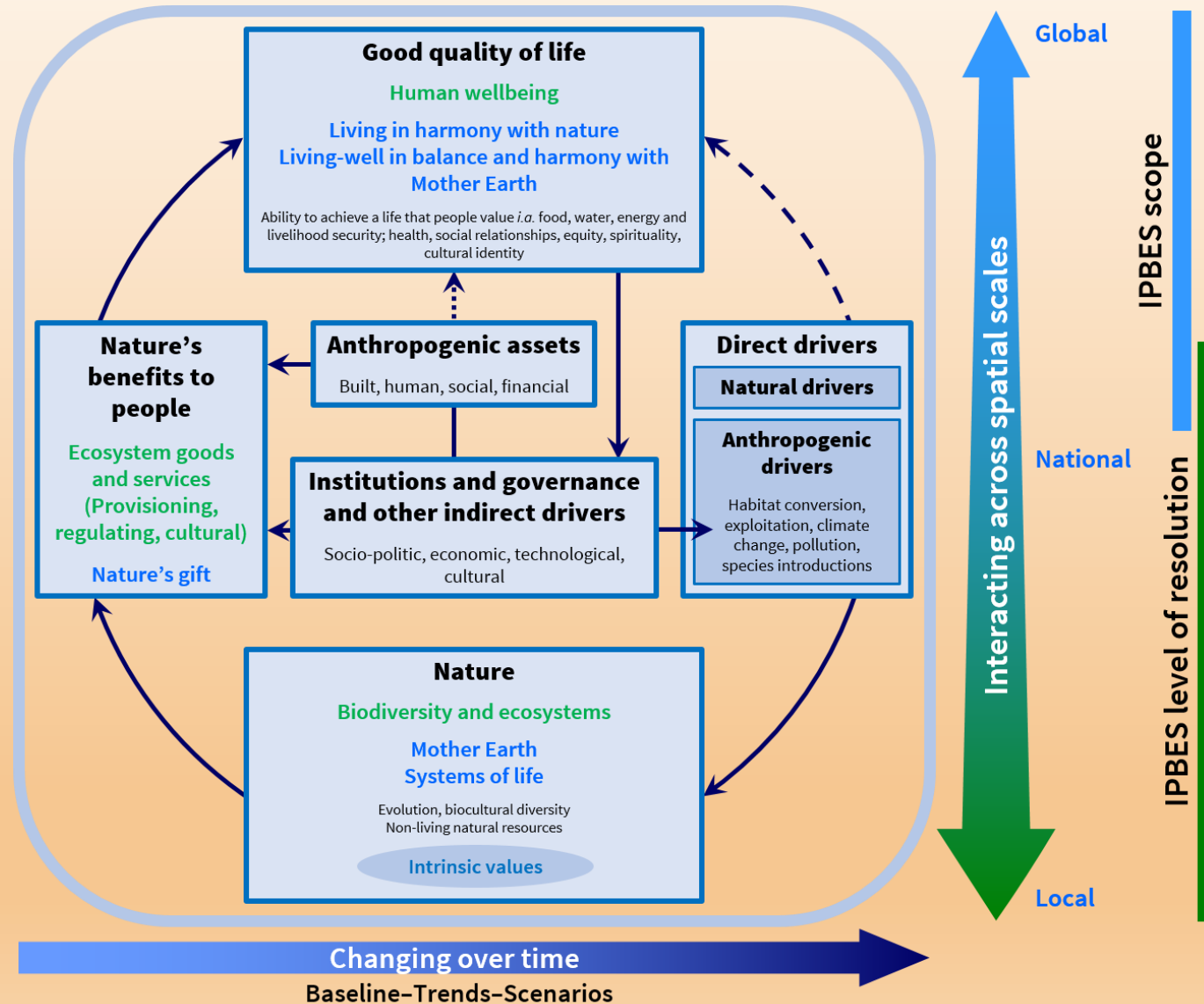
Ecology of Traditional Knowledge Framework

Ecosystem Services/Adaptation/Natural Resources Management

Guidelines: Ethical principles for braiding systems of knowledge and types of approaches

# Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES)

## IPBES Conceptual Framework



# Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES)

IPBES Framework is a good start, with progressive elements

Mother Earth

Systems of Life

Biocultural Diversity

Diverse Knowledge Systems

Indigenous and local knowledge systems

Complementary Evidence / Multiple Evidence Base

## Frameworks: IPBES

Humans primarily viewed as negative drivers, without little treatment of positive impacts

Social/cultural elements of nature recognized, but need elevation

Emphasis on natural ecosystems and services

Anthropogenic institutions and assets then act on these natural ecosystem services

## Co-Generation/Co-Production of Ecosystem Services

Pervasiveness of cultural landscapes: Many ecosystem services are not purely natural, but co-generated (dialectic between humans and nature)

Biodiversity: cultural biodiversity, biocultural landscapes

Fire: cultural fire, cultural firescapes, pyrocultural landscapes

Water: cultural water, cultural waterscapes, hydrocultural landscapes

Soil: cultural soils, terra preta soils, cultural soils, pedocultural landscapes

Biophysical: cultural biophysical processes

## All Hands, All Lands, All Strands Approach to Ecosystem Services

### Cultural ecosystem services

Not simply values delivered by natural ecosystems (aesthetic, recreational)

Services co-generated by human activities, including intangible dimensions

### Anthropocene:

Novel ecosystems (no analogue ecosystems)/Ecosystem Services of Novel Ecosystems

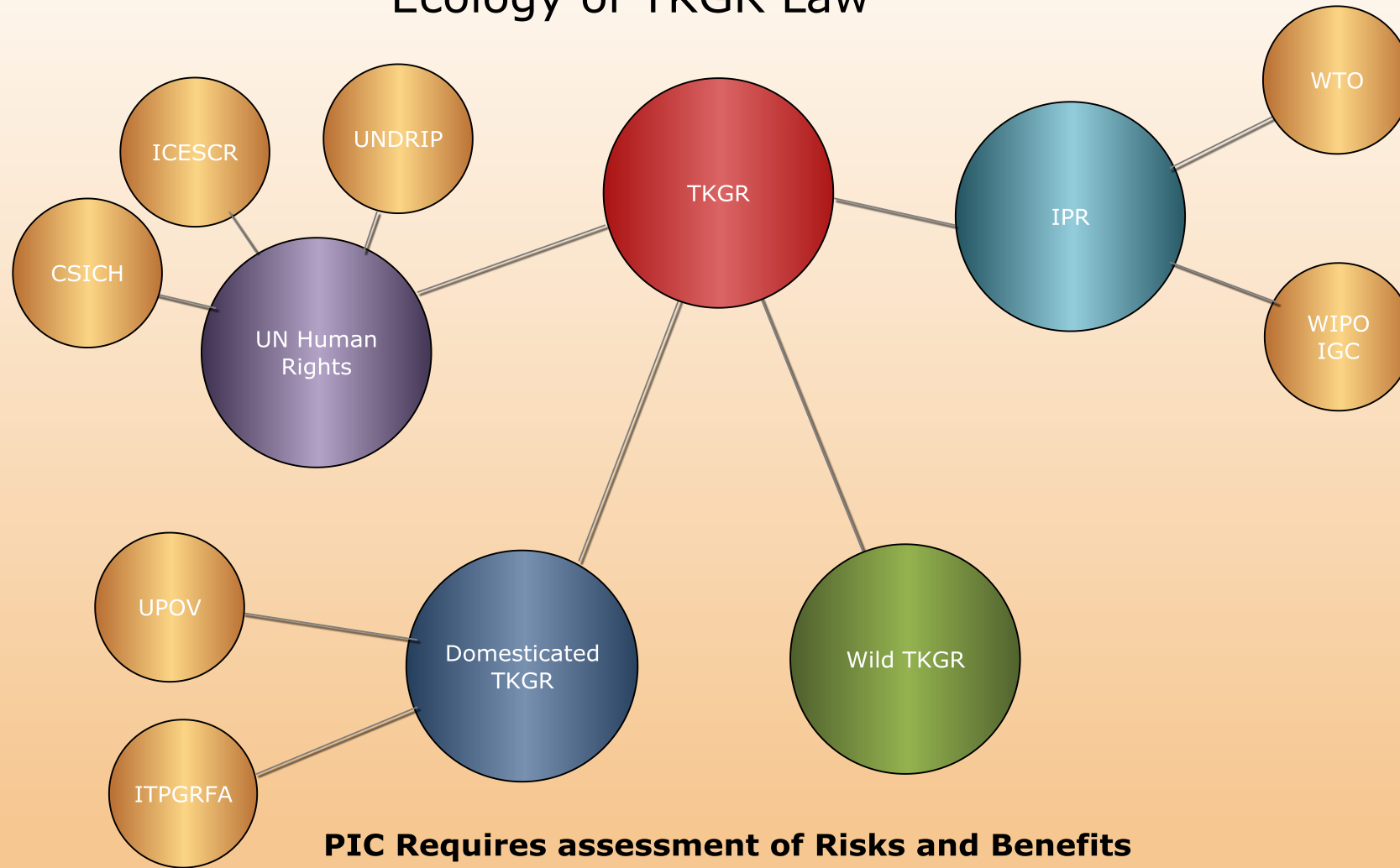
Biotic Reshuffling

Coupled/Telecoupled Human-Natural Systems: Scale of flows and interactions

Telecoupled systems in an interconnected world

Biocultural Innovation Systems: Humans must be viewed as significant positive driver of solutions

# Ecology of TKGR Law



**PIC Requires assessment of Risks and Benefits**

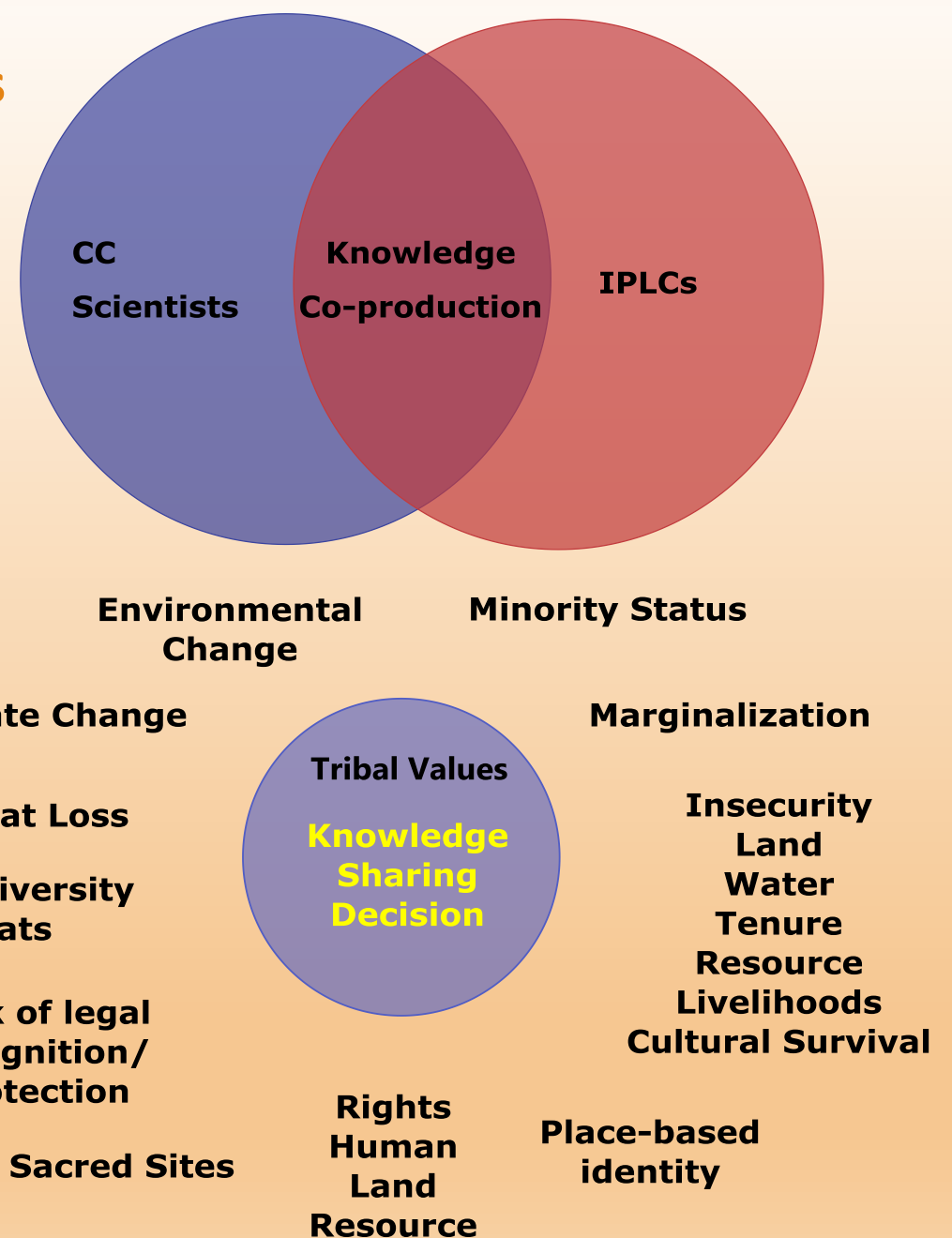
**Risks and Benefits for ABS Vary by Legal, Management,  
Compliance, Life-history Contexts**



## Guidelines

Project-Focused  
Approach (TEK)

Holistic  
Decision Making  
(Ecology of TKs)



## Traditional Knowledge Guidelines/Biocultural Protocols

Emic

good mind  
guardianship  
customary law  
cosmovision  
reciprocity  
obligations  
relations

Etic

information  
economics  
intellectual property  
common heritage  
public domain  
secular knowledge  
open knowledge

# Traditional Knowledges Guidelines/Biocultural Protocols

## Why Guidelines?

Funding in a vacuum

Existing guidance not known or not followed

Existing guidance doesn't fully reflect diverse indigenous views

TKs sought for solving problems not caused by TK holders

Value added to indigenous peoples v. mining operation

“Optimism bias” in proposals to access TKs

# Traditional Knowledges Guidelines

## Why Guidelines?

Must apply TKs to problems, or values will not show up in the solutions to direct impacts

Must transfer some kind of information related to TKs to ensure they are not harmed by solutions (adaptation, mitigation, conservation)

Tribes not stakeholders (balancing tests inappropriate)

May wish to get involved in ABS agreements

Protocols and guidelines as bridging devices

# Traditional Knowledges Guidelines

## Internal Ecology

Values: Respect, reciprocity, equilibrium, good mind, good heart

Procedures: When and how to contact the tribes, how they wish to structure processes

Benefit sharing: economic, capacity-building, technology transfer, acknowledgement

Desired use restrictions, protections and safeguards for achieving these

# Traditional Knowledges Guidelines

## External Ecology

Standing: Power relationships, sovereignty and self-determination,  
government-to-government

Nature of Traditional Knowledges: Cultural heritage vs. intellectual property

Ownership of exchanged knowledges

Control over exchanged knowledges

# Traditional Knowledges Guidelines

## External Ecology

Ownership and control over the publication and distribution of products

Legal ecology: No recognition of customary law  
sovereign tribal jurisdiction (e.g. cultural heritage v. public domain)

Loss of benefit sharing

Majority/minority power and value inequalities

## Traditional Knowledges Guidelines Risks

Misappropriation of traditional knowledge per se

Moral hazard of cultural offense (customary law/stewardship obligations)

Third party acquisition of TKs (not bound by ethical guidelines or law)

Loss of ownership/control over TKs/Lack of Legal Recognition  
Western IP law and the public domain / FOIA

Privatization of TKs through derived intellectual property rights

Loss of benefits/lack of benefit sharing for TKs per se



## Traditional Knowledges Guidelines Risks

Misappropriation of living cultural heritage associated with TKs  
(May be a larger problem than misappropriation of GRs)

TKs not arbitrary or solely abstract: associated with identity, dignity, livelihoods

Living cultural heritage may already be threatened or endangered

Overharvesting/extirpation

Co-protection: TKs and associated cultural resources

## Traditional Knowledges Guidelines Opportunities

Knowledge co-production and co-creation

- Novel solutions from combination of scientific knowledge and TKs

- Ensure indigenous resource, landscape and other values are reflected

New knowledge in a changing world

- Limitations of the ability of TKs to cope with unprecendated change

- Increasing unreliability of traditional environmental indicators

Valorization of traditional knowledges: Benefit sharing and respect

Potential for right relationships

- Co-management, self-management, government-to-government

# Traditional Knowledges Guidelines: Primary Principles

## First, Do No Harm

Primum non nocere, non-maleficence, doing No Harm

Hippocratic Oath, Law (liability)

Duty not to cause harm to others through any intervention

Duty to ensure actions benefit all involved

Responsibility for consequences of actions

Duty to do good (beneficence), duty of care

# Traditional Knowledges Guidelines: Primary Principles

## Tribal Sovereignty

All tribes have sovereign jurisdiction over their traditional knowledges

All tribes have the right to set their own criteria for sharing/not sharing TKs

Guidelines are not a checklist

## Traditional Knowledge Guidelines: Primary Principles

### Free, prior and informed consent (FPIC)

Free: un-coerced, unbiased, freedom of tribes to set procedure through which consent is given

Prior: Consent prior to access and use, changes in use

Consent: Right to say no: Give or withhold consent

Not necessarily collective consent – collective rules

Risks and opportunities – appropriate and balanced information

## Traditional Knowledges Guidelines: Guidelines

Guideline 1. Understand key concepts and definitions related to TKs

Guideline 2. Recognize that indigenous peoples and holders of TKs have a right NOT to participate in federal interactions around TKs

Guideline 3. Understand and communicate risks for indigenous peoples and holders of TKs

## Traditional Knowledges Guidelines: Guidelines

Guideline 4. Establish an institutional interface between indigenous peoples, TK holders, and government for clear, transparent and culturally appropriate terms-of-reference, particularly through the development of formal research agreements

Guideline 5. Provide training for federal agency staff working with indigenous peoples on initiatives involving TKs

Guideline 6. Provide specific directions to all agency staff, researchers and non-indigenous entities to ensure that protections for TKs requested by tribes and knowledge holders are upheld

## Traditional Knowledges Guidelines: Guidelines

Guideline 7. Recognize the role of multiple knowledge systems

Guideline 8. Develop guidelines for review of grant proposals that recognize the value of TKs, while ensuring protections for TKs, indigenous peoples, and holders of TKs



## Traditional Knowledges Guidelines

1. How an indigenous community wishes to be contacted
2. Who owns research outcomes
3. Indigenous control over what gets published
4. Recognition and Remuneration to elders
5. Acknowledgement
6. Restrictions on uses
  - customary law, collective ownership
  - “contracting into custom”
7. Restrictions on transfers
8. Checkpoints for changes in use
9. Ongoing responsibilities for consultation, negotiation, monitoring, reporting

## Traditional Knowledges Guidelines

### 11. Reciprocity

- Clarity over benefits to tribes

- Monetary and non-monetary benefit sharing

- Distributive justice

### 12. Respect

### 13. Flexibility and responsiveness to community needs

### 13. Procedures/procedural justice

- Full and effective participation

- Traditional decision making

- Gender, youth, elder participation

### 14. Equilibrium based on tribal worldview, balance among partners and the environment

## Conclusion

Indigenous peoples are generally very generous, and have shared much and often willing to work with their neighbors. But there needs to be caution - risk of disclosing unprotected traditional knowledge associated with unprotected cultural resources

FPIC challenging and will take bridge- and institution-building

Principles of Reciprocity and Respect

Principle of co-protection for both TKs and associated resources

Principle of stewardship obligations (protected sharing)

Principle of doing no harm

