

# INDIGENOUS & LOCAL KNOWLEDGE IN

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# ECOSYSTEM ASSESSMENTS

# EMBEDDING ILK



# IN THE ECOSYSTEM ASSESSMENT

# Embedding ILK in the NEA, including Spatial ILK and Indigenous Valuation



## NEA Global Workshop

Date: 29 November 2023

Venue: Cambridge, United Kingdom

Sofia Delger  
BES-Net ILK Support Unit,  
UNESCO LINKS



SUPPORTED BY



# Agenda

- ▶ **Welcoming and Icebreaker**
- ▶ **Insights from Colombia NEA and IPBES Values Assessment**
- ▶ **BiH insights on Spatial ILK and ILK data Mngt**
- ▶ **Interactive Session**
- ▶ **Conclusion**



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# Welcoming and Icebreaker



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# Insights from Colombia NEA and IPBES Values Assessment

Paula Ungar

Co-ordinating lead author Colombia NEA,  
Co-author IPBES Values Assessment



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BESNet

Biodiversity and Ecosystem Services Network



# Embedding Indigenous and Local Knowledge in the National Ecosystem Assessment

## Reflections from the Colombia NEA (2017-2021) and IPBES Values Assessment

Paula Ungar, PhD  
Instituto Alexander von Humboldt, Colombia  
Field Museum of Natural History, Chicago

Image: Courtesy of Tropenbos Colombia





Territory means being able to recognize the bird through their song and the animal through their trail in the bush.

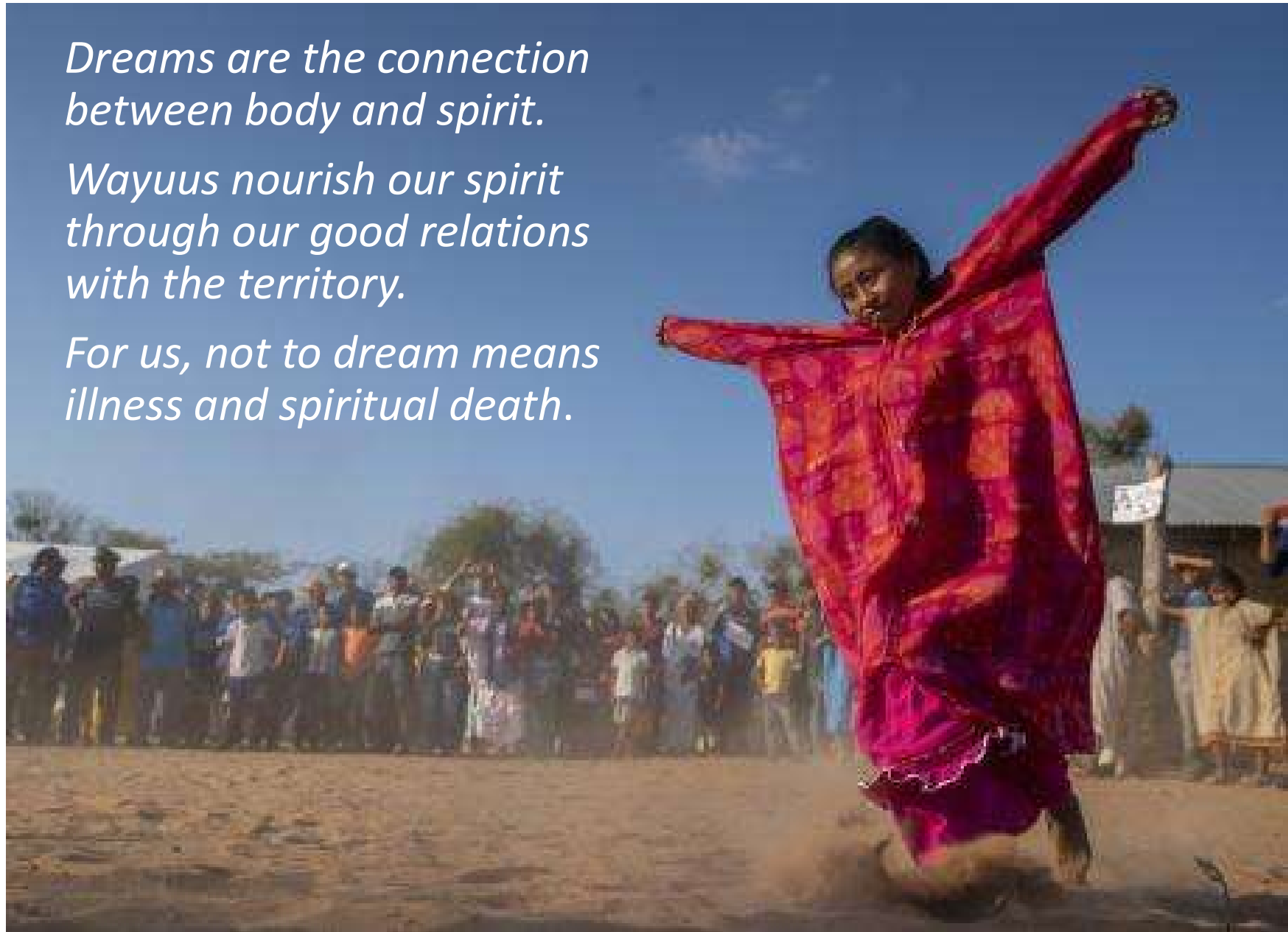
It is also constituted by all the ways in which we relate to each other, and how we organize ourselves for fishing, hunting, cultivating the earth and harvesting, by the knowledge we have to cure the evils of body and soul.

Black Peoples Process. Unpublished document. 1994. Quoted in the Colombian NEA.

*Dreams are the connection  
between body and spirit.*

*Wayuus nourish our spirit  
through our good relations  
with the territory.*

*For us, not to dream means  
illness and spiritual death.*



Ángel Segundo Robles  
Epieyu. Indigenous  
contributing author

# Radically different forms of knowing and knowledge

- Extraordinary dimensions, complexity!
- Sophisticated, detailed
- Connected to practices, connected to territories
- Based on reciprocal relations to nature that often entail intangible links.
- Knowledge holders are also legitimate decision- and policy-makers
- Mostly not documented / transmitted in written form

# Challenges

- **Conceptual:** How to avoid reducing local knowledge to “our” categories, leaving their essence out?
- **Political:** What is the role / relevance of a national evaluation for Indigenous Peoples and local communities in a highly unequal scenario?
- **Practical and methodological:** How to convene authors, structure and write the evaluation?

## National Ecosystem Assessments

Nationally-driven

Synthesis of knowledge on biodiversity and ecosystem services

Bridge gap science – decision-making

Aim: empower the full consideration of the value of nature in decision-making

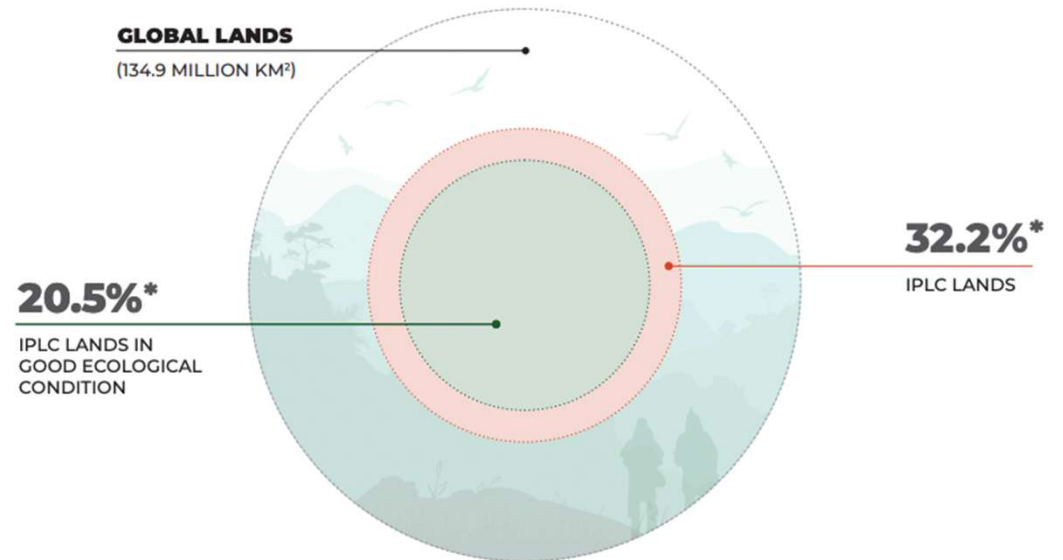
**Contextualized to suit national needs**



## The state of Indigenous Peoples' and Local Communities' lands and territories

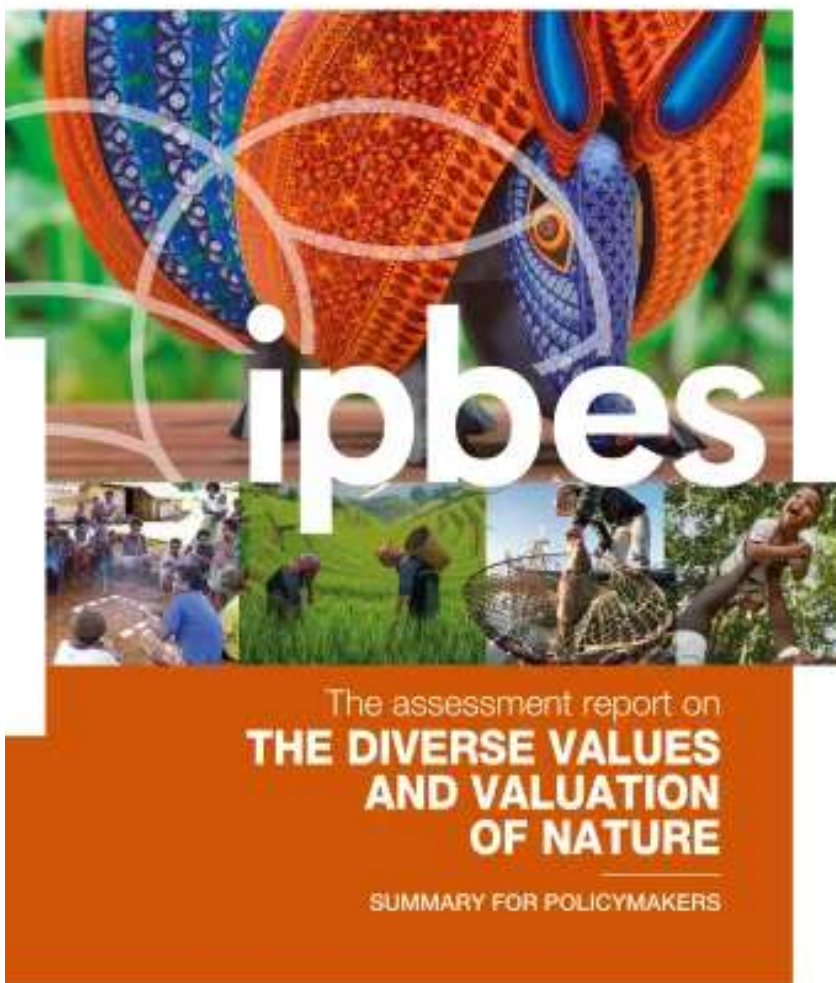
A technical review of the state of Indigenous Peoples' and Local Communities' lands, their contributions to global biodiversity conservation and ecosystem services, the pressures they face, and recommendations for actions

### INDIGENOUS PEOPLES' AND LOCAL COMMUNITIES' (IPLC) LANDS: THE GLOBAL PICTURE



WWF - World Wide Fund for Nature, UNEP WCMC, GEF Small Grants Programme, ICCA-Global Support Initiative, LandMark Global Platform of Indigenous and Community Lands, TNC, Conservation International, Wildlife Conservation Society, UNDP Equator Prize, International Land Coalition Secretariat, Conservation Matters LLC, International Union for Conservation of Nature IUCN. 2021.

[https://wwfint.awsassets.panda.org/downloads/report\\_the\\_state\\_of\\_the\\_indigenous\\_peoples\\_and\\_local\\_communities\\_lands\\_and\\_terroritor.pdf](https://wwfint.awsassets.panda.org/downloads/report_the_state_of_the_indigenous_peoples_and_local_communities_lands_and_terroritor.pdf)



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## Diverse values of nature for sustainability

### Conclusion

The transformative changes needed to achieve ambitious biodiversity and development goals require confronting the status quo and associated vested interests tightly tied to current institutions (norms and legal rules), including the allocation of property rights over nature. Such transformation also demands recognizing and integrating the diverse values of nature into political, economic and other day-to-day decision-making that informs environmental management. Given the current allocation of property rights in predominant political systems, the primacy of market-based instrumental values in many decisions is at the core of underlying direct and indirect

drivers of today's global biodiversity crisis<sup>67</sup>. These market-based values need to be balanced with the relational, intrinsic and non-market instrumental values that are also part-and-parcel of the reasons nature matters to people.

Achieving more just and sustainable futures entails mobilizing and nurturing

# Conceptual

Instead of “Indigenous and Local Knowledge” ...

## *Biocultural Diversity*

The diversity of life in all of its manifestations – biological, cultural, linguistic- which are interrelated within a complex, adaptive social-ecological system



4

Diversidad biocultural:  
**CONOCIMIENTOS  
Y PRÁCTICAS**  
PARA EL CUIDADO DE LA VIDA  
EN TERRITORIOS DE PUEBLOS  
INDÍGENAS Y COMUNIDADES LOCALES

# Political: Our Role and the Contents of the Assessment

Provide **key information about biocultural diversity to decision and policy-makers for its conservation**, and making it visible on its own terms by:

- Accounting for the state, assets of and threats to *biocultural systems* in the country, using scientific language.
- Throwing light on local forms of knowledge, using local peoples' ways of accounting for their complex relations to territories.



# Practical: How?

**Coordination**

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Afro-Colombian leader (Caribbean)  
Leader of Women Peasant Group (Andes)  
Lawyer, Geographer. NGO for Peasants Rights  
Afro-Colombian leader (Pacific)  
Indigenous leader (Caribbean)



- 2 day trialogue
- +40 participants from all the regions, NGO, academia, government
- Themes of the NEA chapters

# Table of Contents

- **Key Findings**
- Introduction
- Conceptual framework
- Indigenous peoples and local communities in the national context
  - Biocultural diversity and of knowledges in Colombia
  - Acknowledgment of biocultural diversity in the legal framework and public policy
- Academic and NGO interest in ILK
  - Critical review of literature on ILK
  - Organizations that work with ILK in the country
- Other forms of knowledge, other worlds
- Threats to biocultural diversity
  - Direct
  - Indirect
  - Nature as victim
- Resistance and alternatives for the protection of territories and life systems

# Examples

- **Biocultural diversity and state acknowledgment**

The areas with better conserved forest coincide with territories where Indigenous, Afro-Colombian, peasants and other local communities hold common titles and are able to develop their own management systems [**Section 4.1.1, well established**].

- **Links between ILK and scientific knowledge**

Afro-Colombian communities are underrepresented in academic literature about ILK [**Section 4.2, well established**]

There is scarce representation of local and Indigenous people in the national scientific community and in the science-related policy and decision-making processes [**Section 4.2, established but incomplete**]

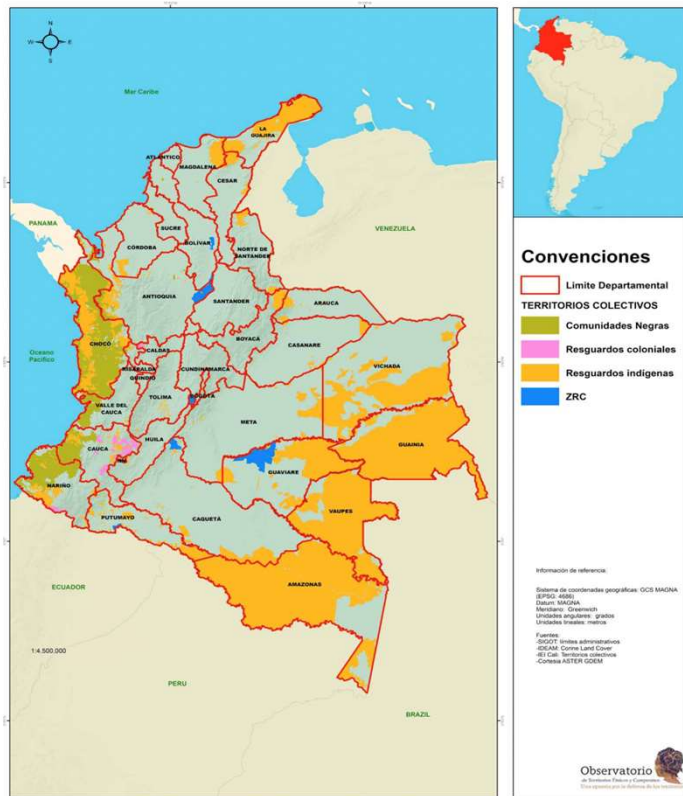
- **Pressures, threats and alternatives**

Violence affects local and Indigenous peoples in a disproportionate manner in relation to the rest of society, thus affecting ILK and the conservation of biodiversity and ecosystem **services** [**Section 4.4. well established**].

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# Biocultural Diversity in the National Context



- 34% of the country's area in legally recognized common lands
- 115 Indigenous peoples, three Afro-Colombian differentiated groups, no official recognition of peasant communities
- Indigenous peoples: 4,4%, Afro-Colombian: 9,5%
- 68 different languages
- **Revision of sources about COINCIDENCE OF WELL CONSERVED FORESTS AND INDIGENOUS AND OTHER COMMONLY OWNED LANDS**
- Policies that affect biocultural diversity in positive or negative ways (land allocation, education, health...)

## ANEXO 4.1 NORMAS RELACIONADAS CON LA DIVERSIDAD BIO CULTURAL EN COLOMBIA

NORMA	COMUNIDAD	TEMA	OBSERVACIÓN
Ley 160 de 1994	Afrocolombiana Indígena	Por la cual se crea el Sistema Nacional de Reforma Agraria y Desarrollo Rural Campesino, se establece un subsidio para la adquisición de tierras, se reforma el Instituto Colombiano de la Reforma Agraria y se dictan otras disposiciones	Esta Ley constituye un importante avance en materia de reforma agraria
		Por el cual se reglamenta parcialmente el Capítulo XIV de la Ley 160 de 1994 en lo relacionado con la dotación v	El Decreto fue elaborado con participación de representantes de las

Herrera, J. Cifor. 2017.  
[https://www.cifor.org/publications/pdf\\_files/infobrief/6704-infobrief.pdf](https://www.cifor.org/publications/pdf_files/infobrief/6704-infobrief.pdf)

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ANEXO 4.2. LITERATURA ACADÉMICA SOBRE CONOCIMIENTOS INDÍGENAS Y LOCALES DE LA BIODIVERSIDAD

Referencia completa	pregunta problema/idea principal RESUMEN	Año	Tipo*	Vínculo
Osbañr, K., & Morales, N. (2018). Conocimiento local y usos de la fauna silvestre en el municipio de San Antonio del Tequendam (Cundinamarca, Colombia). Revista U.D.C.A Actualidad & Divulgación Científica, 15(1), 187-197. Recuperado a partir de <a href="https://revistas.udca.edu.co/index.php/ruadc/article/view/816">https://revistas.udca.edu.co/index.php/ruadc/article/view/816</a>	Las autoras pretenden conocer los conocimientos y usos culturales sobre la fauna de dos municipios del Tequendam en el departamento de Cundinamarca puesto que consideran que el conocimiento sistémico sobre la fauna en la región es extenso pero el conocimiento sobre las relaciones entre humanos y otros animales son poco conocidos. En esta medida, los autores identifican usos medicinales, religiosos, alimenticios, comerciales y simbolismos disintos relacionados con algunas especies de fauna por parte de 278 que estuvieron involucrados en la investigación, conocimiento que aportaron en la construcción de la educación ambiental impartida en la zona.	2018	Artículo	<a href="https://revistas.udca.edu.co/index/article/view/816/917">https://revistas.udca.edu.co/index/article/view/816/917</a>
Castro, L. Suárez, J. López F. Conocimiento local de los servicios ecosistémicos en arreglos agroforestales de café (coffea arabica L.) del sur de Colombia (2012). Ingeniería & Amazonia. Universidad de la amazonia	El texto muestra los resultado de una investigación llevada a cabo con campesinos de la zona del Valle de Laboyos (Pitalito, Huila) respecto al conocimiento sobre distintas especies de arboles y las relaciones de estos campesinos con sus cultivos de café. La investigación pone en relieve las prácticas que los caficultores emplean para mejorar sus cultivos po medio de la utilización de distintas especies de arboles en las plantaciones que no sólo proveen de beneficios económicos sino que proveen sevicios ecosistémicos y se relacionan con las creencias y percepciones de los agricultores; en esta línea los investigadores le siguen la pista a como los agricultores han teorizado, si se quiere, cuales son las relaciones entre los cultivos de café y algunas especies arboreas. De esta manera queda explicito en este proyecto el conocimiento local del territrio de estas personas en relación con el conocimiento sobre distintas especies de arboles locales y foraneos y la manera en como contribuyen a la reforestación con sus prácticas agroecológicas.	2012	Artículo	<a href="http://www.udla.edu.co/revistas/ir/ingenierias-y-amazonia/article/Vie">http://www.udla.edu.co/revistas/ir/ingenierias-y-amazonia/article/Vie</a>

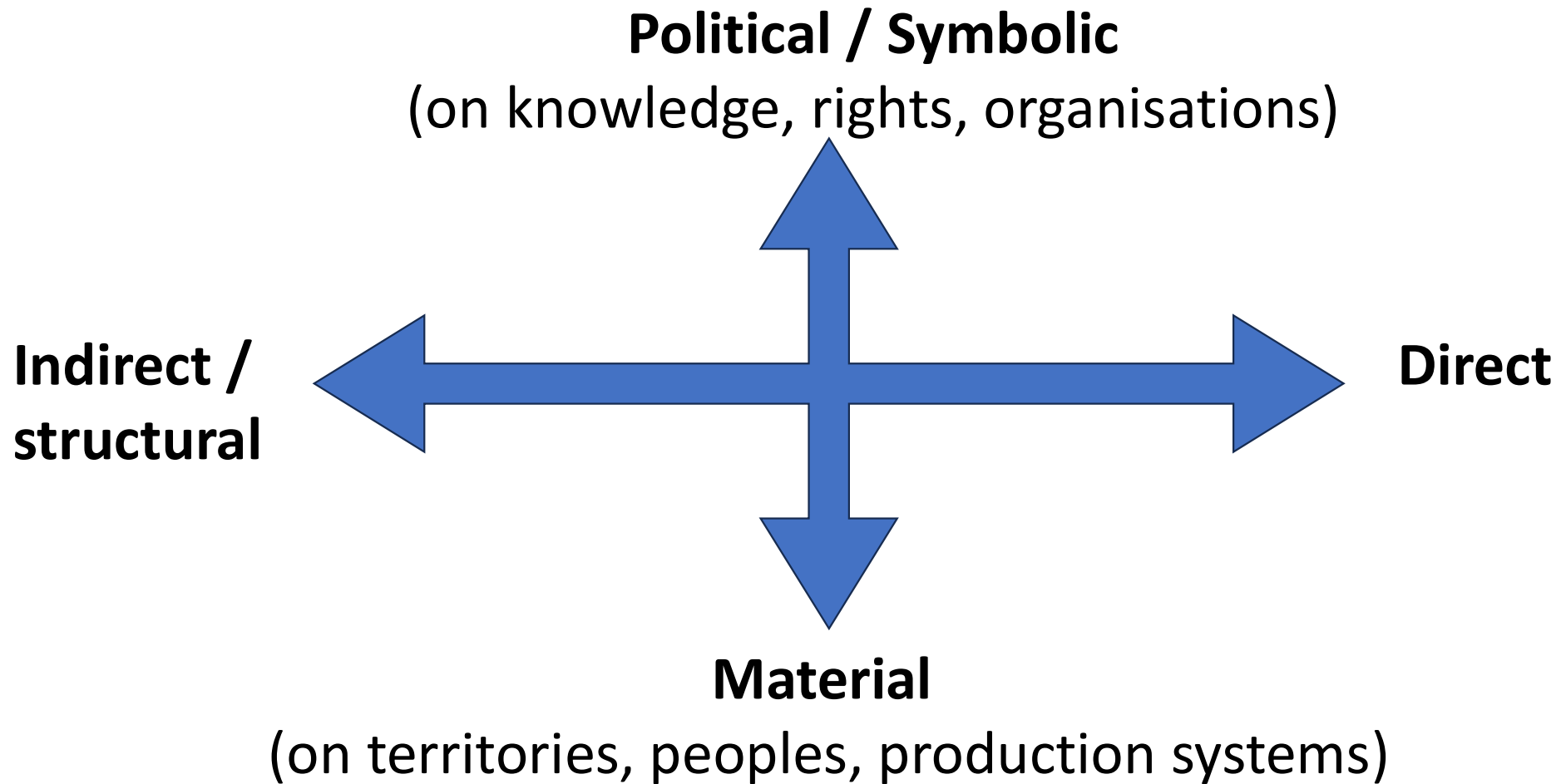
- Publications between 1990 and 2019
- Indexed databases in English and in Spanish
- Databases of undergraduate and postgraduate dissertations in Colombian universities
- 146 articles, chapters, books
- 50% about ILK of *plants*
- 80% Indigenous and peasants as knowledge holders, very few Afro-Colombian
- 50% Andean region
- Pacific region underrepresented despite being a biodiversity hotspot

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# Direct and Indirect Threats



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## ANEXO 4.3

### Experiencias de resistencia y vías alternativas

para la protección de territorios y medios de vida de pueblos y comunidades INAPRRCL

Nombre	Descripción	Fuente(s) <sup>54</sup>
<b>Pueblos y comunidades indígenas</b>		
Sütsuin Jiyeyu Wayuu - Fuerza de Mujeres Wayuu	Proceso impulsado por una organización indígena de mujeres de los municipios de Albania. Barrancas y Hatonuevo en la Península de La Guajira <i>"Fuerza de Mujeres Wayuu, es defensora de la Womainkat- Madre tierra, del agua, los derechos como pueblo indígena y en particular los derechos de las mujeres en un territorio con debilidad en la gobernabilidad, intereses de explotación minera y de hidrocarburos, corrupción y violación de los derechos humanos ..."</i> . Trabajan para visibilizar la situación de violación de los derechos humanos y propios del pueblo wayuu, relacionada con su condición de víctimas del conflicto armado interno (paramilitarismo, militarización del territorio, guerrilla), por el impacto de megaproyectos minero-energéticos en su territorio, el desplazamiento forzado y principalmente la situación de vulneración de derechos de las mujeres indígenas. Impulsan diferentes acciones como proyectos de pastoreo y alternativas frente a la contaminación del suelo, a la deforestación y al agotamiento agua subterránea, el fortalecimiento organizativo, la defensa de la tierra y el ambiente, la autodeterminación cultural y la ampliación de mecanismos de participación ciudadana. Galardonadas con el Premio Nacional a la Defensa de los Derechos Humanos en el año 2017 y también han sido objeto de constantes amenazas y persecuciones	Universidad de Antioquia 2019. Sütsuin Jiyeyu Wayuu - Fuerza de Mujeres Wayuu  <a href="https://www.elheraldo.co/la-guajira/fuerza-de-mujeres-wayuu-gana-premio-nacional-la-defensa-de-los-derechos-humanos-404117">https://www.elheraldo.co/la-guajira/fuerza-de-mujeres-wayuu-gana-premio-nacional-la-defensa-de-los-derechos-humanos-404117</a>  ONIC (mayo 2019) <a href="https://www.onic.org.co/comunicados-regionales/2986-fuerza-de-mujeres-wayuu-y-varios-de-sus-integrantes-reciben-amenazas-directas-por-parte-de-un-panfleto-publicado-por-las-aguilas-negras">https://www.onic.org.co/comunicados-regionales/2986-fuerza-de-mujeres-wayuu-y-varios-de-sus-integrantes-reciben-amenazas-directas-por-parte-de-un-panfleto-publicado-por-las-aguilas-negras</a>
Agenda ambiental del territorio del Nudo de la Wuaka o de los	Una experiencia de Trabajo concertado entre los Pastos del departamento de Nariño en Colombia (agrupados en la Asociación de Cabildos y/o Autoridades Tradicionales del Nudo de los Pastos – Shaquiñán) y del norte del Ecuador, con el Ministerio de Ambiente y Desarrollo Sostenible y con Entes Territoriales regionales. Impulsan la gestión tradicional del territorio, la declaración de	<a href="https://www.minambiente.gov.co/images/Ordenamiento-Ambiental-TerritorialyCoordinaciondelSIN/">https://www.minambiente.gov.co/images/Ordenamiento Ambiental TerritorialyCoordinaciondelSIN/</a>

## 71 grassroots initiatives

Example:

### ***"Strength of Wayuu Women"***

- Led by Indigenous group of women from four municipalities
- Denounce impact of extractive projects and develop projects for local sustainable use of natural resources and cultural self-determination
- Won the National Prize for Human Rights Defenders in 2017

### Recuadro 4.3

#### *Territorio para el pueblo negro*

Fragmento de documento inédito del Proceso de Comunidades Negras, 1994

Para el pueblo negro el Territorio se concibe como el espacio de y para la vida el cual está constituido por nuestros ríos, los montes, los esteros, las fincas, las veredas, así como los conocimientos y las costumbres que tenemos para cuidar y utilizar cada sitio. El Territorio también está constituido por las diferentes formas de cómo nos organizamos para salir a pescar, hacer la minería, a cazar, a buscar madera, a sembrar y cosechar en las fincas. Nuestro Territorio también está constituido por los saberes que tenemos de las plantas medicinales para curar los males del cuerpo y del alma. El aire también es parte del Territorio. El Territorio también es saber reconocer con el canto al pájaro y con el rastro al animal que está en el monte. También es cada una de las maneras como nos relacionamos entre nosotros mismos y con los de afuera.



Para el p  
de y par

### Recuadro 4.8

#### *Sueños, saberes y territorio*

##### *Ángel Segundo Robles Epieyu*

En las lógicas de pensamiento wayuu, lapü o sueño, gira sobre la concepción de la vida y la muerte, lo divino y lo terrenal. Para sus pobladores, el sueño representa una manifestación espiritual que encarna en un mundo real. Su significado más profundo no radica en el acto de soñar, sino en la intimidad espiritual que existe entre el cuerpo y su aseyu (espíritu).

Según Jaramillo (2018), el sueño es el vínculo más cotidiano con la vida después de la muerte que vive el Wayuu, y es un vínculo que los involucra a todos, así no todos tengan sueños que comuniquen mensajes, lo cual le confiere una importancia que surge y se comprende en y desde el parentesco con el territorio.

Muchos wayuu organizan su cotidianidad en el territorio por medio del sueño, al levantarse

# Qualitative Definitions, in their own Words

especies de gemidos acompañados de los ritmos de una maraca hecha de totumo y semillas nativas.

Para el wayuu, no soñar está relacionado con principios de enfermedad o de muerte espiritual. Lo cual, genera todo tipo de preocupaciones. En ese sentido, el wayuu busca alimentar su espíritu, teniendo mejores relaciones con el territorio y todo lo que emerge de ella.



### Recuadro 4.14

#### *Múltiples amenazas sobre territorios, pueblos y comunidades INAPRRCL*

Síntesis del Taller Comunitario realizado en el marco de esta Evaluación

- Aculturación y pérdida de valores y conocimientos propios (tradicionales y locales)
- Desconocimiento y falta de respeto a los pueblos, comunidades y sus valores, conocimientos, prácticas e instituciones (autoridades)
- Hegemonía de conocimientos occidentalizados (estigmatización de los Conocimientos Tradicionales y locales de pueblos y comunidades)
- Desconocimiento de derechos territoriales de pueblos y comunidades INAPRRCL
- Limitaciones a la participación de pueblos y comunidades en procesos de toma de decisiones que afectan su vida y la de sus territorios (Instituciones nacionales débiles y excluyentes)
- Falta de vocería de pueblos y comunidades INAPRRCL en ámbitos institucionales que se traduce en decisiones administrativas impuestas o no dialogadas
- Afectación de medios de vida tradicionales y cambio de prácticas productivas atendiendo la lógica de mercados
- Invisibilización del patrimonio inmaterial de los pueblos y comunidades
- Existencia de relaciones de género problemáticas acentuadas por imposiciones de empresas e instituciones



# Workshop and Ex-post Integration

- |   |
|---|
| 1. Introduction and Context                                 |
| 2. State of Biodiversity and ES in Colombia                 |
| 3. Contributions of Nature to people                        |
| 4. Biocultural Diversity                                    |
| 5. Direct drivers of Change                                 |
| 6. Policy, Institutions and Governance                      |
| 7. Future Scenarios for Biodiversity and Ecosystem Services |





## Summary for Policy Makers

### Task force

- Collaboration with authors: four overarching messages for the whole evaluation, based on the chapters' findings (internal workshop)
- Distribution of overarching messages among task force members

Thank you!  
¡Gracias!



# Bosnia and Herzegovina Insights and Experiences on Spatial ILK and ILK Data Management

Prof. Armin Macanović

Bosnia and Herzegovina NEA ILK Team Member



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**FONDEKO – ASSOCIATION FOR THE SUSTAINABLE DEVELOPMENT  
STIMULATION AND QUALITY OF LIFE SARAJEVO**

# **Bosnia and Herzegovina National Ecosystem Assessment**

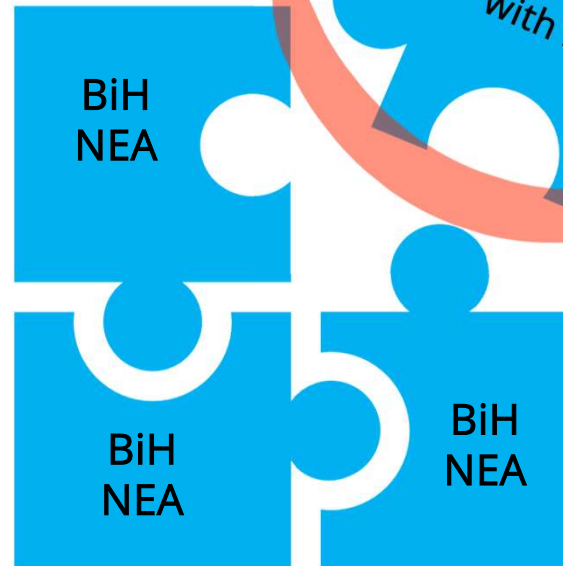
- Prof. Armin Macanović
- BiH NEA ILK Team Member

# Introduction of the BiH NEA

Project: Local and Traditional Knowledge Research to Support National Ecosystem Assessment in BiH /2021-2023/

- ❑ In the implementation of the NEA, coordinating lead authors identified a gap in local and traditional knowledge.
- ❑ The research of traditional knowledge supported by UNESCO provides the basis for the establishment of an adequate assessment of the NCPs in Bosnia and Herzegovina

**Main goal:** to research the state of traditional knowledge in Bosnia and Herzegovina, the pressures and benefits of nature (NCPs)



# Project Activities

3



01

Literature Review report



02

Data collection plan and budget



03

Field research, Individual interviews and Dialogue



04

Preparing database and maps, statistical analysis



05

Final Report/ Publication



06

Translated report & Financial report

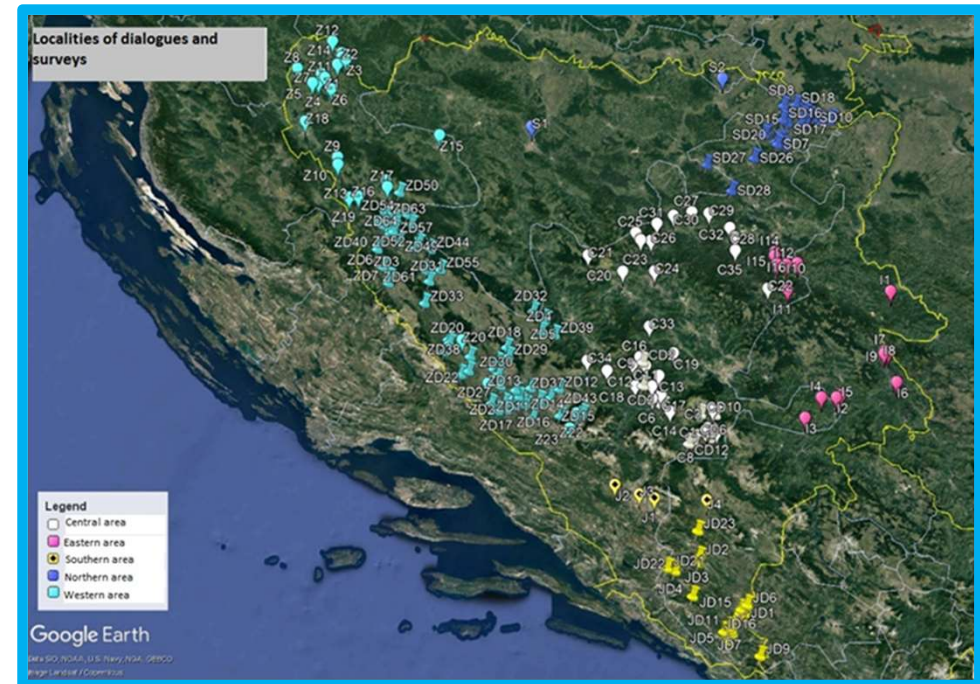
□ Two key research phases:

Field research (collecting data; interview and dialogues/workshops; **digital mapping**)

**Creating databases** for analyses and interpretation of results (Two databases: I. Database of interview, II) Database of dialogues/workshops)

# Digital mapping

- ❑ Localities: 208
- ❑ This research project was carried out across the entire territory of Bosnia and Herzegovina. For the purposes of this research, the localities are divided into the following areas: **north, east, west, south and central**.
- ❑ Field research **determined the greatest pressures** affecting the state of traditional knowledge, which are included in NEA assessment.
- ❑ **Created maps** were the basis for the presentation of traditional knowledge according to the groups of ecosystems in the BiH NEA (16 groups)

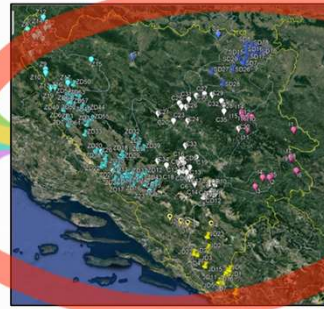


NCPs

Traditional knowledge

5

Connecting through mapping



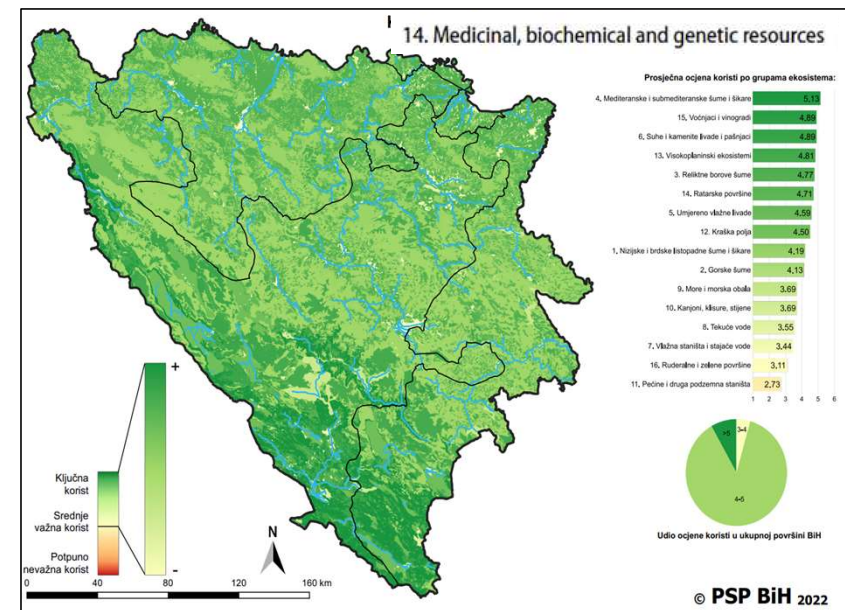
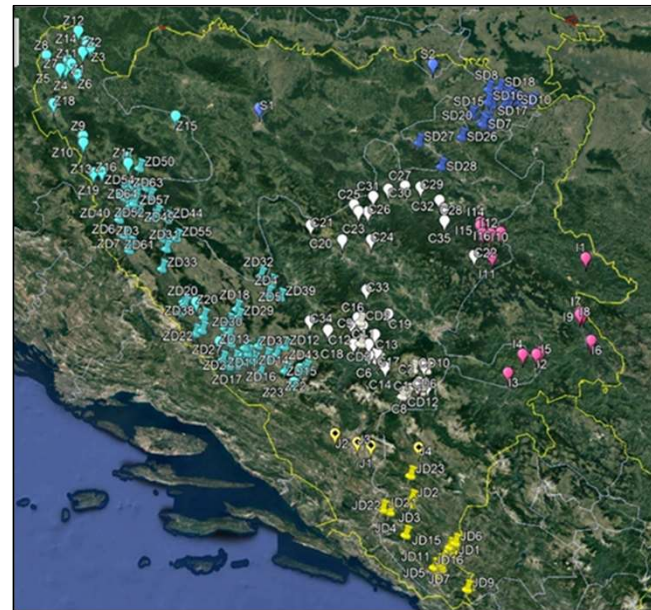
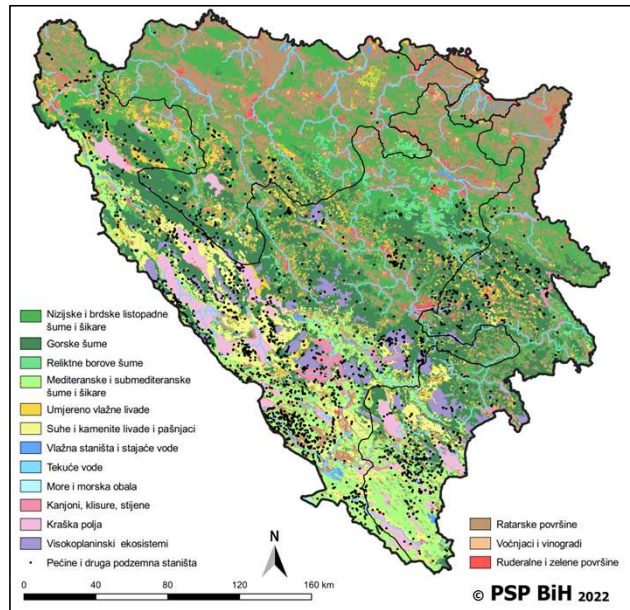
# Digital mapping connecting NEA and ILK

- ❑ Used software Google Earth (<https://earth.google.com/web/>)
- ❑ Direct mapping during field research and surveys
- ❑ Created Two types of maps: A) individual interviews B) dialogues/workshops

Type of Ecosystems

Local and Traditional Knowledge

Nature's Contributions to People



# Databases

Established databases and interpretation of results provide clear guidelines for the establishment of mechanisms that define the completed NEA BiH.

- ❑ Individual interviews/ questionnaire
- ❑ Dialogue and workshop method

BR	A	B	C	D	E	F	G	H	I	J	K	L
BR	REGIJA	Ime iz Google	Novi	Koordinate	Nadomska	Grupa	KORISTI /K/	D	I	praksu	Nap	
1	TREBINJ	PR 1	300	42°47'8.16"N 18°25'28.61"E		6	III.1					
2	TREBINJ	pr-e-pok	300									
3	TREBINJ	UCS 1	300	42°47'42.87"N 18°24'26.60"E								
4	TREBINJ	PR 1	301	43°1'36.86"N 18°49'58.81"E		6	PK1					
5	TREBINJ	gatacica / stna	302			6	PK1					
6	TREBINJ	platanu dila	303	42°34'50.57"N 18°7'39.28"E	1208	6	K11, K27					
7	TREBINJ	travljaka	304				III					
8	TREBINJ	zvonja oko	305				III, K17, K18					
9	TREBINJ	prilivac	305					01		II		
10	TREBINJ	travljaka	306				III, K17					
11	TREBINJ	travljaka	306					02, 05		02, 13		
12	TREBINJ	travljaka	306							02, 13		
13	TREBINJ	travljaka	307				III					
14	TREBINJ	travljaka	308				K11, K16, K2		01, 02			Miro
15	TREBINJ	UCS 5	309	42°49'50.04"N 18°24'11.23"E			K2, K11		01, 03, 04			Nedo
16	TREBINJ	UCS 3	310	42°46'54.27"N 18°25'30.21"E			K11, K18			03, 15		Mika
17	TREBINJ	UCS 7	311	42°47'11.17"N 18°23'53.13"E			K11, K18			03, 15		Ivo
18	TREBINJ	UCS 8	312	42°46'30.18"N 18°24'08.78"E			K11, K18		03, 05	05, 11		Radi
19	TREBINJ	UCS 11	313	42°46'30.11"N 18°23'29.17"E			K11, K16, K17, K18		05, 01, 03	06, 11, 03, 05		Ugo
20	TREBINJ	UCS 3	314	42°48'6.74"N 18°24'16.51"E			K11, K16, K17, K18		05, 01	01		Zark
21	TREBINJ	UCS 2	315	42°48'08.97"N 18°24'38.51"E			K11, K16, K17, K18		01, 02, 05, 04	01, 03, 13		Geri
22	TREBINJ	UCS 4	316	42°48'08.11"N 18°24'46.81"E			K18, K15, K16, K17, K11			05		Stani
23	TREBINJ	UCS 9	317	42°46'30.18"N 18°24'18.79"E						01, 05		Avija
24	TREBINJ	UCS 10	318	42°46'30.18"N 18°24'04.71"E						01, 05		Karo
25	TREBINJ	gatacica	319	43°22'8.62"N 18°13'37.10"E			K13					petru
26	TREBINJ	PR 1	320									velo
27	TREBINJ	ATA 1	321	42°58'36.47"N 17°59'03.88"E		12						jetu
28	TREBINJ	smilje	322	42°57'54.54"N 18°1'48.27"E			K11					rihar
29	TREBINJ	Pv2	323	43°0'0.13"N 18°9'57.56"E								
30	TREBINJ	THOB 1	324	42°41'47.08"N 18°19'45.04"E			K13					
31	TREBINJ	THOB 2	325	42°42'7.25"N 18°28'27.17"E			K13					
32	TREBINJ	THOB 3	326	42°50'2.20"N 18°17'40.16"E			K13					
33	TREBINJ	travljaka	400	44°50'2.82"N 18°53'18.47"E			K11, 15, 17					Geri
34	TREBINJ	travljaka	411	44°52'15.14"N 18°47'35.88"E						1		Miro
35	TREBINJ	travljaka	402				15, 18, 16, 11, 1		4	3, 1, 1		Rado
36	TREBINJ	travljaka	403				16, 11		5, 2, 3, 4	1, 2		Devi



ID	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
<p>1.1 Godina referencijalno</p> <p>1.2 Godina referencijalno</p> <p>1.3 Godina referencijalno</p> <p>1.4 Godina referencijalno</p> <p>1.5 Godina referencijalno</p> <p>1.6 Godina referencijalno</p> <p>1.7 Godina referencijalno</p> <p>1.8 Godina referencijalno</p> <p>1.9 Godina referencijalno</p> <p>1.10 Godina referencijalno</p> <p>1.11 Godina referencijalno</p> <p>1.12 Godina referencijalno</p> <p>1.13 Godina referencijalno</p> <p>1.14 Godina referencijalno</p> <p>1.15 Godina referencijalno</p> <p>1.16 Godina referencijalno</p> <p>1.17 Godina referencijalno</p> <p>1.18 Godina referencijalno</p> <p>1.19 Godina referencijalno</p> <p>1.20 Godina referencijalno</p> <p>1.21 Godina referencijalno</p> <p>1.22 Godina referencijalno</p> <p>1.23 Godina referencijalno</p> <p>1.24 Godina referencijalno</p> <p>1.25 Godina referencijalno</p> <p>1.26 Godina referencijalno</p> <p>1.27 Godina referencijalno</p> <p>1.28 Godina referencijalno</p> <p>1.29 Godina referencijalno</p> <p>1.30 Godina referencijalno</p>																													



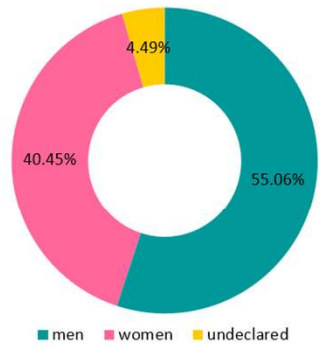


Figure 6. Respondents according to gender (%)

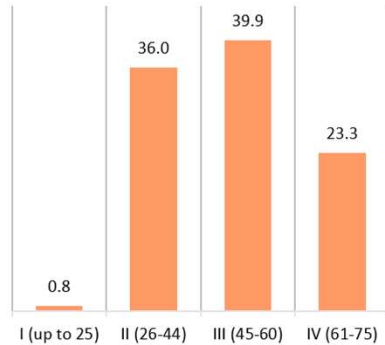


Figure 7. Respondents according to age groups (%)

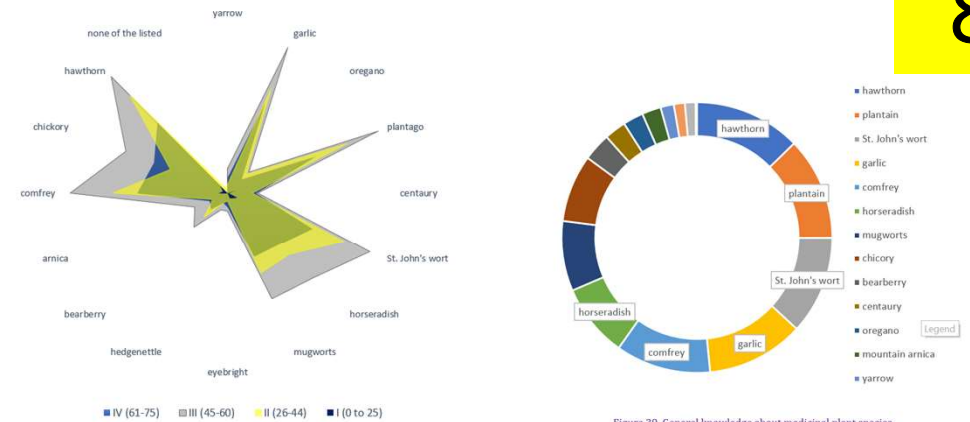


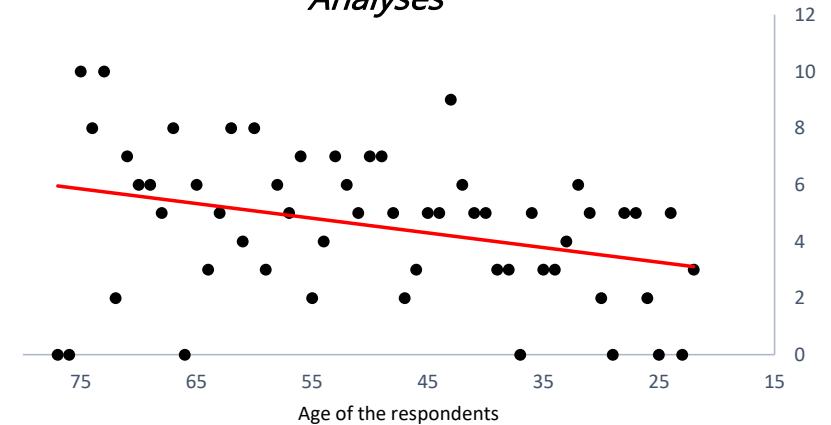
Figure 40. General knowledge of medicinal plant species, by age groups

### Graphical interpretation

Questions from the questionnaire are presented in the following order:

1. Analysis of general information of respondents;
2. Analysis of the knowledge and application of traditional practices;
3. Analysis of the traditional and local knowledge in local communities;
4. Analysis of the opinion on the state and use of natural resources.

### Analyses





# The challenges we experienced

- ❑ A short period of research time;
- ❑ Insufficient number of similar publications;
- ❑ Listing knowledge that has already been lost;
- ❑ Depopulated localities/rural area;
- ❑ The age of individual participants (some participants cant remember some practices or knowledge);
- ❑ A large number of different traditional knowledge that needs to be grouped in categories;
- ❑ Although the survey is anonymous, respondents did not provide personal information (fear, mistrust, lack of will to share knowledge) like age, education, recepies.





# Final project product

Publication

## THE STATE OF TRADITIONAL KNOWLEDGE OF BIODIVERSITY IN BOSNIA AND HERZEGOVINA

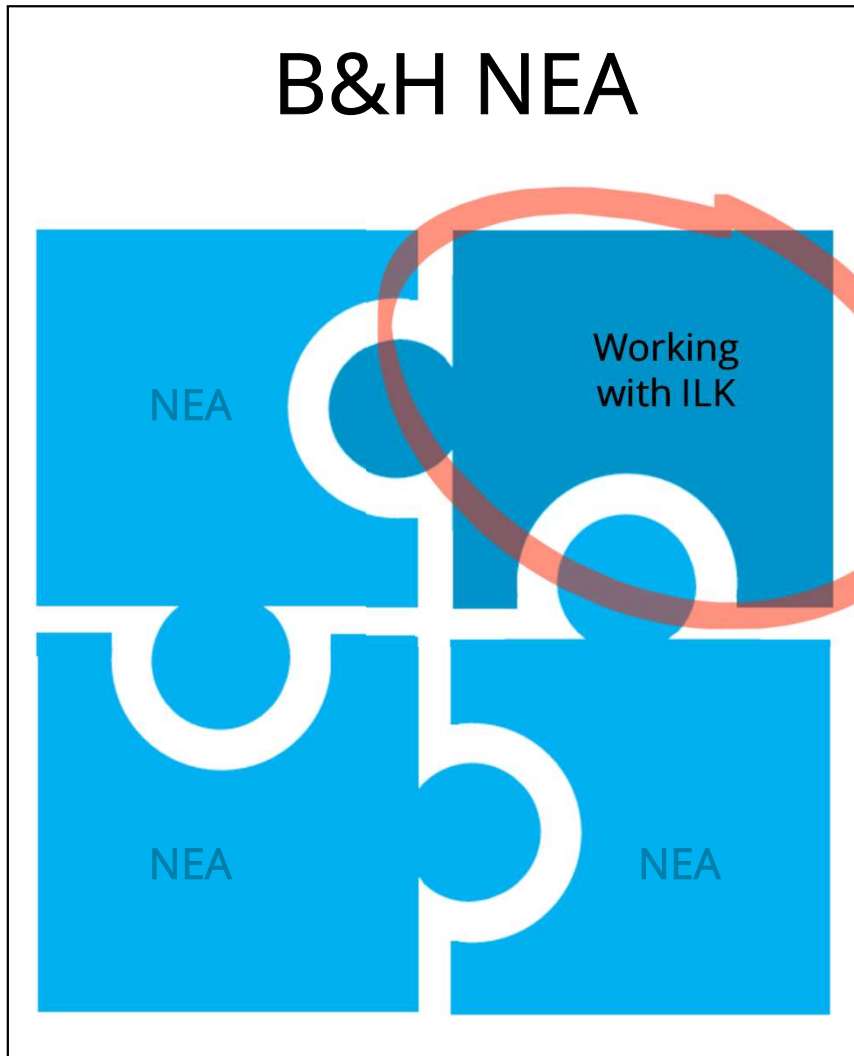
### MAIN CHAPTERS

1. Short overview of traditional knowledge, occupations and practices;
2. Modern research on traditional and local knowledge;
3. Results of current research;
4. Traditional and local knowledge in planning and management processes;
5. Regulatory framework for the preservation of traditional knowledge;
6. The state of traditional knowledge and practices;



# Embedding ILK in the NEA

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Working with ILK in the assessment process and its implications at the end of the process

Results of Local and Traditional Knowledge research are **successfully implemented** to National Ecosystem Assessment in BiH (NEA).



**Nature's Contributions to People**



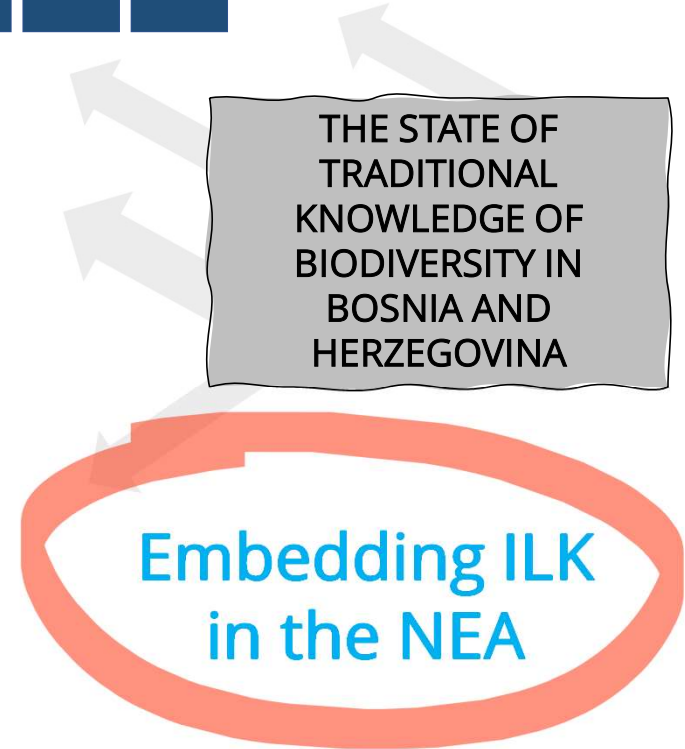
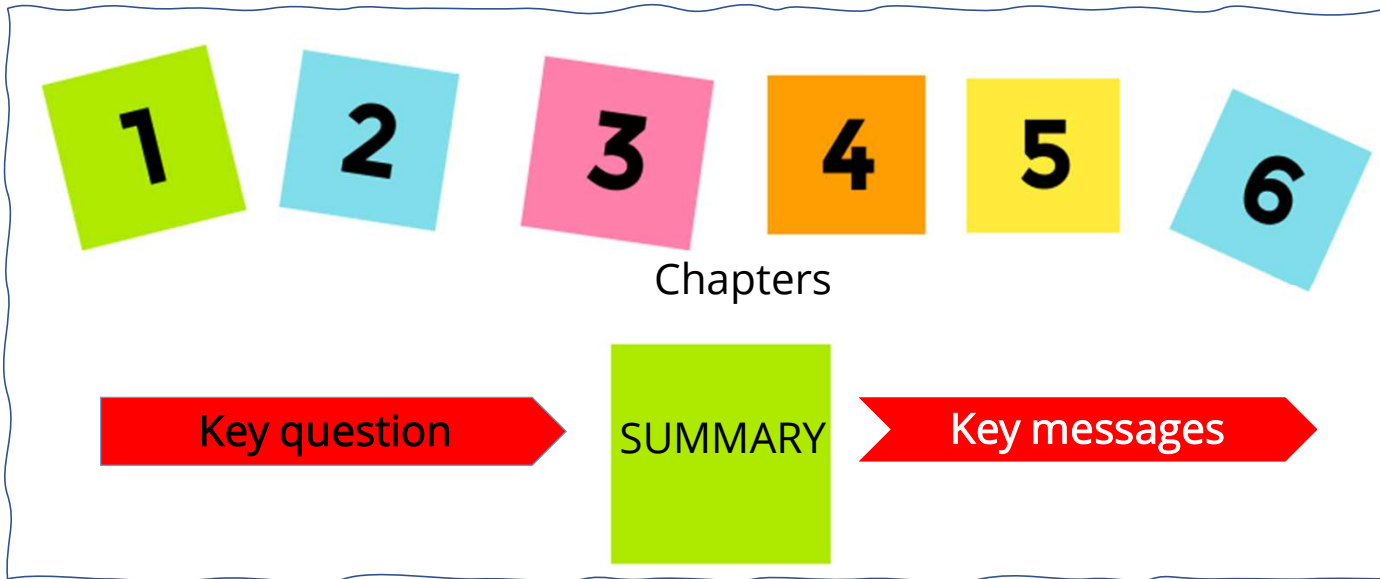
**Ecosystems**



**Direct and indirect drivers**



**National Ecosystem Assessment in BiH (NEA).**





## Key achievements/findings

- ❑ In Bosnia and Herzegovina, there is a **significant wealth of traditional and local knowledge and practices** in the use of biodiversity
- ❑ Women play a **significant role in the preservation** of traditional practices, particularly practices related to the preservation of natural resources and their traditional use in human diets.
- ❑ There is a **proven loss of traditional knowledge and practices**.
- ❑ The **economic potential** of traditional knowledge and practices is **best recognized** through the production of food products
- ❑ Traditional knowledge and practices are **not part of formal education**, except in specialist higher education study programmes
- ❑ Through research, it has been **recognized the importance of local communities** in preserving local knowledge
- ❑ This project represents **scientific basis** for all future research on traditional knowledge in BiH



# Key achievements/findings

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- ❑ The results indicate the need for the implementation of continuous projects in **documenting traditional knowledge** and **preserving the cultural identity** of Bosnia and Herzegovina.
- ❑ We still have the **transmission** of traditional knowledge through generations, especially among people over 45 years old
- ❑ **Young people** acquire their knowledge through the Internet and additional education
- ❑ The most important data represents that resources are collected most often in the household, and that **mothers or women** are the **bearers of traditional knowledge**.





**Thank you for your attention**