Transformative Change for Biodiversity & Equity (TC4BE) project

Kick off meeting, Wageningen 12-17 December 2022

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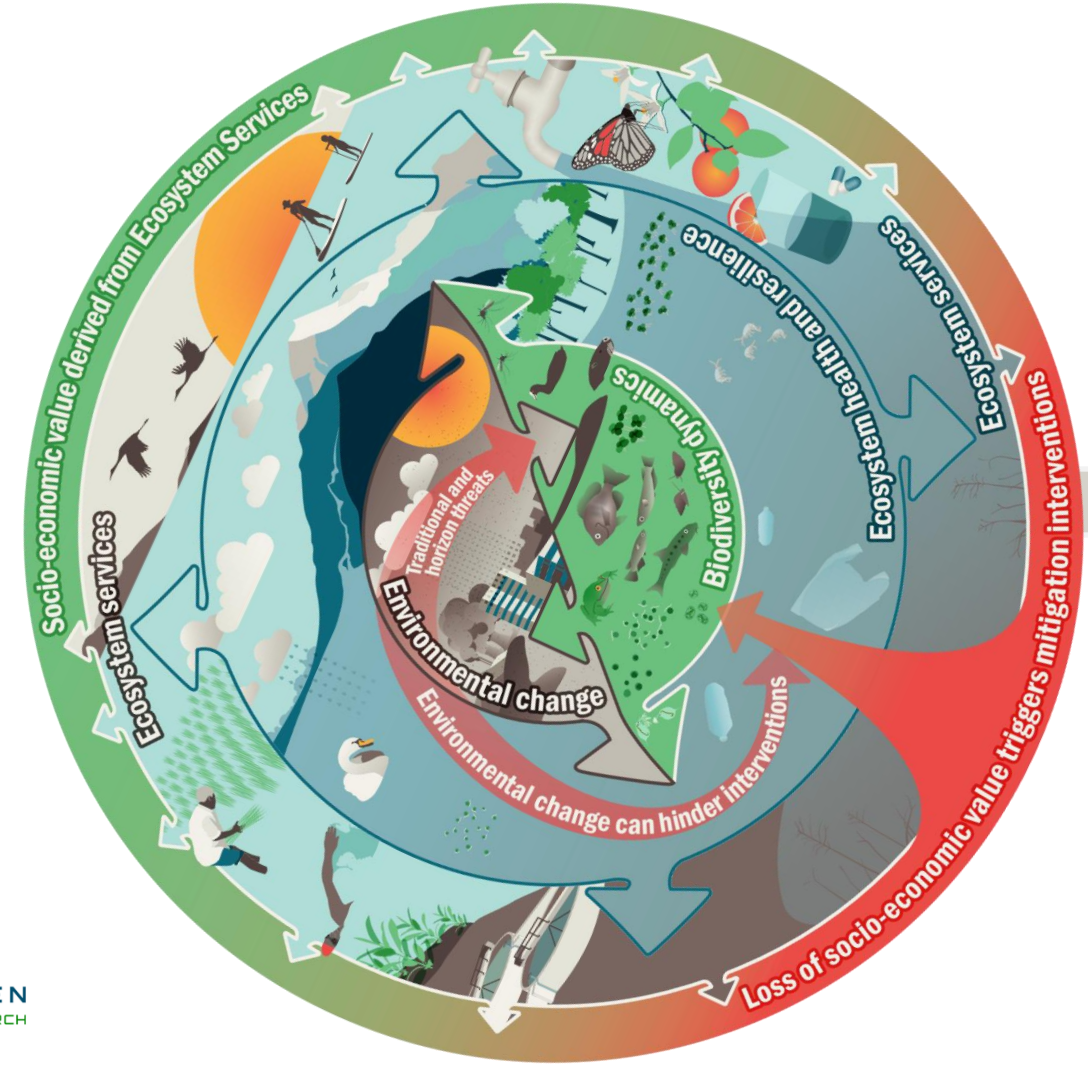
Context

"wicked problems"



Biodiversity loss

Inequities

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Context

Urgent need for transformative change in in economic, social and financial models

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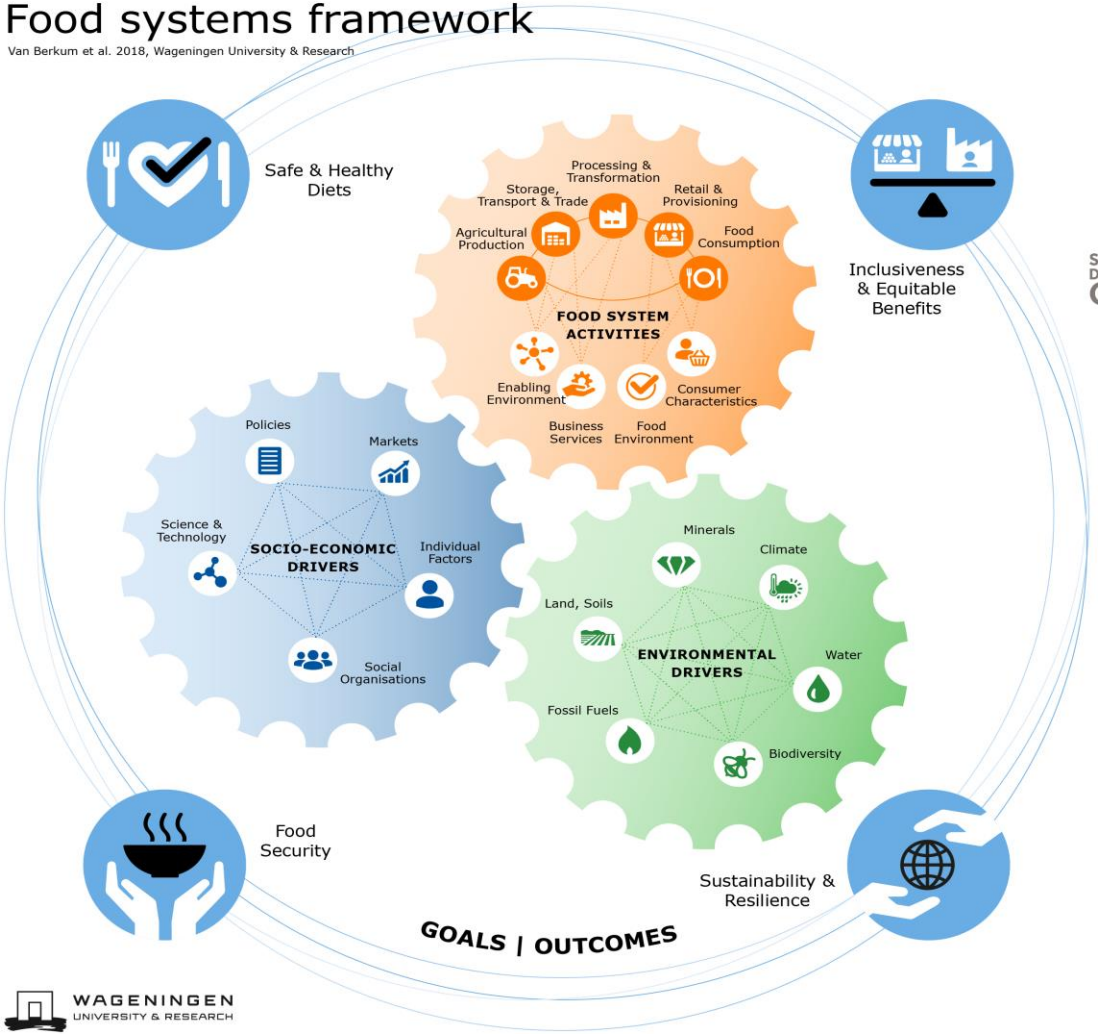
Context

Lack understanding and **consensus** on how to achieve agro-food system transformations



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Context

Transforming agro-food systems requires shifts in **policies and resources + paradigms, goals, and values** guiding stakeholder decision making, from farmers and financiers to policymakers to consumers

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Objectives

TC4BE project aims **to co-generate knowledge, tools and stakeholder engagement on transformative change pathways of telecoupled agro-food systems to enhance biodiversity and equity outcomes**

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Objectives

- Using **transdisciplinary research** process to develop **sustainable solutions** to bring about **transformative change**.
- Explore and assess **leverage points** and **social innovations**, covering multiple **scales** (global, EU, producer country, landscape), **dimensions** (governance, consumption, investment, etc.), perspectives and values with respect to **biodiversity**.
- Generate **evidence** and **tools** to advance understanding on how to achieve **transformative change in agro-food systems** to enhance **biodiversity** and **equity outcomes** and strengthen **stakeholder transformative change capacity**.
- Target **telecoupled agrofood systems** which drive land use change and create negative biodiversity and equity impacts

Objectives

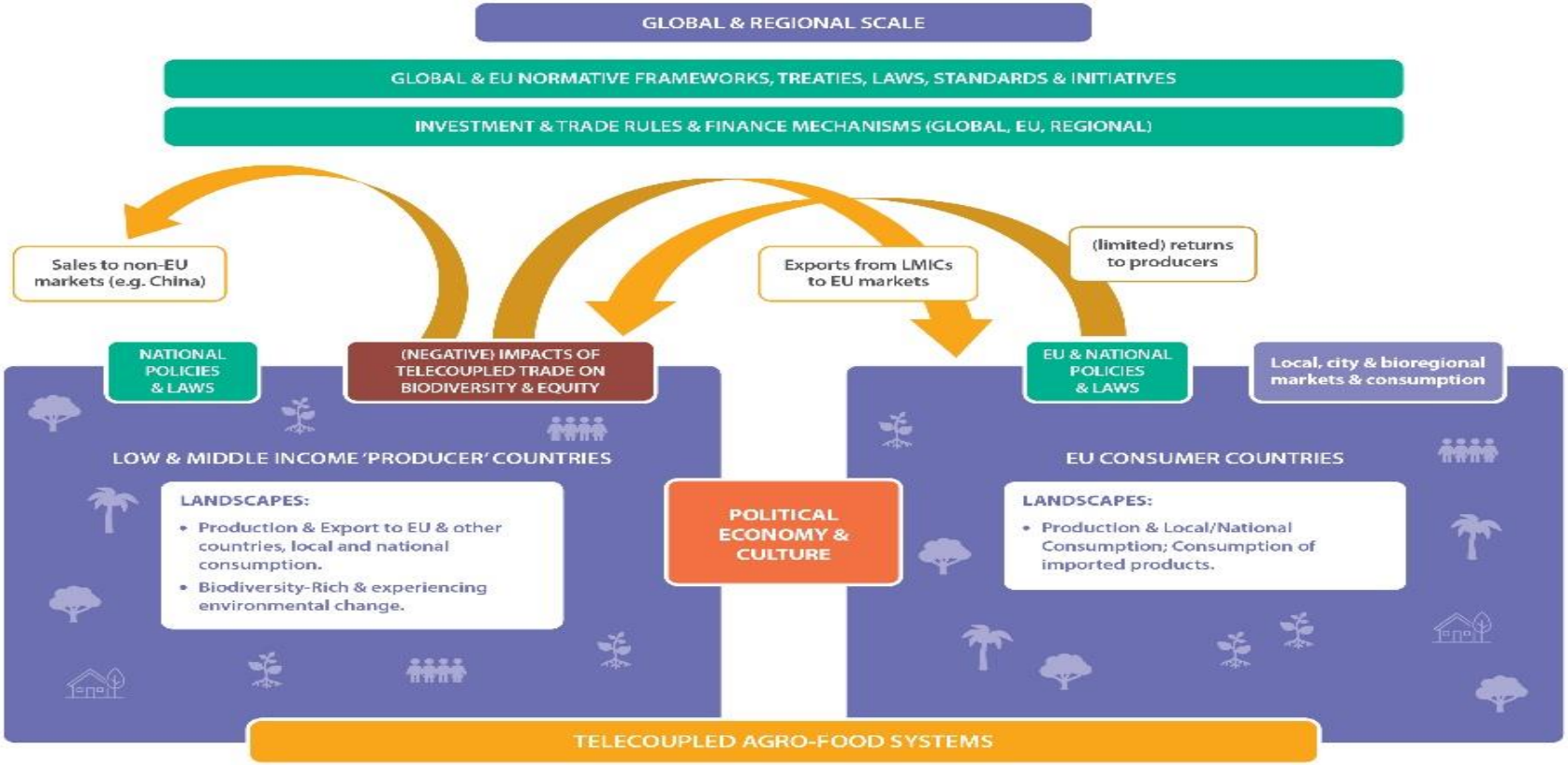

Figure 1: Telecoupled EU-LMIC agrofood systems

Objectives

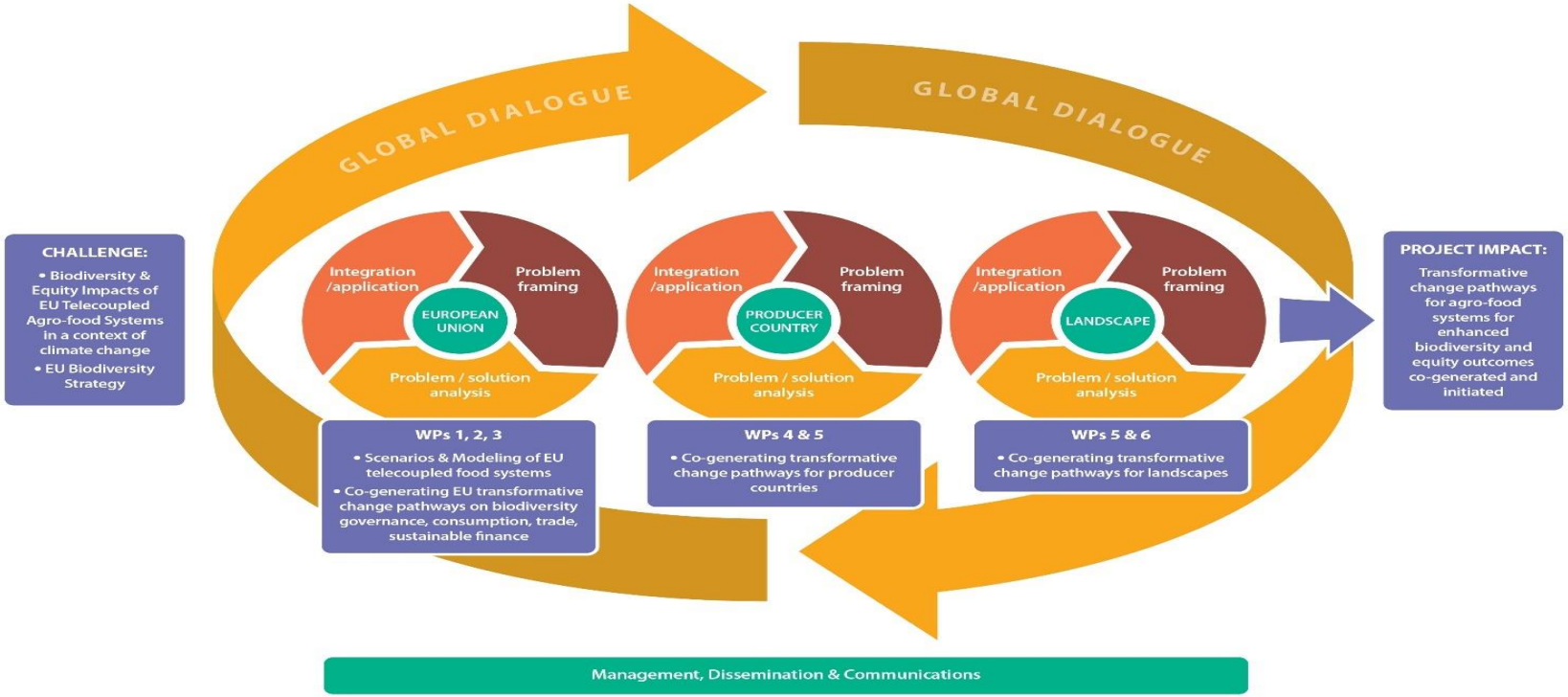

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Figure 2: TC4BE Project Approach and Methodology

Objectives

Objective 1: Deepen understanding and capacity of agrofood policy-makers on transformative pathways for biodiversity and equity in EU telecoupled agrofood systems, using scenario development and modelling, taking into account multiple objectives and diverse values.
Contributes to *Scientific* results 1-3, 'Scenarios & modelling of impacts of tele-coupled EU agro-food systems on biodiversity and equity in LMICs developed', *Economic* results 7-8, especially regenerative economic development and understanding employment and trade impacts, and to *Societal* results 4, 5 and 6, by sharing the findings (also via WP6) to inform transdisciplinary co-generation of transformative change pathways via policy recommendations and participatory workshops.
New scenarios and models developed for telecoupled EU agro-food systems and policy briefs, with evidence sharing in WP2, 4 and as part of the global dialogue
Achievability Highly feasible, builds on on-going, extensive IDDRI-CIRAD research (WP6)
Main deliverables: **D1.1, D1.2 and D1.3.**

Objectives

Objective 2: Identify, assess and engage EU policy-makers and stakeholders on demand-side consumer country governance arrangements (including international governance, trade, public procurement, legal, consumption and collective action) for transformative change in telecoupled EU agrofood systems for +B&E outcomes.

Contributes to: *Scientific* R1, 'Transformative change pathways mapped, characterised and analysed', 2 (engaged researchers), and 3 (knowledge sharing via global dialogue and Dissemination and Communications (D&C); *Economic* R7; *Societal* R4 (policy recommendations co-generated with EU / producer country policy-makers on transformative governance pathways) R6,'transformative change pathway solutions co-generated with stakeholders in key dimensions of international governance, trade policy, etc)

Mapping, analysis, and assessment of diverse dimensions of biodiversity governance is feasible given the skillsets of consortium, practical methods proposed and connections to biodiversity and landscape initiatives. Exchanges with key private, public, and civic actors will help embed recommendations in specific EU and global policies and public awareness (linked to WP6 global dialogue).

Main deliverables: **D2.1 to 2.5**

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Objectives

Objective 3: Analyse and assess the potentials and limitations of existing biodiversity metrics, measurements, and finance levers (EU Action 68) and derive innovative financial instruments to achieve high biodiversity business transformations that are not limited to micro level projects but are also aggregable and scalable to impact and transform current mainstream finance logics (EU Actions 72 and 73). Contributes to: *Scientific* R 1, 'summary of the taxonomy and related regulations targeting and enabling Biodiversity measurement developed'; *Economic* R7, 'Transformative sustainable finance models designed and shared', and 8 'Finance professionals (e.g. investors or risk managers) equipped with more opportunities and knowledge in the sustainable finance space', 9, 'Specifications and metrics developed for transformative biodiversity financial instruments'; and *Societal* R6

A transformative sustainable finance model developed and tested.

Achievability high based on green finance and accounting skills Hanken researchers, Hanken Quantum Database and Supercomputing Centre, which enables assessment and design/prototyping of innovative mechanisms. Linkage to WP6 global dialogue to facilitate ownership and uptake.

Main deliverables: **D3.1, 3.2, 3.3**

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Objectives

Objective 4: Identify, co-analyse, and assess, with policy-makers and stakeholders, national supply side producer country policies, scenarios and transformative change pathways for biodiversity and equity.

Contributes to: *Scientific* R 1 'Land use change drivers relating to telecoupled agro-food systems, and biodiversity hotspots under threat for Cameroon, Colombia and Kenya identified', 2 and 3; *Economic* result 7, 'Potential of regenerative business and economy innovations co-assessed' and 8, 'Enhanced understanding of employment prospects linked to different transformative change pathways of agro-food systems'; *Societal* results 4 (policy recommendations for EU and producer country policy-makers.) and 5, 'transformative change pathways co-generated with national producer country policy-makers and diverse'.

Exchanges with private and public actors will embed recommendations in (domestic and global) national and corporate policies and via global dialogue (WP6).

Achievability based upon partner institutions' multi-disciplinary skills, access to data and stakeholders in producing countries, including policy-makers.

Main deliverables**: 4.1, 4.2, 4.3.**

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Objectives

Objective 5: To co-generate transformative change pathways for sustainable and regenerative landscapes, with high biodiversity and equity outcomes, drawing on new evidence and tools on biodiversity imaginaries, commodity impacts, SLI effectiveness/impacts, and corporate/regenerative enterprise.

Contributes to: *Scientific* R 1, 2, *Economic* R7, 8, *Societal* R5, 6, Aligns with all 4 Call Outcomes. *Transformative change pathways co-generated with national producer country policy-makers and diverse Innovation Landscape actors for positive biodiversity and equity outcomes, recognizing plural values', and 6, 'drivers of corporate behaviour on biodiversity identified and transformative regenerative enterprise options identified, researched and shared with landscape actors'*

Achievability based upon all partners' connections to existing Sustainable Landscape Initiatives and capacity to facilitate transdisciplinary research and track records in equitable research involving IPLCs, in-country partner organisation networks with stakeholders and capacity to facilitate learning.

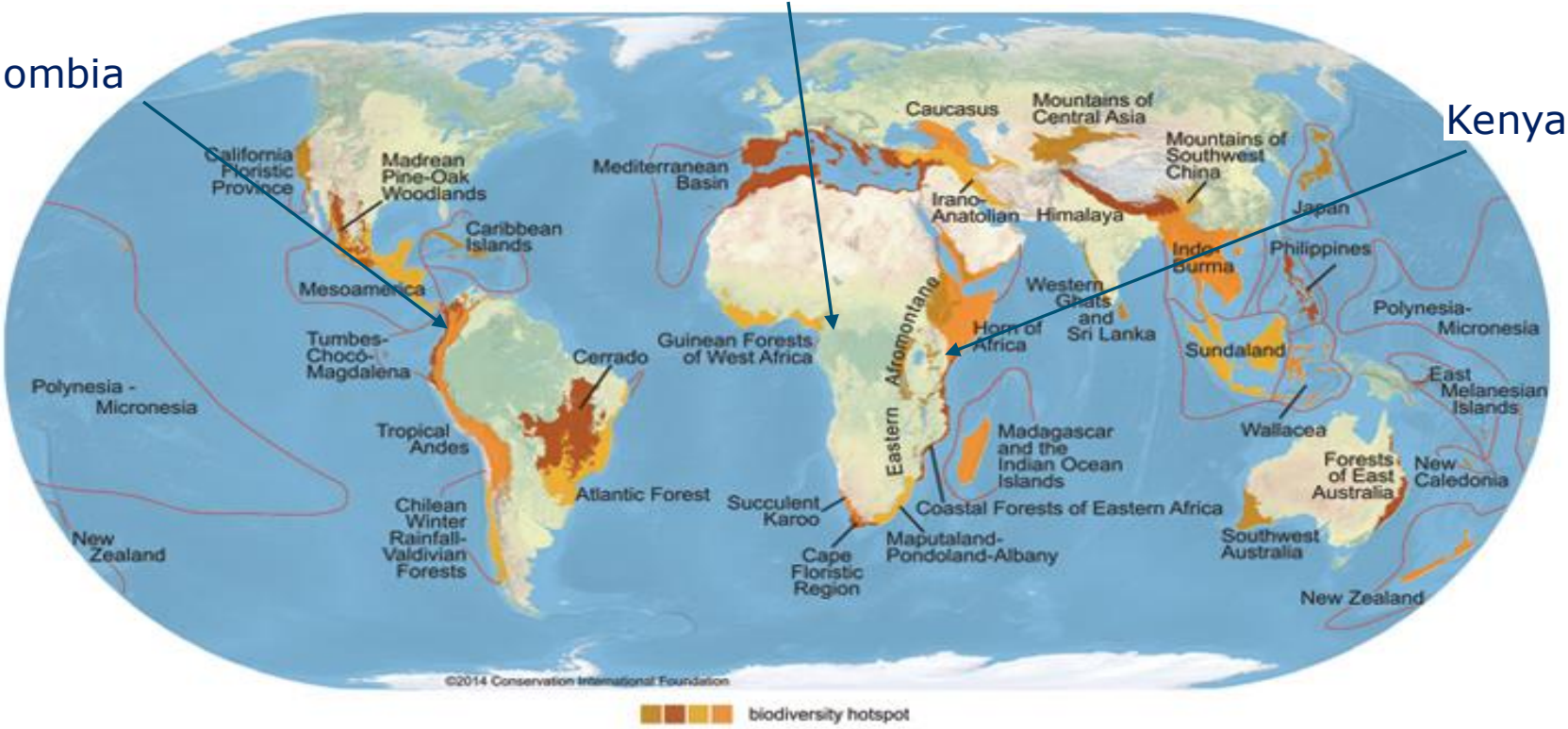
Main deliverables: **5.1 to 5.6 inclusive**.

Objectives: Biodiversity rich case study countries

Cameroon

Colombia

Kenya

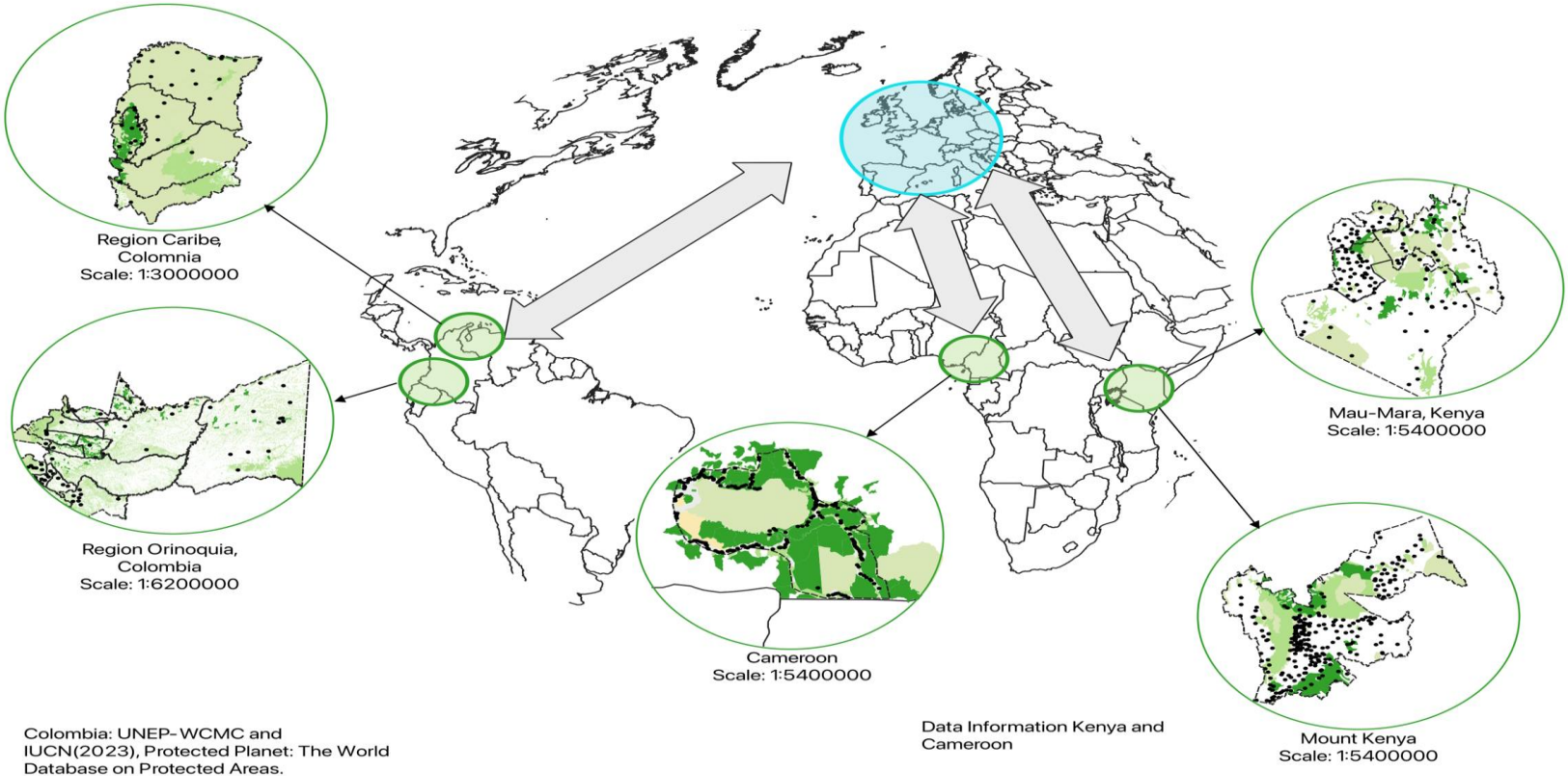


Conservation International (conservation.org) defines 35 biodiversity hotspots — extraordinary places that harbor vast numbers of plant and animal species found nowhere else. All are heavily threatened by habitat loss and degradation, making their conservation crucial to protecting nature for the benefit of all life on Earth.

Objectives: Six Innovation Landscape case studies

Country	Indicative ILs	Landscape characteristics
Cameroon	Grand north Lake Chad/Waza	• Cotton, gum arabic, shea. • Grasslands and wetlands • Sustainability landscape initiatives (SLI)
	Dja-Tridom	• Emerging cocoa agrofood systems export timber + NTFP trade, mining • Medium-high levels of telecoupling • Sustainability landscape initiatives (SLI) e.g. green cocoa landscape • Large areas of high but rapidly degrading high-biodiversity forests, increasing agricultural ecosystems
	Mbsangassina-Obala-Ntui-Yoko	• Cocoa, coffee, pineapples, coffee, timber entering agrofood systems in EU, palm oil (local markets) • Sustainability landscape initiatives (SLI) e.g. green cocoa landscape • High levels of telecoupling • Large area of high biodiversity forests, low extent of agricultural ecosystems
Colombia	Eastern Plains (LLanos Orientales) Magdalena River basin Atlantic Dry Forest	• Agricultural expansion for palm oil, cattle ranching, and reforestation programs. • Megadiverse country • 20% in conservation and 30% in communal lands but facing violence, illicit economies and weak state presence in the territories. • Appropriation of public lands, encroachment into natural parks, local elites driving deforestation, displacement of smallholders
Kenya	Mau forest - Mara river basin	• Wetlands (expanding rice production and fish farming) and grasslands (with grazing systems), • High biodiversity forests, conservation areas • Tea-avocado-fruit-livestock-timber-NTFP systems • Medium levels of telecoupling • Large areas of high biodiversity forest & extensive agri ecosystems • Regenerative change & SLIs: MaMaSe
	Mt Kenya	• Grasslands (with grazing systems) and tea-fruit-livestock-timber systems • High biodiversity forests, conservation areas • Large areas of high biodiversity forests, protected areas & extensive agricultural ecosystems • Medium-high levels of telecoupling • SLIs: Mt Kenya Forest Landscape Restoration
	Upper Tana Basin Mt Elgon	• Agricultural expansion, horticulture value chains, livestock, cash crops • Forests, wetlands, extensive agricultural systems • High levels of telecoupling • SLIs: Upper Tana Nairobi Water Fund, Integrated Landscape Management for Improved Livelihoods project

Innovaiton Landscpaes



Colombia: UNEP-WCMC and IUCN(2023), Protected Planet: The World Database on Protected Areas. www.protectedplanet.net
Cities,towns and village from OSM (2023).
Forest data from Copernicus Global Land Cover (2019).

Data Information Kenya and Cameroon

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Consortium Partners

Participant No.	Organisation	Country	Type
1	Wageningen University (WU), Coordinator	Netherlands	HE
2	Natural Resources Institute, University of Greenwich (UoG)	UK	HE
3	Svenska Handelshögskolan (Hanken)	Finland	HE
4	Fondation Institut de Recherche por le Développement Durable et des Relations Internationales (IDDRI)	France	RO
5	Universidad de los Andes (UoA)	Colombia	HE
6	Université de Dschang (UoD)	Cameroon	HE
7	University of Kabianga (UoK)	Kenya	HE
8	Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)	France	RO
9	Global Landscapes Forum GLF	Netherlands	RO

Implementation Partners: Stakeholders

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Theory of change

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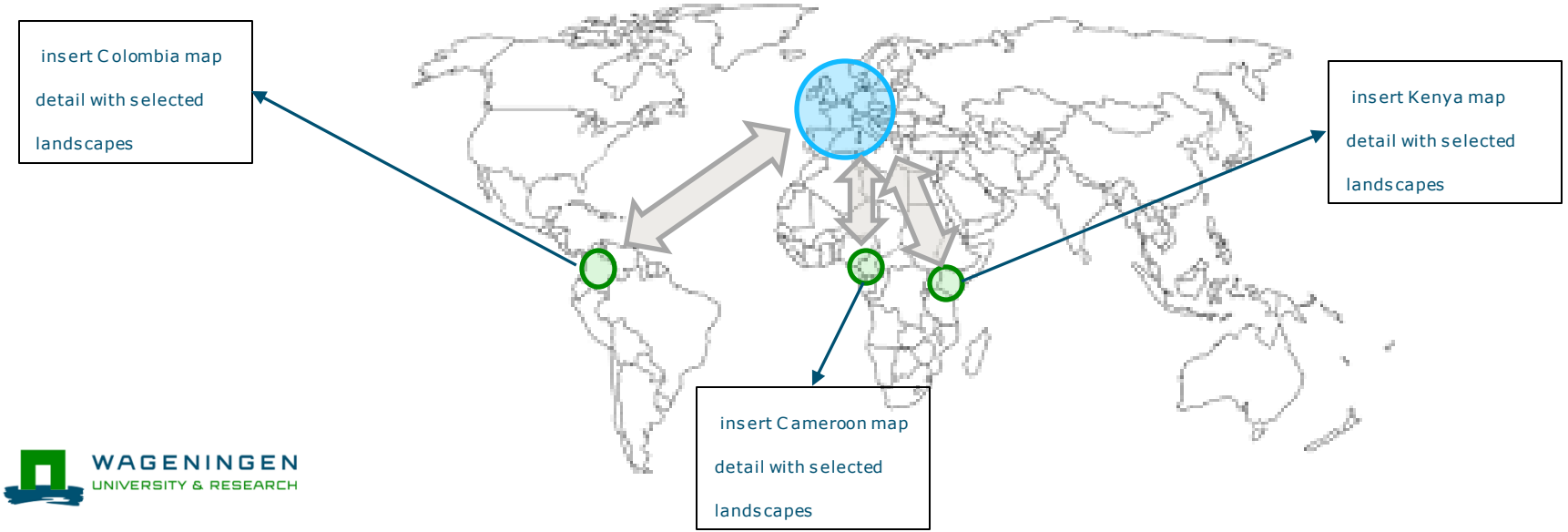
Figure 3: Overall TC4BE Theory of Change

Impact pathways

Impact pathways

by co-generating knowledge and tools with agrofood system stakeholders in a transdisciplinary approach

Geographic focus: telecoupled "Producer" & "Consumer" countries



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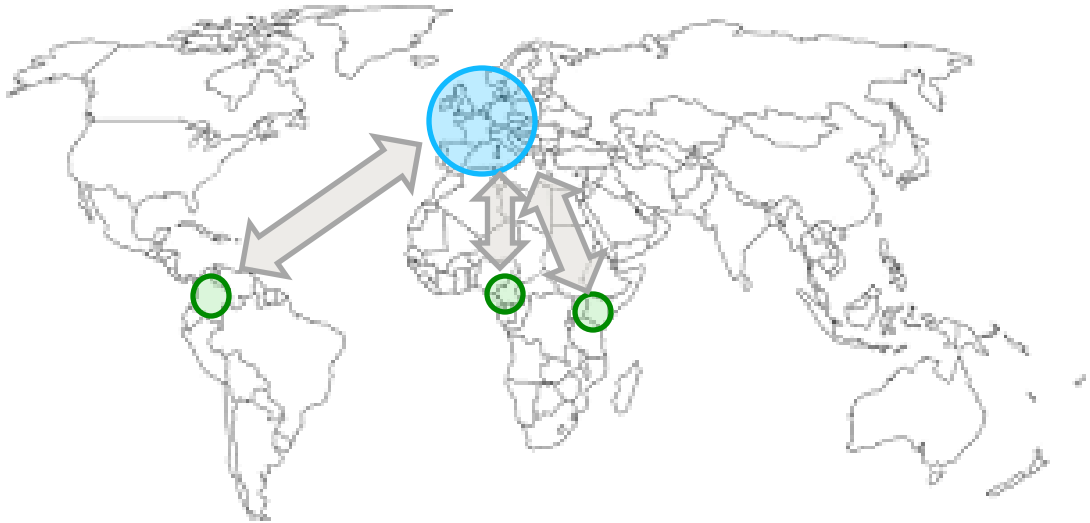

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EU BIODIV projects Cluster 6: Outcomes:
Biodiversity on pathways to restoration, ecosystems and their services preserved and sustainably restored on land & inland water through improved knowledge and innovation

Project Impact:
Transformative change pathways for agrofood systems for enhanced biodiversity and equity outcomes co-generated and catalysed

Societal outcomes

- Enhanced theory and evidence on potential TC pathways for B&E for TI AFS.
- Increased social and natural science researcher capacity in conducting transdisciplinary approaches for biodiversity and equity research.
- Evidence-based learning products on TC in AFS suitable for higher education developed.

Economic outcomes

- Capacity and action of EU policy-makers, business and value chain actors and investors in key agrofood sectors strengthened in relation to transformative change pathways
- Changes in value assessment of nature and decision-making for +B&E impacts.
- Changes in allocation of financing for + B&E equity impacts

Scientific Outcomes

Enhanced theoretical and empirical basis for understanding transformative change for +B&E
Increased uptake of transdisciplinary approaches for biodiversity and equity research

Societal results

4. Addressing EU policy priorities & global challenges through research and innovation
- Policy recommendations co-generated with EU & producer country policy-makers on transformative governance pathways to support change through underpinning values and biodiversity, in economic and agricultural policies

5. Delivering benefits and impact through research and innovation missions
- TC pathways co-generated with EU AFS policy-makers and stakeholders, recognizing plural values
- TC pathways co-generated with national producer country policy-makers and diverse Innovation Landscape actors for positive biodiversity and equity outcomes, recognizing plural values.
- diverse agro-food system actors actively connected in a global dialogue.

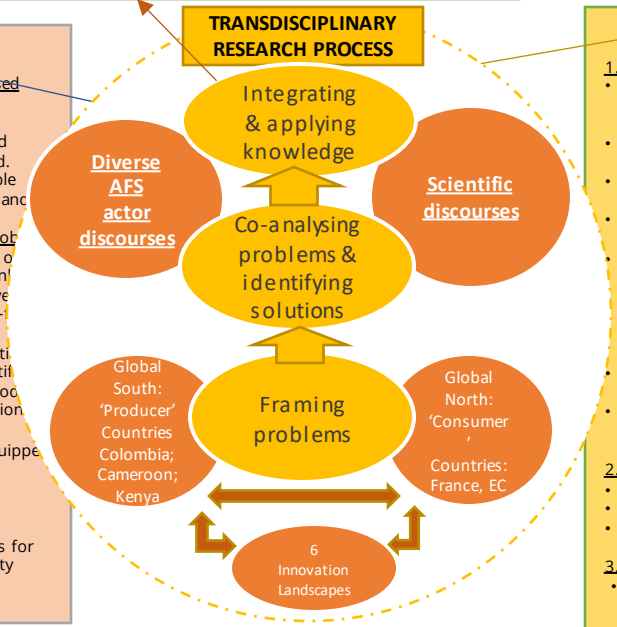
6. Strengthening the uptake of research and innovation in society
- TC pathway solutions co-generated with stakeholders in key dimensions of international governance, trade policy, public procurement, legal strategies, consumer decision-making, collective action.
- transformative sustainable finance model developed and tested.
- drivers of corporate behaviour on biodiversity identified and transformative regenerative enterprise options identified, researched and shared with landscape actors.

Economic Results

7. Generating innovation-based growth
- Potential of regenerative business, innovations and development co-assessed.
- Transformative sustainable finance models designed and shared.

8. Creating more and better jobs
- Enhanced understanding of employment prospects linked to different transformative change pathways of agro-food systems
- Drivers of corporate practices, biodiversity impacts identified
- Regenerative business models characterised and conditions for success identified
- Finance professionals equipped with opportunities and knowledge.

9. Leveraging investment in research and innovation
- Specifications and metrics for transformative biodiversity financial instruments



Scientific results

1. New high quality Knowledge
- TC pathways mapped, characterised, and analysed (EU biodiversity governance, trade policy, public procurement, legal strategies, consumer decision-making, collective action)
- Scenarios & modelling of impacts of telecoupled EU AFS on B&E in LMICs developed
- Summary of EU Taxonomy and related regulations targeting and enabling Biodiversity measurement developed.
- Land use change drivers relating to TC AFS, and biodiversity hotspots under threat identified.
- Impact evaluated, governance arrangements analysed, and conditions for effective and equitable SLI assessed.
- Drivers & impacts of corporate practice change on B&E & potential for regenerative enterprise assessed.
- Effective methods of facilitating transdisciplinary research on telecoupled AFS, B&E equity at Landscape Scale, national and EU/global scales distilled.
- TC pathways and innovations for AFS for B&E identified from EU and landscape level perspectives
- Theory, concepts, and analysis of TC AFS advanced drawing upon new empirical, co-generated scientific traditional and citizen generated knowledge and in-depth cases

2. Strengthened human capital in research and innovation
- Bayesian tool support decision-makers on B&E trade-offs in AFS.
- Network of international researchers transdisciplinary research on B&E.
- Knowledge generated / shared with global audiences via GLF courses & curricula

3. Fostering diffusion of knowledge and Open source
- Knowledge produced, shared & disseminated via global networks on landscape approaches & finance to inform policy-makers, researchers and AfS stakeholders

Societal challenges

Unsustainable telecoupled agrofood systems; power concentrations & imbalances in agrofood systems, negative impacts on biodiversity and equity, human health and wellbeing.

Economic challenges

Businesses & economies have dependencies / impacts on biodiversity. Growing climate impacts on economic development. Inequitable power relations and lack of resilience in (global) value chains. Policy and public calls for safe and just transitions.

Scientific challenges

Lack of evidence and knowledge on how to achieve transformative governance for biodiversity and equity in practice.

Impact pathways

Policy impact **Producer**

UoK, UoA, UoD connections to policy-makers, invite policy-makers to participate in dialogues, share policy briefs etc.

Policies:

- National biodiversity assessments and strategies
- Agricultural and economic development strategies (e.g. Kenya National Strategy and Action Plan 2019-30) draft Kenya National Agroforestry Strategy (2021-30).
- Sector and industry plans e.g. National cocoa strategy for Cameroon, Deforestation free cocoa roadmap, Cameroon.
- government departments & public-private partnerships (e.g. Cameroon Green cocoa landscape convenors IDH and ONCC)
- landscape scale local and provincial government policies (e.g. jurisdictional approaches etc) via partner contacts and SLIs
- .....?

Impact pathways

Policy impact **EU**

IDDRI, Hanken, WU & UoG connections to EU policy-makers, invite policy-makers to participate in dialogues, share policy briefs etc.

Policies:

- EU Biodiversity Governance Framework
- EU Business for Biodiversity strategy: Action 66 Sustainable Corporate Governance Initiative, Action 68 reporting obligations for businesses
- EU Financing for Biodiversity Action 72 investment options for biodiversity, Action 73 Taxonomy regulation and proposals for European Green Bonds, Action 74 Sustainable Finance Strategy
- EU Measuring and integrating the value of nature (NCA) Action 78
- EU external action
- Global Biodiversity Agenda Action 89 biodiversity provisions in trade agreements, Action 91, products associated with deforestation/forest degradation
- EU's Green Deal
- EU's Farm to Fork Strategy
- …..?

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Impact pathways

Policy impact globally

WU & UoG, UoK, UoD, UoA informed based on sharing information and direct engagement to policy-makers, invite policy-makers to participate in dialogues, share policy briefs etc.

Policies:

- CBD post-2030 Agreement & national focal points for Cameroon, Kenya, Colombia
- IPBES - WU Verina, UoG Valerie & national focal points for Cameroon, Kenya, Colombia
- EU Business and Biodiversity
- ISEAL & members (RSPO, FSC, RA),
- LandScale
- OECD FAO Advisory Group on Responsible Agricultural Supply Chains (UoG sits on advisory group)
- Connections to civil society/social movements (e.g. La Via Campesina, RIPESS.....)
- UN (e.g. UNRISD alternative economies programme, UN Green Commodities program.....)

LINKS TO research & innovation activities

- EU 11th EDF National indicative program
- SAPIENS- Sustainability and Procurement in International, European, and National Systems, 2020-2023, Marie Skłodowska-Curie grant agreement No 956696
- EU Biodiversity & business program
- Biodiversa

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Implementation: Work packages

WP No.	WP title	Lead participant No.	Lead participant short name	Person-months	Start month	End month
1	Understanding and modelling transformative change in telecoupled systems for biodiversity and equity.	4	IDDRI		1	36
2	Identification and analysis of consumer country transformative governance pathways and innovations for biodiversity and equity	2	WU		1	36
3	Identification, assessment and development of transformative investment mechanisms and finance levers	3	HANKEN		12	48
4	Analysis of national producer country transformative governance pathways and scenarios for biodiversity and equity	5	UoA		4	42
5	Fostering transformative landscape pathways, scenarios and innovations for biodiversity and equity	1	UoG		12	40
6	Synthesis to build global learning on transformative change for biodiversity and equity	2	UoG		12	48
7	Management, Dissemination &, Communication	1	WU		1	48