TEEBAgriFood Symposium - closing reflections
23 June 2022

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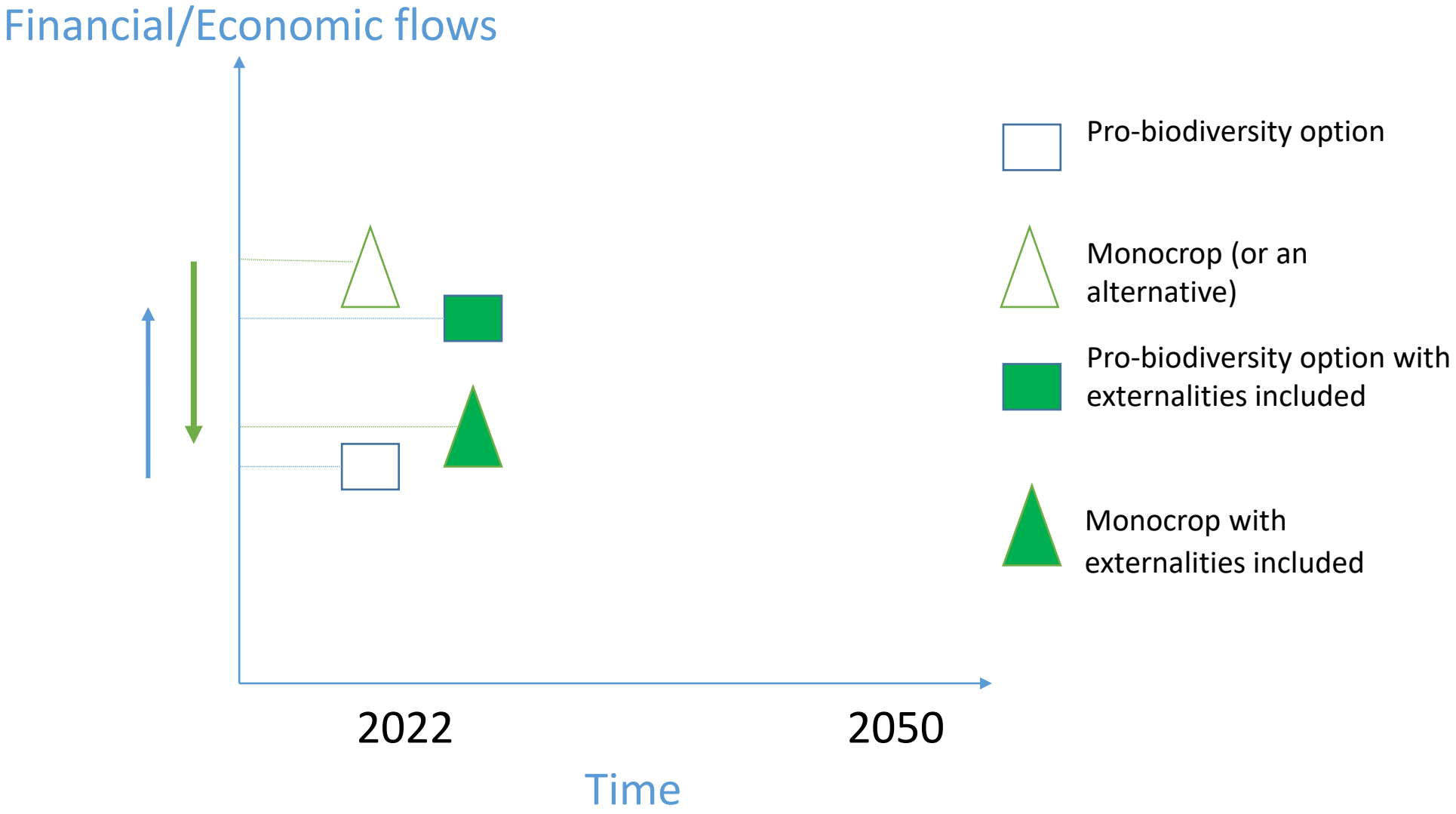
Please visit us at

Teebweb.org

Have we gone from proposal to proof?

The TEEBAgriFood core proposal



How adaptable and relevant is the TEEBAgriFood approach?

II How adaptable and relevant is the TEEBAgriFood approach?

I Global Crisis Response

news.un.org/pages/global-crisis-response-group/

Welcome to the United Nations

English

United Nations

Global Crisis Response Group

About | Briefs | Statements | Issues | Champions | News

Global Crisis Response Group on Food, Energy and Finance

The war in Ukraine has led to a cost-of-living crisis. An estimated 1.6 billion people are exposed to at least one dimension of the crisis. About 1.2 billion of them live in 'perfect-storm' countries severely vulnerable to all three dimensions – food, energy and finance.

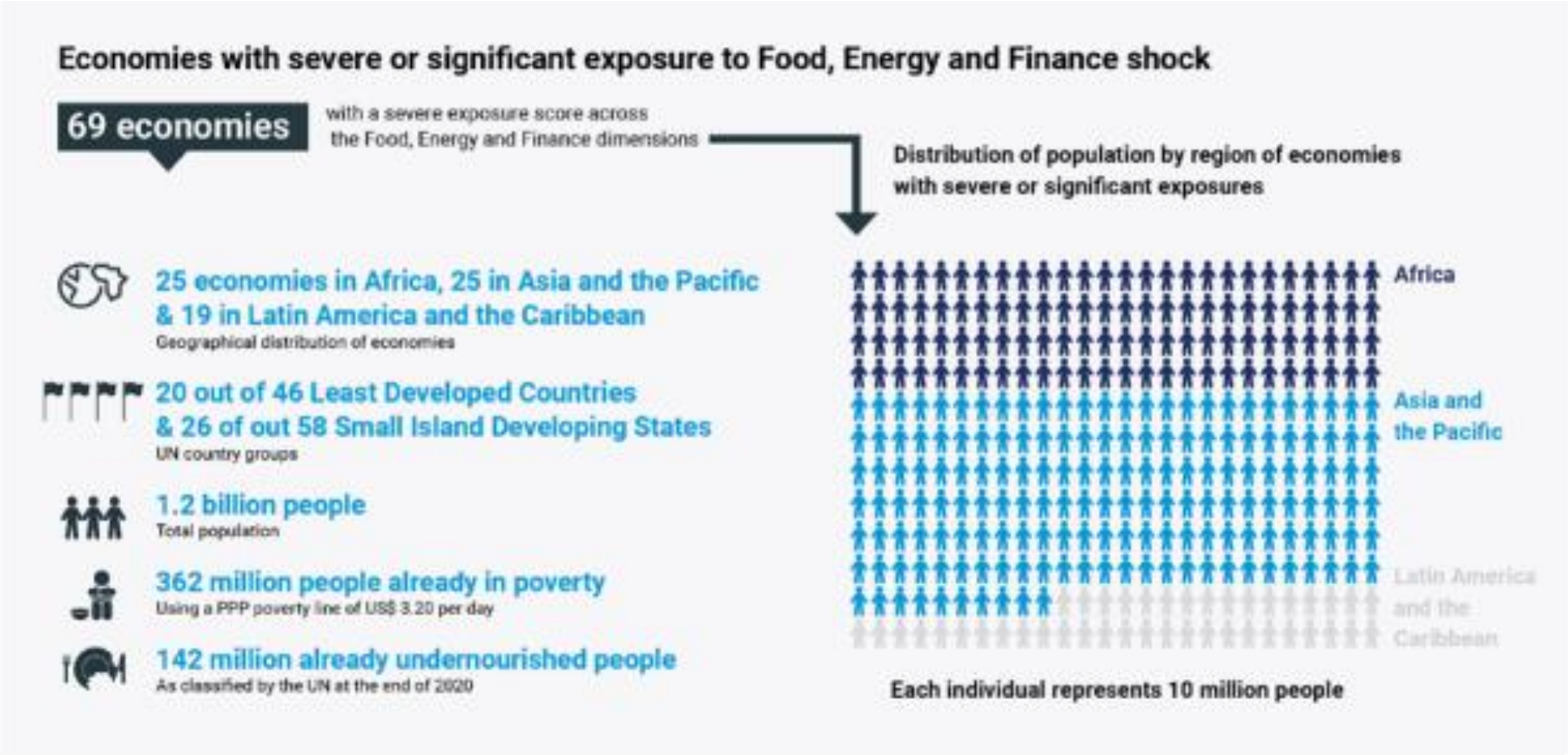
Latest

- BRIEF NO.2
- Press release Brief NO.2

BRIEF NO.1

Global Impact of war in Ukraine on food, energy and finance systems

13 APRIL 2022



Steps in applying the TEEBAgriFood Evaluation Framework

1. Determine the purpose of evaluation
2. Determine the entry point and spatial scale
3. Determine the scope of the value chain
4. Determine stocks, flows, outcomes & impacts
5. Select evaluation technique
6. Collect data and undertake evaluation
7. Report and communicate findings

Food security as a priority

Global crisis in part driven by breakdown in supply chains

How adaptable and relevant is the TEEBAgriFood approach?

II One Health

Food and Agriculture Organization of the United Nations

WORLD ORGANISATION FOR ANIMAL HEALTH

World Health Organization

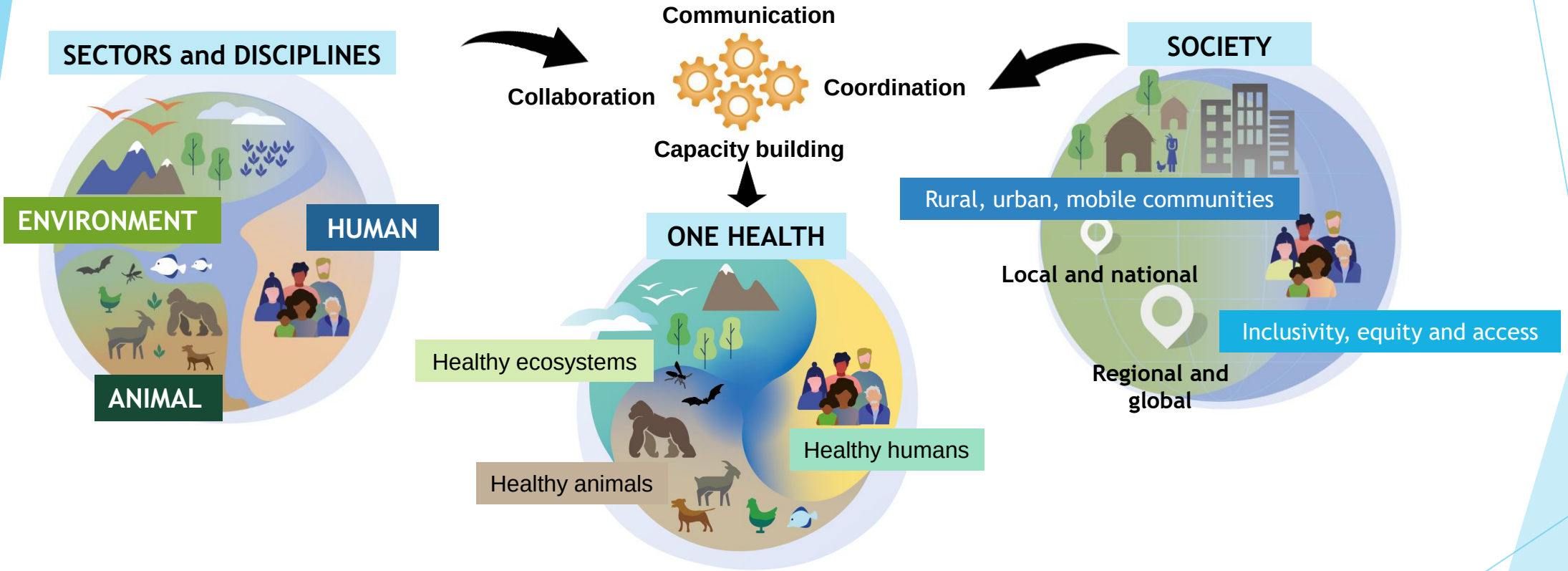
UN environment programme

The Quadripartite
One Health Joint Plan of Action (OH JPA)

Working together for the health of humans, animals, plants and the environment

“**One Health** is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems.
It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent.

The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.”



Food and Agriculture Organization of the United Nations

WORLD ORGANISATION FOR ANIMAL HEALTH

World Health Organization

UN environment programme

Action Track 6: Integrating the environment into One Health

Protect, restore, and prevent the degradation of ecosystems and the wider environment

Mainstream the environment into the One Health approach

Integrate environmental knowledge, data, and evidence in One Health decision-making

Create an interoperable One Health academic and in-service training program for the environment, medical, agriculture and veterinary sector professionals

The visible and invisible flows of agricultural production

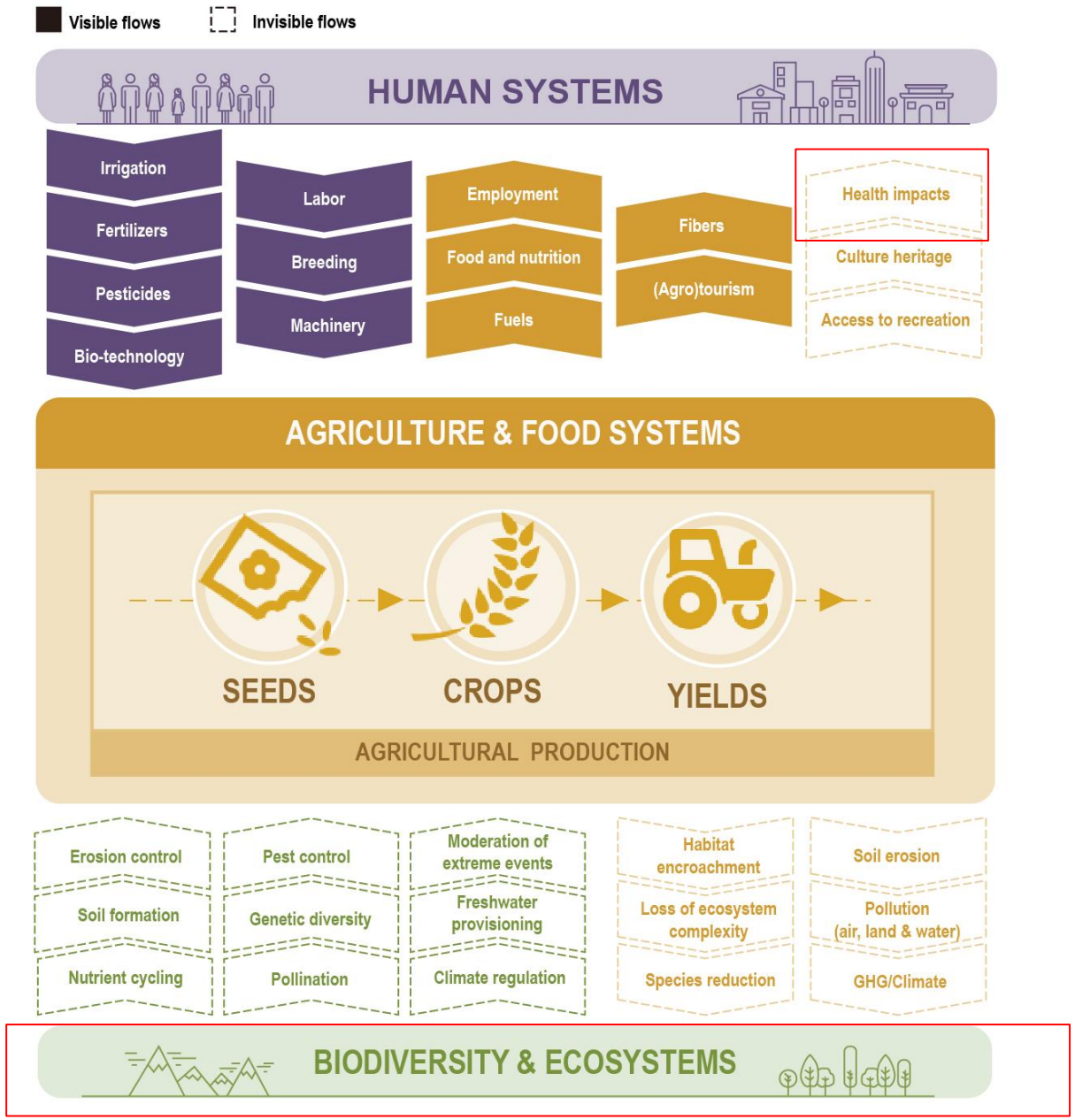
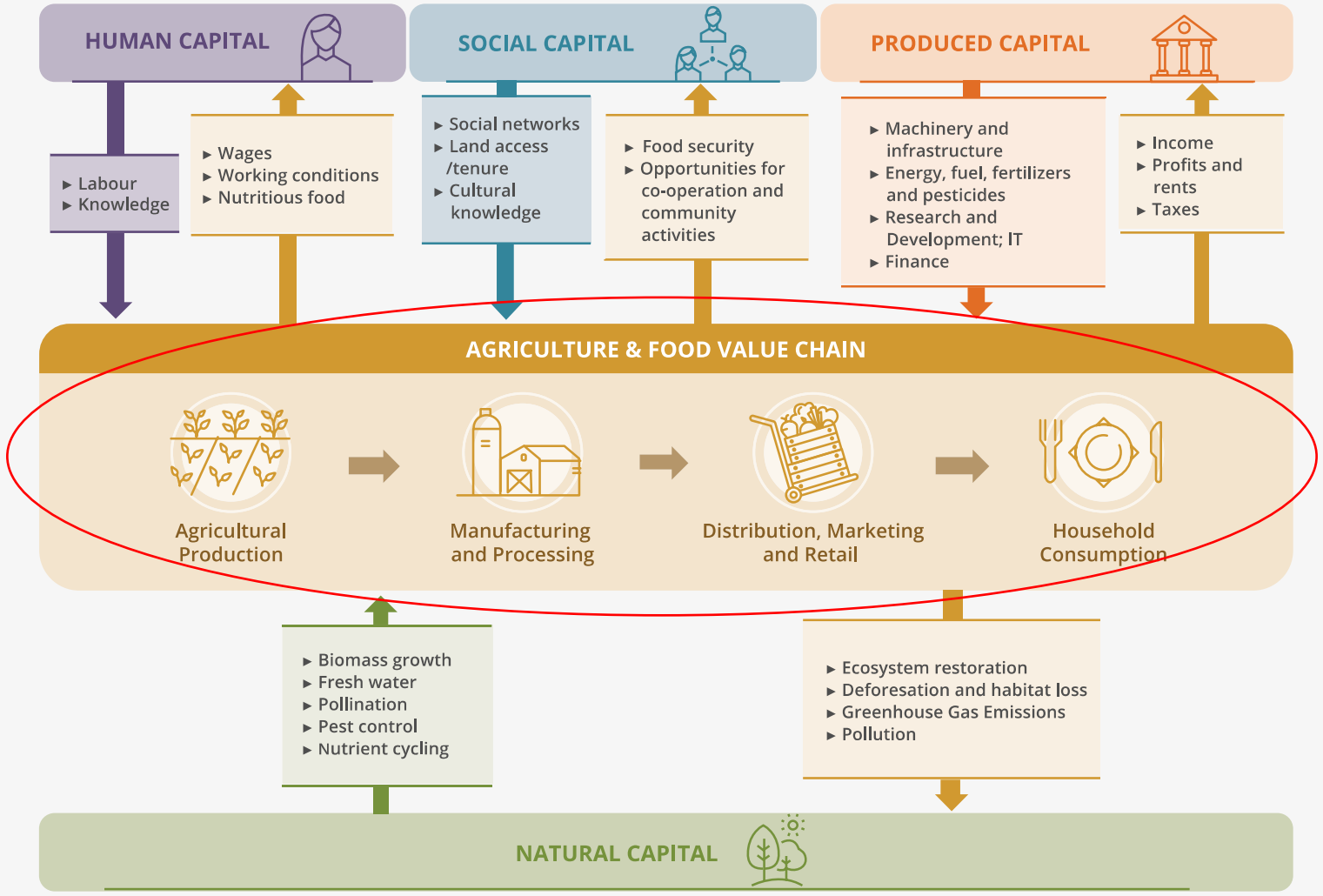


Figure 2.1 Capital stocks and value flows in eco-agri-food systems (Source: Hussain and Vause 2018)



How adaptable and relevant is the TEEBAgriFood approach?

III UN Decade on Ecosystem Restoration

https://www.decadeonrestoration.org

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

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Food and Agriculture Organization of the United Nations

EN

PREVENTING, HALTING AND REVERSING THE DEGRADATION OF ECOSYSTEMS WORLDWIDE.

The UN Decade on Ecosystem Restoration is a global rallying cry to heal our planet. What will you restore?

LEARN TO RESTORE

Restoring Landscapes in South Africa (ReLISA): Nature-based solutions for climate, biodiversity and people

A proposal for the South Africa country call of the German International Climate Initiative (IKI)

Project Duration: 01/2023 – 12/2027

ReLISA – the core value proposition: What are we trying to address?

1. There is a lack of awareness of commercial impacts and dependencies on ecosystems;
2. The opportunities for bankable restoration activities are 'off the radar' (such as value chain development for sustainably produced goat meat, NTFP and other commodities, and projects for voluntary carbon market projects, which could fund the upscaling of thicket, grassland or savanna restoration); and
3. There are coordination failures leading to 'locked-into' pathways as the main actors (government, civil society, communities, private sector) need to coordinate effectively towards large-scale restoration

UN environment programme

ReLISA – How are we going to address these issues?

1. develop and apply biophysical and economic valuation modelling ex ante to determine where there is the highest returns on investment (ROI) and opportunities to reduce income inequalities;
2. consult with stakeholders (including the business and finance community) on final site selection to gain buy-in and create 'readiness' for restoration interventions;
3. develop bankable business opportunities for the private sector;
4. implement on-the-ground via restoration activities; and
5. provide capacity building and knowledge products, so as to ensure project sustainability.

WP 1 – UNEP led

Ex ante assessment of landscape restoration opportunities – 20%

NCAVES Project 2016 – 2021

Understanding NCA
- In a nutshell
- Frequently asked questions
- Where TEEB fits in
- Additional resources

Country Implementation
- NCAVES Project 2016 – 2021
  - Brazil
  - China
  - India
  - Mexico
  - South Africa
- ANCA Project 2014 – 2016
  - Bhutan
  - Chile
  - Indonesia
  - Mauritius
  - Mexico
  - South Africa
  - Vietnam

NATURAL CAPITAL ACCOUNTING AND VALUATION OF ECOSYSTEM SERVICES (NCAVES)

Brazil, China, India, Mexico & South Africa

The Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project seeks to advance the theory and practice of environmental and ecosystem accounting in Brazil, China, India, Mexico and South Africa. This project is funded by the European Union and implemented jointly by the UN Statistics Division (UNSD), UN Environment Programme (UNEP) and Secretariat of the Convention on Biological Diversity (CBD).

STATUS: ONGOING

DONOR

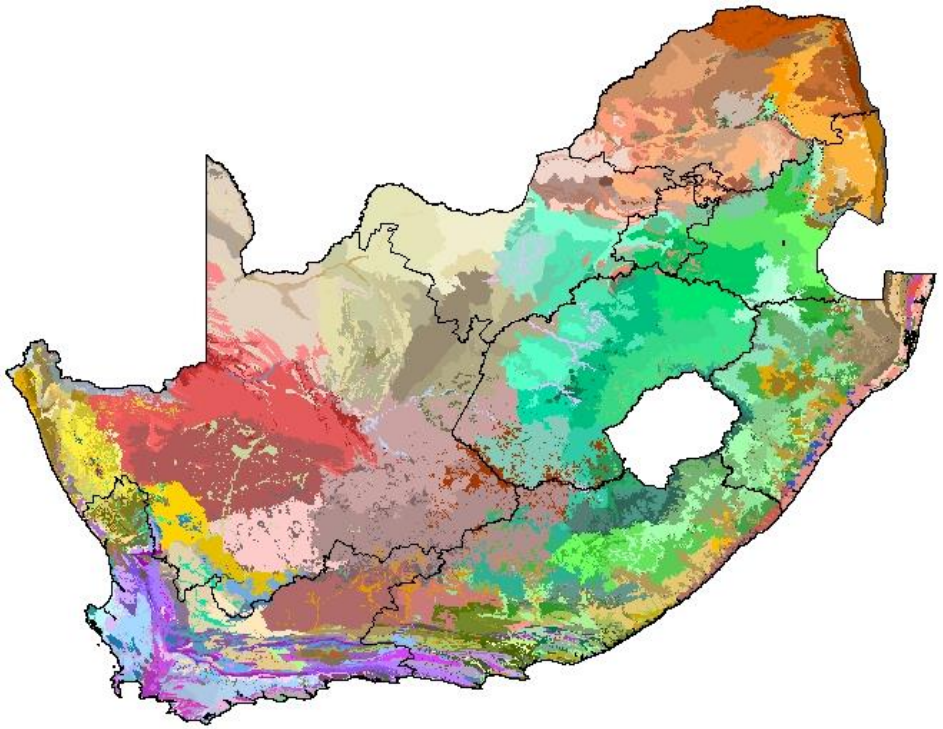
IMPLEMENTING PARTNERS

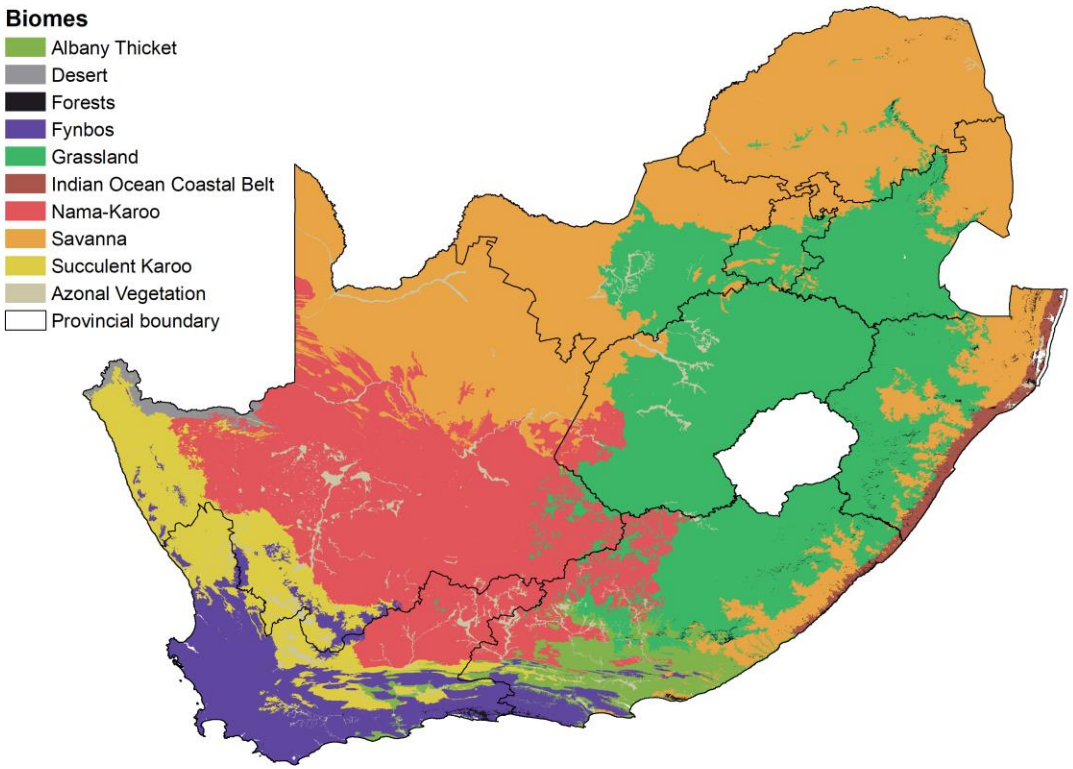
United Nations Statistics Division

Convention on Biological Diversity

Terrestrial ecosystem extent accounts – South Africa

Mapping of terrestrial ecosystem types are (a) 458 vegetation types,(b) which are aggregated into 9 biomes.





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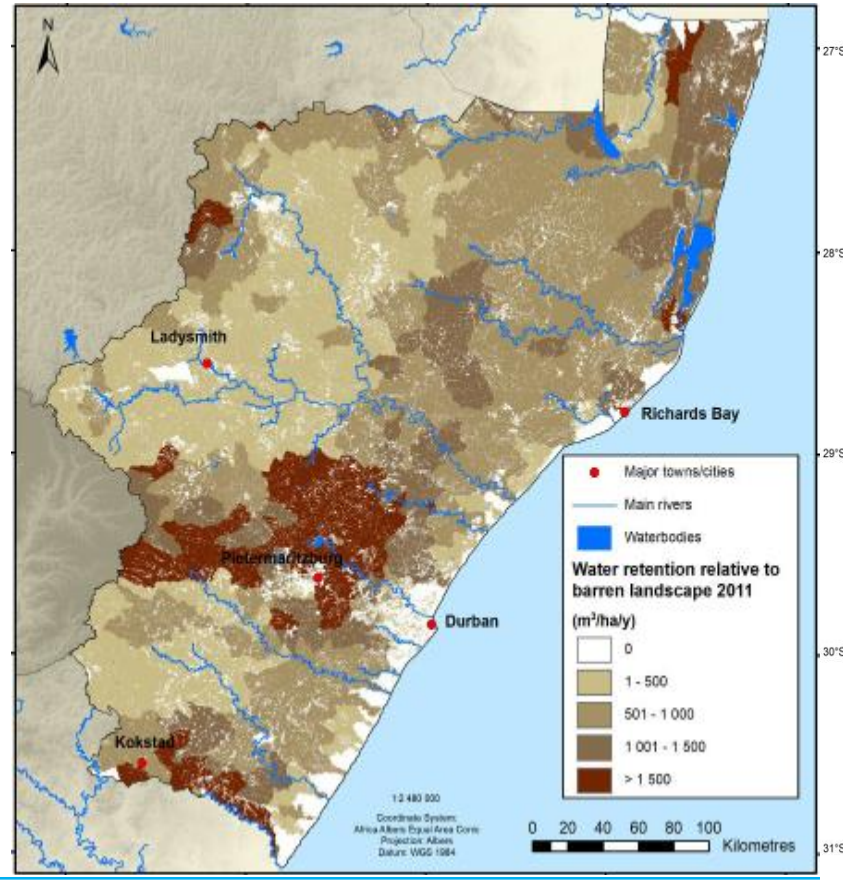
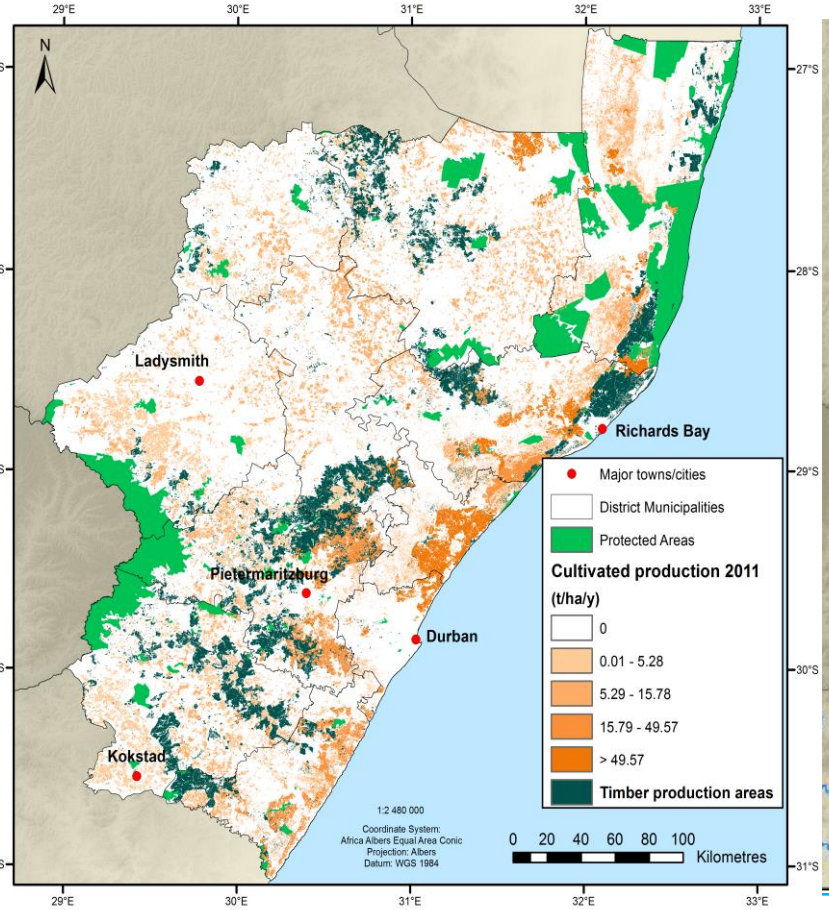
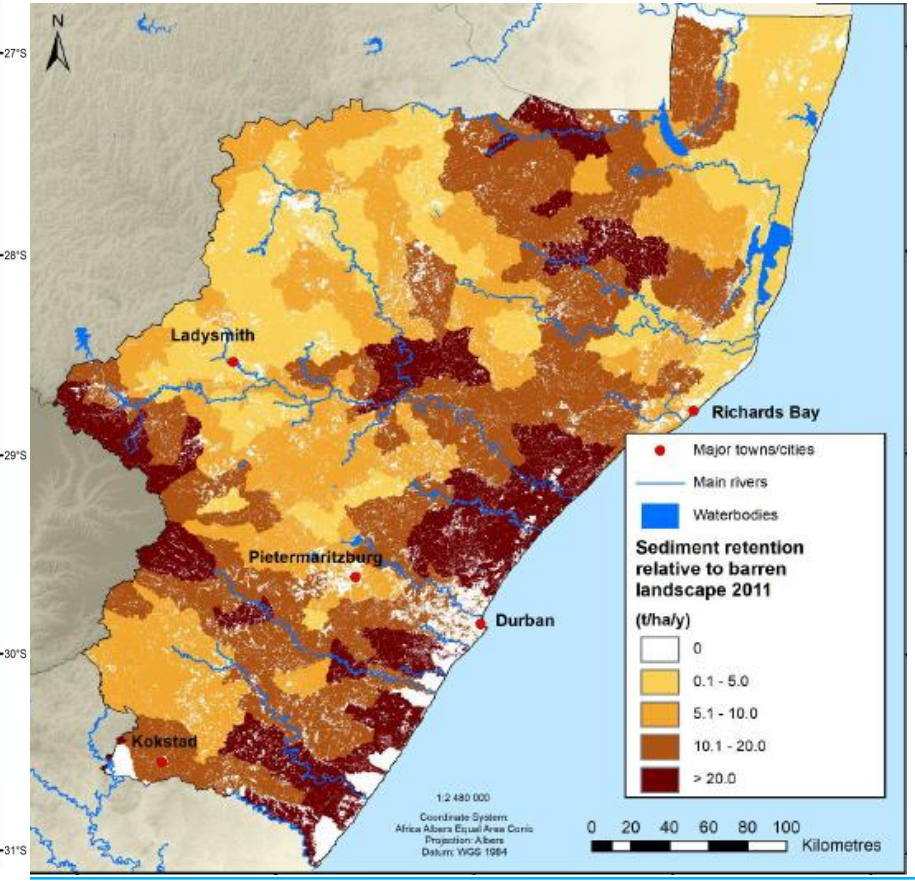
Ecosystem services accounts (biophysical) – KwaZulu Natal South Africa

Spatially-explicit data on provision of ecosystem services – water retention, crop provisioning, and sediment retention shown here, but results for a suite of eleven ecosystem services







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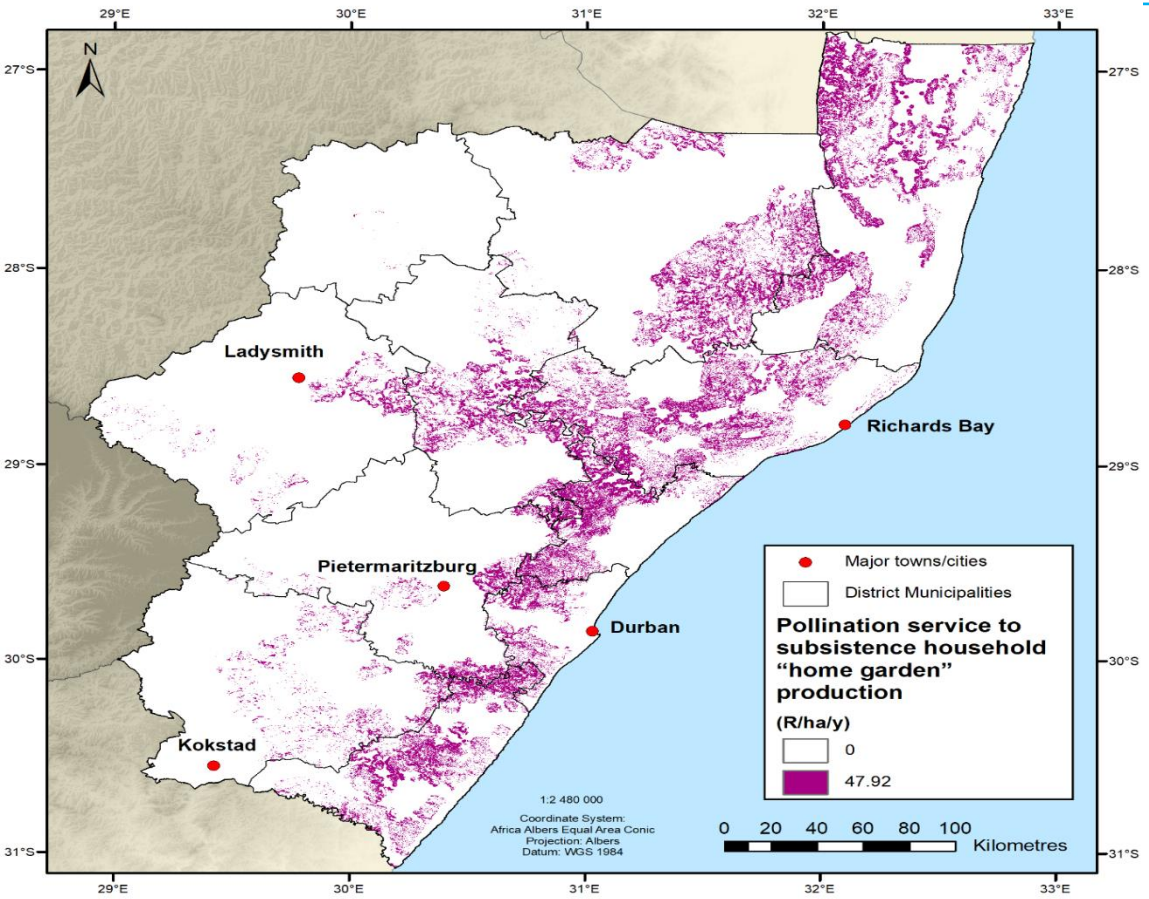
Ecosystem services accounts (monetary) – KwaZulu Natal South Africa

Spatially-explicit data on value of ecosystem services, and trends over time



Class	Ecosystem service	2005		2011	
		Annual flow R millions	Asset value R millions	Annual flow R millions	Asset value R millions
Provisioning	Wild resources	3 722.16	32 032.23	3 180.25	28 440.48
	Animal production	1 672.99	27 100.67	1 472.87	23 859.03
	Cultivation	6 456.70	104 591.91	7 535.43	122 066.22
Cultural	Nature-based tourism	532.83	8 631.31	798.83	12 940.22
	Property	1 164.97	18 871.27	1 327.78	21 508.60
Regulating	Carbon storage (global value)	29 922.56	484 745.42	34 579.34	560 185.33
	Pollination	51.26	830.33	47.69	772.50
	Flow regulation	3 247.87	52 612.12	3 166.78	51 298.55
	Flood attenuation	31.02	502.49	23.50	380.68
	Sediment retention	435.79	7 059.28	330.40	5 352.18
	Water quality amelioration	20.40	330.46	16.03	259.67
Total		**47 258.53**	**737 307.48**	**52 478.90**	**827 063.46**
Value of flows and asset values in 2005 and 2011 when using national carbon values					
Regulating	Carbon storage (national)	236.39	3 829.49	273.18	4 425.46
Total		**17 572.38**	**256 391.56**	**18 172.74**	**271 303.59**

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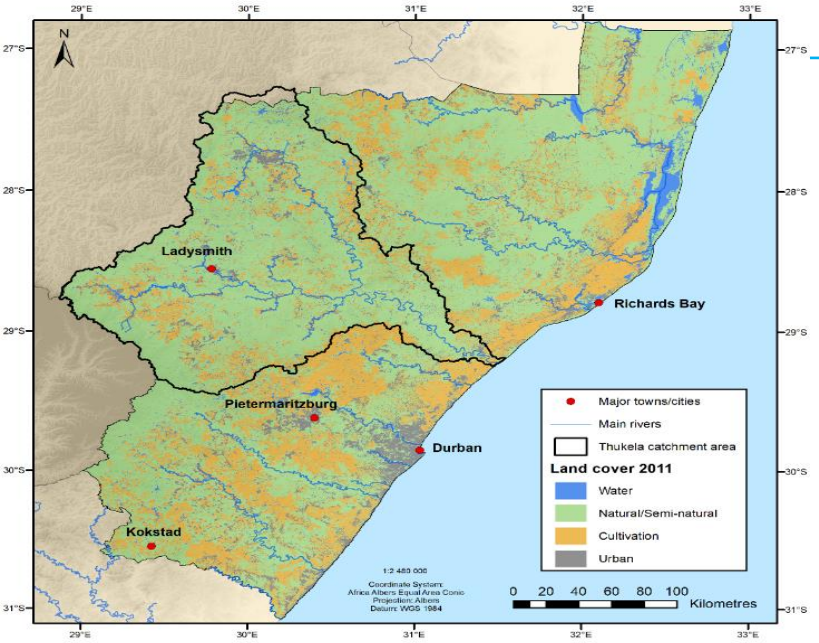
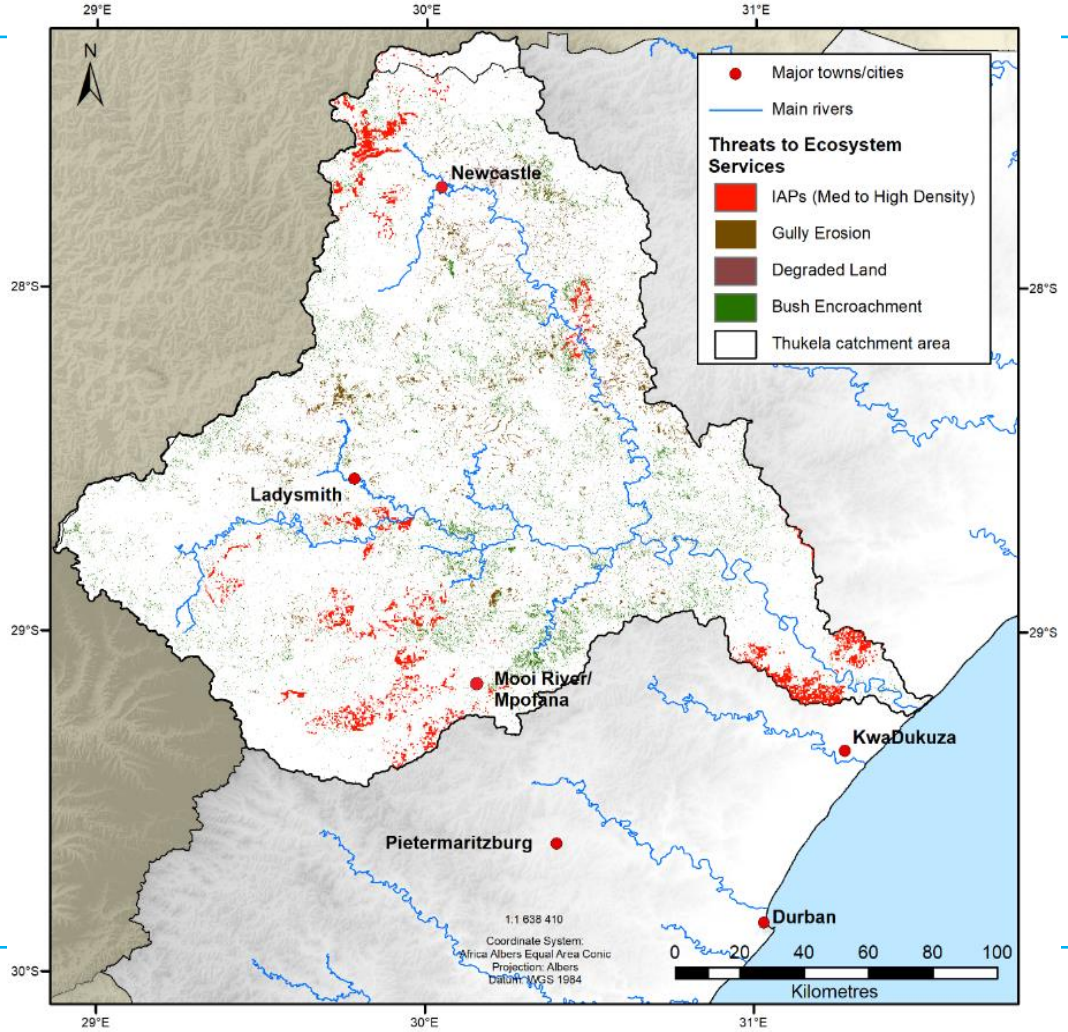
Policy application: Ecosystem restoration in South Africa

Cost-benefit analysis of ecosystem restoration programmes in Thukela river basin, KwaZulu Natal





Threats to ecosystem services:

Invasive Alien Plants
Gully Erosion
Degraded Land
Bush encroachment

Policies:

Extension services
Betterment schemes
NRM Programmes – Working for Water
2030 LDN target, UNCCD and SDGs

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Policy application: Ecosystem restoration in South Africa

Cost-benefit analysis of ecosystem restoration programmes in Thukela river basin, KwaZulu Natal

	Present value (R millions) base estimate		
Costs	**LDN Pessimistic**	**LDN Optimistic**	**Full restoration**
Clearing IAPs	514.4	514.4	2 355.2
Addressing Bush Encroachment	507.2	237.6	691.1
Active restoration of grasslands, erosion	2 623.6	-	-
Sustainable land management	-	1 981.02	6 093.62
Total present value of costs	**3 645.18**	**2 733.09**	**9 139.98**
Benefits			
Water supply	2 591.4	2 591.4	10 757.2
Sediment retention	38.9	38.9	63.1
Tourism	121.8	121.8	243.6
Carbon storage (avoided national cost)	-274.91	-274.91	597.5
Harvested resources	70.6	70.6	2 391.3
Livestock production	620.7	620.7	1 476.9
Total present value of benefits	**3 168.6**	**3 168.6**	**15 529.6**
Net Present Value	**-476.6**	**435.5**	**6 389.6**
BCR	**0.9**	**1.2**	**1.7**

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IKI INTERNATIONAL CLIMATE INITIATIVE

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