



# Understanding complexities of biodiversity-based value chains: the case for Honeybush (*Cyclopia* spp.)

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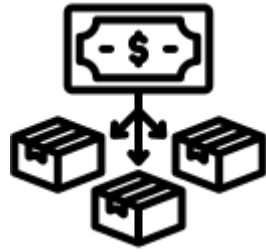
Nelson Mandela University, George Campus

Purpose: highlight key challenges, lessons/successes, possible solutions and pose questions that can support the overall objective of the dialogue...

...which is to strengthen relationships and networks to realise our common goals for the sector.



Increased stakeholder engagement



Product diversification



Focused research



Resource assessments

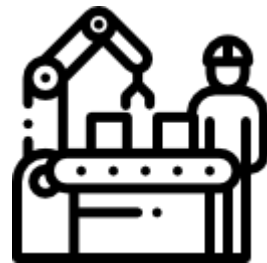


Transformative governance?

## Successes – what is going well?



Steady rise in exports over 20yrs.



Improved production capacity



Partnership opportunities



Geographic protection



Significant reduction in wild-harvest pressure since 2022.



Conservation:  
for who's  
benefit



Landlessness



Access to wild  
resource, markets



Poorly resourced  
permitting system



Uncertainty about  
ABS: who should  
benefit and why?



Price-making  
vs price-taking

## Key challenges – what isn't going so well?



Illegal &  
indiscriminate  
harvesting



"Missing"  
stakeholders



↑ Expectations  
↓ Returns

Phakisa!



Dead-end  
communication



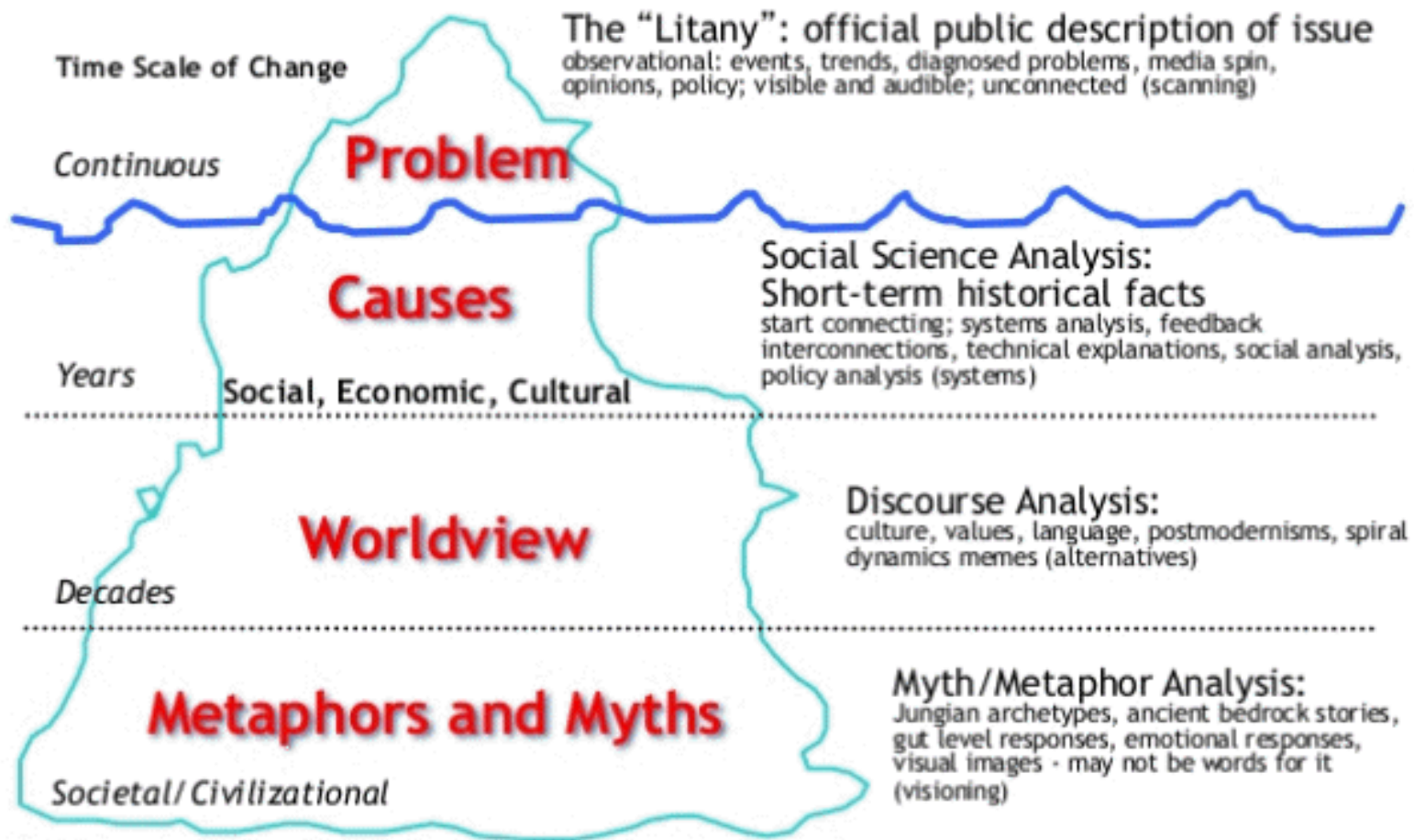
Climate change



Fading  
undocumented  
traditional knowledge

# A few observations about successes and challenges

- What is working took a long time to build, but it is fragile.
- Benefits came in fits and starts; there were lapses, failures and delays in between.
- Not all problems have the same owners – different folks, different strokes.
- Some problems need technical fixes: e.g., production inefficiencies, cultivation success, etc. Others require **relational fixes**.
- These successes and challenges play out against a backdrop...



Sources: R. Slaughter, "Integral Operating System" World Future Society, July 2003, drawing on Sohail Inayatullah; Dennis List, "3 Maps of the Future," July 18, 2003; Andy Hines, UH-Clear Lake, 2006.

Inayatullah, S. (2019). Causal layered analysis a four-level approach to alternative futures relevance and use in foresight. *Futuribles*, 12(3), 123-135.

# Questions

- What of the successes can you take credit for?
- Which of the problems resonate with you?
- How do we work towards common goals with so much diversity?
- How do we manage to consider all the nuances and complexities of our different contexts in one sector?

Heuningbos ek wil jou he

Heuningbos ek wil jou he

Heuningbos ek wil jou he

Heuningbos ek wil jou he

Wat sal jou Mamma daarvan se

Dan loop ons so onderdeur die maan (x3)

Ek en jy en heuningbos saam

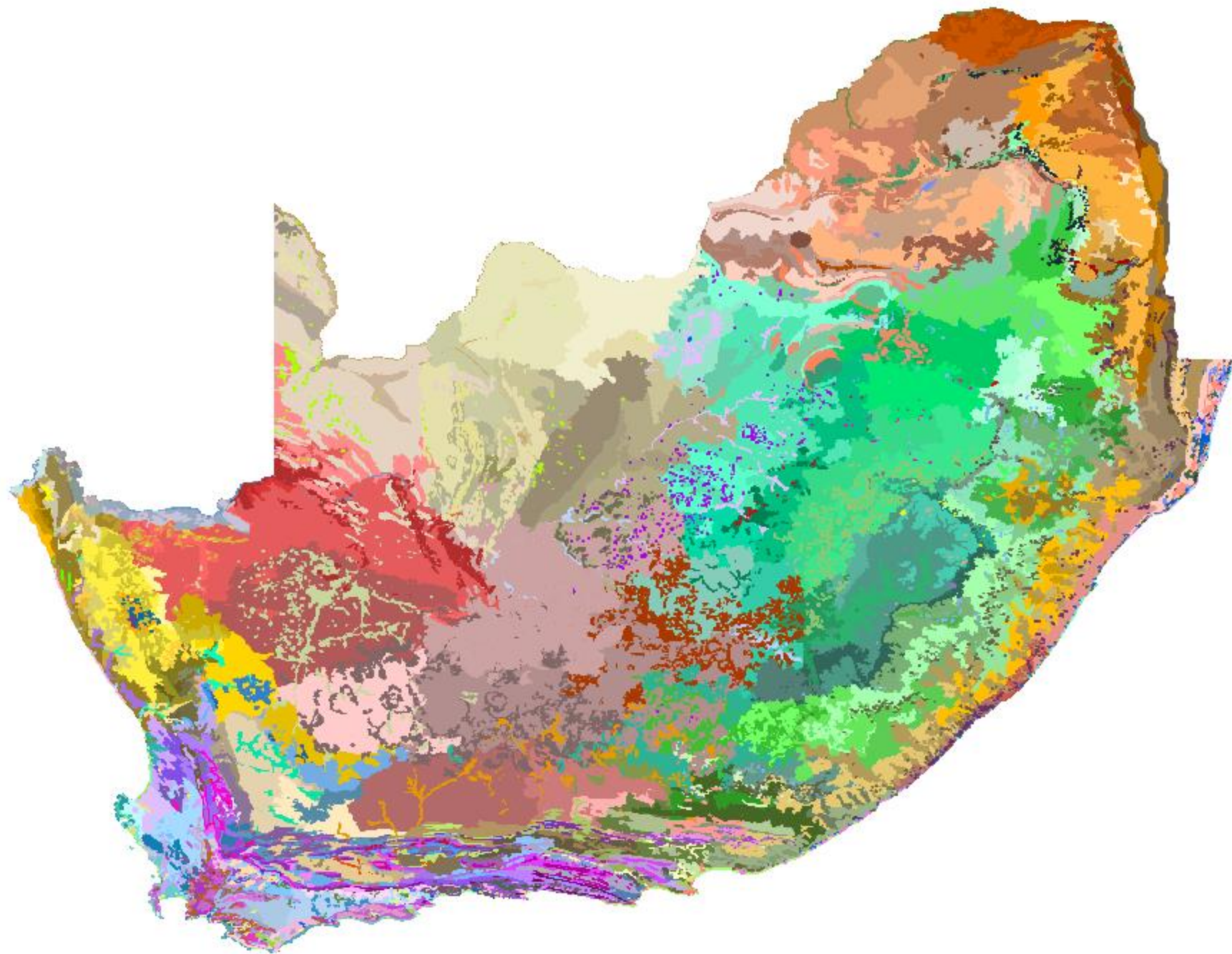


# Let's talk about...

‘understanding’ the complexities of our unique plants, the landscapes and the people involved in their history and industry.

## The Tragedy of the Commons...

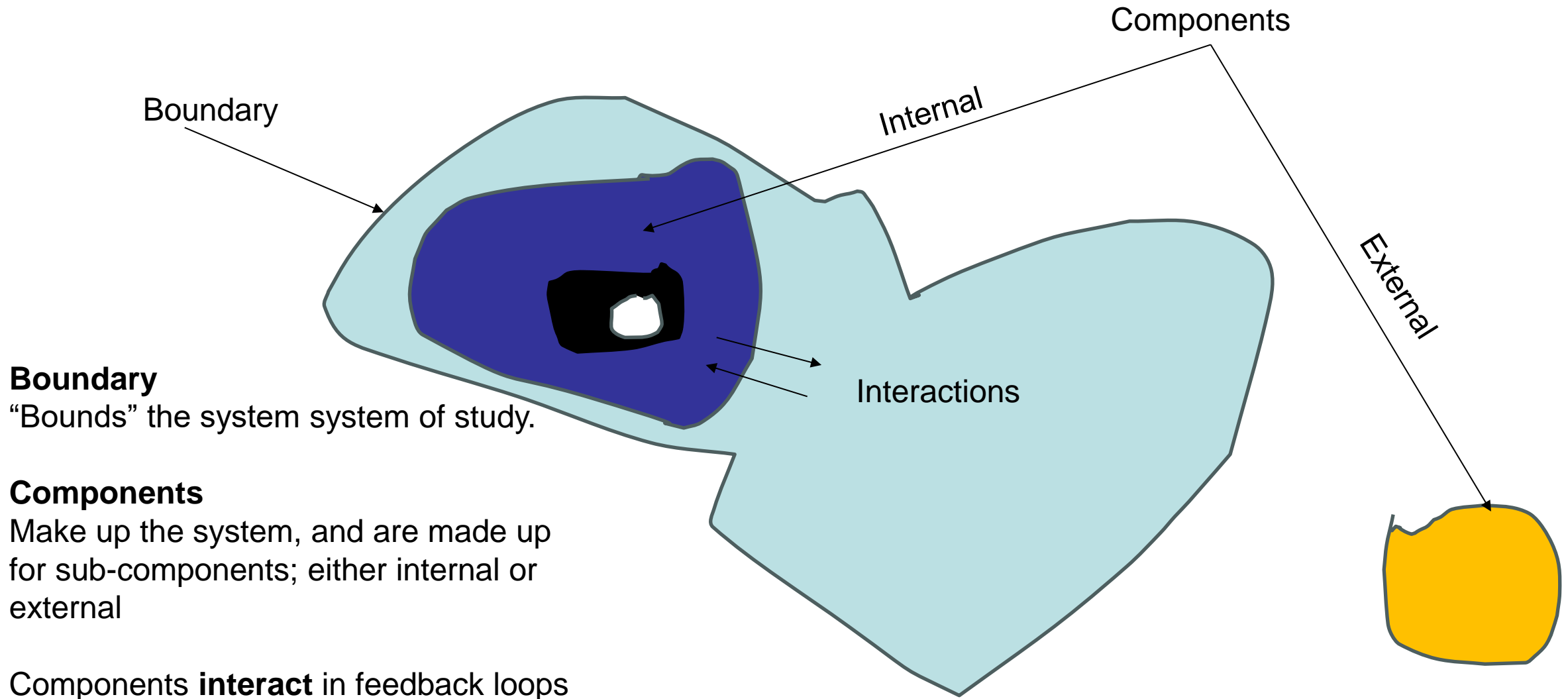
<https://ed.ted.com/lessons/what-is-the-tragedy-of-the-commons-nicholas-amendolare>



# Diversity...

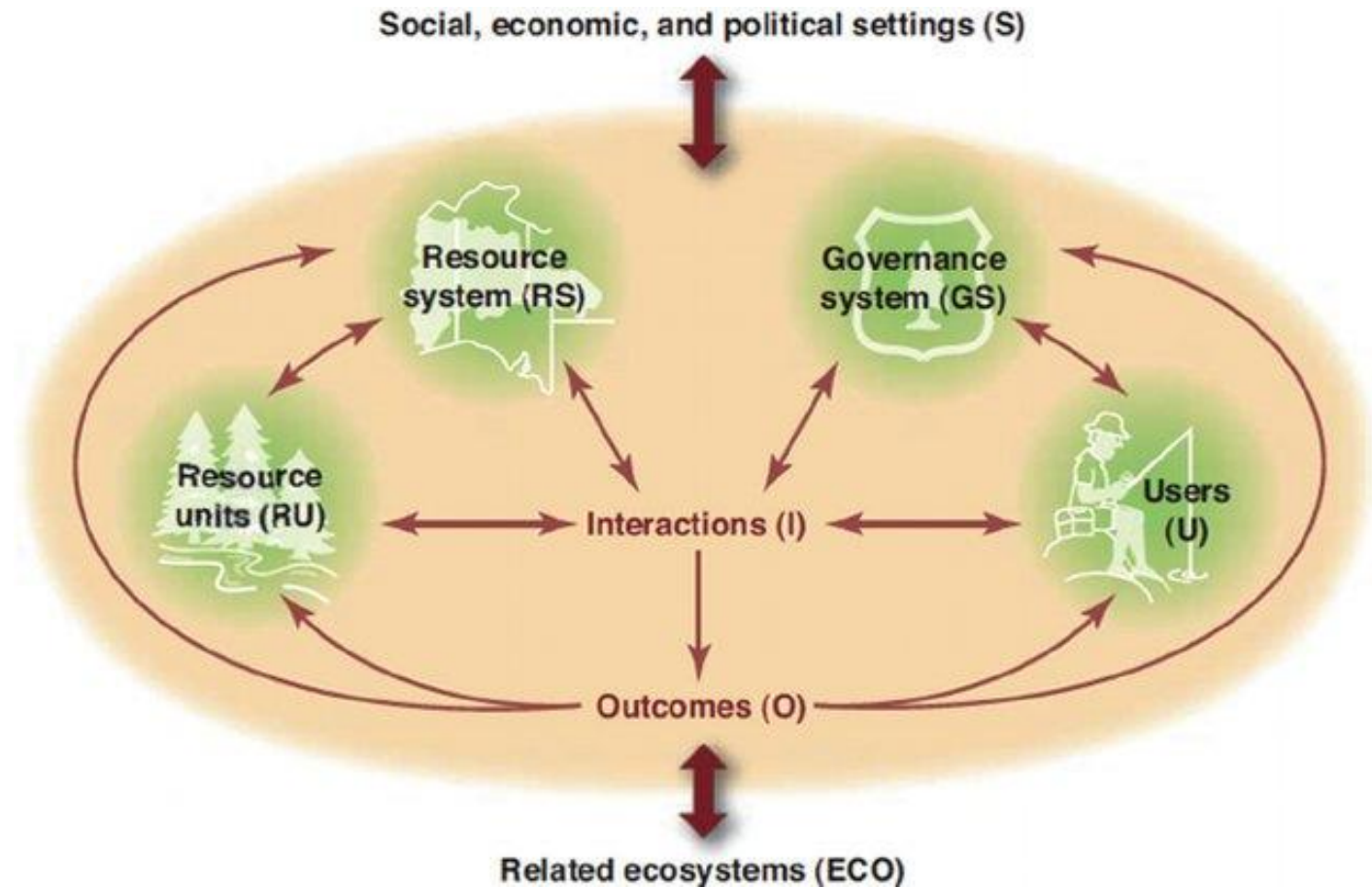
disasters  
global consumers floods  
knowledge trees trade homes insects government  
value cultures tek climate national  
drought amphibians mammals local markets  
natural business plants change people abs  
product regional power geology agreements  
models animals soils economies covid  
exploitation pricing languages fish chains  
processing provincial legislation currencies  
vandalism crime theft drugs  
education

# What is a social-ecological system?



# What is a social-ecological system?

“All humanly used resources are embedded in complex, social-ecological systems (SESs)”  
Ostrom 2009

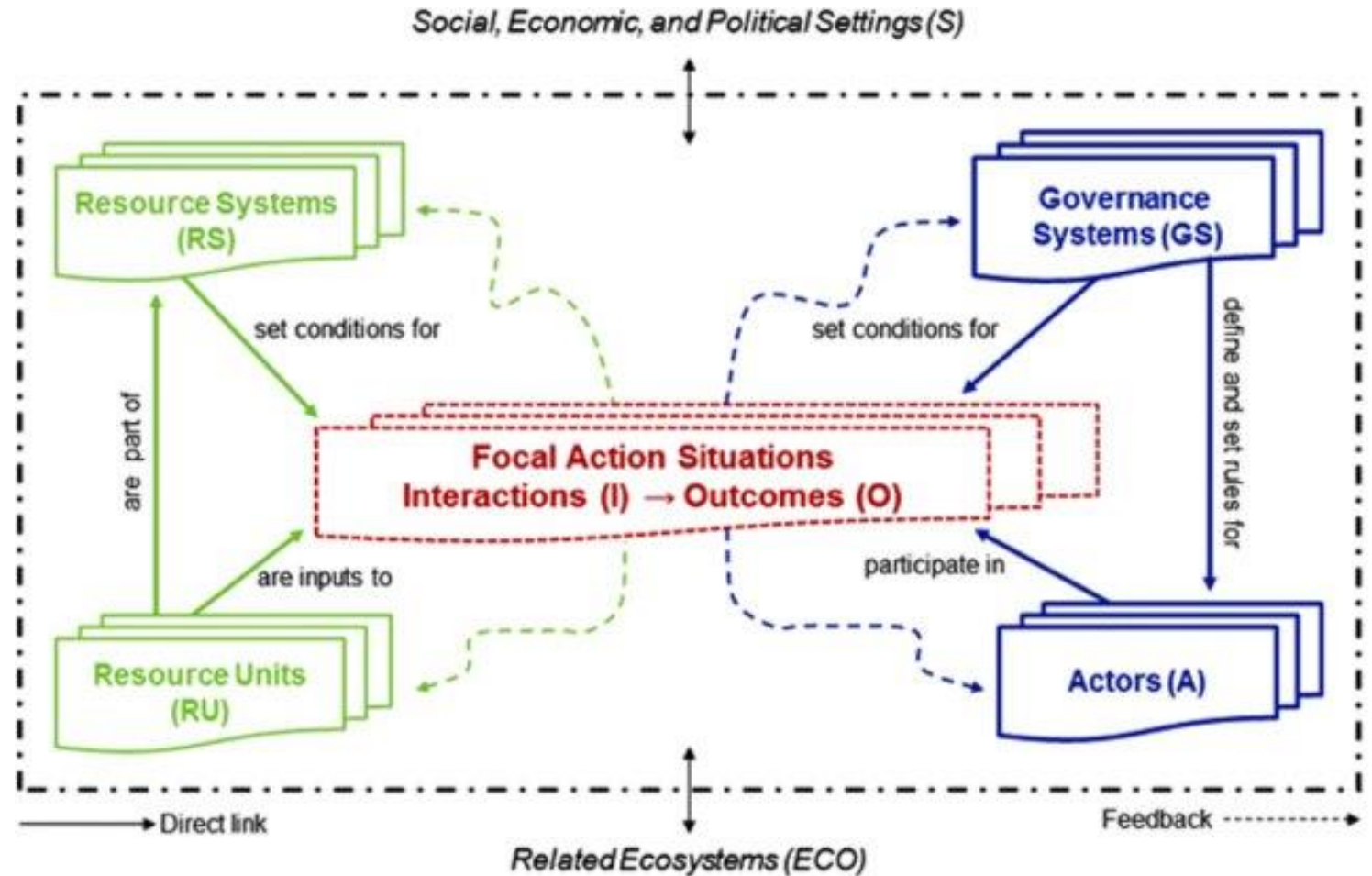


Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science*, 325(5939), 419-422.



## Ostrom's Social Ecological Systems Framework (SESF)

- Four core sub-systems: RS, RU, GS and A
- Accommodates several disciplines and scales
- Creates a common “language” for those investigating the system to explain their perspectives
- Accompanied by a table of “lower-tier variables” that fall underneath RS, RU, GS and A...



McGinnis, M. D., & Ostrom, E. (2014). Social-ecological system framework: initial changes and continuing challenges. *Ecology and society*, 19(2).

# **OSTROM'S 8 PRINCIPLES FOR MANAGING A COMMONS**

**(1)**



**STRONG GROUP  
IDENTITY AND  
UNDERSTANDING  
OF PURPOSE**

**(6)**



**FAST AND  
FAIR  
CONFLICT  
RESOLUTION**

**(2)**



**FAIR  
DISTRIBUTION  
OF COSTS  
AND BENEFITS**

**(4)**



**MONITORING  
AGREED  
UPON  
BEHAVIORS**

**(7)**



**AUTHORITY  
TO  
SELF-GOVERN**

**(3)**



**FAIR AND  
INCLUSIVE  
DECISION  
MAKING**

**(5)**



**GRADUATED  
SANCTIONS FOR  
MISBEHAVIORS**

**(8)**



**APPROPRIATE  
RELATIONS  
WITH  
OTHER GROUPS**

# References

- Ndwandwe, S., Juba, R., & Sephton, M. (2024). Cultivation of honeybush (*Cyclopia* spp.) in neo-colonial and multispecies landscapes of South Africa. *Anthropology Southern Africa*, 47(2), 197-215.
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- McGregor, G. K. (2024). *Aspects of the sustainability of the wild honeybush industry* (Doctoral dissertation, Rhodes University).
- Malgas, R. R. (2022). *A social-ecological systems approach to sustainable production of endemic Rooibos (*Aspalathus linearis*) and honeybush (*Cyclopia* spp.) species amongst agrarian communities in the Cape Floristic Region (CFR)* (Doctoral dissertation, Stellenbosch: Stellenbosch University).