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LEARNING RESEARCH CENTRE



# Africa's Future – In Whose Hands?

Keynote Address at 36<sup>th</sup> EEASA Conference in Livingstone, Zambia, 17 September 2018

Prof Eureta Rosenberg, Rhodes University



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# Africa's Future – In Whose Hands?

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ENVIRONMENTAL EDUCATION ASSOCIATION OF SOUTHERN AFRICA

36TH CONFERENCE - KEYNOTE ADDRESS

PROF EURETA ROSENBERG - SOUTH AFRICA



**Splendour or  
Danger?**

When I look at the falls I see ...

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1. Africa's Development Challenges
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  - Industry
  - Youth





The World Wants to Partner with Africa



The 2018 Beijing Summit of the Forum on China-Africa Cooperation  
Sommet de Beijing 2018 du Forum sur la Coopération Sino-Africaine

2-4 September 2018

13-14 October 2018

1-4 November 2018



# China offers Africa \$60 billion in Aid

The 2018 Beijing Summit of the Forum on China-Africa Cooperation





# Development Options – What to Choose? How?

What Benefits? For Whom? How are other important considerations affected? What path does this lock into?









# Development Options – What to Choose? How?

What Benefits? For Whom? How are other important considerations affected? What path does this lock into?



# Example: Copperbelt Mining and the Kafue, Zambia

Source: *African Ecological Futures 2015*, report by African Development Bank and WWF Regional Office, Nairobi



1928 First Copper Mine  
in Kafue Region

Mines need energy –  
Kafue Gorge Dam and  
ITT – impact on Ramsar  
wetlands

1964 Independence –  
Mines nationalized and  
mining wealth shared

1974 Copper crashes  
(oil crisis) – less money  
for development and  
rehabilitation – health  
and ecosystem impacts

Kafue River also vital for  
agriculture – Cash crops  
like sugar in the same  
Kafue Region

Rural households  
without electricity –  
firewood and charcoal –  
deforestation

Deforestation causes  
soil erosion which leads  
to dam siltation

Villagers moving to  
Lusaka – higher demand  
for resources

Waste management  
challenges – Lukanga  
Swamp absorbs  
pollutants

**Climate  
Change**

**Youth  
Growth**

## Youth Growth

First Copper Mine  
Kafue Region

Mines need energy –  
Kafue Gorge Dam and  
ITT – impact on Ramsar  
wetlands

1964 Independence –  
Mines nationalized and  
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Kafue River also vital  
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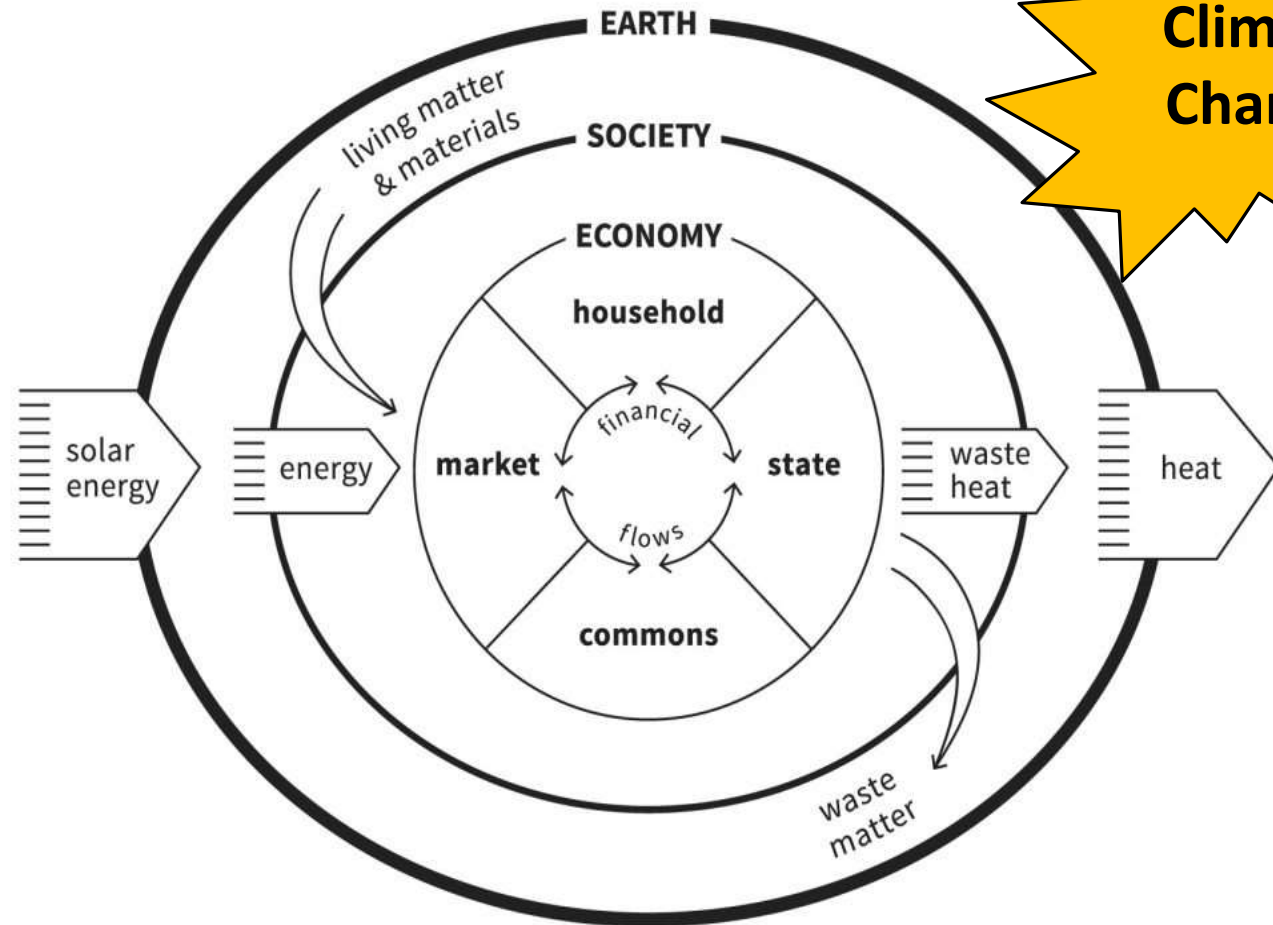
Rural households  
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Waste management  
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Swamp absorbs  
pollutants

## Climate Change





# Africa's Future

What are the development choices we have?

# Water for Africa

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# Energy for Africa

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Food for Africa

# Indigenous Seeds and Knowledge

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# Waste Solutions for the World



SA President  
Ramaphosa: “We need  
SAFE – Sanitation  
Appropriate for  
Education – and we  
need off-grid solutions”



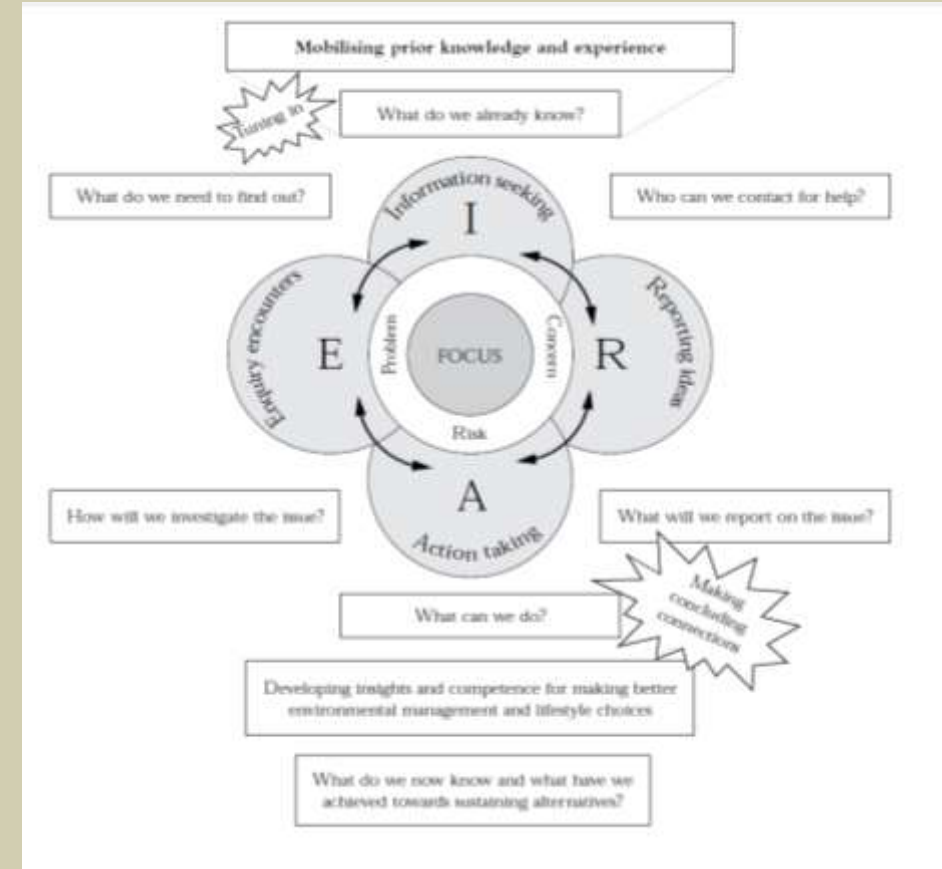
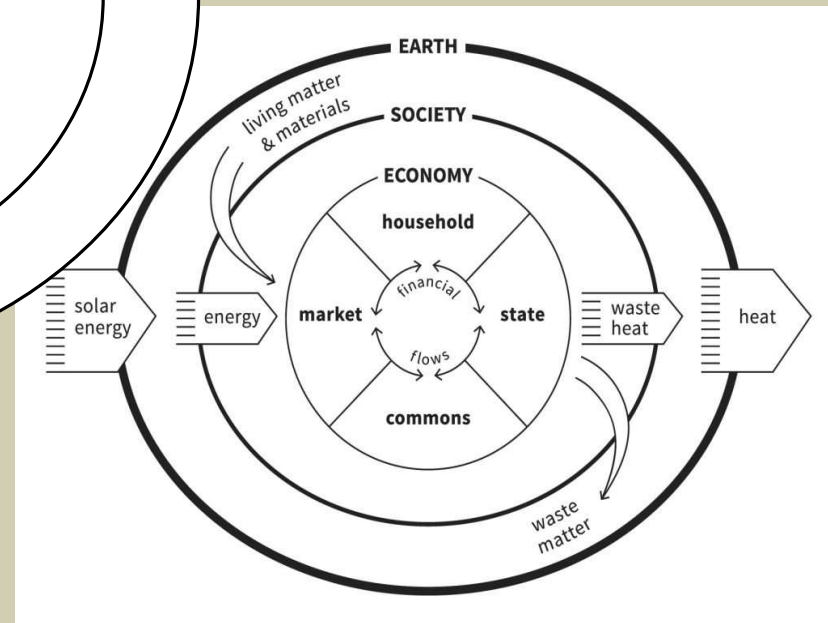
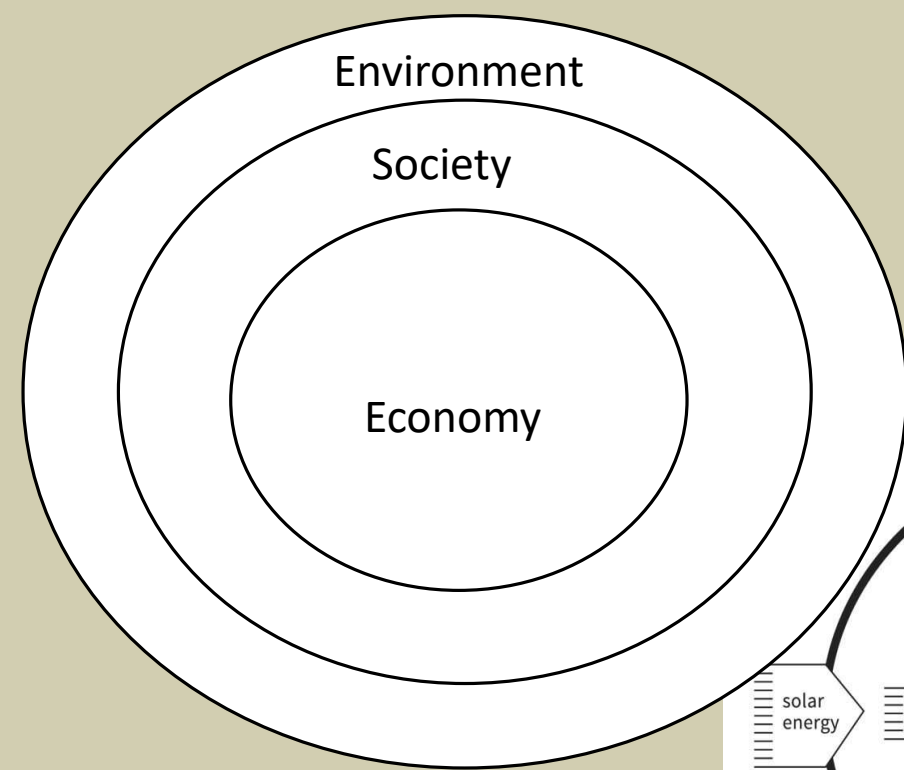
A wide-angle photograph of a large herd of cattle, including brown, black, and white cows, grazing in a lush green field. In the foreground, two men are riding horses, herding the cattle. Other people are visible on the ground near the herd. In the background, there is a small village with several buildings and a large, forested hillside under a clear sky.

**Grass-fed beef is more nutritious than grain-fed beef and produces less methane (gas contributing to climate change)**

**Making Money in Africa**



New forms of Access

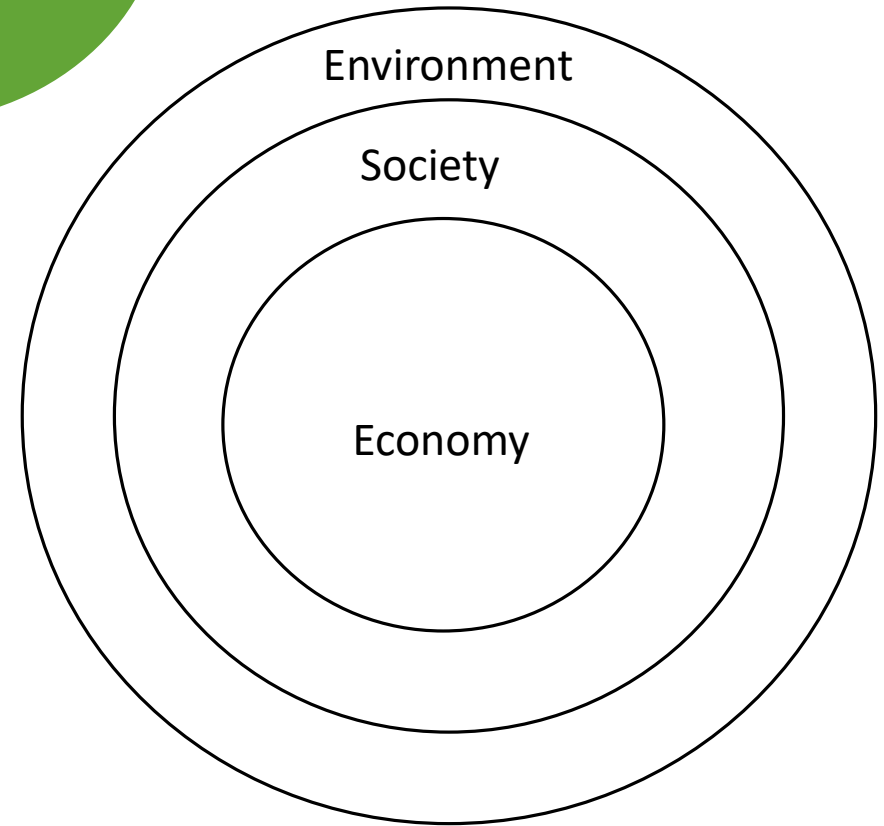


# Key Concepts

Embedded economy and markets (Raworth, 2017); deep sustainability (Hattingh, 1999); active learning for EE/ESD (O'Donoghue, 2001)

# Which one?

Globe  
or Sphere?



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# Immersed inside the sphere

We have entire ecosystems inside ourselves, and around us, and what we do to them, matters



# Africa's Future

Re-Cap of the Key Points



## The Role of EE/ESD Educators?

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EE/ESD for Whom?

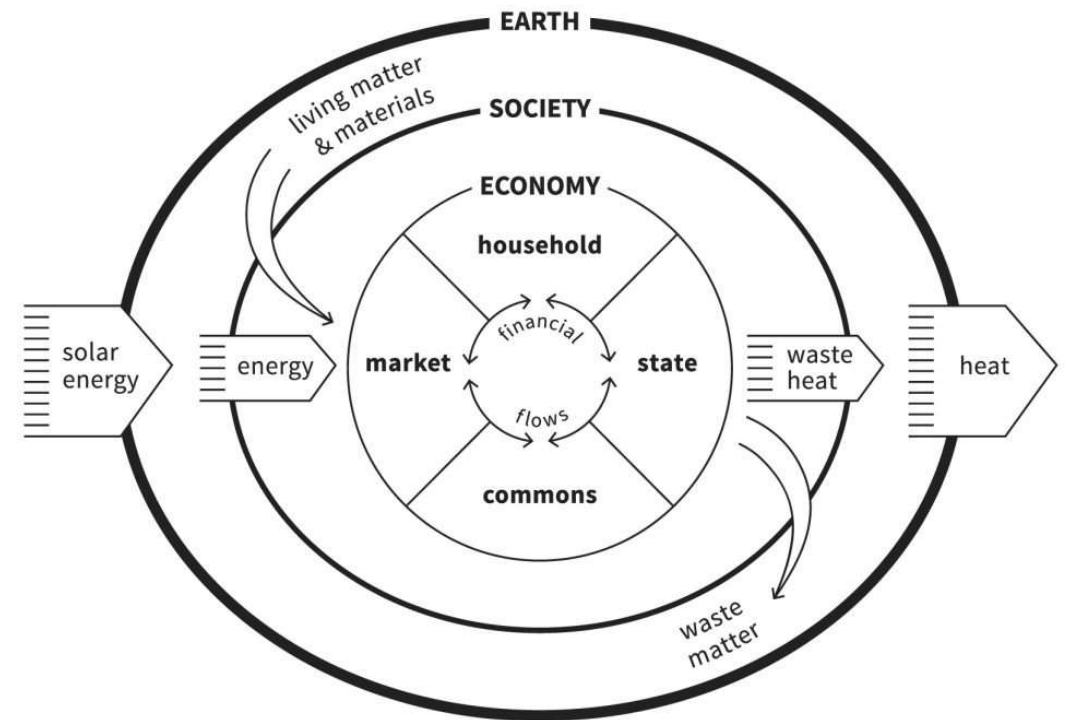
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# EE / ESD for Government

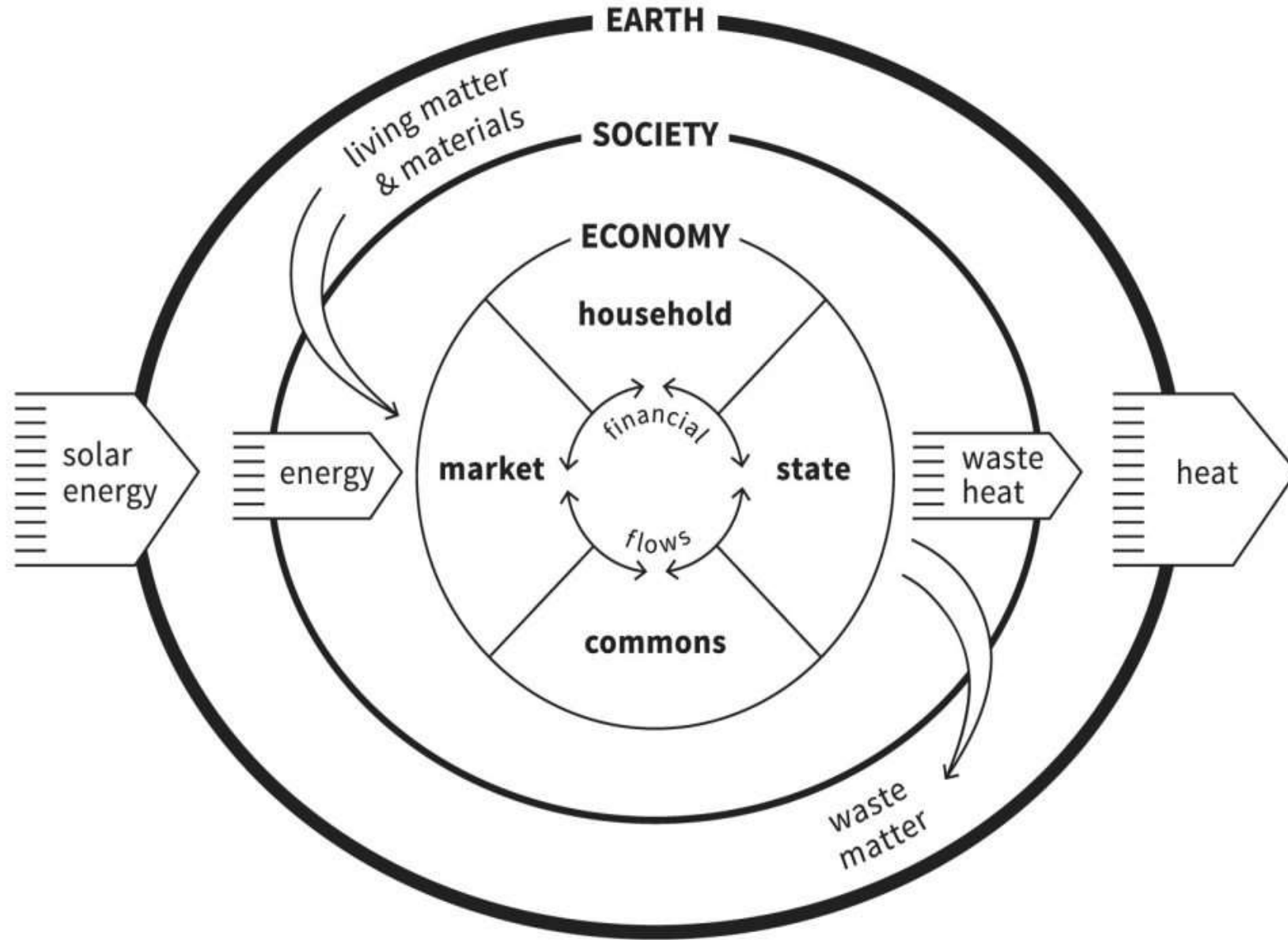
WHAT DO GOVERNMENTS NEED FROM EDUCATORS



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# Understanding Economics

As the basis for sustainable development and EE/ESD

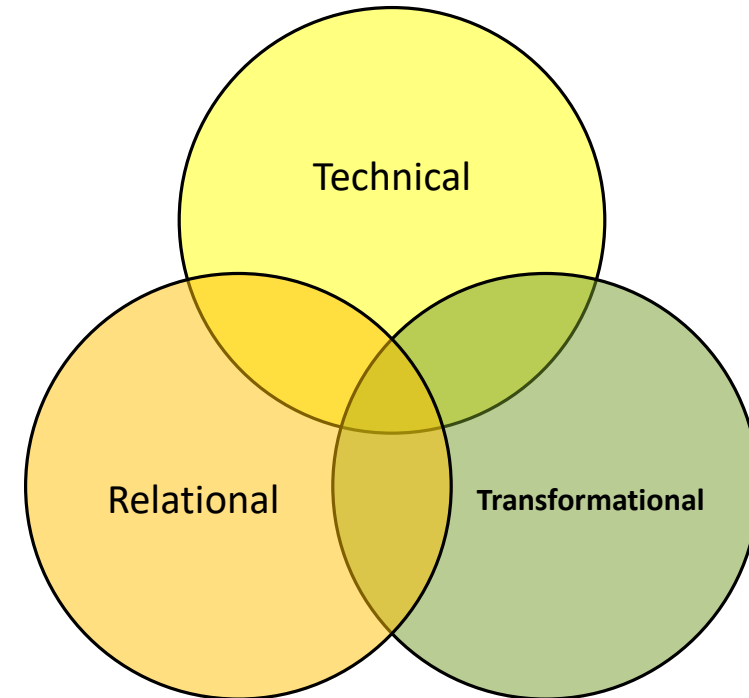


# Competencies for Sustainability

Wiek, Withycombe and Redman, *Sustainability Science*, 2011: Key competencies in sustainability: A reference framework for academic program development



Rosenberg, Rosenberg, Ramsarup & Lotz-Sisitka, 2016, *Green Economy Learning Assessment: Critical competencies for driving a green transition*. PAGE, Rhodes University and DEA, Pretoria.



Otto Scharmer, 2007, "Field-based Leadership Development".

# EE / ESD for Civil Society

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WHAT DO COMMUNITIES, WORKERS, NEED TO FROM EDUCATORS?

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# EE / ESD for Industry

WHAT DOES INDUSTRY NEED FROM EDUCATORS?



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Building capacity for a sustainable future

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### Product

The short introductory section of this source book introduces the green economy and green jobs followed by a selection of resources that aim to support sector skills planning processes and processes of greening work. The resources have been divided into sections:

- A description of where in the skills planning development and process the resource could be used and what value it would add;
- An example of where the resource has been used in a Green Skills study along with a set of questions to inform the use of the resource; and
- Descriptions of how to use the resource along with supporting materials and references.

The source book will be complemented by various templates and checklists which are intended to assist with work in the field.

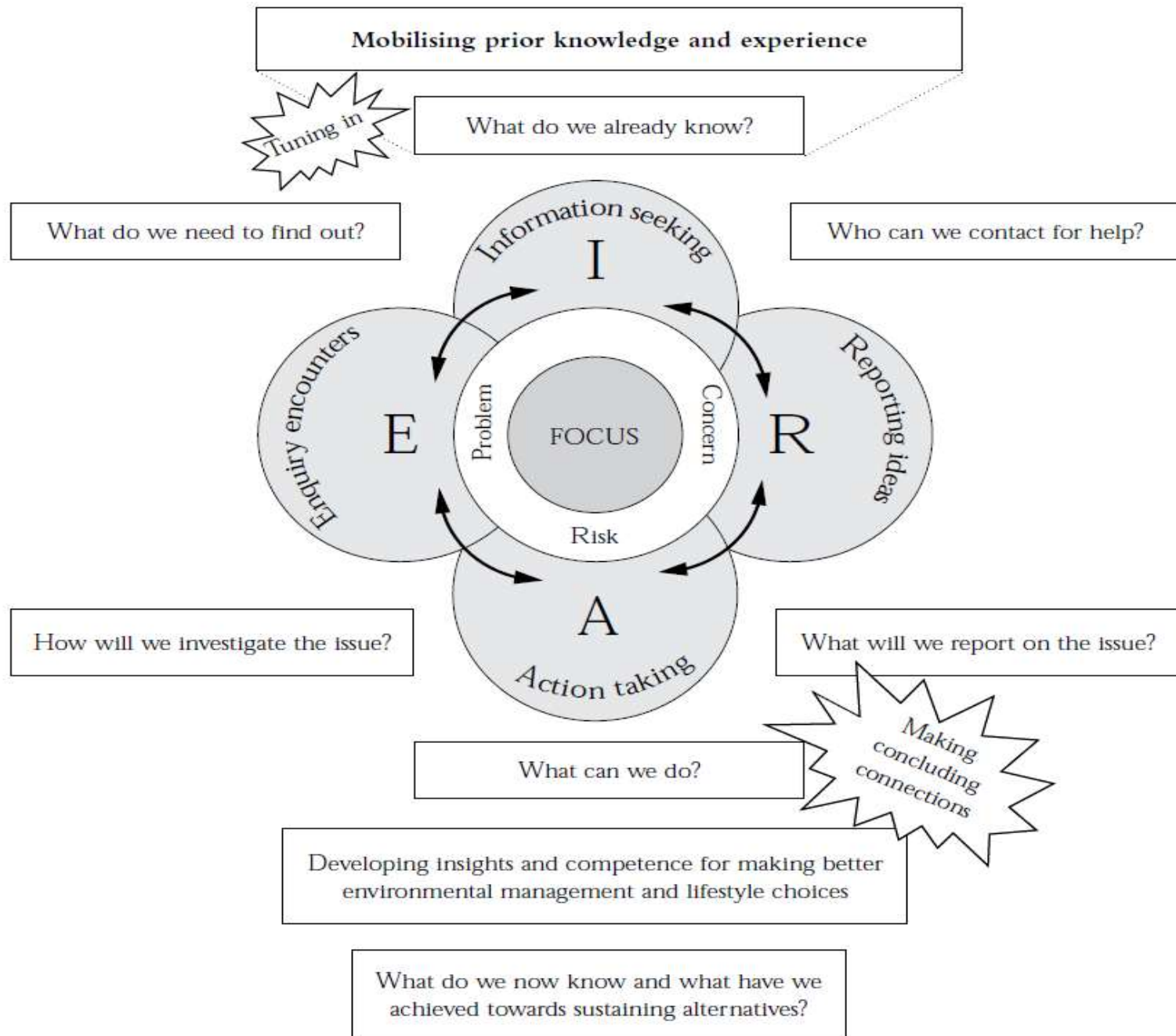
The structure of this source book is outlined below:

1	Background to Green Skills Planning in South Africa
2	Green Economy, Green Jobs, Green Skills
3	Building the Business Case for Greening and Green Skills
4	Identifying Environmental Change Drivers – PESTEL
5	Value Chain Analysis
6	Sector / Product / Service Analysis and Prioritisation
7	Environmental Hotspot Analysis
8	Backcasting – Defining Actions that Ensure a Sustainable Future
9	Green Occupations and Green Skills Analysis
10	Multi-Levelled and Mixed Method Approaches to Understanding Green Skills

# The Youth ... And Educators

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Active Learning Framework  
(O'Donoghue, 2001)



# Africa's Future

Re-Cap of the Key Points

# In Whose Hands?

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**Thank you for the Opportunity!**

Prof Eureta Rosenberg

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Environmental Learning Research Centre



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