

# Water & Sustainable Livelihoods

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## **Sustainable or Green Practices**

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**WATER**  
RESEARCH  
COMMISSION

# Companies should sharpen up on sustainability

- [Solly Fourie](#), head of economic development and tourism had seen excellent opportunities [springing from businesses that had adopted a 'green' ethos](#).
- Green' programme in the W. Cape had a range of companies involved in everything from [sustainable food production](#) to [protecting ecosystems](#) and [recycling](#).
- Fears that [South Africa](#) may use up most of its fresh [water resources](#) by 2025, should also spur companies into action to conserve [water](#).
- “The world is changing. You’re either going to [benefit from it](#) – or [lose out](#),” said Lotz.



# R&D in the WRC



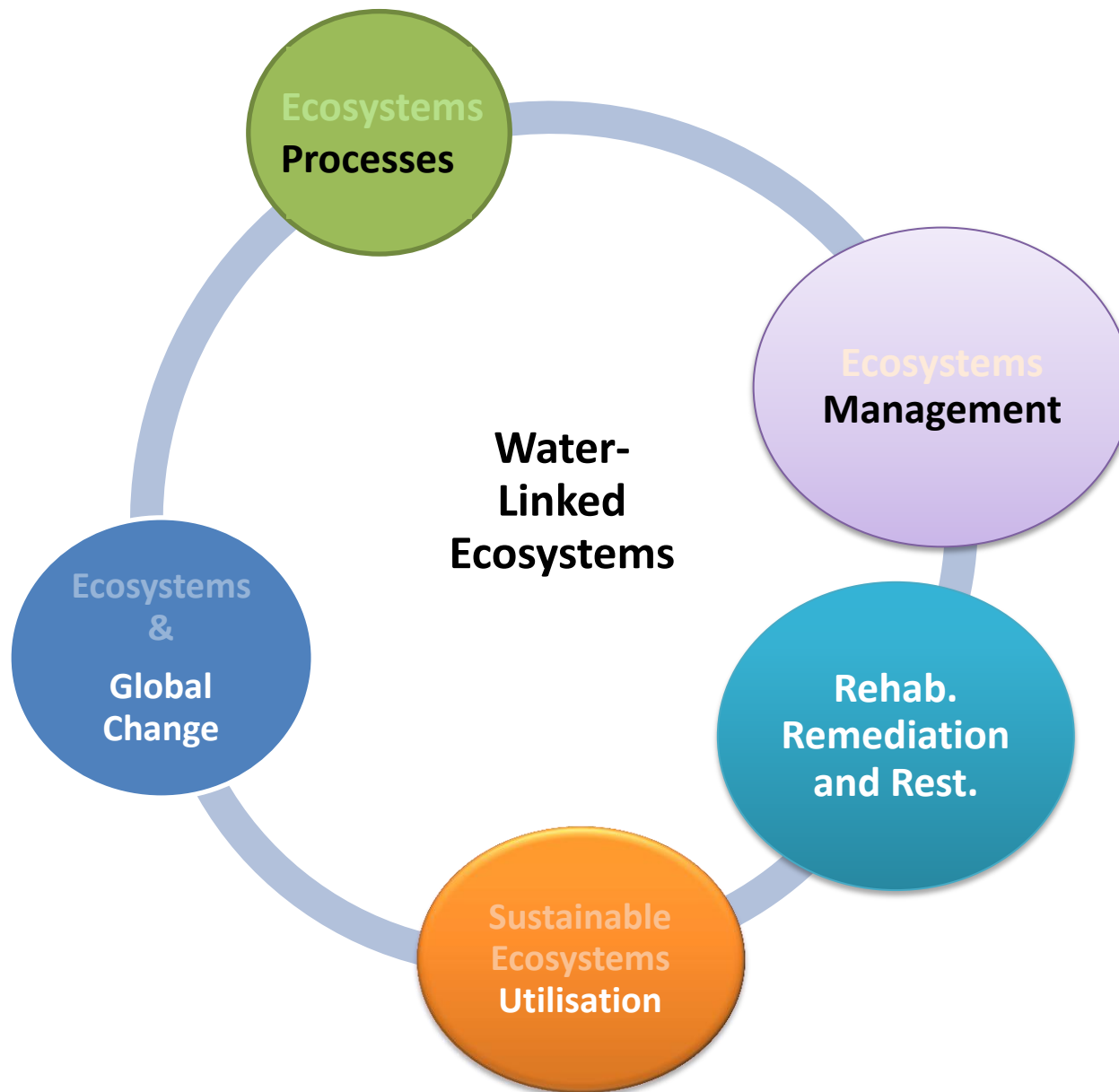
The WRC focuses on the **protection** and **sustainable utilisation** of the aquatic environment and biota (in-stream, riparian, groundwater, and estuarine).

## OBJECTIVE

To **provide knowledge** that supports protection and sustainable utilization of healthy ecosystems that society depends on for their livelihoods.

- Dissemination and **application** (to enhance impact & RoI)

# Research & Development Focus



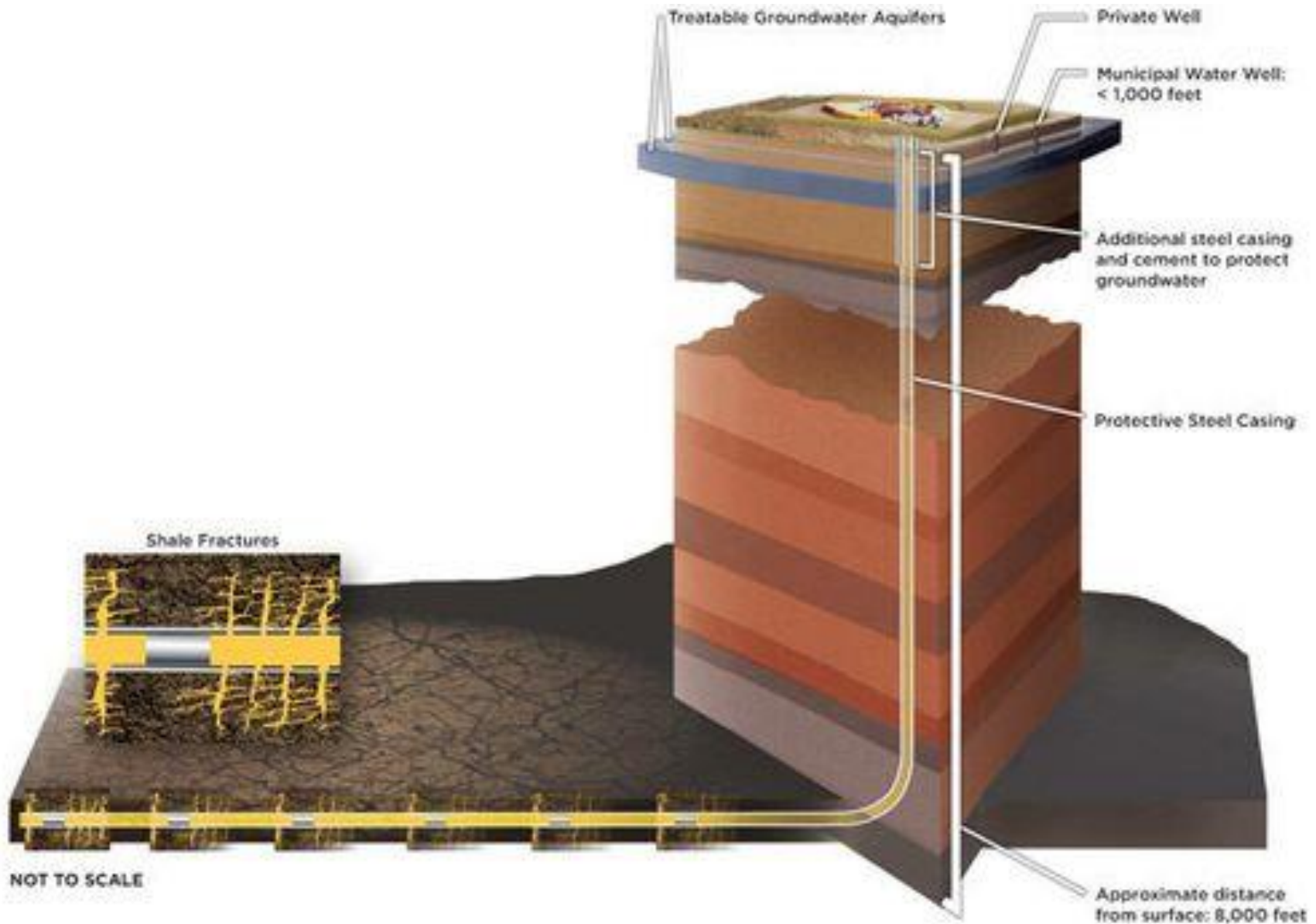
# Issues that can't be overlooked

- Sustainability (Resource use and Development)
- Abstraction or Extraction (Supply and Demand).
- Wastes and Pollution;
- Optimization and Efficiency;
- Co-Opetition;
- Creativity and balancing on the edge(s);
- Science and politics / society;
- Science and economy.
- Evidence-based knowledge

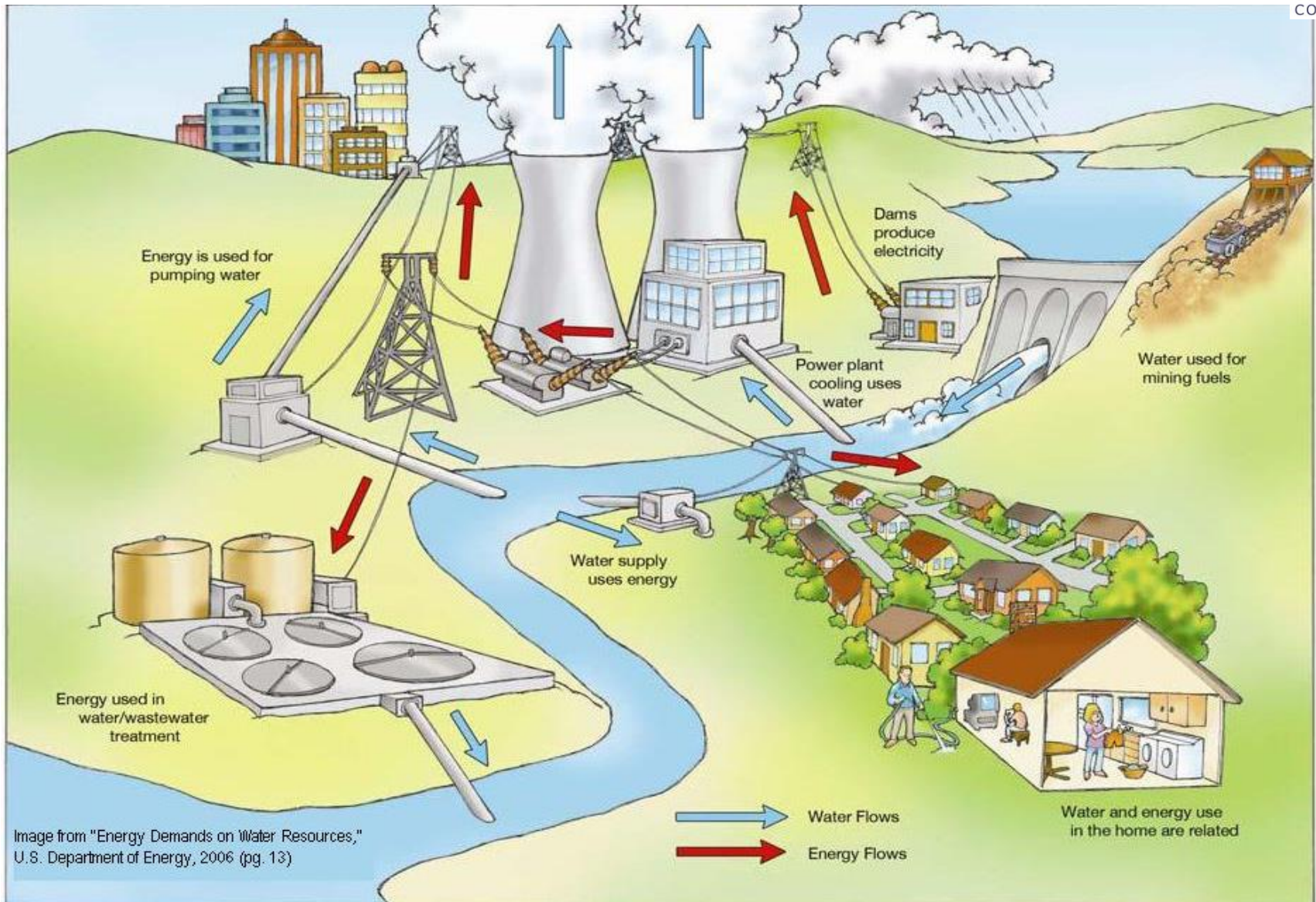




# What about Fracking?



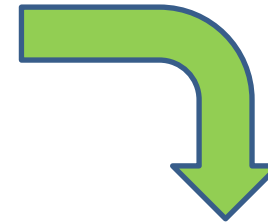
# Water and Energy + Food: is there hope for an Equilibrium?





# Global Change

## -Rehabilitation & Restoration



**Systems Thinking  
& Game Theory** may help





Everyone has the **right to an environment** that is **not harmful to their health or well-being**; and **to have the environment protected, for the benefit of present and future generations**.

RSA constitution

..... *Sustainable Development definition (in Brundtland Report - WCED, 1987)*

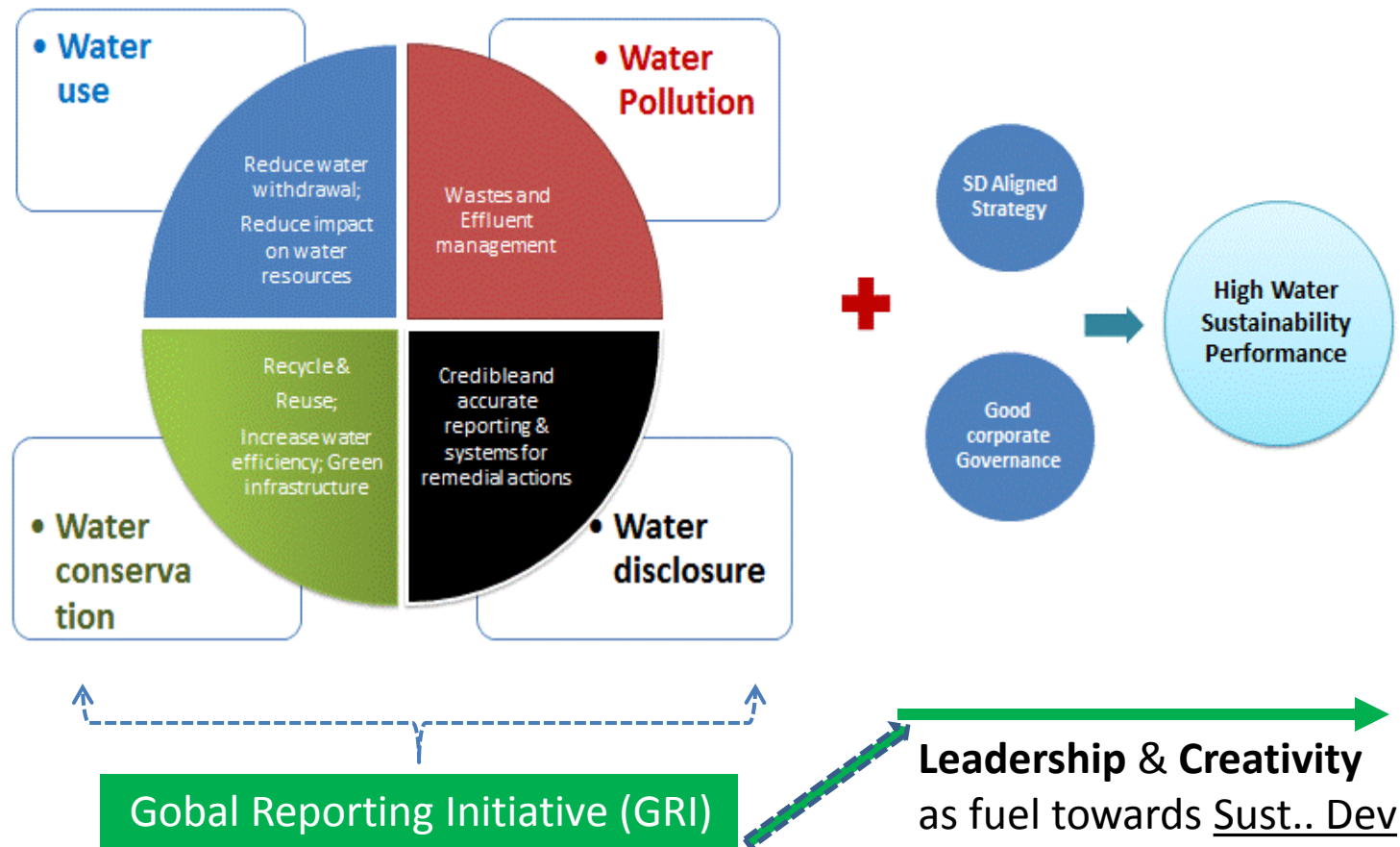


**"If wealth was the inevitable result of hard work and enterprise, every woman in Africa would be a millionaire."**

— George Monbiot  
*The Self-Attribution Fallacy*



# Sustainable Water Management Practices

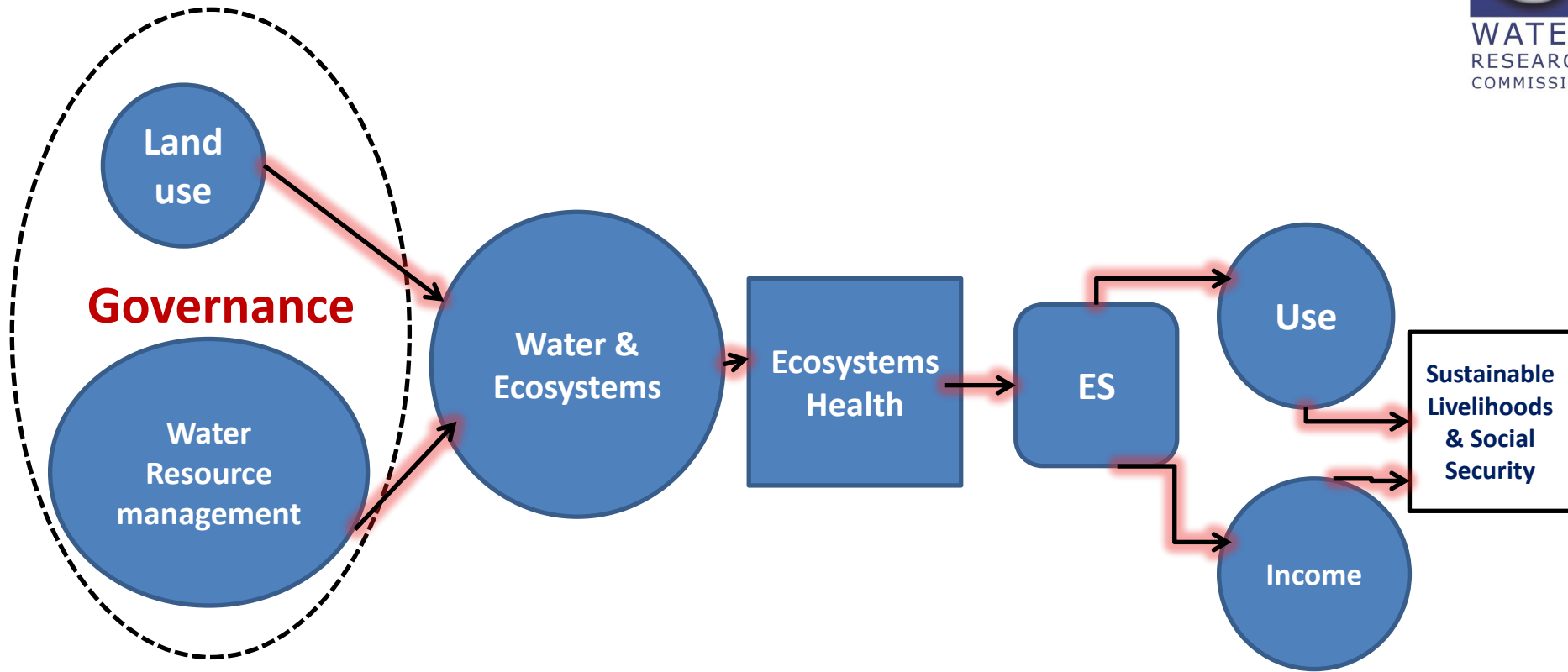


*The conceptual model of sustainable water management practices in the mining sector (Liphadzi, 2014).*

# **Growth in Green Technology Ventures**







# Some of the Current Projects

## *Green water innovations for sustainable aquatic ecosystems and socio-economic development*

Investigate the usefulness and appropriateness of the metrics or indicators that are used to determine the efficiency of green innovations on water resources.



## *Investigation of aquatic ecosystem services, their value chain, and markets in South Africa*

Focused on identifying the key ecosystem services, their forward linkages, understanding how to improve the market for Eco-services, and to create or improve value chains from production to the customers.



# ***The role of a Healthy Ecological Infrastructure to secure water for the society and support the Green Economy.***

Investigate how investment in the protection and enhancement of the environmental asset (or ecological infrastructure) could contribute to economic growth, social equity and justice.



# Remain keen to Discover More & To implement findings





We will continue to **initiate and support research** that promote the green practices especially those emphasising sustainable water & ecosystems management





# What to achieve

- Knowledge sharing: water initiatives by the WRC.
- Create a platform for capacity building.
- Support effort that promote sustainability and Green Innovations;
- Encourage dialogue.
- Empower decision makers.

# Thank you

