

### **Sustainable Development**

Tim Smith Director, Sustainability Research Centre

Sustainability Research Centre: Transforming Regions



## **Sustainability Research Centre**

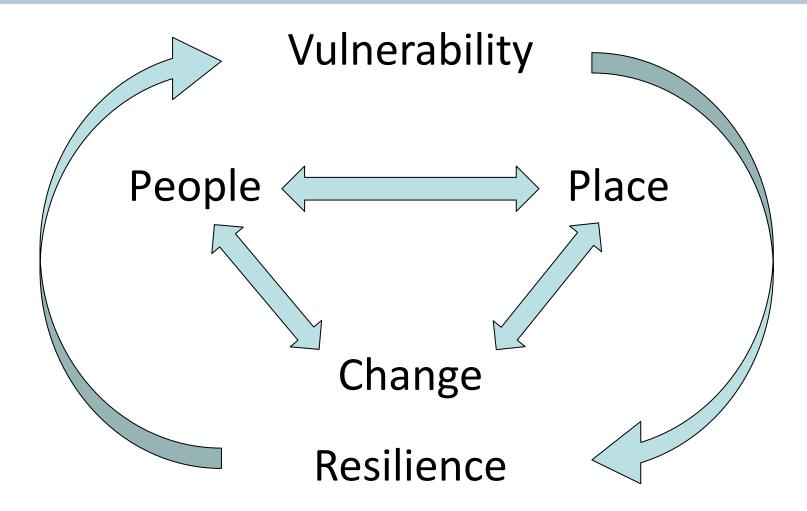
- Over 60 Researchers (including 30 PhD students)
- Operating since 2007
- Flagship Research Centre at USC



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### What we do



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### **Examples of current research partners**



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- What is sustainability?
- What is development?

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# What is sustainability?

• Meeting "the needs of the present without compromising the ability of future generations to meet their own needs" (UN Bruntland commission)

- 1. Protection of the environment that supports life
- 2. Biological diversity
- 3. Inter- and intra-generational opportunity

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### What is development?

• Expanding the richness of human life ... focused on people and their opportunities and choices

- 1. Freedom
- 2. Choice
- 3. Opportunities

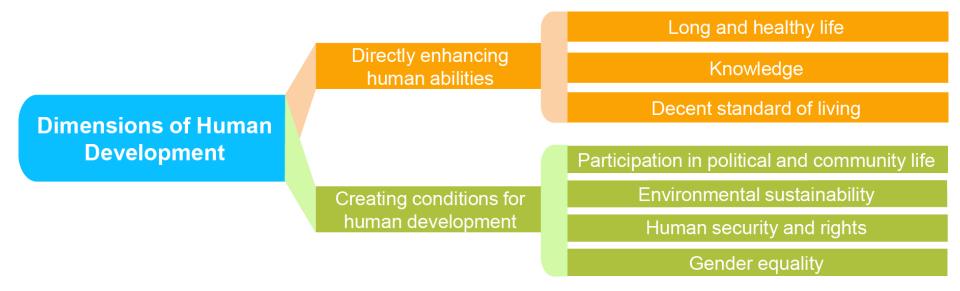
United Nations Development Programme: http://hdr.undp.org/en/humandev

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# What is development?

• Improving the lives people lead, rather than assuming that economic growth will automatically lead to greater wellbeing for all



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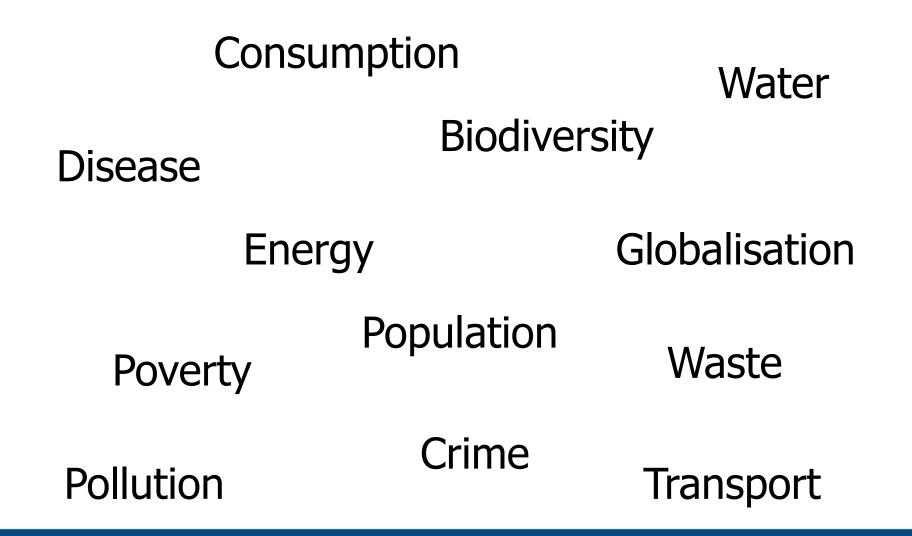
# What is development?

• Improving people's well-being by ensuring an equitable, sustainable and stable planet

United Nations Development Programme: http://hdr.undp.org/en/humandev

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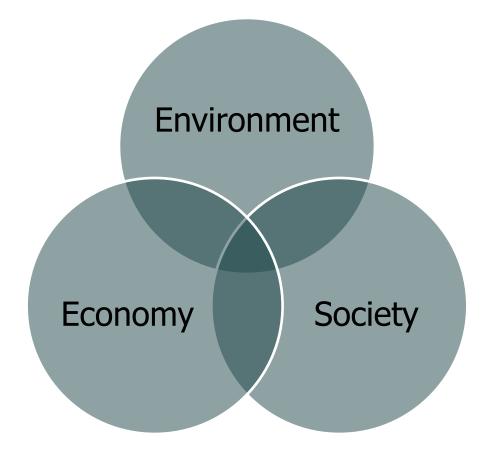
# "As for the future, your task is not to foresee it but to enable it"

Saint-Exupery, A de 1952, The Wisdom of the Sands, Hollis & Carter, London (UK Edition).

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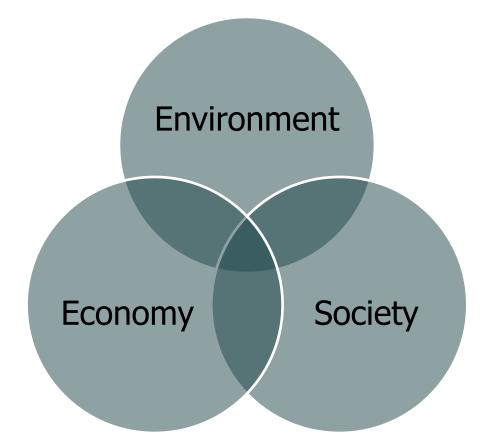
### **Tradeoffs**?



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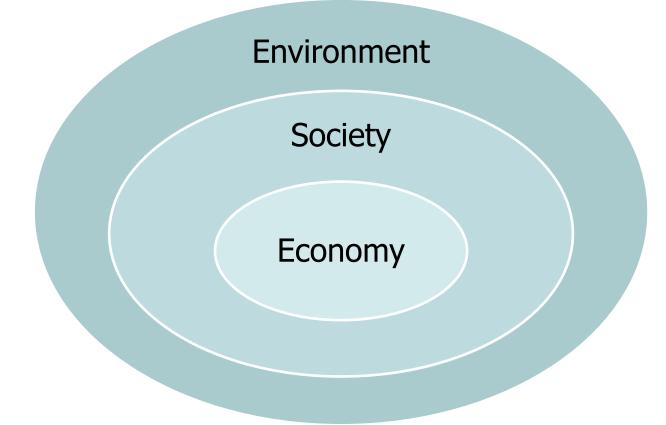
### Weak sustainability



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### **Strong sustainability**



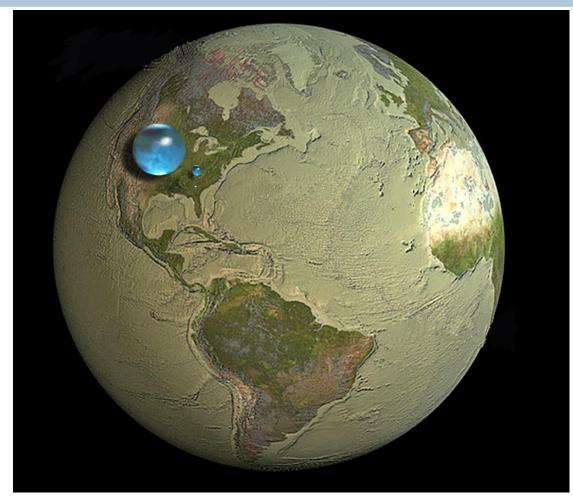
### **Recognising inter-dependencies**

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### Water is very precious

All the water in the world including oceans, ice, lakes, rivers, ground water, clouds, etc.

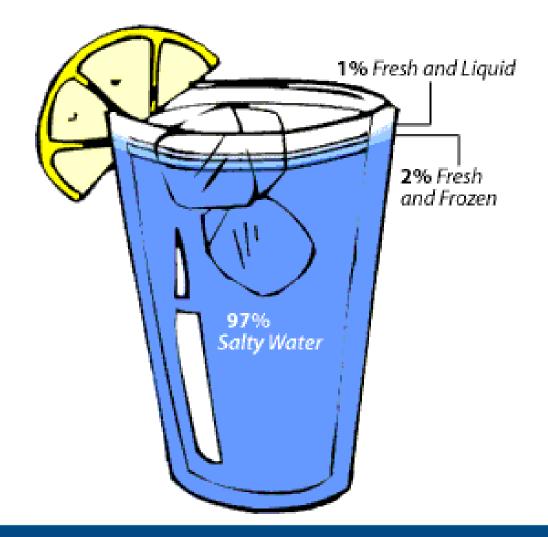


http://pmm.nasa.gov/waterfalls/science/freshwater

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### Freshwater is very rare



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### Managing water can be difficult...

#### WATER STRESS BY COUNTRY

#### ratio of withdrawals to supply

Low stress (< 10%) Low to medium stress (10-20%) Medium to high stress (20-40%) High stress (40-80%) Extremely high stress (> 80%)

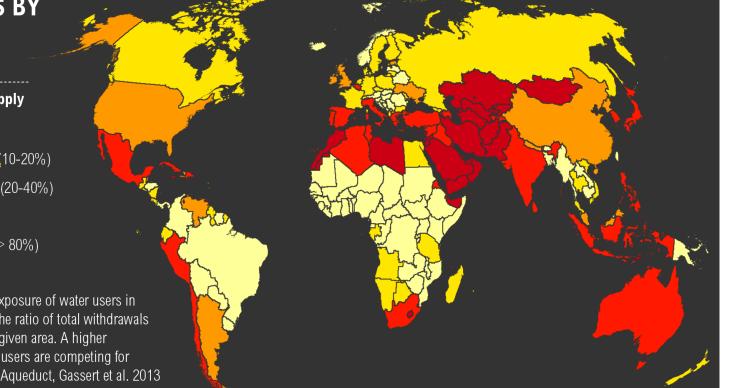
This map shows the average exposure of water users in each country to water stress, the ratio of total withdrawals to total renewable supply in a given area. A higher percentage means more water users are competing for limited supplies. Source: WRI Aqueduct, Gassert et al. 2013

#### **AQUEDUCT**

🄆 WORLD RESOURCES INSTITUTE

### ... some areas have less water to share than others

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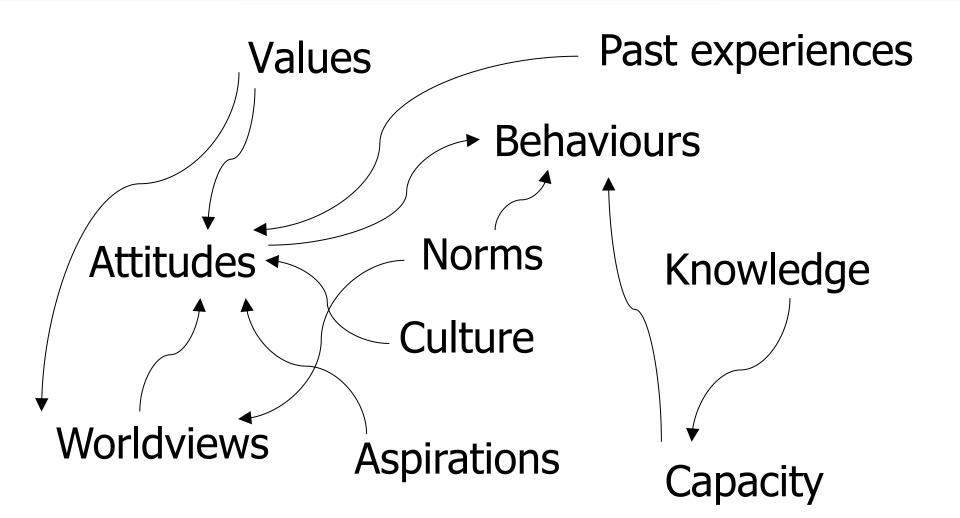




### Managing water occurs through social processes

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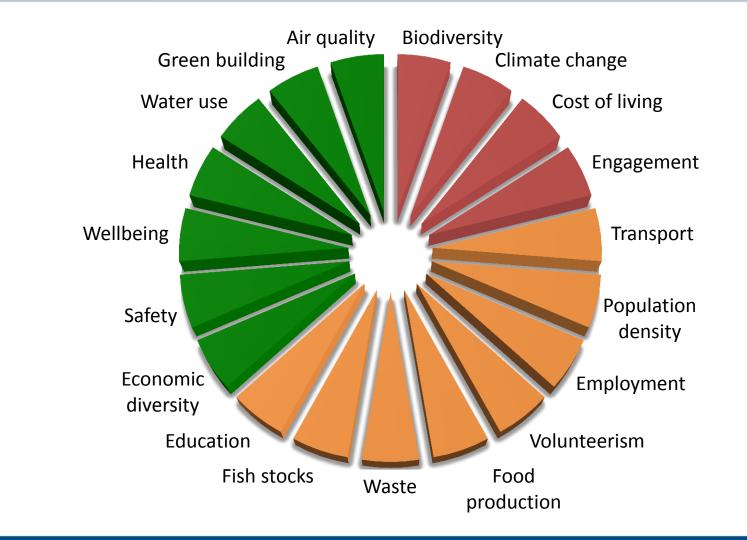


### **Implications for the Sunshine Coast?**

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### How are we tracking?



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#### Are we on the correct path to achieve

"sustainable development" on the Sunshine Coast?

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