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# Natural Capital Disclosure

Finding the balance between the economy and our planet

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# Is the economy the prescription for everything?

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Our politicians, bankers, and corporations all tell us that we must "**grow the economy**" to solve any problem...

▼ In order to face with the threat of **recession and business** failure, the solution is to **grow the economy**.

▼ The solution **to decrease the long term unemployment** is to **grow the economy**.

▼ The solution to the **climate change** is to **grow the economy**.



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## What does the concept “grow the economy” mean?

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- ▼ Increase the production of goods and services and spur consumer spending.



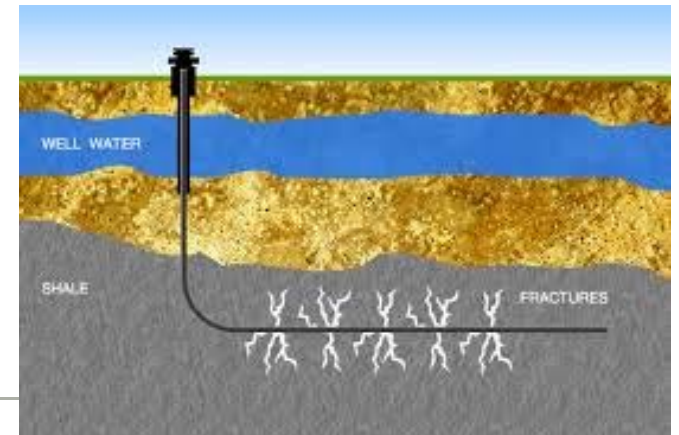
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# Why natural capital disclosure?

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▼ But sometimes we need to think that **the economy has environmental effects.**

- Example - **Hydraulic fracturing or “fracking”**: is a technique designed to recover gas and oil from shale rock.
- **Why? Economic component**
  - Keep natural gas and oil supply and prices



# Consequences for our planet and people

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## Fracking could accelerate global warming

› 17:44 12 August 2013 by [Fred Pearce](#)

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**Editorial:** "The fracking debate needs more light, less heat"

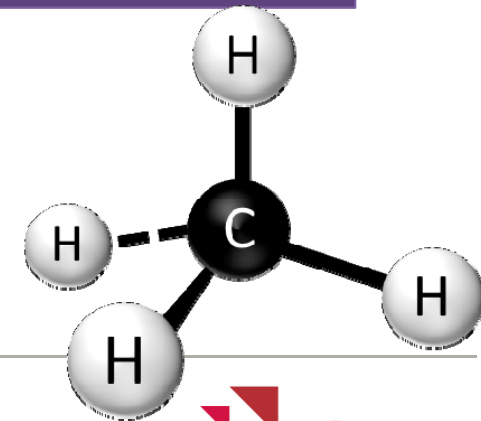
The row over fracking for natural gas has hit the UK, with protests over plans in the village of Balcombe. Could they have a point? Studies are suggesting fracking could accelerate climate change, rather than slow it.

The case for fracking rests on its [reputed ability to stem global warming](#). Burning gas emits half as much planet-warming carbon dioxide as an equivalent amount of coal. That is why, [after embracing fracking](#), CO<sub>2</sub> emissions have fallen in the US.

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Rise temperature of the earth

Why? escapes of Methane (CH<sub>4</sub>)



# Consequences for our planet and people

**THE MERCURY**  
GET A HEAD START

Kick starting infrastructure  
development in KwaZulu-Natal

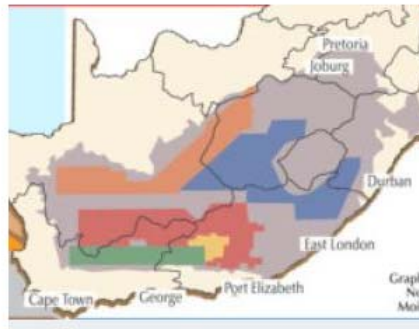
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## KZN fracking cancer risk

September 20 2012 at 06:56pm  
By Tony Carnie

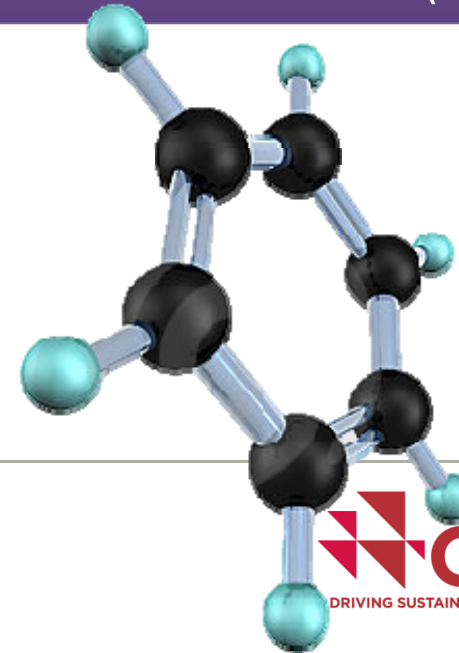
**SA's top water research body has warned the government to think carefully about the serious risk of water pollution from cancer-causing chemicals and radioactive compounds from future underground "fracking" operations across huge swathes of the country.**

A new report by the state-funded Water Research Commission says shale gas rock-fracturing (fracking) will not only happen in remote sections of the Karoo. In fact, the government had already issued fracking exploration permits in six of the nine provinces, including



Soil, water and air cancer

Why? escapes of carcinogens  
products such as Benzene (C<sub>6</sub>H<sub>6</sub>)



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Flammable tap water

Why? escapes of gases such as Methane (CH<sub>4</sub>)

## Fracking 'could put gas and chemicals' in drinking water

19 July 2013 | UK

Drinking water could be contaminated with methane gas and chemicals due to fracking, water companies have warned.

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### Spanish earthquake which killed nine and injured hundreds 'was triggered by extraction of groundwater'

- The magnitude 5.1 tremor struck historic town of Lorca in May 2011
- Despite being 1,000 times smaller than 9.0 earthquake in Japan, the historic city was left devastated by the disaster
- Research suggests earthquake was caused by extraction of groundwater
- **Findings could have wider implications for the extraction of shale gas**



*"Professor Peter Styles, from Keele University, said the findings could have wider implications for extracting shale gas, which uses hydraulic fracturing or 'fracking' as it is commonly known."*

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Earthquakes

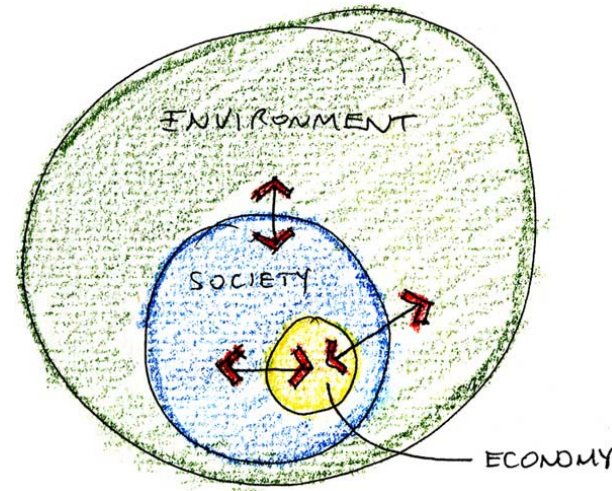
Why? Increment of the motion of tectonic plates



# Why natural capital disclosure?

▼ Looking at the fracking example, we could say that sometimes is necessary to see beyond the economy.

▼ A concept called "**natural capital**" is needed in the **economic equation**.



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# What is natural capital?

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▼ **Natural capital seeks to quantify our natural resources** as a variable to be considered in the economy at large.

- For example, if we were thinking about invest on fracking processes, we should also consider the effect on the people, on the fish, water and the earth crust that were affected.

▼ With the **concept of natural capital**, resources like water, trees, food and quality air have **much important value as a dollar bill**.

# Main goal of natural capital disclosure

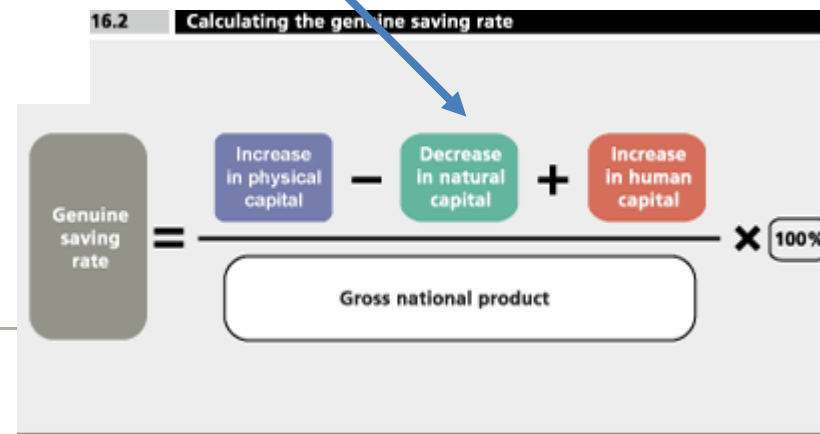
- ▼ Injecting natural capital resources into the **economic equation**

## The Equation

$$E = V - C$$

Earnings = Value added – Cost Incurred  
(In adding Value)

- To put value here, we need more data



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# Natural capital disclosure- benefits

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▼ **Keep sources and soaring prices in raw materials under control.**

Governments, companies and environmental organisations must work together to value and invest in the planet's natural wealth and the planet's natural well-being.

▼ **Understand the environmental liabilities embedded in supply chain.**

▼ **Keep under control indirect costs generated by environmental impacts.**



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# Natural capital – new opportunities

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▼ **Open new markets**, particularly for biodiversity rich countries and biodiversity responsible companies.

- The richest countries and companies of tomorrow will be the ones who have invested wisely in their natural capital.

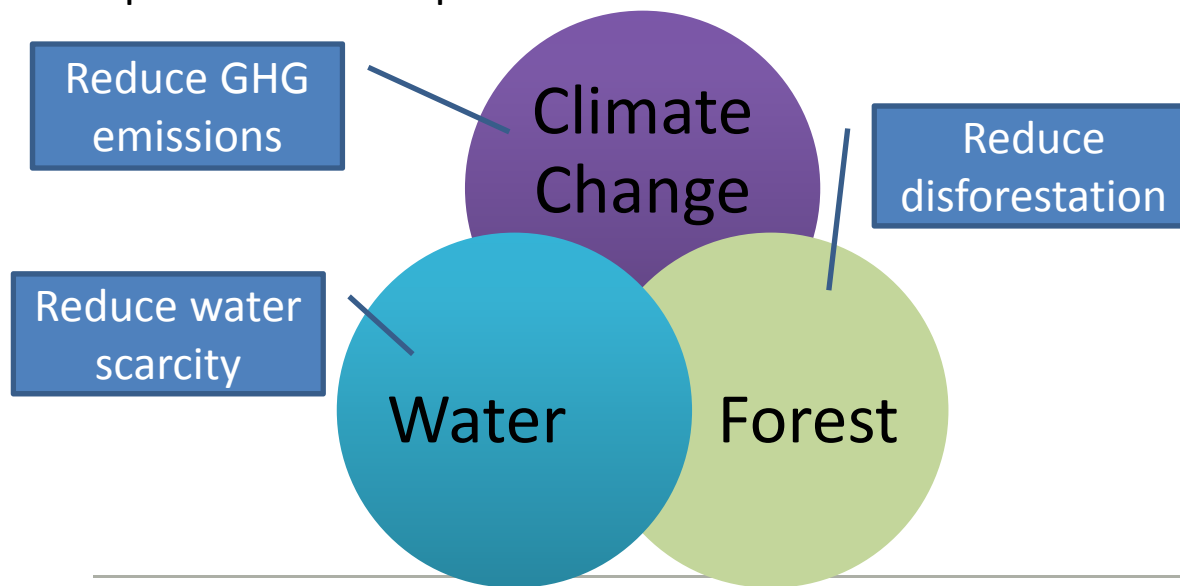
▼ **CDP puts the value of natural capital at the hearth of the business strategy**  
by means of **data**

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# CDP and natural capital – About data and people

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**Natural Capital disclosure** – embedded in 3 questionnaires questionnaires



## Disclosers

- More than 200 cities
- More than 5000 companies and suppliers

## Potential stakeholders

- Governments
- Investors
- NGOs
- Large and SMEs companies
- General Society
- Universities



# Companies are asked to report what is relevant and why

| Sources of Scope 3 emissions                                      | Evaluation status  | metric tonnes CO2e | Emissions calculation methodology | Percentage of emissions calculated using primary data | Explanation                      |
|---|--|--------------------|-----------------------------------|---|----------------------------------|
| Purchased goods and services                                      | Select from: <ul style="list-style-type: none"> <li>Relevant, calculated</li> <li>Relevant, not yet calculated</li> <li>Not relevant, calculated</li> <li>Not relevant, explanation provided</li> <li>Not evaluated</li> </ul> | Numerical Field    | Text Field                        | Numerical Field                                       | Text Field [2400 characters max] |
| Capital goods   |  |                    |                                   |   |                                  |
| Fuel-and-energy-related activities (not included in Scope 1 or 2) |  |                    |                                   |   |                                  |
| Upstream transportation and distribution                          |  |                    |                                   |   |                                  |
| Waste generated in operations                                     |  |                    |                                   |   |                                  |
| Business travel   |  |                    |                                   |   |                                  |
| Employee commuting  |  |                    |                                   |   |                                  |
| Upstream leased assets  |  |                    |                                   |   |                                  |
| Downstream transportation and distribution                        |  |                    |                                   |   |                                  |
| Processing of sold products                                       |  |                    |                                   |   |                                  |
| Use of sold products  |  |                    |                                   |   |                                  |
| End of life treatment of sold products                            |  |                    |                                   |   |                                  |
| Downstream leased assets  |  |                    |                                   |   |                                  |
| Franchises  |  |                    |                                   |   |                                  |
| Investments   |  |                    |                                   |   |                                  |
| Other (upstream)  |  |                    |                                   |   |                                  |
| Other (downstream)  |  |                    |                                   |   |                                  |

What?

Relevance

Quantities

How?

Why?

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# Conclusions (I)

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- ▼ **“Grow the economy” is not the aspirin** which solves all the problems. Each problem is composed by different factors to be considered.
- ▼ **See the problem as a big picture** - Economic variables are important in the equation, but environmental aspects, impacts and implications are relevant too.
- ▼ **Natural capital is a complex problem** due to the different level of dependent and independent factors. It follows a learning process.
- ▼ **Benefits and new opportunities arise** considering natural capital disclosures:
  - Reduce indirect cost uncertainties
  - Ensure long term investments
  - Open new markets opportunities

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## Conclusions (II)

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- ▼ In order to consider natural capital in your business and decision making process, **you are not alone, CDP brings you the value of natural capital information.**
- ▼ **CDP** is a consolidated organisation which **collects and makes accessible natural capital information** since 2002.
- ▼ CDP works every years (1) **listening** to the voice from the markets, governments and people, (2) and **taking** actions, updating questionnaires and stabilising more sector specific modules to make the natural capital information much more relevant and suitable for decision making process.



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