FRACKING IN SOUTH AFRICA
THE PROS AND CONS

Francois du Toit
CEO
African Conservation Trust
What is Fracking?

• Hydraulic Fracturing
  – Drilling of wells into tightly compacted rock strata to depths of 3 to 5 kms
  – Injection of water, sand and chemicals via well into strata
  – Splitting of rock seams below the surface to fracture the layers
  – Capturing gas
  – Disposal of wastewater return
Applications for Hydraulic fracturing
Economic and political spin-off

• Why the appeal to government?
  – Poverty
  – Unemployment
  – 50% of “better life for all” promises unfulfilled

• What does fracking offer?
  – R200 billion a year to the country's GDP
  – More than 700 000 job opportunities
International politics

- 2013 - SA exploration
- 2015 - US overtakes Russia in gas production
- 2017 - US overtakes Saudi Arabia oil production
- 2030 - SA to be energy self-sufficient
  - Integrated Resource Plan
- 2035 - US to be self-sufficient in oil & gas
International politics cont.

• “Pursue policies that work to decrease the reliance of European nations on Russian sources of energy.”
  – Mitt Romney

• “Develop a 100 year supply of natural gas that's right beneath our feet,”

• “Cut our oil imports in half by 2020 and support more than 600,000 new jobs in natural gas alone.”
  – Barak Obama

• Another “Cold War” looming?
• Where will Saudi Arabia be if its loses energy dominance?
International politics cont.

• BRICS dynamics.
  – Russia and Brazil are energy self-sufficient.
  – China has already started drilling for shale gas.
  – India is assessing the availability of shale gas

• European Parliament rejects a ban on shale gas (Nov 2012)
Implications for SA

• Less dependence on oil imports

• Less susceptible to volatile international energy prices

• SA afraid to “miss out” on the BRICS boom

• SA business’ role?

• Your role?
Environmental concerns: Air

• Air emissions
  – Methane leaks - originating from wells
  – 3.5%–12% emissions higher than for conventional gas
  – Diesel or natural gas powered equipment
    • Compressors, drilling rigs, pumps etc.

• Transportation related emissions & dust
  • 2,000 Trucks, motor vehicles, etc.

• Wind blown emissions from the drilling rigs

• Higher well-to-burner emissions than conventional gas
Environmental concerns: Water

• Up to 13 000 cubic metres per well
  – Large projects in the US use up to 19 000 cubic metres of water
• Additional water when wells are refractured
  – May be done several times
• Contamination of underground water
• Evaporation dams leakage and emissions
• Methane and radioactivity
  – Water flowing back from gas wells contains huge amounts of radium and methane
  – Small dumpsites of soil...
Socio-economic concerns

• Ecosystems
• Farming and grazing
• Water from land becomes unsafe to drink
  – US: some communities forced to provide bottled water to their horses, let alone themselves
• De-valueation of land
• Health concerns
• Increasing reliance on social grants
Unique SA scenario

- Politics
  - Lack of accountability
  - Lack of consequences

- Racial dynamics
  - Middle class (mainly white) vs Low income (mainly black)

- Bread & butter issues vs Environmental issues

- Perennial objectors – lost credibility?

- Concept resistance vs Project resistance?
A recipe for ONE Frack

UP TO...

20 million litres

200 thousand litres

150 thousand kgs

2,000 diesel burning

water

chemicals

sand

trucks
The Truth about Job Creation

An R8 million investment generates...

- Natural gas 5
- Coal 7
- Smart grid 12
- Wind 13
- Solar 14
- Biomass 16
- Building retrofits 17
- Public transport 22
The Choice is Yours

• Choose “clean” natural gas now
  – Reap now...(actually 5 to 10 years)
  – Pay in next generation

• Choose alternatives now
  – Reap now
  – Reap in next generation

You can choose to agree or you choose not to agree, but you cannot choose not to choose
This is my choice for our children...
Thank You

- https://www.dropbox.com/sh/9y04o25lc8zml4p/pqJq9h
- Francois du Toit
- 082 852 6466
- ceo@projectafrica.com
- www.projectafrica.com
- http://www.vnh.co.za/boarding-the-wrong-bus/