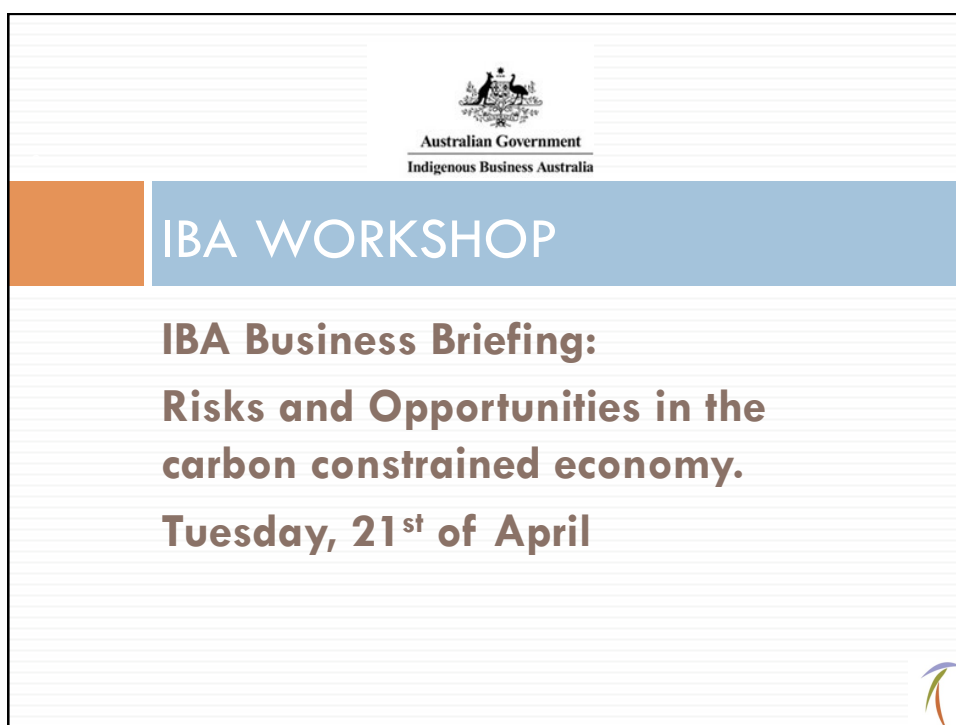





CLIMATE CHANGE,
SUSTAINABILITY
& THE GREEN ECONOMY




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Climate Change
& Sustainability




Australian Government
Indigenous Business Australia


IBA WORKSHOP

**IBA Business Briefing:
Risks and Opportunities in the
carbon constrained economy.
Tuesday, 21st of April**



Introduction



Climate change
 – a generational change in business



Discussion framework

<ul style="list-style-type: none"> □ Risks <ul style="list-style-type: none"> ▣ Regulatory – compliance obligations ▣ Operational ▣ Competitive ▣ Climate Change □ Opportunities <ul style="list-style-type: none"> ▣ Regulatory – Assistance ▣ Investment ▣ New business options ▣ Climate Change 	<ul style="list-style-type: none"> DISPLACEMENT HEALTH NGERS MRET CPRS WATER FOOD SECURITY
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Contradictory signals

“Warming 'much more rapid' than climate panel predicted”

- **DIRE warnings of future devastation sparked by global warming have not been dire enough, climate scientists warn.**

February 16, 2009 - The Australian

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Contradictory signals

- April 2009
- **MINING geology Professor Ian Plimer, from the University of Adelaide**
- *Heaven and Earth. Global warming: the missing science* was launched in Adelaide this week by former Premier Dean Brown. The book professes to "destroy every single argument that has ever been raised about human-induced climate change".

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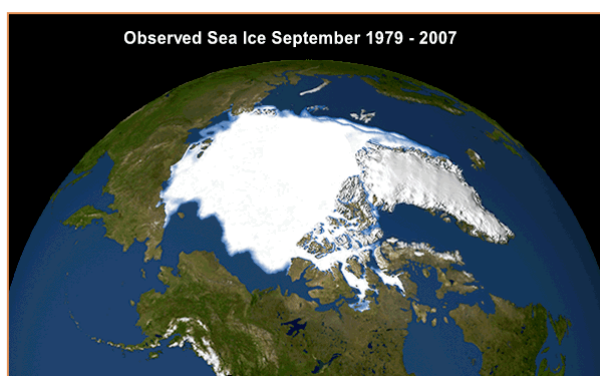
The big picture

- CPRS is a 40 year scheme.
- Legislation and regulation will change.
- Global outcomes will impact national developments
- Technological advances
- The GFC! The mining boom!
- Worsening climate outcomes
 - ▣ Example
 - Ice melt in the Arctic – sea level rise

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Impacts Ice cap melt



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Perception is all....



Nations Near Arctic Declare Polar Bears Threatened by Climate Change
March 19, 2009 New York Times

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How full is your glass?

- Mar-20-09 12:09pm From: www.investors.com
- **Melting Arctic Ice May Unlock Energy, Ore And Shipping Lanes**
- Faster shipping, vast new energy resources -- what's not to love about the melting ice cap?

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The big picture

- Leadership
- Prepare & position:
 - Make carbon/GHG visible within your own cost structure
 - Make carbon/GHG a part of the decision tree
 - Gain strategic advantage
 - Remain competitive
 - **Grab the opportunities**

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PART 1

THE RISKS



Risk mitigation

- Regulatory risk – NGERs, Permit liability (1 000 Cos)
- Risk specific to Indigenous communities



Indigenous exposure

- Indigenous peoples, according to the UN Development Group Guidelines on Indigenous Peoples Issues, are among the first to face direct adverse consequences of climate change, partly owing to their close relationship with the environment and its resources.



Risk mitigation

- Regulatory risk
- Risk specific to Indigenous communities
 - Health
 - Extreme weather events
 - Sea level rise
 - Food Security
 - Displacement
- Operational and logistical risk

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Operational and logistical risk

- Energy costs
 - Electricity & transport
 - Energy, water and waste audit
 - Premises and building audits
- Logistics audit
- Contractor / supplier audit

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Risk mitigation

- Regulatory risk
- Risk specific to Indigenous communities
- Operational and logistical risk
- Competitive & market position risk
- Technological and Investment risk
 - ▣ Future proofing
 - ▣ Carbon lifecycle cost calculations

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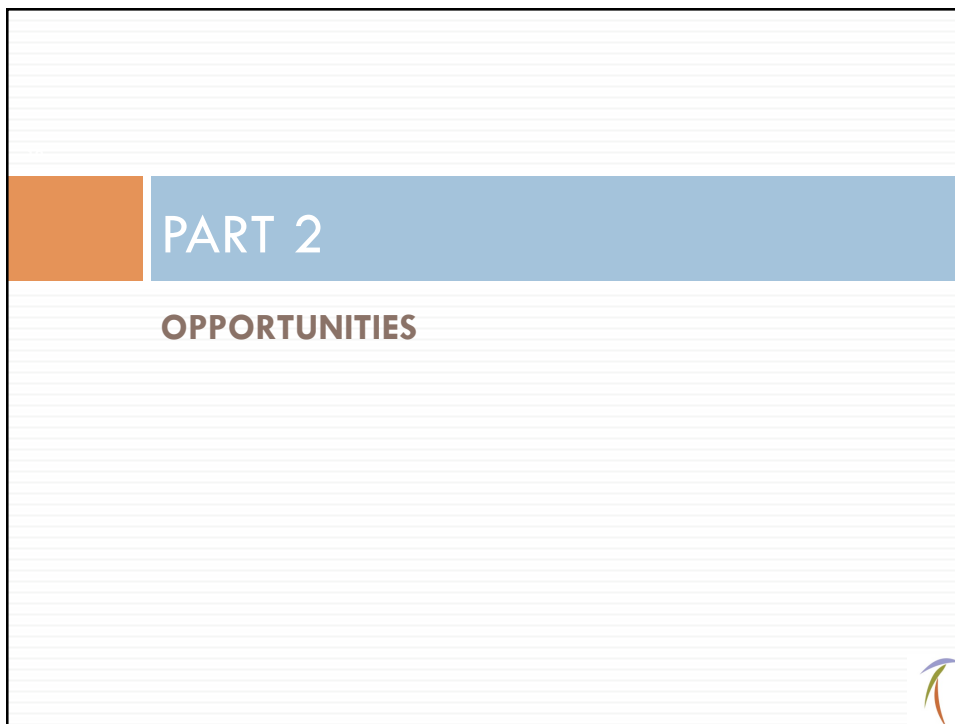
Investment – unintended consequences

- “Only five percent of the financial sector’s carbon footprint is attributed to their direct emissions, 95 percent of their carbon risk lies in downstream emissions through their investment/ lending portfolios.”

KPMG


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PART 2

OPPORTUNITIES



Opportunities

- A price on carbon opens up a whole new world of investment and business opportunities.
- Creation of carbon permits becomes a source of recurring income and asset growth
- Technology and regulations will drive innovative thinking from business and investment partners
- New industries – new skills – new opportunities

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Green jobs & businesses

- “We define green jobs as work in agricultural, manufacturing, research and development (R&D), administrative, and service activities that contribute substantially to preserving or restoring environmental quality.”
- Specifically, but not exclusively, this includes jobs that help to protect ecosystems and biodiversity; reduce energy use, materials, and water consumption through high efficiency strategies; de-carbonize the economy; and minimise or altogether avoid generation of all forms of waste and pollution.”
- United Nations Environment Programme

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Range of activities

Bio-Sequestration	Energy	Environmental remediation	Efficiency
<ul style="list-style-type: none"> • Forestry • Forestry related 	<ul style="list-style-type: none"> • Solar • Wind • Waste to energy • Geo-thermal 	<ul style="list-style-type: none"> • Recycle • Treat • Dispose 	<ul style="list-style-type: none"> • Energy • Lighting • Transmission • Water

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Germany

- Deputy environment minister Astrid Klug said there were now 250,000 jobs in Germany's renewable energies sector and an overall total of 1.8 million in environmental protection. The number of jobs in renewables will triple by 2020 and hit 900,000 by 2030.

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Schwarzenegger announces largest, US \$ 75-million green jobs training program

- "By developing a highly trained workforce, ready and capable to perform clean energy jobs, we will be able to expand our clean energy industries and drive a strong green economy in the state."

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The UK Low Carbon Transition Plan

By 2020:

- More than 1.2 million people will be in green jobs.
- 7 million homes will have benefited from whole house makeovers, and more than 1.5 million households will be supported to produce their own clean energy.

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Green Gold Rush report: almost a million green jobs for Australia by 2030

- Australia could become a world leader in creating green industries generating up to a million green collar jobs by 2030 and multi-billion dollar export opportunities in green technology, according to a new report released today by the Australian Council of Trade Unions and the Australian Conservation Foundation.

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Industry assistance

- DIISR
- DAFF
- DEWHA
- DCC

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Energy Efficient Homes Package

- Home Insulation Programme
 - ▣ the Home Insulation Program provides **assistance of up to \$1,600** to install ceiling insulation. The assistance is available to eligible owner-occupiers, landlords and tenants.
 - ▣ This practical step will help households reduce their energy use, cut their power bills by around \$200 a year, and increase the comfort and value of their homes.

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Energy Efficient Homes Package

- Solar Hot Water Rebate
 - provides **assistance of up to \$1,600** to install a solar hot water system or \$1,000 to install a heat pump hot water system.
 - Installing a climate friendly hot water system can save a family up to \$700 off their energy bills each year.

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Energy Efficient Homes Package

- Jobs
- Income through profits
- Reduced energy bills for occupants

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Clean Business Australia

- The Australian Government has allocated \$240 million over four years to establish *Clean Business Australia* – a partnership with Australian business and industry for tackling climate change.
- *Clean Business Australia* will support a range of activities aimed at improving our energy and water efficiency and increasing sustainability, with a focus on productivity and innovation.

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Industry assistance – Farm Ready

- The Australian Government has allocated \$26.5 million over four years to boost training opportunities for primary producers, and to enable industry, farming groups and natural resource management groups develop strategies to adapt and respond to the impacts of climate change.

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Industry assistance - CCAF

- Climate change action fund
 - A \$2.15 billion dollar, five year fund to provide targeted assistance to business, community sector organisations, workers, regions and communities to smooth the transition to a low pollution economy.
 - Established in several streams.



Global market and state of play

- According to the World Bank report “State and trends of the Carbon Market 2008”, the global carbon market more than doubled its size to US \$126 billion in 2008.
- Point Carbon, predicts the size of the global carbon market will fall 32 per cent in 2009 to US\$81bn and expects US\$2.6trillion, with total transaction volume forecast at 38 billion tonnes carbon dioxide equivalent per year by 2020.



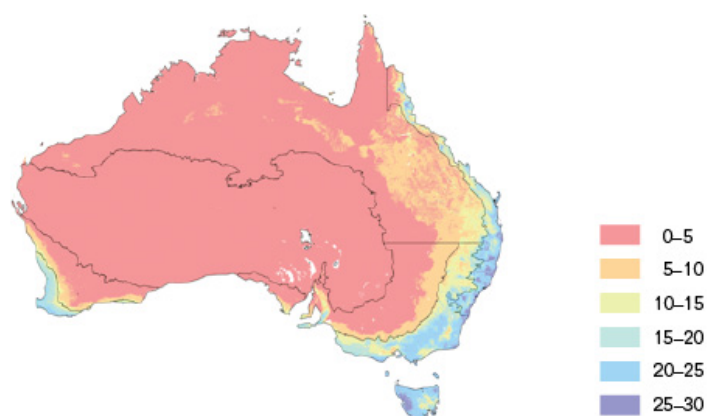
CPRS policy position 6.28

“The Government will facilitate the participation of Indigenous land managers in carbon markets and will further investigate the potential for offsets from reductions in emissions from savanna burning and will consult with Indigenous Australians on forestry opportunities under the scheme.”

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Figure 22.10 Carbon removal potential for environmental plantings
(tonnes CO₂-e per ha per year)



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Scope for activities

- Home energy efficiency – roof insulation
- Solar hot water systems installation
- Monitoring and auditing energy
- Building audits
- Seed collection
- Nurseries

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Scope for other activities

- Waste remediation
- Climate change linked planning
- Carbon permit brokering – CER price arbitrage
- Deployment of low emissions technology
- Energy efficiency programmes
- Water management
- Forestry
- Renewable energy

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Engagement

- Information & Communication
- Education & training
- Business planning

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So where to?

- There are many opportunities and many risks.
- There is no sure thing.
- We are however at a tipping point –

Grab the opportunities!

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QUESTIONS?

Thank you

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