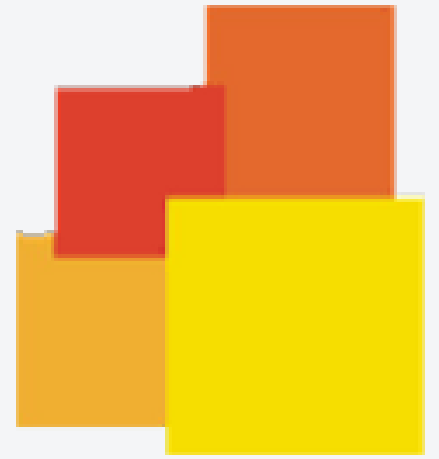


Stranded Assets

Pierre Venter 2020

THE BANKING ASSOCIATION SOUTH AFRICA



Summary of Topics

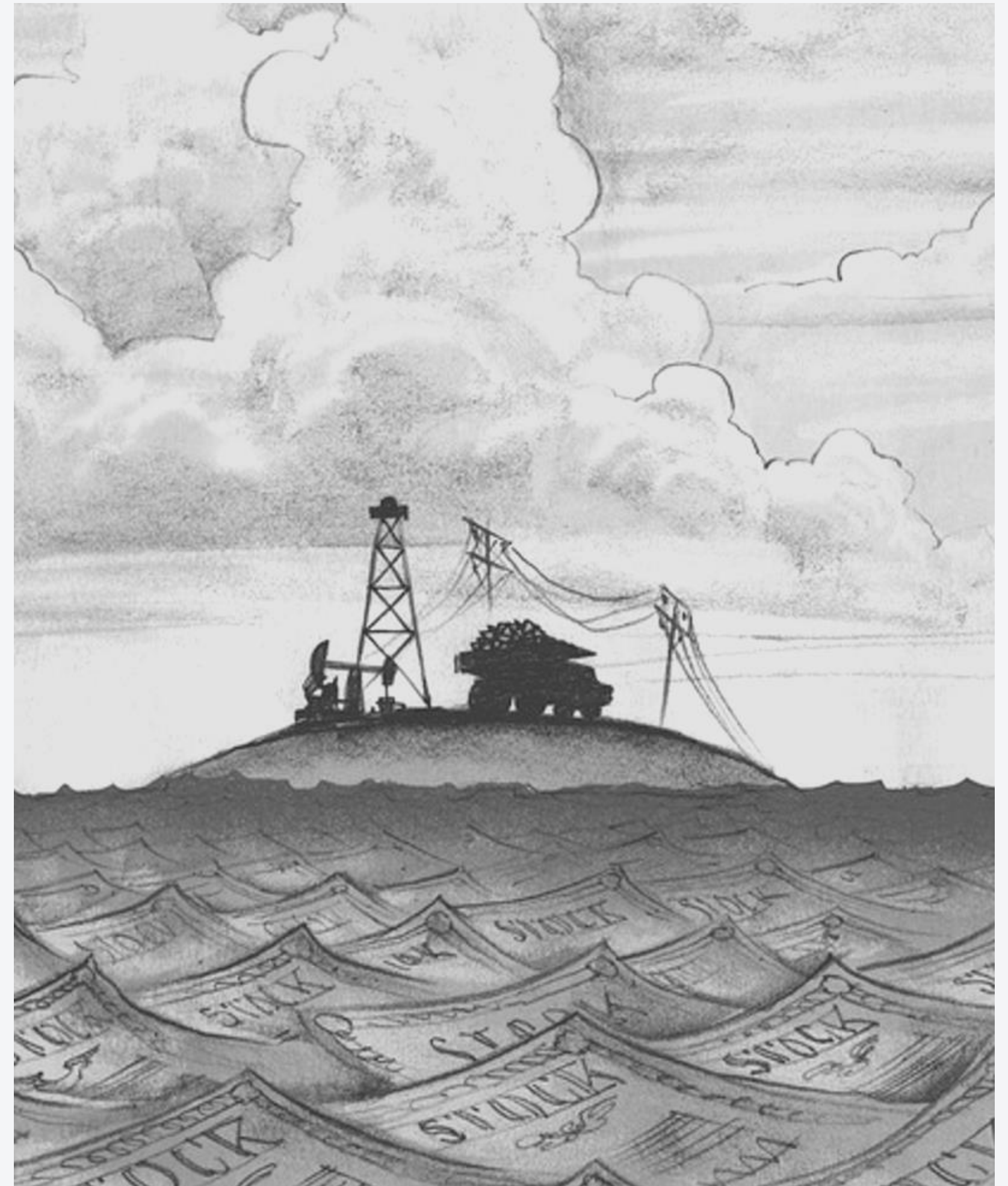
Defining Stranded Assets

The impact of climate change on assets

The transition to a low carbon economy

TCFD

Q & A



Stranded Assets

Broadly defined as

“an asset which loses economic value well ahead of its anticipated useful life”

- Sudden or premature:
Write down, Devaluation or Conversion to liability
- Stranded risk may emerge from an asset (resource or infrastructure) and result in the stranding of assets in the entire related value chain
- Stranded assets may threaten the stability of the entire financial system and even the economy of a country

Causes of Stranding

Regulatory	Economic	Physical	Social	Disruption
• Law restricting the use of a resource or an asset • Incl. litigation	• No market • Uneconomical to extract resource • Asset becomes redundant due to cost	• The affect of environmental changes that renders the asset value less	• A change in societal norms that society no longer values the asset	• New technology makes the asset obsolete

Stranded Assets have become synonymous with climate change and the associated transition risk/cost



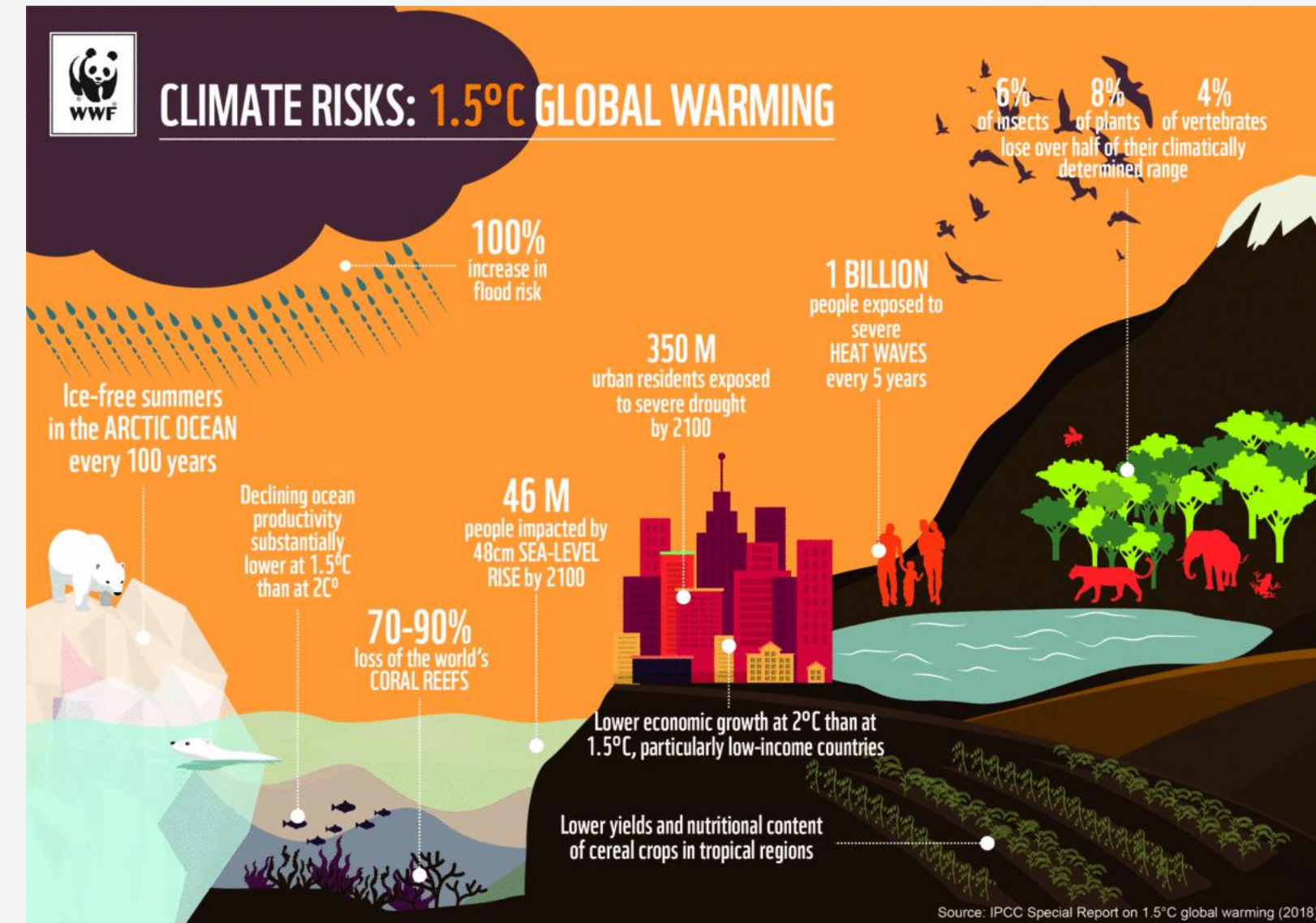
Climate Change

The process of complex shifts in the weather patterns and climate conditions of the earth. Climate change is a natural process that has been accelerated due to anthropogenic activity. In particular, activities that have increased the emissions of Green House Gases (GHG).

The effects of climate change include:

- Global temperature rising
- Warming oceans
- Shrinking ice sheets
- Glacial Retreat
- Decreased Snow Cover
- Sea level rise
- Declining arctic ice cover
- Extreme events
- Ocean Acidification

Not only are these effects induced by anthropogenic activity but also impacts the viability of these activities, this is termed climate risk.



Climate Risk

Climate change brings in a number of related financial risk which in turn may result in stranded assets. Both action and the lack of action to mitigate the effects of climate change may result in the increase in stranded assets. As the climate changes so does associated risk. This is attributed to both acute and chronic physical changes.

Chronic vs acute climate change (physical risk):

- Chronic – once off extreme weather events
 - A major risk increase in terms of both likelihood and impact
- Acute – gradual climatic changes
 - According to a report by Lloyd's \$66-106bn worth of existing coastal property will likely be below sea level in the USA by the year 2050

The greatest risk of stranding is associated with the transition from a high to a low carbon economy.

Too slow or too fast a transition could result in systemic risk to both the financial sector and the economy (needs to happen in an orderly and systematic way which has the least negative impact on both growth and employment.)

Types of Risks: ENVIRONMENTAL GEOPOLITICAL SOCIETAL TECHNOLOGICAL ECONOMIC

Top 5 Global Risks
in Terms of **Impact**



Top 5 Global Risks
in Terms of **Likelihood**



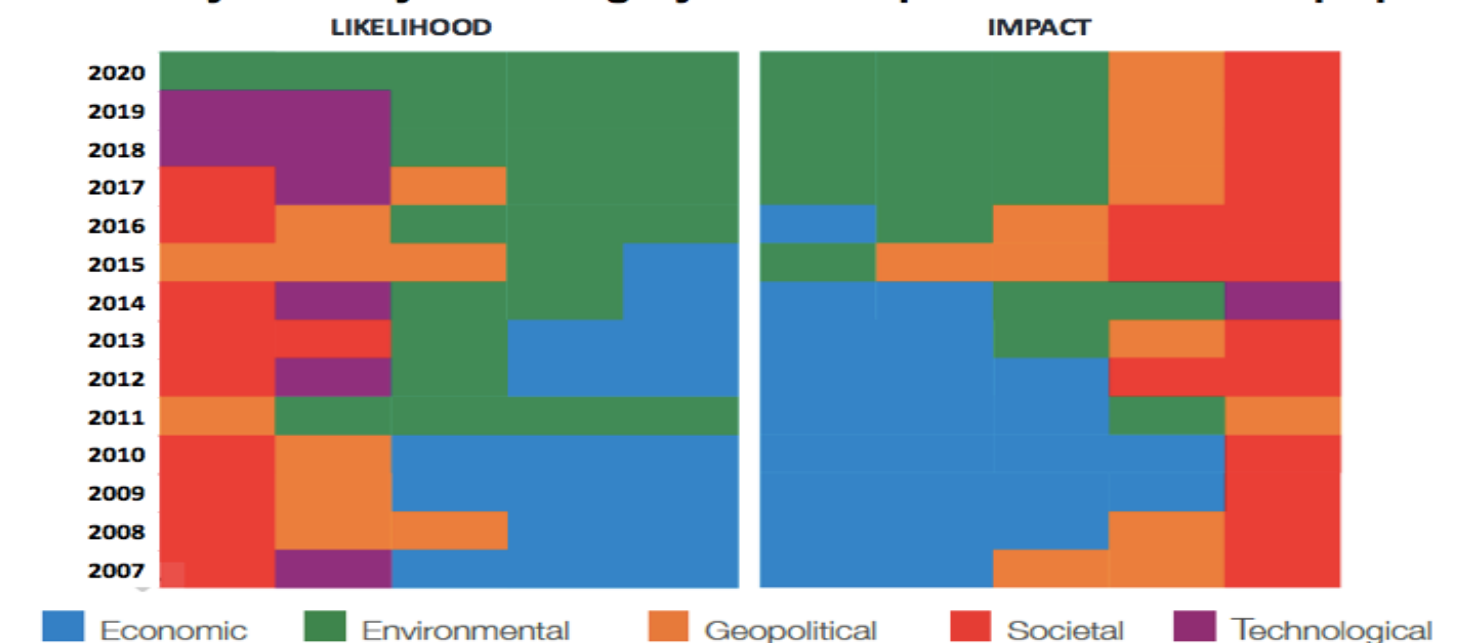
Source: WEF Global Risk Report 2019

For the first time in the history of the Global Risks Perception Survey, **environmental concerns** dominate the top long-term risks by likelihood.



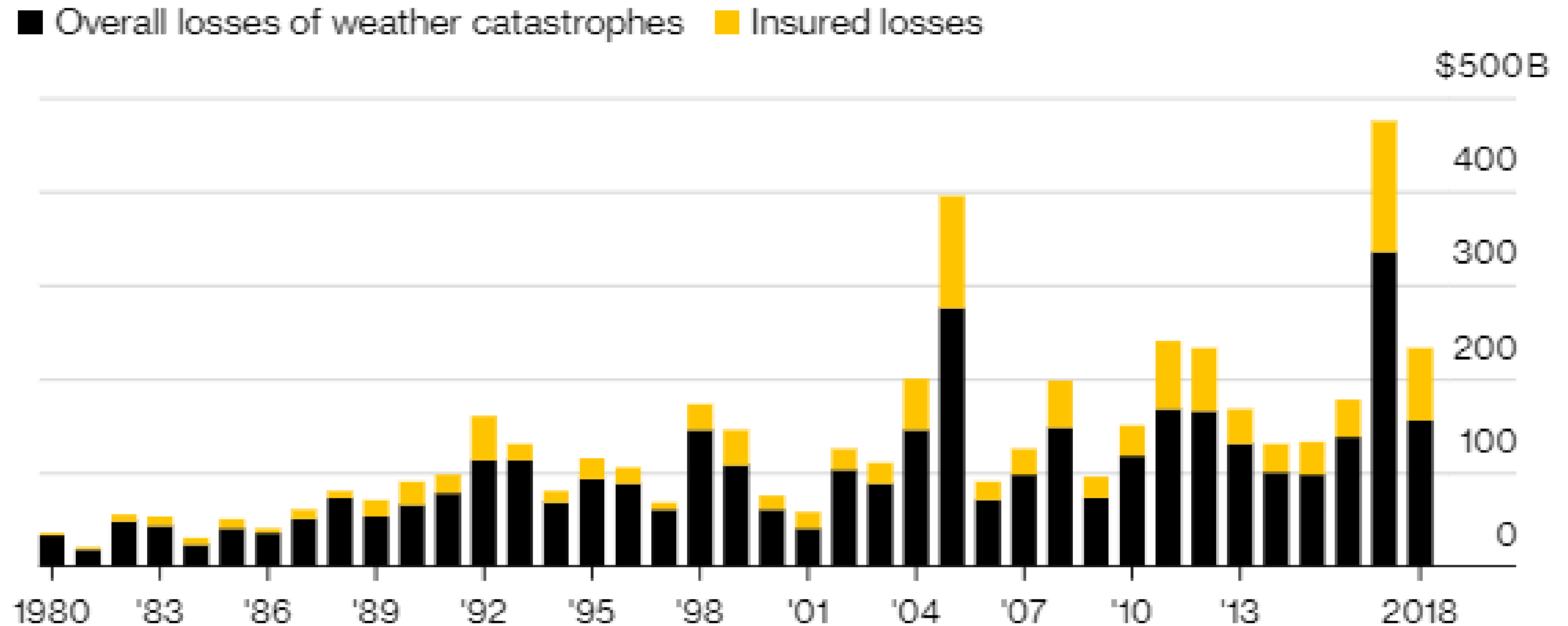
Source: WEF Global Risk Report 2020

Economy disappears from top 5 global risks - For the first time in the WEF survey's history one category has occupied all five of the top spots



Climate Costs

Floods, cyclones, wildfires and earthquakes cost \$160 billion in 2018



Source: Munich Reinsurance Company, Geo Risks Research, NatCatSERVICE

Note: adjusted to 2018 values based on local CPI



Transition Risk

The energy transition poses the highest apparent risk in terms of stranded assets.

To curb warming below a 2°C objective requires the stranding of a significant amount of fossil fuel reserves. Estimates indicate that up to 80% of fossil fuels would need to be left untouched in the ground.

The risk of stranding fossil fuels is due to a number of interrelated causes:

- Regulatory – Increasing legislation restricting high carbon activity
- Social - Disinvestment campaign and stakeholders demanding greater transparency, negative impact on environment, society and health
- Economic – price of renewable energy cheaper than fossil fuels.

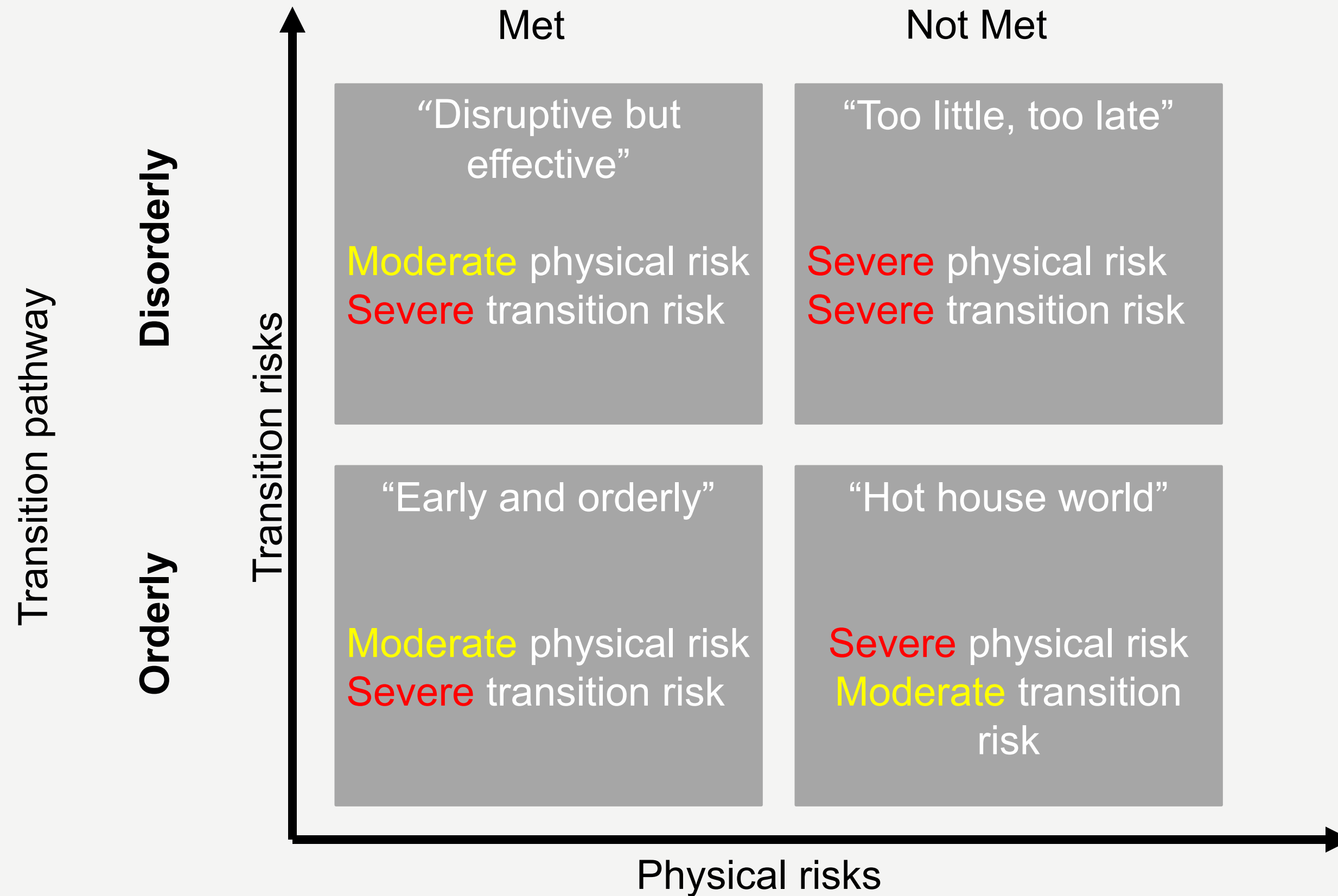
It is vital for countries to develop a least disruptive transition plan that allows an orderly and sustainable shift to a low carbon economy.

The transition plans needs to phase out high carbon sectors whilst phasing in low carbon sectors to fill the economic void.



The Effectiveness of the Transition

Strength of response to climate targets



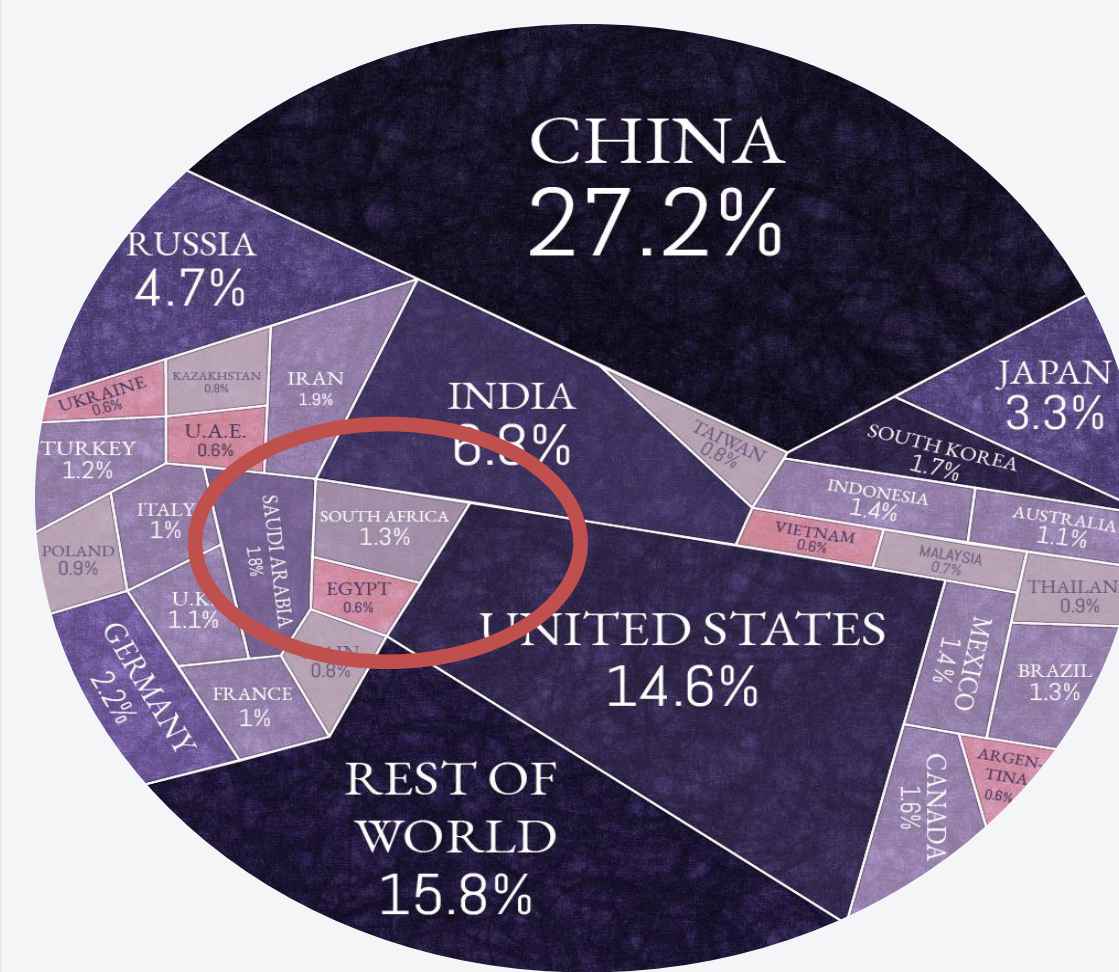
South Africa Transition Risk

South Africa is vulnerable to both the effects of climate change (23rd most vulnerable country) and the 14th largest per capita emitter (1.3% of total global GHG emissions).

- 30% of listings on the JSE are related to resources.
- According to Climate Policy Initiative “Understanding the impact of a low carbon transition on South Africa” report:
 - South Africa transition risk equals \$ 120 billion (R1.8 trillion) (coal/energy sectors)
 - Eskom faces \$1.1 billion (R14.5billion) of transition risk from increased coal costs and a further \$4 billion (R58 billion) or more in stranded assets if government forces it to close some of its coal-fired power stations early
- According to the NBI 26% of GDP formal employment within salient vulnerable is vulnerable to climate change

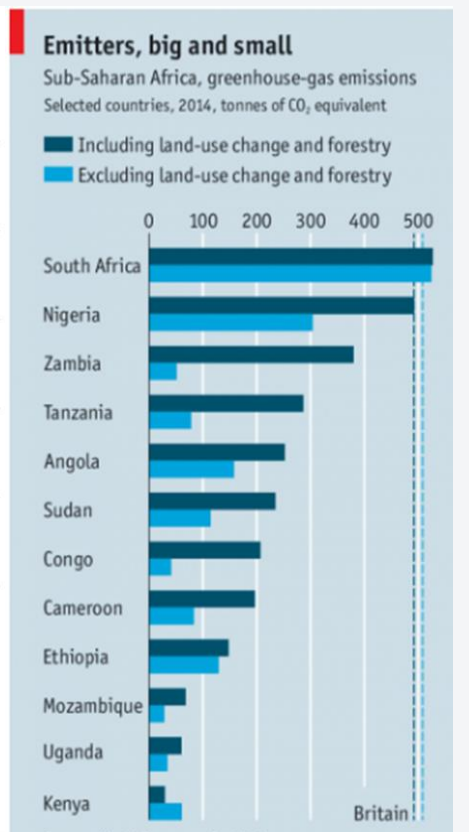
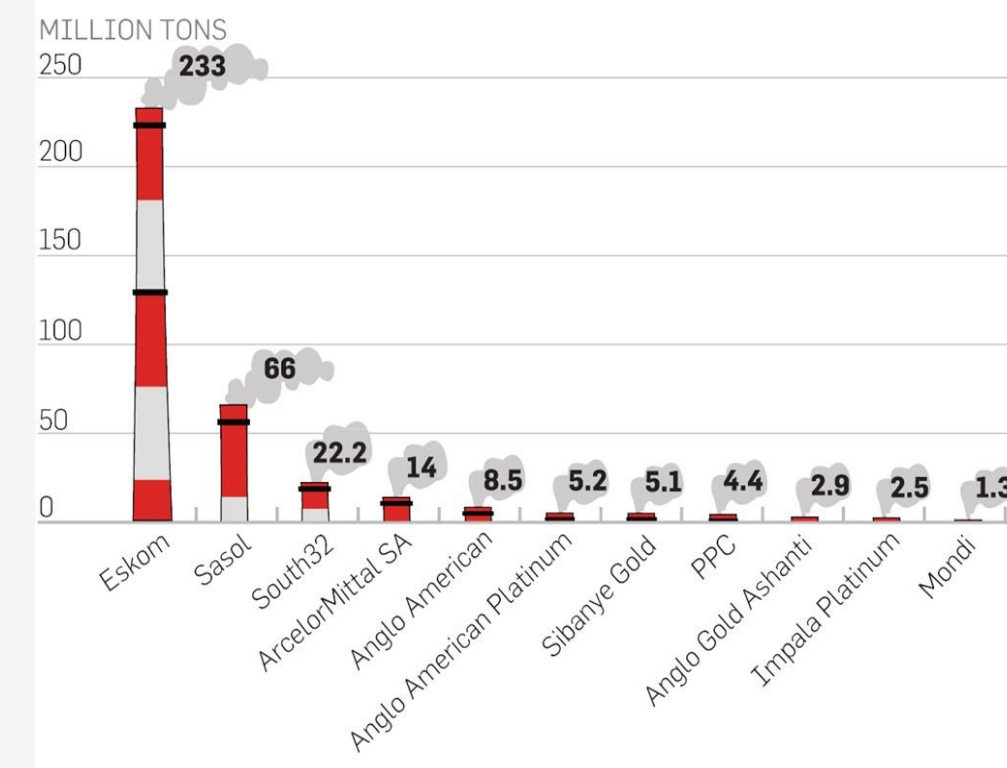
Primary vulnerable Risk Sectors:

- **Agriculture**
- **Electricity**
- **Mining**
- **Transport**



SA is the worlds 14th largest emitter of CO₂

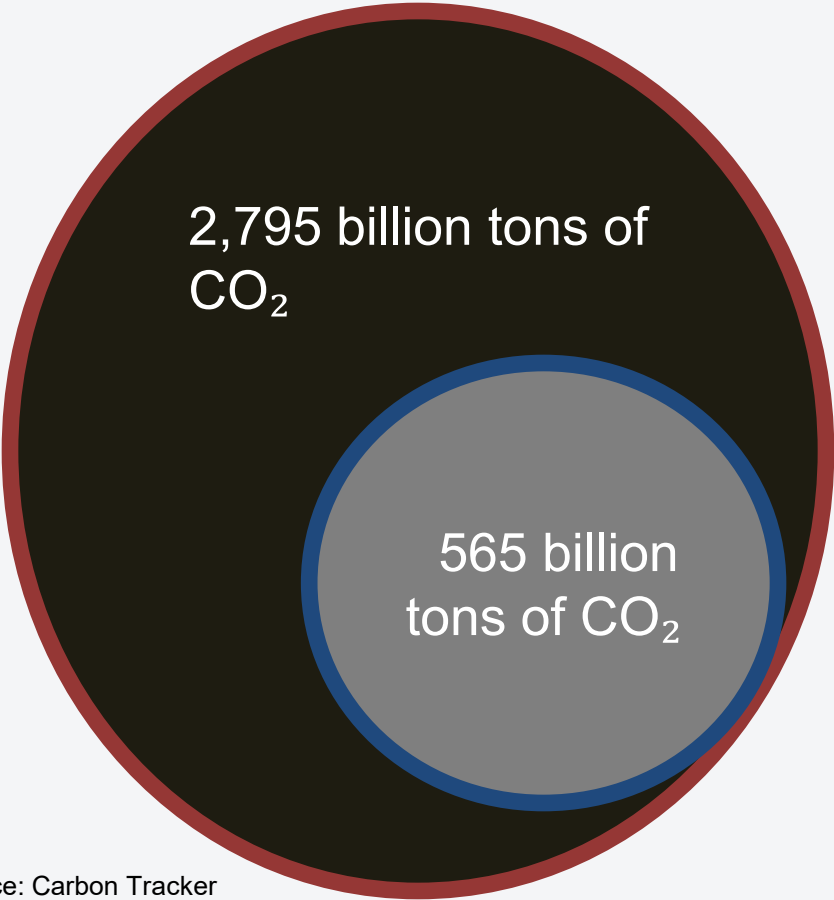
South Africa's top carbon emitters



Stranded Risk fossil fuels

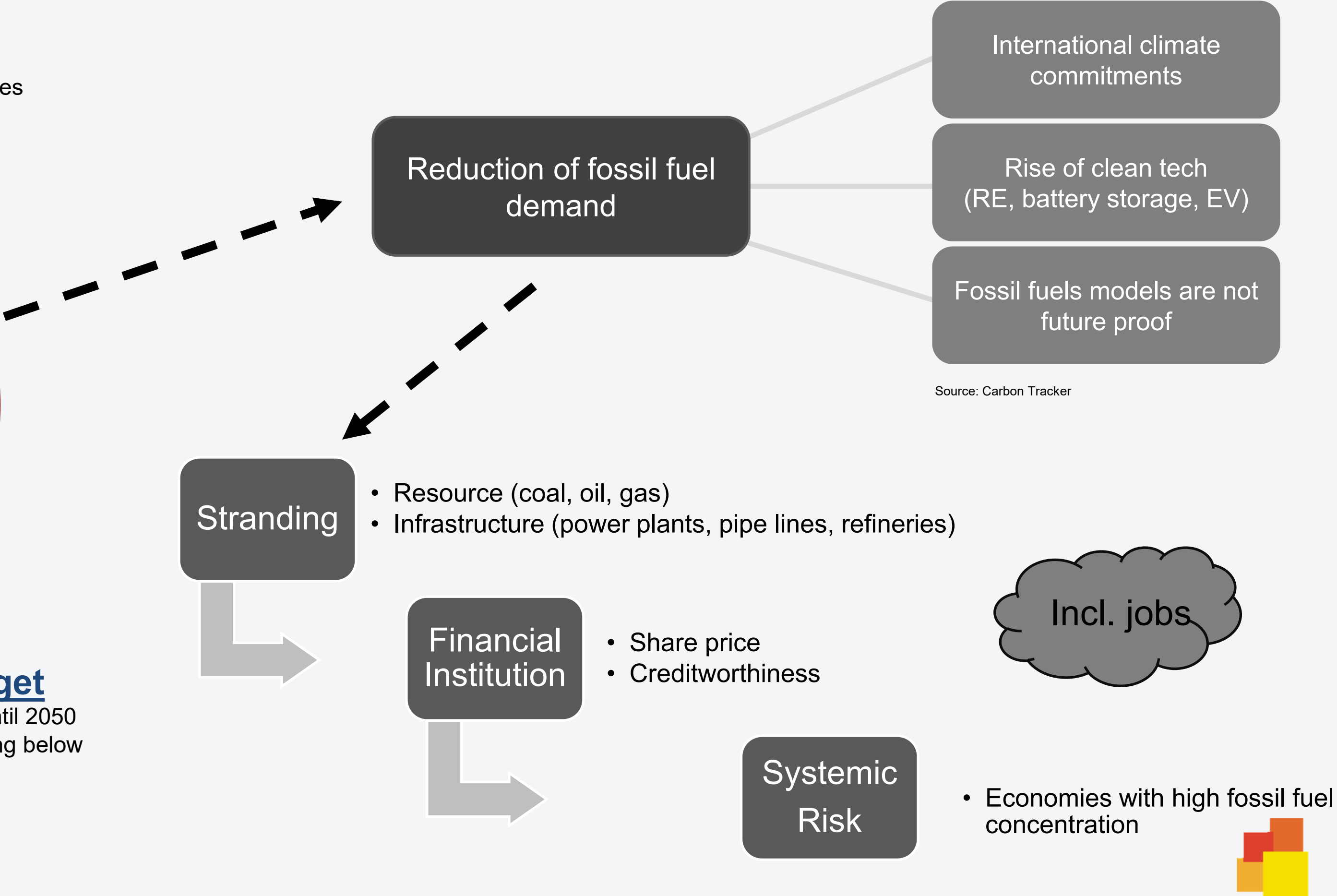
Carbon Bubble

Emissions from burning all known reserves of coal, oil and natural gas. Estimated worth of \$27 trillion.

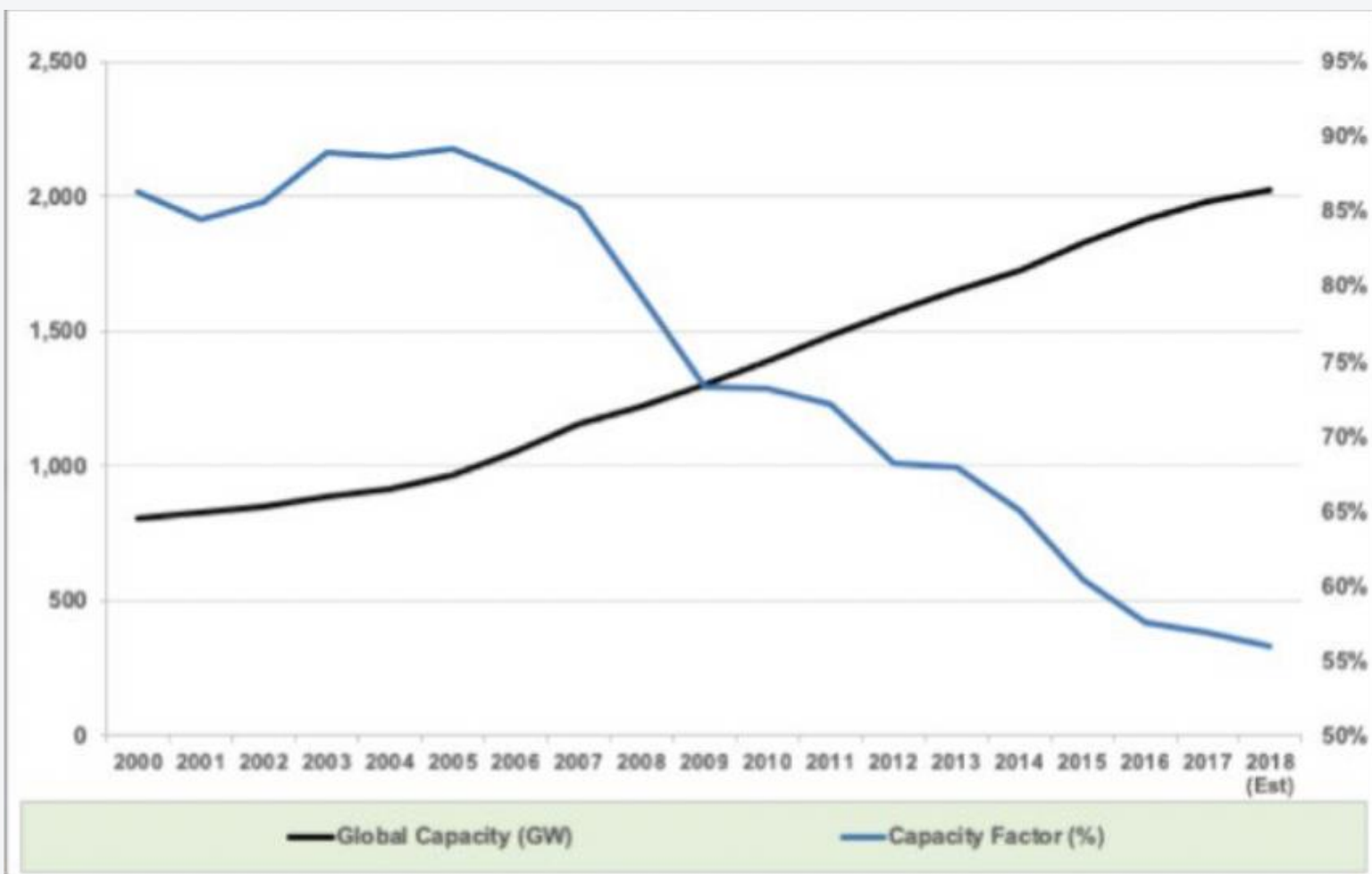


Remaining carbon budget

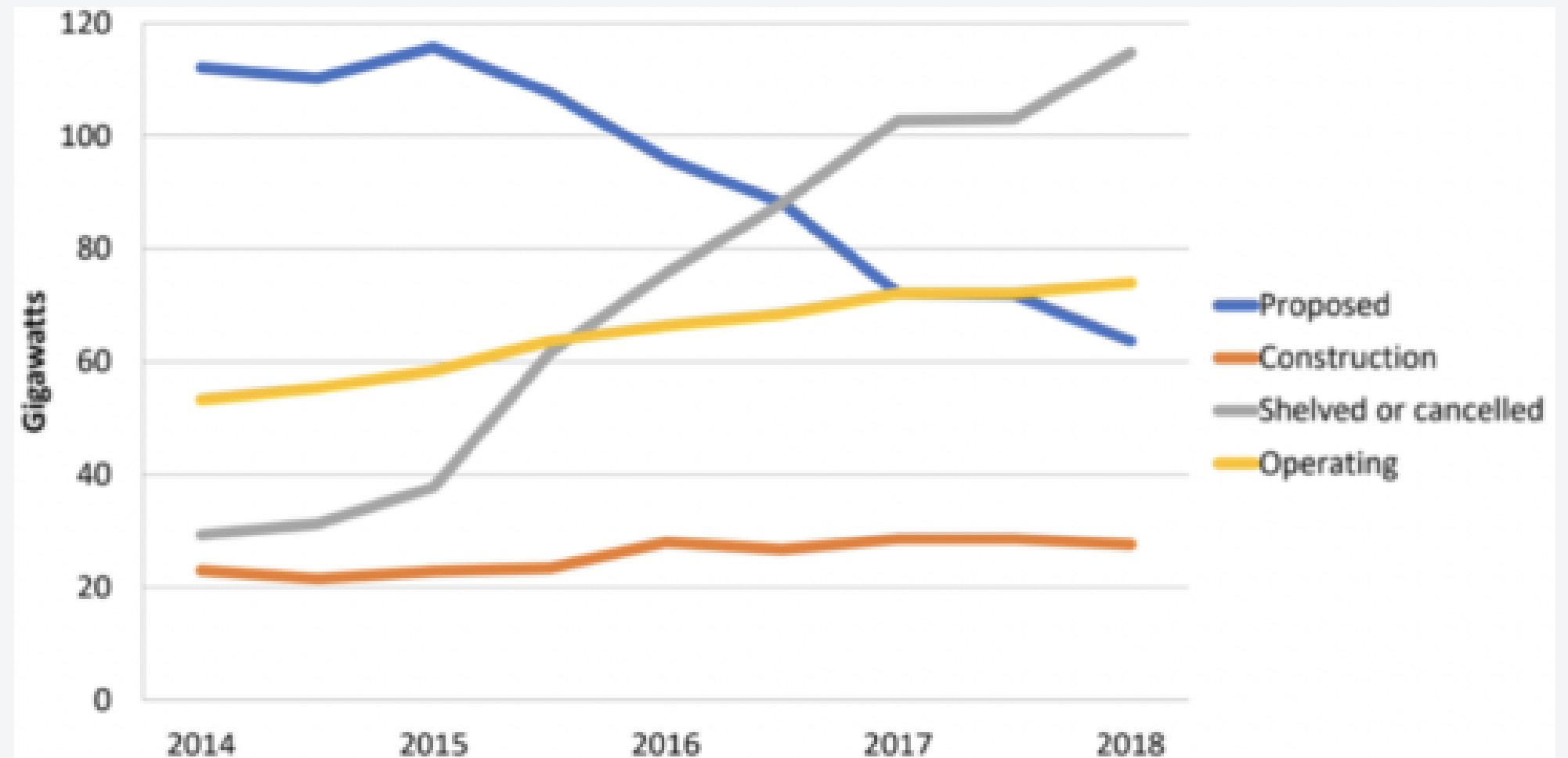
The amount of CO₂ that can be emitted until 2050 and still give a reasonable chance of staying below 2°C of global warming



Coal in Decline



Source: IEEFA Energy Finance, 2019.



Climate Action – Litigation

Key Stats:

- 894: The number of climate change cases filed, in a total of 24 countries
- 70%: Since 1988, the amount of total greenhouse gas emissions attributed to the 100 'Carbon Majors'
- 1,450 Gigatonnes: The amount of global industrial emissions since 1751

Source: UNEP 2017



Right now, we're in the midst of a huge upward swing in the number of climate change related cases that are being filed. On the receiving end of the litigations are governments, individual companies, and in some cases groups of companies. The cases are being filed by everyone from groups of young people to human rights organizations, and the results may have far-reaching effects. With the US pulling out of the Paris Agreement, the courts may be the best hope for activists trying to combat climate change.

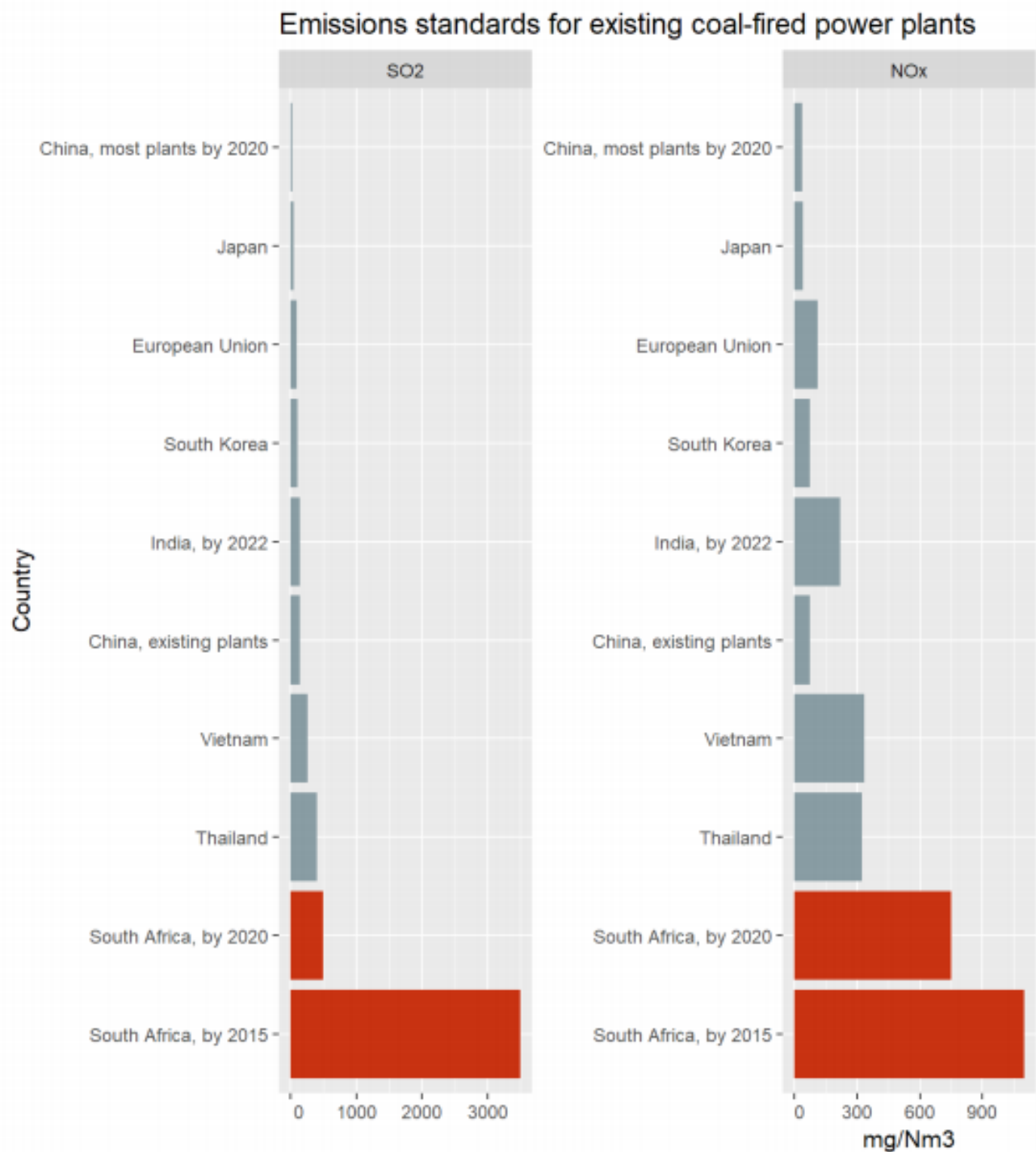
Global trends in climate change litigation: 2019 (Report):

- Climate change litigation continues to expand across jurisdictions as a tool to strengthen climate action.
- Climate change cases have been brought in at least 28 countries around the world, and of the recorded cases more than three quarters have been filed in the United States.
- Most defendants are governments, but lawsuits are increasingly targeting the highest greenhouse-gas-emitting companies. Climate change-related claims are also being pursued by investors, activist shareholders, cities and states.
- Climate change litigation in low- and middle-income countries is growing in quantity and importance.

Climate Litigation in South Africa

WHY COAL POWER EMISSIONS IN MPUMALANGA ARE THE HIGHEST IN THE WORLD

There is a clear reason why Highveld ranks as the world's largest power plant SO₂ and NO₂ emission hotspot – besides having a large concentration of coal-fired power generating and industrial capacity, the emission control performance of the coal-fired boilers is dramatically worse than in other countries. Eskom's coal-fired power plants are allowed to emit more than 20 times as much SO₂ and 15 times as much NO_x as Chinese and European coal-fired plants.



Just days after World Environment Day on Wednesday 5 June 2019, South Africa's new Minister of Forestry, Fisheries and Environmental Affairs, Barbara Creecy, faced a huge wake-up call as environmental justice groups launched a major legal action demanding that government clean up the air in the Mpumalanga Highveld. On Friday 7 June 2019, GroundWork and the Vukani Environmental Justice Movement in Action launched landmark litigation by serving 522 pages of meticulously documented court papers on the Minister of Environmental Affairs, the National Air Quality Officer, the President of South Africa, and the two relevant MECs in Gauteng and Mpumalanga.

GroundWork and Vukani, represented by the Centre for Environmental Rights (CER), claim that government has violated the constitutional right to a healthy environment of the people living and working in the Highveld Priority Area (HPA), by failing to improve dangerous levels of air pollution in the area.



Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures

TCFD

At a national level a holistic transitional plan is vital.

Companies will need to develop their own plans informed by the risk and opportunities that emanate from climate change with regards to their business.

In terms of managing systemic risk, ICBC (2016) found that environmental stress testing could reduce systemic risk, and the Task Force on Climate-related Financial Disclosures (2017) recommended that comprehensive climate-related financial disclosure reports (including scenario testing) should be incorporated into mainstream public annual financials.



Banking Sector's initiatives

1. Over and above a Sustainable Finance Committee, BASA has established a Climate Risk Committee
2. Received training on TCFD for bank staff through GiZ and Acclimatise
3. BASA is secretariat for the working groups (regulators, public/private financial sector) seeking to implement the recommendations within the National Treasury sustainable finance paper
4. Member banks are increasing dedicated resources within environmental and social risk areas, as climate change and climate risk is considered a high risk area
5. BASA is working with GiZ, IFC and UK(PACT) to develop a programme to increase the bankability of adaptation/mitigation projects. The objective of the programme is to make projects both economically and socially viable
6. BASA and its members have initiated a Positive Impact Finance project (UNEPFI initiative) that aims to prioritise sector SDG focus areas, determine opportunities, unblock blockages to finance flows and include monitoring & evaluation of achievements
7. BASA in discussions with 2° Investing Initiative, a global consultancy, to develop a set of scenarios that may illustrate the impact of climate change based on different outcomes within banks





Conclusion

The stranded asset discourse is centred around a just transition and electricity but it may shift to other assets/resources.

The speed at which environment and social related risks materialise is often proportional to the difficulties of adapting to them. Often, fast-moving risks are harder to manage than slower moving ones

The transition, climate change and stranded assets needs to be understood by all in order to develop an appropriate and least disruptive socio-economic response.

Central to the risk of future stranded assets is climate change, litigation, legislation, societal pressure and potential trade barriers.

South Africa needs a definitive socio-economic roadmap coordinated by a Climate Change Commission within the Office of the Presidency (some hard decisions are required to be made).

Big 4 banks are to join the UNEPFI TCFD pilot study Task Group.



