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Climate change – the socio-economic opportunity

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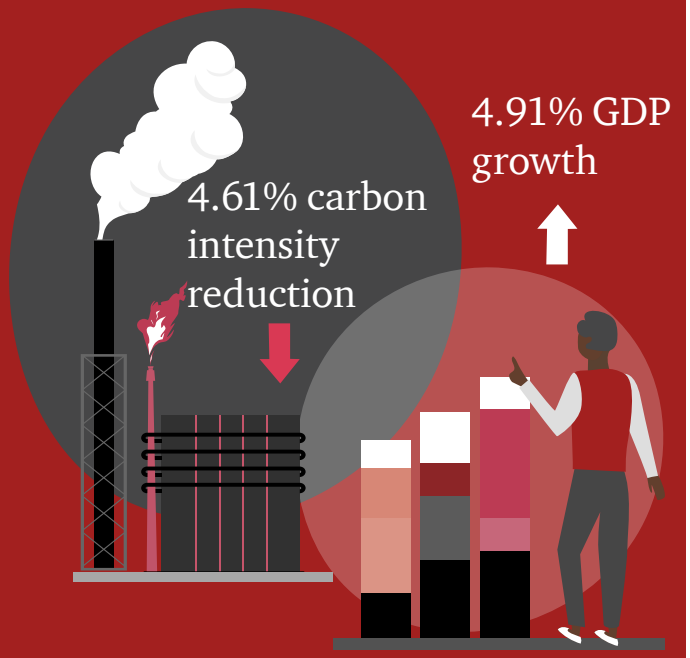
Content

Climate change – the socio-economic opportunity

2021 was the year countries around the globe attempted to jump start their economies from the worst of the COVID-19 shock in 2020. While there was a lot of talk of "building back better", or ensuring these recovery plans didn't miss the opportunity of ensuring economic recoveries prioritised goodgrowth, it had mixed success. PwC's *Net Zero Economy Index 2022* shows that most countries prioritised the use of fossil fuels to form the foundation for restarting their economies.

While the task of meeting the commitments under the Paris Agreement has grown that much larger, the world is still in a unique position due to geopolitical disruptions. There is an opportunity to use these disruptions as an opportunity to make the transition to renewables and decarbonise the global economy at a faster rate than ever.

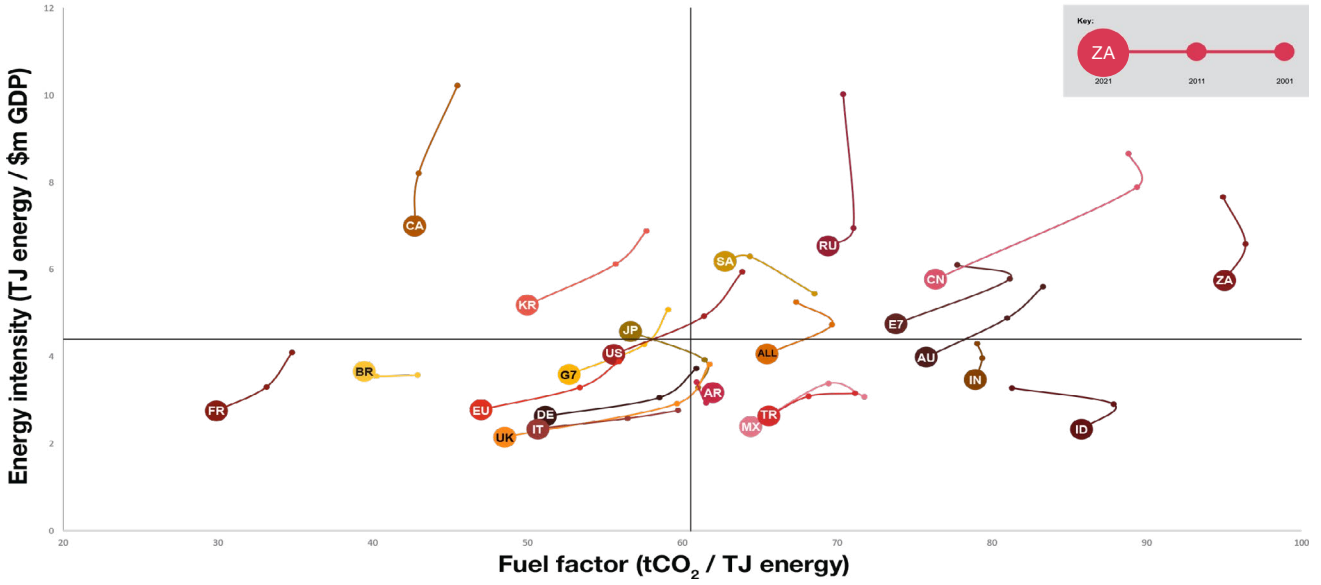
South Africa has shown minor improvements



Globally, the world achieved a reduction in carbon intensity of 0.49%. This was less than the average decline of 1.39% per annum seen over the past 20 years due to the global economy largely returning to near pre-COVID levels of output.

South Africa fared better, seeing a reduction in carbon intensity (tCO2/GDP $m) of 4.61%. This was because the economic growth (4.91% change in real GDP) was greater than that of the growth in energy-related emissions (0.08% increase). This is the second consecutive year South Africa has been able to reduce its carbon intensity. One would like to believe that this illustrates that the country is reaching a point where economic growth is beginning to be delinked from increases in energy related emissions. Unfortunately as Figure 1 shows this isn't entirely the case: South Africa (abbreviated as ZA) still has the highest fuel factor in the G20.

Figure 1: Movement of G20 fuel factor vs energy intensity (raw values) for 2001, 2011 and 2021



Source: PwC Net Zero Economy Index 2022

The **fuel factor** (CO_2 / energy) measures how much CO_2 is emitted per unit of energy consumed. Put simply, how green the energy consumption is.

It indicates a country's shift in energy mix towards renewable energy sources, and can reflect movements away from the most highly emitting fossil fuels (such as coal).

For each unit of energy consumed, different fossil fuels will release differing amounts of CO_2 emissions. For each unit of energy consumed from a renewable source, emissions will be reduced to negligible, or zero, therefore reducing the fuel factor toward zero.

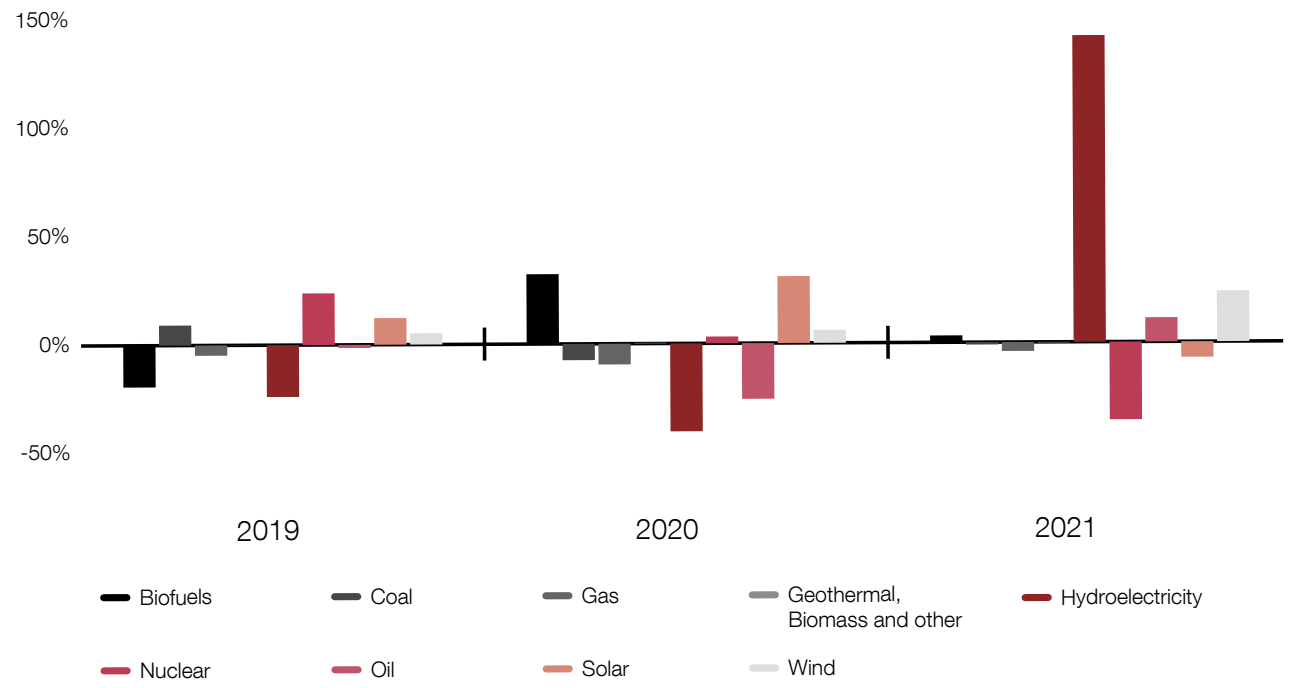
Energy intensity (energy / GDP) measures the amount of energy consumed per unit of GDP generated.

It shows us how much energy is needed to generate a given amount of GDP.

Energy intensity is impacted by a range of factors, including: energy efficiency, in the form of policies, standards and technological advances; pricing and behavioural change; the sectoral composition of an economy; investment in more efficient technology and infrastructure; and climatic influences on energy usage.

The main reason for the second consecutive year of a decrease in emissions intensity appears to be linked to the decrease in use of hydrocarbon based fuels versus renewables. South Africa's coal (-0.79%) and gas (-2.95%) usage both experienced minor decreases in use while wind (+16.72%) and hydroelectricity (+100.86%) saw large increases in 2021 from the quantities generated in 2020. The decrease in coal use was, however, not due to the country actively trying to use less of this resource. Rather, the decline was partly a result of record electricity load-shedding in 2021 due to the significant breakdowns at the coal-fired power stations.

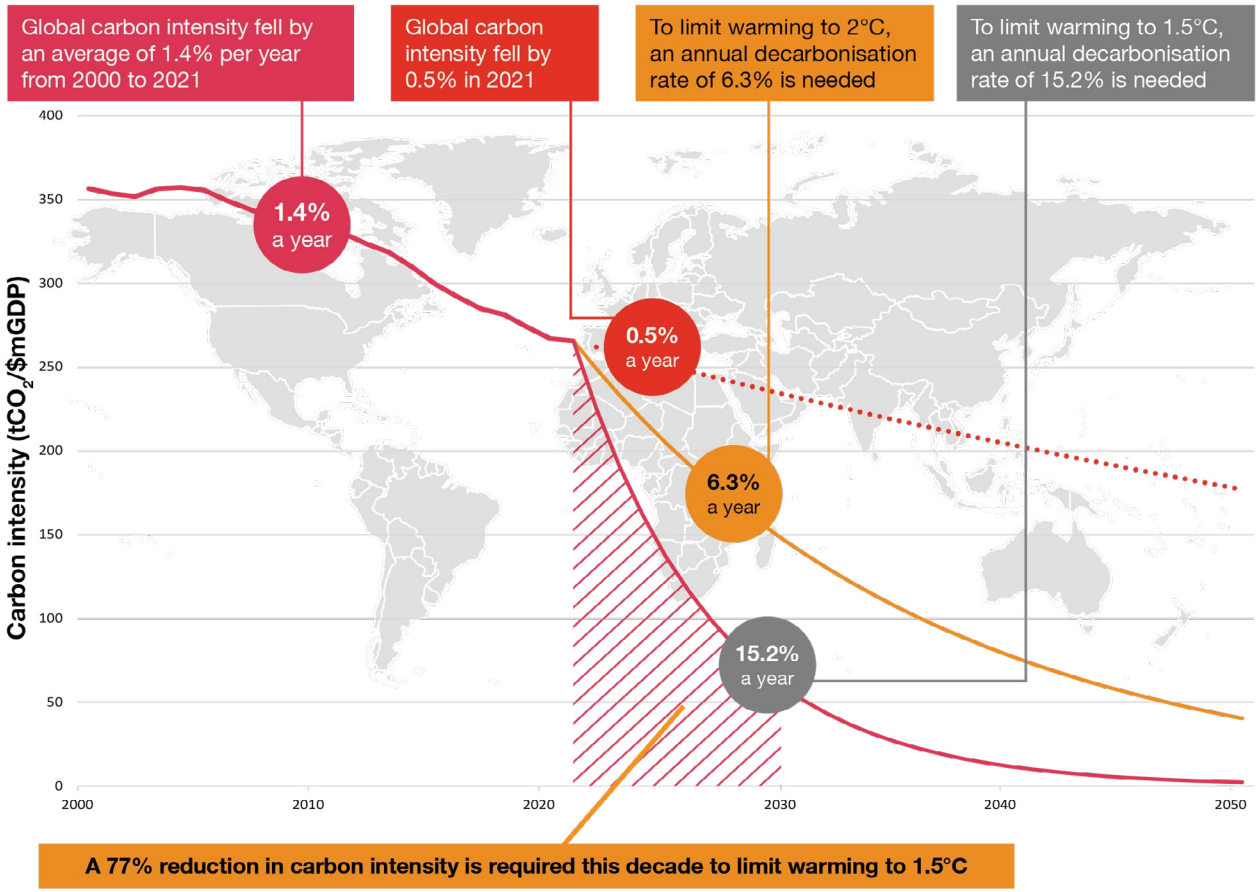
Figure 2: Year-on-year change in fuel consumption by type



Source: bp

The world and South Africa now face the significant challenge of needing to achieve a global rate of decarbonisation of 15.2% per annum to limit global warming to 1.5°C, significantly more than the annual global intensity decrease of 1.4% during 2000-2001 recorded for the G20 countries.

Figure 3: Net Zero Economy Index 2022



Source: PwC Net Zero Economy Index 2022

The need to decarbonise faster is not simply to protect the environment, but rather because this will have fundamental impacts on our societies. Ultimately, the need for action is not only an environmental need, but a social need as well.

Our response to environmental crises need to be considered holistically with responses to social upheaval

From the start of the industrial revolution, society viewed itself as separate from the environment as shown through the increased exploitation of the environment for financial gain. This understanding has been changing over the past few decades as we have become increasingly aware of the impact society and the economy has on the environment through the waste we dispose of such as plastic, effluent and our greenhouse gas emissions. Importantly, we are also increasingly understanding the dependencies our society and economy have on the environment and how the environment increasingly affects our ability to continue to create financial value.

For example, we are better understanding the impacts climate change will have on our societies and economies through increased natural disasters and changing climatic patterns. One need only look at the set of reports released by the Intergovernmental Panel on Climate Change (IPCC) in 2021 to see the severity of the climate related impacts that await our societies and economies if we do not take decisive action[1]. From this it is clear that Southern Africa is also at grave risk of future climate related impacts, more so than other parts of the world as the region will warm at twice the global average[2].

Too often when we talk about the need for decisive climate action, such as the need to reduce carbon intensity by 15.2% per annum, we focus on why this is important and what this means for the environment. But we often ignore why this action is important for society because of the interlinkages with social and economic environments and the associated impacts on these.

In South Africa, we are seeing increasing reports of failures to protect, maintain and develop both our natural as well as our built environments. We're also seeing a continued increase in unemployment numbers and structural and wealth gaps which are leading to increased social tensions and breakdowns in social cohesion. For example, the civil unrest seen in July 2021 is associated with multiple socio-economic factors and challenges, including joblessness, inequality and poor spatial planning[3].

1 IPCC, 2021. Sixth Assessment Report. Accessed Online: https://www.ipcc.ch/assessment-report/ar6/

2 Quiggin, De Meyer, Hubble-Rose and Froggatt, 2021. Climate Change Risk Assessment 2021. https://www.chathamhouse.org/2021/09/climate-change-risk-assessment-2021

3 The Presidency, 2022. Report of the Expert Panel into the July 2021 Civil Unrest. https://www.thepresidency.gov.za/content/report-expert-panel-july-2021-civil-unrest

The country's struggles to act decisively on climate change and environmental degradation at this point is not necessarily directly linked to the breakdown in social cohesion. However, the two could be seen to be caused by the same system – a breakdown in the governance structures needed to prevent environmental destruction and social shortfalls.

There is ample evidence that social cohesion has significantly deteriorated in South Africa over the past five to 10 years. Social cohesion is determined by inclusion in social and economic life, acceptance and belonging, social networks, participation in political life, and trust in institutions[4].

Social cohesion in South Africa has been hurt by, for example, a deterioration in the quality of governance. Trust in government and the way it runs institutions is an essential prerequisite for economic development. However, the Ipsos Global Trustworthiness Index 2022 found that three out of four South Africans find local politicians and government ministers untrustworthy. Only three out of ten respondents find civil servants trustworthy; this is on par with the view of business leaders, lawyers and bankers[5].

The World Economic Forum (WEF) Global Risk Report 2022 identified erosion of social cohesion and livelihood crises as the risk factors that have increased the most globally since the start of the COVID-19 crisis. The organisation noted that social cohesion erosion is a top short-term threat in 31 out of the 124 countries (25%) surveyed in the report, with this list including South Africa[6].

4 Poverty and Inequality Initiative (PII), 2018. Defining social cohesion in the South African context. http://www.ijr.org.za/home/wp-content/uploads/2018/02/Policy-Brief-1_final.pdf

5 Human Rights Watch, 2020. South Africa: Widespread Xenophobic Violence, September 17. https://www.hrw.org/news/2020/09/17/south-africa-widespread-xenophobic-violence

6 World Economic Forum (WEF), 2022. Global Risks Report. https://www.weforum.org/reports/global-risks-report-2022/

The advantages for the private sector to play a more active role are significant

For those living and working in South Africa, the operating context is clear. It is one of continuous challenges, from power supply breakdowns and lack of service delivery, increasing production costs, load-shedding and social unrest. This operating environment has been fractured over time through corruption and failures to plan and maintain infrastructure.

This has required private business to think, plan and operate in ways they wouldn't necessarily need to in other countries across the globe. It also means that the private sector in South Africa has had to take on some roles it wouldn't need to in other countries – but this also provides the private sector with additional opportunities from both a global and local perspective.

From a global perspective, we are seeing record-high prices for fossil fuels due to the fallout from the Russian invasion of Ukraine. The military operation has led to a spike in global oil prices as a result of sanctions on Russian oil and gas, and has led to an increase in coal prices as countries turn to coal to replace some of the lost gas capacity.

While those invested in these industries are seeing enormous financial gains due to high commodity prices, it is creating an opportunity for renewable energy players. Many businesses and consumers cannot afford these high prices and instead are considering shorter- to longer-term options to move to renewable energy. This is because renewable energy is not subject to global price swings like the fossil fuel industry. It also means companies that cannot make the full transition are looking at how to improve efficiencies which ultimately leads to a reduction in emissions.

From a local perspective, the South African government has recently made some regulatory changes to increase opportunities for the private sector to play a larger role in decarbonising the economy, such as increasing the threshold for embedded energy generation to 100 MW and then the announcement to do away with this threshold entirely. The motivation behind this was to improve energy security but has the benefit of allowing the economy to decarbonise without being entirely reliant on the government to achieve this.

For companies looking to improve business continuity and reduce the impact of load-shedding through embedded generation it provides significant opportunities, especially considering the continued decline in renewable energy prices and the threat of continued increases in the electricity tariffs.

The private sector shouldn't look to operate on their own in trying to solve this. There needs to be continued collaboration between both the private and public sectors to move the country forward. The need for collaborative thinking and operating is important not simply to solve problems the country faces, but because it can and does benefit both parties. If the private sector is able to collaboratively create an environment that provides it access to the resources it needs (e.g. bulk water, skilled labour, stable environments, secure energy), and government is able to partner to source the skills that exist and additional financial resources from the private sector, development pathways can be created that address both parties needs.

This is often easier said than done. A 2021 survey showed that society trusted business more than government and illustrated some of the existing distrust between the private sector and the public sector in South Africa[7]. However, with the right mediator it is possible to create an environment that benefits both parties, as well as the wider society and environment. This allows businesses the space to continue to create financial value while sharing this value creation with their stakeholders, facilitating continued opportunity to create this financial value into the future.

We will be releasing another thought leadership titled *Rebuilding social cohesion is an essential contributor to economic development in South Africa* in November 2022 that unpacks the current social cohesion challenges and opportunities in more detail.

7 Smith, C. 2021. South Africans trust business, distrust government and media - survey. Accessed online: https://www.news24.com/fin24/economy/south-africa/south-africans-trust-business-distrust-government-and-media-survey-20210218

Unlocking opportunities through rethinking the "business as usual"

Decarbonising our economy is not just about responding to the potential risks we face, but more clearly about the potential opportunities available. If approached in the correct way, these opportunities have the potential for the private sector to work with government to create a more stable operating environment. In the best case we could see both improved energy security as well as a decarbonisation of the economy. Ultimately, this will benefit more than just those businesses that choose to lead in this space, but wider society, the economy and the environment.

At PwC we understand both these risks and opportunities to our business and are working with our clients and stakeholders to reduce our impact and unlock further opportunities through challenging our business as usual. You can read more about how we are approaching this across PwC Africa in our *Africa Annual Review*.

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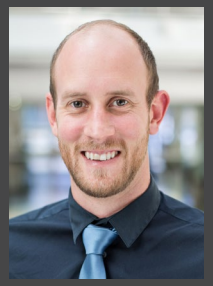

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