

**Decarbonising and building climate-resilience for South Africa's Agriculture, Forestry and Other Land Use (AFOLU) sector**

**Johannesburg, November 15, 2021**— Climate modeling clearly shows that while the whole of South Africa will be impacted by the negative effects of climate change; the AFOLU sector will be significantly threatened. Export earnings, farmworker and plantation worker livelihoods, and food availability are at risk, particularly in the Western and Northern Cape. These areas are expected to face the worst water stress, but also account for ~95% of South Africa's deciduous fruit exports, ~25% of national agricultural earnings, and ~35% of national agricultural employment.

A Just Transition for the AFOLU sector, amongst other requirements, is one that unlocks sustainable healthy diets for all South Africans and ensures that small-scale producers are supported to increase productivity and gain both agricultural and business skills.

As part of a series of cutting-edge research reports on South Africa's decarbonisation journey, a report discussing the critical considerations on what a Just Transition means for the AFOLU sector was released today. This research was conducted by the [National Business Initiative](#) (NBI), [Business Unity South Africa](#) (BUSA) and the [Boston Consulting Group](#) (BCG) as part of a comprehensive and consultative process to show that it is possible to decarbonise key sectors of the South African economy.

*“The scale of the research and the quality of how it is presented makes it a great, informative read...the sugar industry is by size one of the smaller players, but the overall picture is interesting, and the extent of the challenge is a major concern.”*

**– Michelle Jean-Louis, Business Assurance executive, Tongaat-Hulett Ltd**

The report released today outlines some of the complexities of a Just Transition in South Africa's AFOLU sector. It also highlights the AFOLU sector as well as provides a comprehensive list of no-regret/ low-risk actions that can be taken in the short- to long-term to facilitate and drive adaptation and mitigation in the AFOLU sector while ensuring food security, environmental-resilience, and socio-economic development.

The AFOLU sector decarbonisation report is available and can be downloaded from the NBI's [website](#). Reports for the power sector, mining sector and petrochemical and chemical sectors are also available on this website. Reports for other sectors will be released as they are completed.

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## INFO FOR MEDIA

### KEY FINDINGS FROM THE AFOLU REPORT:

#### Nine key findings of the AFOLU sector analysis:

1. The South African AFOLU sector is at significant climate risk – ensuring food security and sustainable and healthy diets for all South Africans and maintaining the sector's socio-economic contribution requires the development of a climate-resilient AFOLU sector.
2. Global climate change could impact South Africa significantly: In low and moderate mitigation scenarios, South Africa's average inland temperature could rise 2–4 °C by 2050, ~2 times the average global temperature increase, and average rainfall could decrease >60 mm/annum in most western and northern regions of the country.
3. Export earnings, farmworker and plantation worker livelihoods, and food availability are at risk, particularly in the Western and Northern Cape, which are expected to face the worst water stress, but also account for ~95% of South Africa's deciduous fruit exports, ~25% of national agricultural earnings, and ~35% of national agricultural employment.
4. On a farm and plantation level, adaptation measures, such as climate-breed matching, and fire and pest prevention systems can build resilience, production-efficiency, and reduce emissions per unit produced. On a system level, improved water-use monitoring and transmission infrastructure, data-backed agricultural and forestry water allocation, and accessible climate event monitoring will be critical to ensure climate resilience.
5. To enable effective adaptation, it will be critical to build more capacity among farmers and growers, and to improve and expand agricultural and forestry extension services – this would require a doubling of AFOLU-related research and development (R&D) spending in line with the National Development Plan (NDP) targets, roll-out of demand-side incentives, such as market access in exchange for resilient practices and deployment of blended finance mechanisms.
6. The AFOLU sector accounts for ~10% of national emissions – driven by livestock (75%), fertiliser use (18%) and fuel combustion (7%) – and adaptation measures taken in the sector could drive some emission reduction. However, significant emissions remain and to fully decarbonise the sector, dedicated mitigation levers need to be deployed.
  - a. In light of a growing population, food demand will grow by ~50% by 2050, causing the AFOLU emissions baseline to grow by ~40% if current, nutritionally inadequate diets are maintained, or shrink by ~37% if sustainable (low red meat), diverse and nutritionally-balanced diets are adopted.
  - b. Regardless of diet progression, ensuring farming and forestry best-practice reduces emissions and builds resilience. Best-practice livestock health, feed, manure, and breeding management can eliminate ~19% of annual emissions, while sustainable land and fertiliser management, and integration of renewable energy to meet energy demand eliminate 17% and 19% of annual emissions, respectively.
  - c. However, with farming and forestry best practices implemented, by 2050, emissions can only be reduced by ~40% versus the 2017 baseline, with current diets, and by ~70% with sustainable, healthy diets, leaving 16–39 Mt CO<sub>2</sub>e/a in residual emissions that must be addressed using more disruptive levers, such as hydroponics, and in the more distant future lab-grown meat.
7. Meeting a sustainable, healthy diet for all South Africans could require >170% increases in soybean and vegetable production, and ~20% increase in deciduous fruit production by 2050, even if production for export and livestock is diverted to local food demand. This would require land-use prioritisation for hardier,

nutritionally-dense foods and import strategies for starchy staple commodities that are expected to be in shrinking demand.

8. A Just Transition needs to unlock sustainable and healthy diets for all South Africans. However, sustainable, nutritional diets currently cost ~4 times more than the average, nutritionally-inadequate, local diet, and ~1.5 times more than the cheapest nutritional, carbon-intense diet in South Africa. Measures to build a climate-resilient food supply could further increase production cost – therefore it will be critical to ensure affordability of future food supply.
  9. To ensure a Just Transition, small-scale producers must be supported to increase productivity and gain both agricultural and business skills. This requires improved extension services and climate monitoring, access to finance and off-take incentives for sustainable practices. It may also require tenure reform; farmworkers require new work opportunities and agri-dependent communities need to be identified and plans made to diversify economic opportunities.
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**ABOUT THE AUTHORS:****About the National Business Initiative**

At the National Business Initiative (NBI), we believe in collective action and collaboration to effect change; building a South African society and economy that is inclusive, resilient, sustainable and based on trust. We are an independent, business movement of around 80 of South Africa's largest companies and institutions committed to the vision of a thriving country and society. The NBI works with our members to enhance their capacity for change, leverage the power of our collective, build trust in the role of business in society, enable action by business to transform society and create investment opportunities.

**About Business Unity South Africa**

BUSA, formed in October 2003, is the first representative and unified organisation for business in South Africa. Through its extensive membership base, BUSA represents the private sector being the largest federation of business organisations in terms of GDP and employment contribution. BUSA's work is largely focused around influencing policy and legislative development for an enabling environment for inclusive growth and employment.

**About Boston Consulting Group**

BCG partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG, the pioneer in business strategy when it was founded in 1963, today works closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organisations to grow, build sustainable competitive advantage, and drive positive societal impact. Our diverse, global teams are passionate about unlocking potential and making change happen and delivering integrated solutions.

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