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Speech for Minister John Steenhuisen

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GCCA Africa Conference – “Revolutionising Africa’s Cold Chain Through AI and Innovation”

Good morning, distinguished delegates, industry leaders, government colleagues, and friends of African agriculture.

It is both a privilege and a pleasure to address this year’s GCCA Africa Conference. Even though I cannot be with you in person, I am grateful for the chance to engage with this important gathering. The conversations taking place here matter, not just for business, but for the future of our continent.

The theme before us, “Revolutionising Africa’s Cold Chain Through AI and Innovation”, is bold. It speaks directly to the challenges that keep us awake at night, but also to the opportunities that inspire us to act. Cold chains may not make front-page news, but they are the silent infrastructure of food security, of trade, and of livelihoods.

Africa’s Population Boom and Food Security Pressure

Africa’s population is growing faster than anywhere else in the world. Every year, our cities expand, our towns swell, and our food demand climbs.

In South Africa alone, the population has grown from 55.4 million in 2015 to over 62.3 million today, according to Stats SA’s July 2025 estimates. That’s nearly seven million more mouths to feed in just ten years.

Now, scale that to the continent: by 2050, Africa’s population will exceed two billion. This is not just a statistic, it is a reality that must shape every policy we make, every investment we encourage, and every partnership we build.

It means one thing very clearly: the question of food security is no longer optional. It is central. And the cold chain is at the heart of answering it.

Post-Harvest Losses and the Human Cost

Let us pause on one sobering figure. A 2024 analysis published in Agriculture & Food Security reports that in sub-Saharan Africa, post-harvest losses for perishable crops like fruits and vegetables can reach up to 40%, primarily due to poor storage and handling conditions

Behind that statistic are real human stories: the smallholder farmer in Limpopo who grows tomatoes but cannot get them to Johannesburg before they spoil. The citrus grower in the Eastern Cape whose fruit misses a shipment window because of delays at the harbour. The livestock producer in Kenya who cannot reach premium markets because there is no reliable cold storage facility nearby.

Every one of these losses is a lost income, a lost job, a lost opportunity. And collectively, they represent billions in wasted food and lost economic potential. This is why cold chain matters. It is not an abstract concept; it is the line between prosperity and poverty for thousands of farmers.

Ports and Infrastructure – Priority 6: Advocacy for a Growing Sector

Let me turn to infrastructure. Our ports are not just concrete and cranes. They are gateways to global markets.

When Cape Town port is congested, our table grape exports suffer. When Durban slows down, citrus shipments miss deadlines. Every delay ripples back to the farm, to the community, and to the family depending on that income.

That is why I have made it a priority to advocate for reforms in port efficiency and cold chain integration. Working with the Department of Transport, with Transnet, and with private operators, we are pushing for smarter investment, more modern facilities, and digital systems that cut through bottlenecks.

We are not simply talking about moving containers. We are talking about safeguarding South Africa's reputation as a reliable exporter, ensuring that when international buyers think of South African produce, they think of quality and trust.

Rural Reach – Priority 1: Partnerships for Growth

But ports are only one side of the story.

A revolution in cold chain must reach into rural Africa. Too often, innovation stops at the city limits. Yet it is in our rural towns and villages that agriculture is not only a way of life, but the backbone of local economies.

Think of the Karoo farmer producing high-quality meat but lacking a cold storage link to reach Cape Town's markets. Think of a small-scale grower in KwaZulu-Natal whose produce could fetch higher prices abroad but spoils before it leaves the province.

This is where Partnerships for Growth become real. When government, agribusiness, and logistics companies collaborate to expand cold chain networks into rural areas, the effect is transformative. It means fewer losses. It means new jobs in packing houses, trucking, and storage facilities. It means rural producers are not trapped in subsistence but are linked into regional and global markets.

This is not charity. This is smart economics. Rural cold chain access is rural development in action.

Energy, Policy, and Resilience – Collaboration with the Department of Electricity & Energy

Now, let us be frank. Cold chains depend on power. And here, we face challenges. Unreliable energy supply and high costs weigh heavily on our producers.

This is why my Department has partnered with the Department of Electricity and Energy. Together, we are developing a framework for energy efficiency in the agricultural sector.

This includes:

- Supporting solar-powered cold rooms in off-grid rural areas.
- Incentives for energy-efficient refrigeration systems.
- Exploring waste-to-energy solutions that turn by-products into usable power.
- Expanding renewable energy funding mechanisms to help farmers invest in their own energy security.

We cannot build a cold chain on shaky foundations. Reliable, affordable, and sustainable energy must underpin everything.

And in doing so, we also align with our climate change commitments, proving that food security and sustainability are not opposites, but partners.

Link to Global Themes – G20, AfCFTA, and Africa’s Voice

Colleagues, our cold chain revolution cannot happen in isolation. It is tied to global trade, continental cooperation, and regional integration.

South Africa currently holds the G20 Presidency, and one of our key messages to the world is that food security must be at the centre of global cooperation. Cold chain infrastructure is central to that agenda.

At the same time, the African Continental Free Trade Area (AfCFTA) is opening new opportunities for intra-African trade. But let us be honest, without reliable cold chain systems, that potential will remain untapped.

A mango grown in Côte d’Ivoire should be able to reach a market in Nairobi with the same quality and freshness as if it were shipped to Europe. A beef producer in Botswana should be able to supply supermarkets in Johannesburg seamlessly. That is what AfCFTA promises, and that is what the cold chain must deliver.

Technology – From AI to Blockchain

Technology is the game-changer. Artificial intelligence can forecast demand, optimise logistics, and reduce spoilage. It can tell us when and how to move produce before it becomes waste.

Blockchain, on the other hand, creates trust. It tracks every item from the farm to the fork. In an age where consumers demand to know where their food comes from, this transparency is invaluable. It gives South African exporters a competitive edge, ensuring our products stand out in crowded markets.

But technology must be accessible. It is no use having AI-driven systems in Johannesburg if smallholders in Limpopo cannot plug into them. That is why we need public-private partnerships, incubators, and training programmes that democratise innovation.

Stories of Progress – Inspiration from the Ground

Let me share a few examples.

In West Africa, we are already seeing how innovation can transform farmer livelihoods. A recent study found that over two-thirds of smallholder farmers are willing to adopt solar-powered cold storage if given the opportunity. In Nigeria, for example, a company called ColdHubs has installed solar-powered walk-in cold rooms at markets and farming clusters. Farmers simply pay per crate, per day, and the result has been remarkable. Post-harvest losses have been cut by as much as 80%, and farmers have increased their incomes by up to 25%, simply by being able to sell more of what they grow.

Here in our own Western Cape, the fruit export sector offers a powerful model of how public-private collaboration can raise cold chain performance to global standards.

Through coordinated logistics forums, including weekly consultations between industry groups (Fruit SA, Hortgro, CGA, SATI, FPEF), Transnet, and port authorities, exporters have been aligning on export volumes, utilising nightshift

loading, and activating inland consolidation points like Belcon to ease congestion at Cape Town Port.

At the same time, cold chain efficacy is being embedded into the export process itself. A study by Stellenbosch University found that even small temperature protocol deviations, stemming from pallet placement or handling, can accelerate fruit deterioration. It underscores the fact that maintaining quality from farm to a supermarket shelf, depends on meticulous coordination at every stage.

And let us not forget that South Africa has already been at the forefront of testing blockchain in agriculture. As far back as 2018, we were among the early adopters, piloting the use of blockchain in our table grape exports. That initiative, known as Blockchain for Agrifood, allowed grapes to be tracked digitally from farm to export, with certification authorities issuing tamper-proof documents along the way. It demonstrated how blockchain can build transparency, trust, and efficiency into global food systems.

Today, the challenge is not whether the technology works, we know it does. The challenge is how we scale it: how we make sure that blockchain is not just a pilot for a few exporters, but a tool that can be applied across multiple value chains, from citrus to livestock, ensuring that every South African producer can compete in markets where traceability and proof of origin are non-negotiable. That is the future we must work towards

Closing – A Call to Action

Delegates, colleagues, friends:

The cold chain is not a side issue. It is the artery through which Africa's food system flows. Without it, farmers lose, consumers suffer, and economies falter. With it, we can feed more people, create more jobs, and compete more confidently on the world stage.

But none of us can do this alone. Government cannot deliver cold chains without the private sector. Industry cannot thrive without enabling policy. Farmers cannot succeed without infrastructure.

So let us commit, here, today, to making the cold chain not just more modern, but more inclusive. Let us harness AI, blockchain, and innovation not as buzzwords, but as tools for transformation.

If we succeed, Africa will not only feed itself. Africa will feed the world.

I thank you, and I wish you a productive and inspiring conference.

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