

Finding solutions to food and water risks

With the aim to investigate solutions to the risks posed by water and food security, sustainable growth and development-focused business leaders met with the Western Cape Department of Agriculture and the World Wildlife Fund (WWF).



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Ryan Ravens, new CEO of business leadership organisation Accelerate Cape Town, which hosted the event, said: "Food and water scarcity, and deteriorating water quality, are real business risks which can affect production capacity, corporate reputations - also in the highly competitive export market - profitability, the ability to attract and retain talent, investor confidence, location decisions, and more. While no single sector is potentially unaffected, the situation is particularly relevant to agriculture - a key contributor to the regional economy. It is time to engage in a solutions-focused debate and for collaborative action among all stakeholders."

Water management in a water scarce country

Food and water are becoming critical resources as climate change patterns, population growth, rapid urbanisation, and expanding middle classes drive an ever increasing demand for food, which is expected to increase by 35% in 2030 and water, of which demand is projected to rise by 40%.

South Africa is already a water-scarce country with the Western Cape experiencing significant water stress. Water quality and quantity will particularly impact food production and fruit quality, posing a major threat to the fruit export industry. "Adopting innovative solutions for precision agriculture and water irrigation techniques will be vital to our sustained growth, as are appropriate reforms in water management, and investment in developing our water infrastructure," Ravens explained.

Collaboration and best practices is key

The region's agriculture sector is, however, also leading the charge in finding innovative solutions to these problems. According to WWF freshwater specialist, Christine Colvin, major British retailer Marks and Spencers assessed its global agricultural supply chains using the WWF's agricultural water risk assessment tool. She said "The Western Cape emerged as a water risk hotspot, presenting a formidable problem for the retailer as they source stone fruit (peaches and nectarines) from Ceres - a drought prone area.

Rather than risk avoidance in the Western Cape, Marks and Spencers became involved in water stewardship to reduce water risk in the area." Today, participating farmers make use of high-tech irrigation systems and other measures to see them using only 40 litres of water to produce a peach - down from 140 litres.

"While these and other results are outstanding, it is important to harvest the best practice from these examples," Ravens said. "The successful collaboration between retailer, NGO, and producers was the critical success factor in this - and in almost every other - solution presented. This is the best practice that we now need to take forward as we work to implement and scale our innovations to help grow a more resilient and inclusive economy."

Solutions-focused innovation

According to Dr Dirk Troskie, director for business planning and strategy at the Western Cape Department of Agriculture, the Department follows a well-structured approach. This includes supporting the provincial agricultural sector to maintain its export position for the next five years; supporting the sector (farmers and industries) to increase sustainable agricultural production by at least 10% over the next 10 years; and facilitating an increase of 20% in relevant skills development over the next 10 years.

Troskie emphasised the role of research and technology in solutions-focused innovation and described [FruitLook](#) - a web portal for Western Cape deciduous fruit and grape growers. Funded by the Department of Agriculture, FruitLook provides weekly updates of spatial information related to crop water use, growth, and leaf nitrogen content in the form of maps and graphs to encourage efficient water use in agriculture.

"Many excellent results have been achieved and our next step is to scale these for inclusive economic development. Business is ready to collaborate with all regional and national stakeholders to help strengthen the economy and accelerate growth," Ravens concluded.

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