

Investing in agricultural education can help feed future populations

 By [Cari Coetzee](#)

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As the world celebrates World Food Day, it reflects on our current food systems, efforts for ensuring food security for all and how the sector can drive sustainable growth. Under this year's theme, *Change the Future of Migration: Invest in Food Security and Rural Development*, the importance of increased investment and rural development is clear. We chat to Howard Blight, founder of Agricolleges International (ACI) about World Food Day, and the role of education in making this a reality.



Howard Blight

■ ***While the agriculture sector has continued to register positive growth over the years, there is still much that needs to be done. What is your message to the world regarding investing in food security and agricultural development?***

As chairperson of Agricolleges International, my message would be a message of hope. In a world where we're seeing that we need to increase food production by 70% by 2050 - when the world's population will be nine billion people - and where we're told that Africa's productivity level is the lowest in the world of any continent - sitting at 32% starting from quite a low platform - we have a responsibility to significantly increase the prospect of food security in agricultural development through education. The bricks and mortar institutions, the great universities of the world are not keeping up with trends.

■ ***Why is it important that all sectors come together to address issues around hunger, malnutrition and poverty?***

It's going to be a test going forward of what can be recognised as good governance. Essentially the government facilitates the opportunity for private sector institutions to go about the business of building the economy and at the moment there are serious questions about that process and the efficiency and inefficiency with which it's addressed in this country that at the end of the day the private enterprise, the profit-driven motives, will be the organisations that create business, create the employment and, in the agri-sector, will be responsible ultimately for the reduction of hunger, malnutrition and poverty.

It's interesting to know that in the world today, 50% of old people now live in urban areas so with ACI we've realised the importance that urban agriculture plays in the whole gambit of food security, malnutrition and poverty. Which is why we're bringing about and designing short urban agricultural courses and, therefore, in terms of the sectors coming together, need internet service providers to put up the towers, to put up the hotspots where students will be able to study and learn and use

the knowledge gained to help reduce if not eradicate these issues.

■ ***The various sectors, local governments, non-governmental organizations, the private sector, researchers and institutions of learning all have a duty in helping farmers ensure sustainable food production. How can they all come together and help farmers achieve this?***

The demand for food will greatly increase due to rising incomes and an additional two or three billion people to feed. Agriculture needs to change to meet that demand. One way sectors can come together and help farmers ensure sustainable food production is to come up with even more advanced innovative technology. As we've seen in the past, advances in agricultural science and technology have contributed to remarkable increases in food production since the mid-twentieth century.

Research shows that in Africa, the farming industry – which by some accounts provides income for up to 60% of African citizens – is seeing how IoT and analytics can improve livelihoods by making small but important improvements to farming processes. Farming in Africa mostly involves small-scale farmers, where in developed countries farming is done on a grand scale by large corporations.

In a recent rural agricultural project involving an IoT solution, sugar cane farmers gained valuable insights from sensors guiding the optimal harvest and processing times. Sugarcane farmers have a limited window of opportunity to process cut sugar cane - up to 50% of the yield can be degraded if it is not taken for processing within 48 hours of harvest. By using IoT sensors combined with a cloud-based analytics platform that incorporates external data sets such as weather data, African sugarcane farmers that were part of the project received timely information regarding the optimal harvest and processing timelines for their crops, helping them improve their yield and increase their revenue while minimising waste.

■ ***How does an institution like ACI aim to transform agriculture into a competitive, profitable and sustainable sector?***

ACI aims to transform agriculture into a competitive, profitable and sustainable sector through knowledge, through offering a knowledge base to a much wider community who in the past have not been able to afford to attend traditional educational institutions. Not only because they are far and expensive, and beyond the cost of most families, but because they simply don't have sufficient space. All universities throughout this country and most universities throughout the world are turning away tens if not hundreds of thousands of students from their doors because they simply don't have enough classrooms, they simply don't have enough boarding facilities and, therefore, there is a huge deprived sector of our youth which is just sitting at home with no hope and from that perpetrates desperation and violence.

So, ACI aims to transform the agri-sector through access to education and a vast forum of students are going to be able to come on board with ACI and learn the fundamentals of the agri-sciences which will give them a platform to go into the huge sectors of the agri-world and through better knowledge more efficient understanding of the agri-world.

I think for the first time an institution like ACI is able to scale up the number of students that we will have, we can as easily have a 1,000, 10,000 or 100,000 students on the platform because we are involving the use of modern technology, revolutionising the upscaling opportunity of people having access to agri-sciences through what I refer to as learner

managing systems which are based in the cloud with the help of Stellenbosch University.

The introduction of technology in a broader sense and a growing sphere of innovation that's taking place and making accessibility of that information through organisations like ACI - which is a cloud e-learning platform - will increase the competitiveness, profitability and sustainability of the agricultural sector. Investors will be more readily encouraged to expand their operations because of the trained human resources that will be coming out of the system in greater numbers than there has been in the past. It will happen and it will happen quickly.

■ ***What is your message for World Food Day?***

A request for a little more patience but an acknowledgement that there is hope out there because we are busy changing the way that people are educated in agri-sciences. It's very interesting to note that, last year, there were 446,000 matriculants that came out of the schools and over 100,000 of those had done agri-sciences as one of the subjects in their Grade 12 curriculum.

So, the fish is already on the hook. There's an intrinsic, growing interest in the agri-sciences. In all its affiliate industries we are going to make agriculture attractive again. The use of technology gives us hope that we are able to change the world and the message is a request for the authorities to facilitate these opportunities for the private sector because institutions like ACI in their ability now to transform the way that agri-sciences are taught through e-learning, on the cloud and on your mobile devices from anywhere at any time is a real message of hope, of transformation.

ABOUT CARI COETZEE

Cari Coetzee is a contributor to Bizcommunity Tourism, Agriculture and Lifestyle.
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