



*The Office Of The Principal and Vice - Chancellor*

**PROF MS MAKHANYA, PRINCIPAL AND VICE CHANCELLOR**

**UNIVERSITY OF SOUTH AFRICA**

**KEYNOTE: LAUNCH OF THE UNISA-SANEDI RESEARCH AND COMMUNITY ENGAGEMENT BIOGAS  
PROJECT**

**MELANI VILLAGE, ALICE, EASTERN CAPE PROVINCE**

**1 JULY 2016**

- Dr Mvuyo Tom, Vice Chancellor, University of Fort Hare
- Mr Kadri Nassiep, CEO, South African National Energy Development Institute (SANEDI)
- Mr Oyama Makalima, Director for Intergovernmental Relations in the Eastern Cape Province
- Dr Carola Hantelmann and Mr Stanley Semelane, representatives from the Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)
- Dr Vuyo Mjimba, Human Sciences Research Council (HSRC).
- Representatives from the Local Municipal Manager's Office
- Prof Farhad Aghdasi, Dean of Faculty of Science and Agriculture, University of Fort Hare
- Dr Sampson Mamphweli, Senior Researcher in the Risk and Vulnerability Science Centre at the University of Fort Hare
- Professor Godwell Nhamo, Chief Researcher and Chair of the Exxaro Chair in Business and Climate Change
- Colleagues from Fort Hare University
- Unisa colleagues from the Colleges of CEMS, CSET and CAES
- Members of the Melani community
- Distinguished guests, ladies and gentlemen

Good morning ladies and gentlemen. It is a real pleasure to be back in an area where I spent much of my formative academic career. I have fond memories of a vibrant institution and a warm and welcoming community, and I am so excited to see that you have lost none of the vibrancy and enthusiasm for community which is a hallmark of African culture.

It gives me great pleasure to deliver this keynote address as part of this pioneer event, which marks a unique cooperation project between the Department of Energy, represented by its implementing agency, the South African National Energy Development Institute (SANEDI) and Unisa. Unisa's long-term ties are enshrined in a MoU concluded with SANEDI on 13 May 2015, and the Unisa-SANEDI MoU establishes a collaborative relationship in the areas of research and consulting. In addition to the Unisa-SANEDI MoU, I am aware that there is a similar MoU between the University of Fort Hare and SANEDI. By extension, we have just established practically, yet another collaboration platform between - Unisa and the University of Fort Hare - which can be followed up, if need be, by the formalisation of this relationship.

Allow me, ladies and gentlemen, to thank unreservedly, the management of the University of Fort Hare, led by my compatriot and colleague, Vice Chancellor, Dr Mvuyo Tom, for hosting me and my team in your beautiful and historical University – and my *alma mater*. I am aware that this is your centenary year, and that the celebrations are ongoing, and indeed, we wish you well over the coming months as you celebrate an historical institution that has played a seminal role in shaping so many of this country and continent's greatest leaders. Professor Tom, I thank you for your hospitality and your friendship.

Colleagues, ladies and gentlemen, at a global level, the United Nations Sustainable Development Goals (SDGs), finalised in New York in September 2015, set out an ambitious agenda for the sustainability of our planet and its people. 17 Goals are set down for implementation by 2030. Goal 7 enjoins us to 'Ensure access to affordable, reliable, sustainable and modern energy for all,' while Goal 11 instructs us to 'Make cities and human settlements inclusive, safe, resilient and sustainable.'" This project speaks directly to those two goals and offers a wonderful example of innovation and collaboration for the public good. With more than half a million Rand investment from Unisa, this ground-breaking biogas research project aims to scale-up the use of low-cost, easy to use bio-digesters in rural communities of South Africa and beyond, to provide biogas for cooking. Biogas is a renewable energy that is produced via the anaerobic digestion of organic material such as livestock waste, using micro-organisms in the absence of oxygen. So this area ladies and gentlemen is the ideal location for this kind of project.

Nationally, our National Development Plan (NDP): Vision 2030, has dedicated a whole chapter (Chapter 5) to low carbon transition. The low carbon transition trajectory directly challenges us to ensure that our communities draw on “greener” and renewable energy sources like biogas. Of course, as is the case with the SDGs, there are other chapters in the NDP addressing the poverty, inequality and employment nexus. Renewable energy provision presents itself as a fundamental driver of the conversation to sustainable energy, as well as an integral tool for the upliftment and development of vulnerable communities.

The recent *Nine Point Plan* advocated by Government places the resolution of the energy challenge at the top of the list of actions. The focus is on “*reliable energy supply to ensure energy security; the five point energy plan and the maintenance practice improving at ESKOM*”. As academic institutions we have a critical role of ensuring that the global and national mandates are realised through our excellent and innovative performance in the knowledge creation space, and through its translation into practice in our communities.

At Unisa, we have taken a conscious decision to highlight environmental and sustainability matters in our strategy, and to address them in a manner similar to what responsible modern-day corporates do - a situation where sustainability offices are stand-alone entities in these progressive organisations. To this end, I host in my Office, the Office of the Vice Principal: Advisory and Assurance Services, under the leadership of Prof Divya Singh, who has been working tirelessly with the Exxaro Chair in Business and Climate Change (under the incumbency of Prof Godwell Nhamo) in providing strategic direction in this space. We have been enjoying some wonderful results.

I can tell you for example, that in pursuit of Unisa’s sustainability vision, in January 2013 Unisa MANCOM approved the long-term Green Economy and Sustainability Engagement Model (GESEM) presented by the Exxaro Chair. In the GESEM is embedded a Road Map envisaged to take Unisa and its stakeholders to the next level with regard to green economy and sustainability matters. This commitment has much to do with the fact that Unisa is the only tertiary institution that is a signatory to the United Nations Global Compact (UNGC) in South Africa and possibly, Africa.

Both the Sustainability Office and the Exxaro Chair have networked successfully with other administrative entities at the very top of Unisa management including the University Estate, Institutional Planning, Corporate Communication and the Procurement Office. Embracing the multi-disciplinary nature of the task at hand, collaborative ties have been established with various researchers across Unisa, spanning the Colleges of: Economic and Management Sciences (CEMS);

Agriculture and Environmental Sciences (CAES); Science, Engineering and Technology (CSET); and Education (COE).

Further ties have been established with external partners that include the Department of Environmental Affairs (DEA), City of Tshwane, the National Business Initiative (NBI) and the Human Sciences Research Council (HSRC).

At Unisa we have decided to walk the green economy and sustainability talk. Key achievements in this journey thus far include:

- our affiliation to the United Nations Global Compact (UNGC);
- The Unisa Living Green Campaign launched in 2011;
- Hosting the first ever higher education Electric Car Road show in partnership with the Department of Environmental Affairs in June 2013;
- Partnering with the City of Tshwane every year, to observe the Earth Hour;
- Developing and approving in 2014, the Unisa Sustainability Implementation Framework;
- A MoU in 2015, Concluded with the National Business Initiative (NBI) to work on the only *Higher Education Energy Management Project*, which has resulted in Unisa drawing up an Energy Management Master Plan comprising three (3) Action Plans addressing: Energy Efficiency, Renewable Energy and Carbon Management.
- We have also embarked on two (2) large-scale energy and water metering projects. The Exxaro Chair and other research partners are working with the Sustainability Office and our University Estates to analyse the data being generated by the installed meters at Unisa. This will no doubt result in monetary savings as we will be able to accurately monitor and verify our electricity bills from the City of Tshwane, as well as trace water leaks in the piping networks. We will also be able to establish accurate baselines for our carbon foot printing and management projects.
- In February this year, Unisa MANCOM approved the Unisa Energy and Carbon Policy (probably the first of its kind in the country) **and this policy is awaiting Council approval soon – approved yet?**
- Lastly, the Sustainability Office, the Exxaro Chair, University Estates and other internal departments are hard at work to pilot our first off-grid solar project on one of our small campuses in Lenasia, Johannesburg. As the Principal and VC, I can assure you that I am following this innovative project with great interest.

Ladies and gentlemen, these are just, but some of the practical ways in which Unisa is *walking the green economy and sustainability talk*. Needless to indicate that, as Unisa, as you can see for yourselves today, we are more than happy to collaborate and share experiences of our green economy and sustainability journey with other stakeholder.

This brings me to our purpose here today and to the question: “Why the choice of the Melani Village for this project?”

The choice of Melani Village was informed by many factors, including Unisa’s geographically dispersed footprint in South Africa and Africa; the desire to be part of the ongoing national programme to roll out biogas as a source of renewable and sustainable source of energy; the need to set up research sites in rural settings; as well as the desire to commission community engagement projects that bring practical solutions to our society.

Apart from the site selection, from the Unisa side, this biogas project is part of a bigger, ambitious research programme instituted by the Exxaro Chair in its 2013 Strategy. By the way, the Exxaro Chair is sponsored by Exxaro Resources (Pty) Ltd, a BBBEE company with interest in mining whose Head Office is in Pretoria. Exxaro has sponsored this Chair since January 2008 and has renewed the Chair’s mandate twice now. The current life of the Exxaro Chair ends on 31 December 2018. We are forever so grateful to have such a willing and able sponsor.

As mentioned, the bigger research programme from the Exxaro Chair deals with researching *Bio-derived Fuels (BDF) and Solar Technology Transition under Climate Change and the Green Economy*. There are more than a dozen research project streams that comprise the research programme, of which *Biogas and Biogas Production* is one. Other projects of interest (some commissioned already) include:

- Mapping of bio-derived feedstocks
- Engine testing of bio-derived fuels
- Socioeconomic and political contestations on the research project streams
- Technology uptake and upscaling
- Value addition and value chains
- Financing, risk, insurance and the business case
- Environmental considerations
- Utilisation of coal fines as energy source
- Cogeneration

- Methane capture as vehicle fuel
- Dissemination, monitoring and evaluation
- Policy Perspectives

Since the official launch of this Research Programme by the Exxaro Chair on 2 June 2014, a number of academic papers have been and continue to be drafted and published.

The benefits for the community of these types of projects are manifold and they happen both in the construction phase and post the completion phase. The communities of Melani Village have already benefitted through temporary construction jobs from the installation of the 13 digesters. They will further benefit from the supply of renewable energy and also from interacting with our teams of researchers. Other benefits will be realised in time freed-up by not having to search for alternative energy sources, such as firewood. The environment will further benefit from reduced carbon emissions, given that at present we mainly rely on Eskom's coal fired power plants.

Once again, allow me to extend a hearty word of thanks to all of you who have made this occasion a huge success. Please continue the engagement. I am convinced we have made a difference to the communities from which we draw our students, and to other stakeholders, like Melani Village.

From here, I am told we will proceed to have a brief lunch session, after which we will proceed to Melani Village for the cutting of the ribbon and a walk-about to see some of the digesters which are at various stages of commissioning. Well done to everyone involved!

I thank you.