

2007 Norman E. Borlaug/World Food Prize International Symposium
Biofuels and Biofoods: The Global Challenges of Emerging Technologies
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SESSION I. GLOBAL PERSPECTIVES

October 18, 2007 - 10:45 – 11:15 a.m.

Speaker: H. E. Lulama Xingwana

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I have the honor of inviting to the stage the Honorable Lulama Xingwana, South Africa's Minister of Agriculture and Land Affairs. Minister Xingwana's portfolio includes overseeing her country's national biofuels strategy for which she also draws on her previous experience as Deputy Minister of Minerals and Energy.

As a graduate of the University of Witwatersrand, Minister Xingwana holds diplomas in rural development and economics. She has served as a member of Parliament since 1994 and has also chaired and served on several national and international committees focusing on investment, international relations, quality of life, and in particular the status of women. She joins us today to discuss South Africa's outlook on bioenergy as well as the role of biofuels in supporting and furthering food and energy security and development in the African Continent.

H. E. Lulama Xingwana

Minister of Agriculture and Land Affairs, Republic of South Africa

Thank you, program director, and firstly I'd like to say I am greatly honored to be part of this important annual event. And I would like to say that our department has always followed the events of the World Food Prize and are greatly honored to be part of it this year.

The South African Government initiated a study on the use of alternative liquid energy for road transport since 2000. The outcome of this study indicated that the introduction of biofuels may be a possibility based on the fact that most large transport vehicles use diesel. The production of biodiesel from oil-bearing crops is a well-established technology worldwide and that there is already a local market for oil cake, which is presently imported for animal feed.

A joint implementation committee for the introduction of biodiesel was established between different government departments involved, as well as the private sector. This committee started its work in 2003. By December 2005, the national standard for biodiesel was established, and all role players agreed that it would be possible to introduce biodiesel in South Africa.

During December 2005, the Cabinet decided to initiate the development of a biofuels strategy for South Africa, looking at both biodiesel and bioethanol. The outcome of this strategy should address the development of a moderate biofuels industry, enable agricultural development, particularly for the poor emerging farmers in our rural communities, and also assist us to create jobs and grow the rural economy.

The government is looking at between 2 and 4 percent blending levels of bioethanol into petrol. We are, however, hoping to speedily grow this up to 10 percent blend. This would translate into the production of approximately one billion liters of bioethanol per year. The necessary support and incentives will be provided to support the farmers by government.

Targeted land is between 3 to 4 million hectares of land that is currently lying fallow in our rural areas, especially in the former homelands, because of lack of markets for the crops in these areas.

I am aware that international debate on biofuels today encapsulates food security, water availability, climate change, and other social impacts, as has already been indicated by previous speakers. This debate is very necessary today as well as in the future, because it is such debates that will enable the biofuels program to contribute to the triple bottom line, which is social, economic and environmental impact. It is, however, clear that for biofuels to succeed in the long run, the realities of poverty, household food insecurity, challenging local climatic conditions, and poor infrastructure development needs to be addressed as part of the problems prior to the realization of opportunities brought by biofuels, especially in developing countries.

I am also aware that there is a debate whether to use food crops or nonfood crops for biofuels. I must be quick to say that – let us agree that each country and each economy must do their own introspection and determine whether it is opportune for them to use specific crops or not. In the case of South Africa, given our environment and circumstances, we have taken a decision to use food crops, and we believe we will be successful. I will be talking to this issue a bit more, later in my speech.

I am of the opinion that biofuels from the existing food and nonfood crops are a relative short-term solution towards mitigating the challenges of greenhouse gases. New technologies and research are required to take us into the future. Already, technology development provides glimpses of future possibilities that may well solve the problems that the world faces today. If we, however, do not embark on the road into the future now, we may not be able to change our energy consumption behavior, which will continuously create a problem for humanity. I am saying this because South Africa is a signatory to and has ratified the Kyoto Protocol.

Let me give you a closer look into the South African biofuels strategy. As a country, South Africa has a land size of 120 million hectares, much smaller than China, much smaller than Brazil. However, South Africa is not different from most European countries since it has 14 million hectares of arable land available, of which 22 percent, or less than 3 million hectares, are of high agricultural potential. Only 1.3 million hectares are under irrigation, which mainly stabilize food crop production, particularly during times of drought. Irrigation is also necessary

for the production of most export products. I know this is the situation in most developing countries, if not worse.

Our rainfall map: the average rainfall in South Africa is 415 millimeters per annum with a variation of 1,200 millimeters in the east and 25 millimeters in some parts of our western regions. Given the limited rainfall in our country and its erratic nature, only 8 percent of its precipitation is runoff, and a fraction of this is captured in dams. Of this fraction which is captured, 50 percent is used for irrigation.

Of the 14 million acres of arable land, up to 4 million hectares are not utilized as we speak, due to limited markets and market access. Vertical development of agricultural production has caused a situation whereby up to four million hectares of arable land are not fully utilized in any specific year. During times of drought, as experienced in the last few planting seasons, we have had to import both maize – that is, corn – and wheat to service internal demand. During average years we, however, are net exporters of food crops.

Since 1995 South Africa has adopted a free market system with no subsidies in agriculture. This has created a situation where those farmers that could adapt to the new dispensation survived, while those that could not moved out of the agricultural business. While it provided new opportunities mostly in the first economy, it actually hampered agricultural development in our second economy, that is, our rural and marginal farmers in the country.

Although South Africa is considered food secure at the national level, however, food security is not guaranteed to an estimated two million people, that is, 50 percent of whom live in our rural areas.

However, our constitution makes provision for us, particularly my ministry, to ensure for every South African access to safe and nutritious food. As a result, our biofuels strategy promotes the use of dual-purpose crops, crops that can be used for both food and biofuel feedstock. Our biofuels strategy, therefore, aims to use climate change realities to increase food security and provide renewable fuel opportunities.

Our strategy, therefore, looks into the following: the development of high potential agricultural land on the eastern side of the country that has been neglected by the apartheid regime, and that has not been used appropriately, that has not had infrastructure development, and as a result does not participate in the economic opportunities available.

We also look at increasing household food production in the rural areas in order to release additional volumes of crops for exports and for biofuels. We believe if we're able to increase food production and have a surplus, there will be no question of food insecurity because of biofuels. We also believe that, if we go into the rural areas where there is no production – perhaps because of lack of infrastructure, lack of resources and so on – we will be able to grow that rural economy; we will be able to create jobs for our rural communities; and we believe we will be able to put cash in their pockets.

Whether we like it or not, the price of corn has gone up, the price of wheat has gone up. Europe is into biofuels, the U.S. is into biofuels. And as a result, our food prices are escalating.

So whether Africa comes into the biofuels industry or not, food prices are still going to go up, because the entire world is going into biofuels. So at this point in time, wisdom for all of us would be to go into biofuels and by so doing increase food production, increase production, and create jobs for our rural communities, for our marginal farmers, and therefore enable them to afford food on their tables as well.

We also believe that emerging farmers in our rural areas who, in general, have been excluded from the grain market due to the economies of scale, given higher input costs of up to 30 percent and long distances from that market, will have an opportunity and a new market with introduction of biofuels.

Given our environment and circumstances, we strongly believe that the biofuels initiative will bring about: the creation of new markets for both commercial and emerging marginal farmers; the creation of jobs and economic opportunities for all. And showing effective and efficient utilization of our natural agricultural resources, improving the socioeconomic status of our small towns and rural communities in production areas, improving economic viability of agriculture, both crops and livestock.

As we speak now, agriculture is going down in terms of production and our contribution to the GDP in my country. But we believe through the introduction of biofuels, agriculture will begin to grow in terms of the impact in the economy. We also believe that through this initiative, we will be able to improve food security for many of our communities.

As I indicated earlier on, South Africa favors crops that can be used for both food and biofuels production. This is in the light of also providing and ensuring food security in the southern African development region and sub-Saharan Africa. As we speak right now, we are having a biofuels conference in Johannesburg where countries from various parts of Africa are participating.

We believe that South Africa cannot go into the biofuels program alone. Our neighboring countries – Malawi, Mozambique, Zimbabwe, and many other countries in Africa – should also participate in the biofuels program, if we are going to ensure the growth of our rural economies, job creation, and also be able to ensure food security in all our countries. This is in the light of ensuring that with food security being the main target, surplus crops can either be exported if the price is acceptable, or they can be transformed into biofuels, if this provides better economic opportunities for our people.

Crops identified for ethanol production in South Africa include sugarcane and maize (or corn) at present production levels; and others such as grain sorghum and sweet sorghum, depending on research and development results in the medium and long term.

Crops identified for biodiesel production include soybeans and sunflower at present production levels. Other crops may be used based on adequate information on their economic viability and environmental sustainability. The initial thinking is to use existing crops that can be grown economically in different parts of the country and to improve varieties, develop new crops, improve crop production practices and processing technologies, in order to enhance efficiencies in the total value chain.

In this regard, we have been working very closely with Brazil, who are the pioneers and the biggest bioethanol producers in the world today. We have had exchange programs where we are learning from their experience but are also working closely with India to ensure that we can also learn from some of the new technologies that are being developed there.

Given the variable production capacities throughout the country, South Africa is promoting a multi-feedstock approach to biofuels. This implies that biofuels production facilities must be able to utilize a variety of crops as feedstock. We are also saying the plants or facilities for biofuels production must be where the people are. They must not be in Johannesburg or Cape Town, because we don't produce sugarcane there, we don't produce soybeans there. They must be in the rural areas, where the farmers are, so that we can ensure that they don't have logistical challenges and transportation costs, and are also able through cooperatives to participate and have a shareholding in the plant producing bioethanol from their stock.

We are also saying that we must be aware that there will be quality issues, and research must be ongoing to assist our farmers to get the best quality crops and the best ethanol, bioethanol and biodiesel at the end of the day.

We have decided that, to establish a viable, moderate biofuels industry in South Africa, it is necessary that the total value chain survives. For this to be realized, a new balancing point regarding specific crops' supply and demand must be reached. While it is possible for rich commercial farmer to change quickly and adapt, depending on the price of sugar and the price of fuel or bioethanol, into the new market environment, it is not so easy for poor, marginal farmers in most developing countries.

Currently our big commercial farmers are critical for food security in the country; hence, South Africa has to ensure that we don't take them from the food market into the biofuels industry. This is partly the reason why it has taken us a bit longer than anticipated to establish the biofuels industry in our country. It also shows our seriousness about food security, both within South Africa as well as in the SADC region and sub-Saharan Africa as a whole.

To enable us, therefore, to empower the emerging marginal farmers for this and prepare them for this new biofuels industry, comprehensive development support is required in order to facilitate the production of adequate volumes of crops for food security and feedstock for biofuels. And I would like to reassure you that the South African government is committed to give the necessary support to our farmers to enable them to participate in this new challenge.

This means that our government has to come up with support programs that will unlock the production potential within the rural communities, which has its own challenges and opportunities.

We are also saying that we need to ensure that there are incentives, there is the development of the necessary infrastructure to ensure that our farmers are enabled to participate in the biofuels industry.

In conclusion, you will agree with me that the biofuels-versus-food security is not an easy topic to address. At the same time, it does not require a rocket scientist to suggest the following:

One, biofuels should not compete with food at any given time, as this will bring about instability in our societies. Food security is not equivalent to food sufficiency but includes the ability to purchase food. Biofuels production should not lead to environmental degradation, as this will be a counterproductive exercise in the light of the Kyoto Protocol.

I also want to emphasize again that to me biofuels are not an interim solution to the current situation. A greater breakthrough is awaited to comprehensively address the challenges faced by humanity concerning climate change.

What is most important for all of us here is that we must all commit, especially the developing countries. They have to commit to Kyoto, especially because they have the means to do so. If we, as poor developing countries, are beginning and have committed ourselves, I don't think all of us in the developing world are not in a position to do so.

Taking all that I have said into account, we cannot take the backseat and do nothing out of the fear of the unknown, as our minister from Brazil has said. However, whatever we do, we must make that the benefits outweigh any risk that might occur. To me, therefore, it is unthinkable that the world can expect Africa to venture into nonfood crops as feedstock while Africa is caught up in food insecurity trap.

Production and increased production is the answer to food security, because it will ensure a surplus that will give us exports that we can redirect into biofuels.

I thank you.