

Transforming African Agriculture in a Climate of Global Change

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Your Excellency Joaquim Chissano, former President of the Republic of Mozambique, Dr. Trevor Nicholls, Chief Executive Officer of CABI, distinguished participants, ladies and gentlemen: Good morning! I would like to begin with a special thank you to CABI for inviting me to address this distinguished audience. CABI's mission of improving people's lives through applying scientific expertise to solve problems in agriculture and the environment has never been more vital.

I bring you greetings from Mr. Kofi Annan, Chairman of the Alliance for a Green Revolution in Africa (AGRA), who wholeheartedly endorses your efforts to focus global expertise on the issue of food security in this climate of change. It is such a great honor to speak after Professor Rudy Rabbinge, one of the world's leading science leaders who has done so much to use science to impact lives of the poor. He is also a member of the Board of AGRA.

Let me be clear from the onset: while many challenges remain, good news is coming out of African agriculture. Change is underway—on many fronts. Let me begin with some spectacularly good news: According to the United

Nations' Food and Agriculture Organization, food production in sub-Saharan Africa grew in 2008 for the first year in decades. It rose 3.5 percent, faster than Africa's population growth of 2 percent.

This breakthrough reflects the emergence of a uniquely African Green Revolution! It was driven in part by an increased use of agricultural technologies—especially locally adapted, high-yielding seed and fertilizers (both organic and mineral) —and encouraged by several African governments that have implemented policies that support their smallholder farmers.

Ladies and gentlemen, we must ensure that it is not a temporary anomaly, but the beginning of a long-term trend that will lead to a food secure and prosperous Africa! This is the mission of AGRA - a mission shared with so many partners here in this room, across Africa and around the world.

Africa's Green Revolution will enable our farmers to grow much more food: food enough to end the hunger faced by 220 million women, men and children and to provide for a rapidly growing population. And it must do so while coping with climate change, protecting the environment, and promoting equity.

Africa's green revolution must be unique to its needs and environments: focus on diverse range of crops, encourage biodiversity, assure environmental sustainability – and focus on the needs of smallholder farmers.

In Africa, more than 30 million farmers—the majority women—cultivate fields of under two hectares. Most do so with little more than some saved seed and a hoe. Everywhere farmers turn, they find roadblocks: lack of land security, finance, extension, farm inputs, and markets – the list is long. And longer still for women farmers, who must also contend with restrictive policies and societal practices.

The hurdles may be many, but African institutions and their partners are up to the challenge: developing innovative solutions that could help change history.

Let's talk about emerging solutions in five major areas: science and technology; markets; policies; finance; and climate change.

1. Science and technology

Scientific discoveries and innovations in Africa – driven by national institutions and the Consultative Group for International Agricultural Research (CGIAR) - are unlocking the yield potential of African crops. Successes now abound: This includes the New Rice for Africa (NERICA), the Drought Tolerant Maize for Africa (DTMA), tissue culture bananas, and high yielding cassava varieties. And it includes hybrid sorghum – for which an African (Dr. Gebisa Ejeta) was awarded the World Food Prize last week. The challenge is how to get these critical farm technologies to farmers. In many parts of Africa, it is easier to find Coca Cola in rural areas than to find improved seeds and fertilizers.

Transforming this will take system-wide change – and it is underway.

Take the seed sector: while only a small minority of farmers uses improved seed, the number is increasing. AGRA's seed program has already trained over 100 African crop scientists; funded some 40 crop breeding programs; steered the development of 65 new crop varieties into the field; and provided start-up capital for 32 African seed enterprises which have collectively produced approximately 6,000 metric tons of certified seed.

Nearly all these seed producers have sold 100 percent of their seed. Most could have sold more. This indicates both the huge gap and the strong demand for high-yielding, disease and drought resistant varieties of Africa's staple crops.

The situation is similar with technologies to improve soil health. This vital effort is scaling up integrated solutions across the value chain: from local fertilizer blending, efficient use of organic and inorganic inputs and expansion of nitrogen fixing legumes and low-till farming.

AGRA is supporting a new partnership to use innovative tools to map Africa's soils and develop a digital soil map for Africa's soils. Combined with detailed local knowledge of farmers, it will improve development of environmentally sound land use practices.

AGRA is also promoting a vibrant new branch of Africa's private sector: village-based agro-dealers, small rural businesses that improve the access of farmers to farm inputs.

In almost a dozen African countries, AGRA and its partners have helped to train and certify 5,000 agro-dealers. Results have been remarkable: In 2008 alone, these agrodealers sold \$45 million worth of seed, fertilizers, and crop protection products to rural areas - while also providing information on their safe and environmentally sound use. The distance traveled by farmers to find farm inputs is being reduced significantly: in western Kenya, this dropped from 17 kilometers to only 3 kilometers.

Agrodealers are part of a market revolution on its way in Africa, based on local solutions.

2. Markets

The market revolution must also connect farmers with buyers. There is potential \$150 billion intra-regional market for food crops in Africa; but little of what farmers produce moves beyond their own households. And too much of what Africa produces is lost after harvesting.

Good government policies would help. For example, African governments could establish *staple food crop processing zones*—just as they encourage export free zones for textiles. These processing zones should be well supported with infrastructure, especially rural energy, roads and water. Processing businesses should be encouraged with tax breaks. This would create rural jobs, reduce costs of transporting bulky staple crops, reduce post-harvest losses and allow African countries to transform their staple crops into new sources of incomes.

We must also promote small scale agro-processing and small businesses that add value to farm products. This will make a huge difference to women farmers, who spend very long hours preparing food: hulling, shelling, cleaning, sorting and grinding and cooking - often under the sweltering heat of coal ovens. Better agro-processing technologies can relieve the drudgery of their tasks, while adding value to their crops.

Today, the emergence of market information systems and commodity exchanges is revolutionizing markets for farmers – helping them to understand market demands and meet grades and standards. Kenya, Ethiopia and Malawi now have functioning commodity exchanges, supported with warehouse receipt systems, opening up new opportunities for greater price stabilization and intraregional trade.

We must use the mobile phone revolution sweeping Africa to amplify this market revolution. Africa has the highest rate of mobile phone penetration in the world. Its subscriber base is projected to grow to over 350 million by 2011. Uganda and Kenya are projected to achieve 100% market penetration. Connected on mobile phones, farmers in isolated areas can get market information, negotiate and trade.

But the opportunities for Africa's farmers must not be bounded by borders. To truly prosper, they must also have access to markets in developed countries.

Africa accounts for less than 2% of total global agricultural trade, a drop from 6% in 1990. We must reverse this trend, and reform global trade rules to enable African farmers to trade as equal partners on the global market.

3. Policies

But none of these would dramatically change the fortunes of farmers, unless there are bold enabling policies to support farmers.

Today, Africa's farmers are the least supported in the world. In the US and Europe, for example, farmers receive abundant support: in the form of research, finance, market forecasts, disaster payments and more. Huge export subsidies ensure their global competitiveness. When the food crisis hit two years ago, nations from China to the India rallied to support their farmers, putting up billions of dollars in farm support.

But in Africa, most farmers remained abandoned to the forces of the market.

While global commodity prices rose and foreign markets needed food, African farmers were unable to help supply that food. It was a lost opportunity.

Instead, Africa was hurt. Fertilizer prices jumped; yields dropped; food imports soared and food price hikes hurt consumers. Oddly enough, African farmers who are supposed to produce food were being fed with food aid. What a travesty.

We need a new policy deal for African agriculture. We must replace these 'policies of abandonment' of farmers with policies of support. An African policy consensus is emerging: I call it "***Growth Enhancement Support***" for farmers.

Growth Enhancement Support aimed at helping resource poor farmers obtain quality seed and fertilizers has helped transform Malawi from a net importer to a net exporter of maize for four years running. It has fueled a national economic growth rate of seven percent, even in the midst of global financial crisis.

This is not an isolated success. A similar approach is transforming farms across Tanzania. Last year, 700,000 smallholder farmers in the Southern Highlands produced five million metric tons of maize, more than any other region of the country. The World Bank took note, and will provide some \$160 million to scale up the government's input support program. Such is the power of locally directed change.

In Rwanda, policies which increased farmers' access to quality seed and fertilizers boosted food production by 15% in 2007 and by another 16% in 2008. These efforts have improved Rwanda's food security, even as 20 million people in neighboring countries must depend on food aid.

At the same time, there is no single policy solution for promoting smallholder agriculture. Governments must also invest heavily in public goods, especially extension, rural roads and irrigation.

There will be trade-offs. But one trade off we cannot afford is to leave our farmers with no support. Africa cannot become the world's largest museum of poverty. And we cannot sustain democratic gains on empty stomachs.

The new *Growth Enhancement Support* must be evidence-based, locally-driven, action-oriented, impactful and sustainable.

To this end, with \$15 million support from the Bill and Melinda Gates Foundation, AGRA launched last week a major policy initiative to help revitalize African agricultural policy institutions; train a new generation of policy analysts; and strengthen the capacity of African policy think tanks and agricultural parliamentary committees to drive policy change. Our goal is clear: empower African policy institutions and give voice to African farmers.

4. Resources and finance

But African countries must lead. Under the Comprehensive African Agriculture Development Program (CAADP) led by NEPAD, African governments agreed to dedicate 10 percent of national budgets to agriculture - in pursuit of six percent annual agricultural growth. Progress has been slow, but meaningful. So far, seven countries have met the 10% budget target, but many more countries are stepping up to the plate.

AGRA fully supports CAADP, and works closely with NEPAD. Our mutual resolve is clear: the 6% growth target set for CAADP can only be achieved if there is a uniquely African green revolution – one that drives accelerated growth in the staple food crops sector.

Indeed, it is critical that African countries meet their CAADP commitments. Doing so would infuse at least \$20 billion a year into agricultural development from national budgets.

This is more than half the US\$39 billion a year that the International Food Policy Research Institute estimates is needed to transform African agriculture.

Much of the rest of these funds must come from international partners, including the United States and the other members of the G8 and the G20 who have together pledged \$22 billion in development aid for the world's poorest farmers.

But new monies cannot fund things in the old way! They must be directed to help Africa achieve its green revolution! This includes investments in Africa's infrastructure: its transport, energy and water supply systems.

Africa is not asking for massive aid, but it expects smart aid - one that unlocks domestic financing.

Such public investments, whether by African governments or global partners, must also be complemented by private investments. Therefore, AGRA is working with partners to unlock new financing – at scale- from Africa's commercial banks in support of smallholder-based agriculture.

It makes sense: while the economies of several African countries have grown by an average of 5-6% in the past five years, this wealth is concentrated outside of agriculture. Less than 1 percent of available domestic private sector financing goes to agriculture - a disturbing fact given that the sector accounts for 35 percent of the regions' GDP.

Lack of access to affordable finance is a huge obstacle for Africa's smallholder farmers and agricultural businesses.

There is good news: AGRA's Innovative Financing initiative has used \$16 million in loan guarantees to leverage \$170 million in affordable loans from commercial banks in Kenya, Uganda, Tanzania, Ghana and Mozambique.

It works by reducing banks' risks of lending; developing appropriate financial products for farmers; improving the performance of agricultural markets; and improving farmers' financial literacy.

AGRA is now working with partners to develop a syndicated loan guarantee facility that will leverage 1 billion Euros from commercial banks into smallholder agriculture value chains.

5. Climate change

Although Africa contributes less than 4 percent of global greenhouse gas emissions, it must now be prepared to bear the brunt of climate change. The continent's heavy reliance on rain-fed agriculture makes it especially vulnerable to the changes ahead. Rising temperatures and altered weather patterns could cut yield by up to 50 percent in some countries.

If left to run its course, climate change could spell disaster for Africa's smallholder farmers and the emergent African Green Revolution.

We cannot allow this to happen. We must move urgently to help smallholder farmers adapt to climate change and mitigate its effects.

This must include development and dissemination of drought and flood tolerant crops, small scale irrigation, and water harvesting to get the highest buck per unit of water, and scaling up access of farmers to weather-indexed crop insurance.

It is in Africa's own interests to develop our agriculture as a diverse, high-productivity, low-carbon system that benefits our farmers, our economies and our environment.

At the same time, the world must recognize that a sustainable African Green Revolution is a key solution to climate change.

African farmers can increase food production without cutting down more forest - while replenishing the soil and sequestering carbon. Policymakers should provide incentives for farmers to do so.

One solution would be to float carbon bonds on national and regional stock markets. Investors, both local and international, would buy the bonds, and governments could use the income to compensate farmers for the costs of more intensive farming, and pay them for the public benefits of avoided deforestation, carbon sequestration and forest conservation.

In Copenhagen (COP15) in December, as the world discusses options for address climate change, we must fully include African agriculture at the top of the agenda. And we must insist that the global carbon market supports sustainable farming practices which must be at the heart of a sustainable, uniquely African Green Revolution.

Conclusion: linking it all together

Each one of these five areas - science and technology; markets; finance; policy; and climate change adaptation - must all work together. And we must invest comprehensively across the entire value chain.

To do so most effectively and achieve higher impacts, we must marshal critical masses of resources where they will make the biggest difference: in Africa's high-potential breadbasket areas. There, public-private partnerships with farmers' organizations and civil society can work together to grow more food, sustainably and efficiently. We must accelerate the pace of investments in infrastructure in these breadbasket areas.

African farmers have waited long enough. The day for Africa's Green Revolution has arrived. The solutions in hand must take root in farm fields across Africa, in parliaments across Africa, and in the hearts and minds of a global citizenry standing on the cusp of history. We can unlock the power of Africa's smallholder farmers to create a food secure and prosperous continent.

Let us join hands to make agriculture a source of wealth that will transform the future for millions of Africa's children. Let us together hasten the coming of the day when our fields are filled with plenty; when our barns overflow; when our children dance in our fields; and when the uniquely African green revolution is achieved. It will change the world.

Thank you very much.