

Food Crisis: Political will needed for scientific solutions to reach African farmers

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Political will, more than genetically modified technology, is now needed to move available scientific and technological options to African farmers' field, Dr. Papa Abdoulaye Seck, Director General, Africa Rice Center (WARDA) has said. Addressing a joint press interview on the current food crisis together with Dr Dennis Garrity Director General, World Agroforestry Centre, Dr Marianne Banziger, Director, Global Maize Program, International Maize and Wheat Improvement Center (CIMMYT), Dr Seck said "giving seed, fertilizer to farmers at affordable prices and mechanization of African agriculture however are". According to Seck, Africa's potentials for enhanced food production are multiple and include availability of modern technologies, large tracts of land and underutilized water resources. "Studies by the Africa Rice Center and its partners have shown that yield gains from 1 to 2 tonnes per hectare can be obtained in irrigated systems and lowlands thanks to the use of integrated crop management practices without any significant increase in production costs", he said. In the medium- and long-term, Dr Seck said tax on all critical inputs, on-farm cost-saving agricultural machinery and equipments and post-harvest technologies for all players along the rice supply chain need to be reduced. "Governments have also key roles to play in facilitating access to financial services and credit for stakeholders in domestic the agricultural production sector; increase investment in water control technologies; expand the crop areas under irrigation; increase investment in regional research capacity to support the development of new varieties resistant to major pests and diseases and sufficiently robust to withstand drought and climate change-induced shocks; and accelerate the pace of investment in rural infrastructure as road, transport, storage facility and communication infrastructure which would enhance farmers' capacity to response to market signals and improve their access to market. According to Dr Banziger said, to make agriculture productive and the basis for thriving economies and widespread income generation for more than 70 percent of people in Africa who rely on agriculture for their livelihoods and food security, governments and funding agencies must make consistent and increased investments in agricultural research for development, in effective markets, in value-adding industries, and in decentralized access by farmers to information and new technologies that give high returns without environmental damage. Challenges About 75 percent of the farmland in sub-Saharan Africa is plagued by severe degradation, losing basic soil nutrients needed to grow the crops that feed Africa. Vast areas of agricultural land in Africa are succumbing to the subtle threat of soil fertility loss. According to Dr Garrity says sharply increasing fertilizer prices further limit the choices of African farmers and push them to clear more forests and woodlands for cultivation. African farmers apply, on average, only 10 percent the amount of soil nutrients used in the rest of the world. Barzinger says maize harvests and prices in eastern and southern Africa have been affected by social conflicts, poor weather extremes, and lack of effective markets, compounding global trends. In southern Africa, current prices of maize are well above their corresponding levels a year earlier. In South Africa, the March 2008 price was 13% percent higher than a year ago. In Mozambique, the price in March of maize 8.57 per kilogram was 43% higher than for the corresponding month in 2007. In Kenya, the post-election crisis has reduced food supplies for normally food-secure households. About 830,000 people currently require emergency assistance, and food availability will be below normal due to disruptions in planting activities for the 2008 long-rains harvest. In Uganda, food prices have increased unseasonably, due to local and regional demand and high transport costs. Potentially high demand from Kenya could maintain upward pressure. The food security situation in Zimbabwe is critical, as the country passes through the peak of the hunger season. Maize crops were damaged by flooding in late 2007-early 2008, and are now threatened by drought. Of the estimated 1.03 million tons of cereal imports required for the marketing year of April 2007-March 2008, as of late March some 80% had been imported. High inflation, dwindling foreign exchange reserves, and rising food prices are affecting supplies. Yet all these happen against the background of numerous scientific and technological solutions. Possible solutions According Barzinger, existing science and technologies need political will to find their way into farmers' field. Part of the solution to this problem, says Dr Garrity, lies in innovative policies and practices to foster more efficient use of mineral and locally-available organic sources of nutrients. African farmers need to be able to draw from a range of low-cost, pro-poor options. These include the integration of multipurpose grain, tree and forage legumes into African farming systems, and better management of animal manures. Another promising approach is the use of "fertilizer trees." According to Garrity, research from the World Agroforestry Centre confirms that farmers who plant leguminous trees can easily double their production of basic cereals. The trees siphon large amounts of nitrogen from the atmosphere and transfer it to the soil where it can be used by crops. The trees provide much the same benefit as mineral fertilizers and greatly improve soil quality by stimulating natural biological processes essential to soil health. Fertilizer trees are used throughout Southern Africa where they have been tested by an estimated 400,000 farmers, principally in Zambia and Malawi.