

PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

African farmers look to the future with a sense of urgency and quiet resolve

Concern about the impact of global warming on African farmers and the question of who is going to feed Africa in 2050 are issues that were on the minds of many people that Harwood met with on his recent trip to Botswana, Tanzania, and Senegal. The discussions were wide ranging, but in the end he found consensus on ways to approach these issues.

Often concern about global warming was expressed in the form of a lament: “To survive, we are forced to address an issue we had little role in creating.” Africans noted that they are not having a debate about whether or not global warming is human induced (<http://tinyurl.com/p9xo4v9>). Because they have to deal with the increase in weather extremes that scientists have seen as the result of a rise in the mean annual global temperature—increased variability in rainfall, temperature, and the arrival of monsoonal rains—the question becomes, “What can we, as humans, do to mitigate and/or adapt to the uncertainty brought about by these extreme conditions?”

Farmers and rural communities are answering that question by adopting technologies that help them sequester carbon and reduce the already small amount of fossil carbon that they are responsible for releasing into the atmosphere.

In Senegal, communities like Guédé Chantier are conducting pilot projects in finding low cost ways to install bio-digesters that produce methane gas that can be used for household cooking (<http://tinyurl.com/nepalvc> and <http://tinyurl.com/oxkt5h7>). By using human and animal waste along with plant matter to fuel the bio-digesters, they are able to reduce the cutting of trees for firewood. This improves the lives of women by eliminating their exposure to soot during the cooking process as well as the chore of gathering wood.

Instead of being felled, trees are able to grow more numerous, larger, and for a longer period of time providing a low-cost means of long-term carbon storage. As forests and trees along waterways recover, they will create micro-climates that reduce the impact of heat and wind on crops, livestock, and humans alike.

Rural communities like Bacoumbel, Senegal are

installing solar panels to meet their need for electricity, reducing the amount of diesel fuel needed for electrical generation.

Farmers are identifying ways to modify their agricultural practices and improve the health of their soils. This allows them to reduce the need for farm chemicals that use fossil fuels in their production and transportation. It also increases resilience in the face of weather extremes.

When Harwood raised the question of who was going to feed an increased African population in 2050, the resounding answer was “African farmers!” (see also <http://tinyurl.com/18lhy3v>). Like farmers everywhere, they want to feed their local populace.

Indigenous agricultural practices are often based on a keen knowledge of local conditions and historical risks. By augmenting this experience—the result of centuries of farming in local areas—with the technical knowledge that can be provided by university researchers and agribusiness firms, smallholders can improve their yields while decreasing post-harvest loss.

They are also beginning to look at traditional agricultural crops and practices that were abandoned during colonial rule. In many cases, traditional crops and crop varieties are better suited to local conditions than those introduced in the colonial and immediate post-colonial periods, providing farmers with an additional level of resilience in the face of global warming.

The goal is to create vibrant agricultural communities that can meet the food needs of their families and as well as their urban cousins while preserving their cultural identity. With an economically and environmentally sustainable agriculture, rural communities will be able to offer their youth with a viable alternative to fleeing to urban areas in search of scarce jobs.

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