

PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

Who is going to feed Africa? African expert's answer: African farmers, one acre at a time

In her keynote speech at the 2014 World Food Prize Borlaug Dialogue (<http://tinyurl.com/ps54moe>), Dr. Emma Naluyima Mugerwa drew on Dolly Parton's song, "Coat of Many Colors," to make her point that though one acre does not sound like much, it is enough to feed a family and one acre at a time to feed the world.

Dr. Naluyima introduces herself as a smallholder farmer. As she says, "Between 4 a.m. and 7 a.m., I am a farmer. Between 7 a.m. and 11 a.m., I am a mother and a wife. Between 11 a.m. and 6 p.m., I am a vet. And, between 6 p.m. and 4 a.m., I am a mother and a wife." She then answers the question before her audience of whether or not we can feed 9 billion people by 2050 by "using President Obama's catchphrase, 'Yes, we can.'"

"If we can teach farmers how to feed themselves household by household then we have fed the whole world.... Are we producing the right amount of food with the right nutrients?" She then says, "Africa has what it takes to be the food-basket of the world.... But people are hungry, why is that?"

Naluyima then answers her own question saying, "We don't know how to cut our coats according to our clothes. If Dolly Parton's mom didn't have money, but it was winter and Dolly Parton had to go to school. So the mom had two options: to either tell Dolly Parton, 'you know what? I think I can't give you a coat. Stay home and you don't go to school. Or you go to school cold.' What she did was she got the pieces of old clothes she had and made a coat for her.

"So, in Africa our problem is we have all these pieces of land, all the tiny pieces of land, but we don't know what to use them for. We think we must get something actually bigger to do, but if we utilize exactly that we have we can actually make a very big difference. We are all millionaires, but we don't know how to cut our coats according to our clothes....

"Now the solution...is this the model for the smallholder? The model is [an] integrated farming and energy production system. This means [we need] to reconfigure our production model to optimize production, not only to increase quality and reliability of the product, but also utilize the production waste to generate other product lines and revenue systems. Now we are using the theory of symbiosis where every element is interrelated. What we do upstream impacts on what the production process is." And in her illustration

about her cow she explains that the relationships are cyclical beginning with the cattle feed.

Her farm is a one acre farm which she has divided into quarters. On the first quarter she has her home and on the next quarter she grows perennial crops. The third quarter is devoted to livestock and the remaining quarter is dedicated to fruit and vegetable production. She does that to show that someone who doesn't even have an acre can do much.

She doesn't use the land around her home to produce flowers because you can't eat flowers. Instead she has an intensively planted kitchen garden that provides her family with fruits and plants that provide the vitamins and minerals that are needed for full human growth.

The land dedicated to perennial crops provides calories while the third quarter provided protein. The last quarter allows her to grow a variety of fruits and vegetables, more than her family can eat so she has much to take to market. She uses manure from the animals to provide her with biogas so she does not have to cut wood and produce soot to cook her food. Then she takes the residue from biogas production to put on her garden. She says that no GMOs are used and what she sells is organic.

The details she provides about each quarter are specific to her situation in Uganda, but the principles are widely applicable if adapted to the agronomic and climatic conditions of a given location.

Naluyima then makes the point that we have to keep people on the land and to do that we have to start when they are young. She says that she learned farming from her grandmother when she was a little girl. To help move her community in that direction she and her husband are developing a school that teaches children about integrated farming systems within the school experience while at the same time allowing them the opportunity to learn by doing.

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