

Starved for Science, How Biotechnology is Being Kept Out of Africa by Robert Paarlberg



Review by: Joy Stoddard

As participants of the Whole Foods Market Team Member Volunteer Program embark on their journeys to Kenya and Ghana, this book is a timely read. Team Members will meet Whole Planet Foundation's microfinance partner in Kenya, One Acre Fund, an organization that believes farmers are the solution to poverty and hunger because when *"farmers improve their harvests, they pull themselves out of poverty. They also start producing surplus food for their neighbors. When farmers prosper, they eradicate poverty and hunger in their communities. One Acre Fund is growing quickly and we are proud to soon represent Africa's largest network of smallholder farmers. By 2020, One Acre Fund will serve 1.4 million farm families – with more than 6 million people living in those families. And our farmers will produce enough surplus food to feed another 6 million of their neighbors."* (www.oneacrefund.org)

Starved for Science tells us that nearly one-third of all men, women and children in sub-Saharan Africa are currently undernourished, compared to just 17 percent for the developing world as a whole (FAO 2006). African farmers are extremely hardworking – I have witnessed this personally in Kenya, Senegal and Ghana – but still work their fields by hand and with crude tools, using traditional seeds not yet improved through scientific plant breeding, resulting in low yields. Paarlberg relays how Asia employed technology in the late 1900s based on "new seeds developed through conventional plant breeding techniques, including hybridization", and lifted itself into a new economic era. Now Africa can, by being open to modern science, which could save hundreds of thousands of lives, if only Africa would embrace this approach.

In the author's view, Africa has rejected science as a solution to hunger and poverty. To explain why, Paarlberg first illustrates the high growth in farm productivity in the United States and Europe, given acceptance and now reliance on technology and science in these countries. Modern science employed in America and Europe lead to a lower need and lack of interest in further agricultural science investments, causing these governments to cut back at the same time they were rejecting food GMOs out of fear. Influenced by colonization, history and

regulations, Africa followed suit and embraced this downgrading of agricultural science despite perilously low crop yields. For example, “in the US in 2005, farmers planting maize harvested an average 9.3 tons per hectare of land, while in Kenya, maize farmers harvested only 1.6 tons per hectare and in Malawi only .8 tons (FAOSTAT 2007)”. Paarlberg tells us that in the United States, “an agricultural worker’s annual value was \$37,000 and rising while in sub-Saharan Africa that year it was \$379 per year”. Paarlberg presents that rich countries prefer to avoid agricultural GMOs even while consuming GMOs in medicine, because the drug solutions are needed but food is abundant.

Starved for Science explains how on top of regulatory challenges around importing/exporting GMOs, international assistance in the form of multinational institutions, NGOs and philanthropic support have failed to deliver meaningful hunger relief for Africa – which Paarlberg says needs technology, not food aid, and that even help from well-meaning foundations like the Bill and Melinda Gates Foundation, as well as numerous celebrities, has not been able to empower African farmers to produce higher yields. Even the challenge of drought throughout most of Africa, with irregular annual rainfall patterns, could be mollified by technological advances. The author asks are drought-tolerant crops intended only for the rich?

Paarlberg urges everyone to consider that adequate food supplies at affordable prices would end hunger in Africa. He argues that indeed it is not that Africa is unwilling to adopt modern science, but that America and Europe and their regulations, not the citizens of Africa, that are keeping it out but instead its political leaders. Yields high = poverty low.