



Feed the Future Country Fact Sheet

Online Version: <https://www.feedthefuture.gov/article/using-modern-agricultural-technology-increase-production-food-security-and-profitability>

Using Modern Agricultural Technology to Increase Production, Food Security, and Profitability

As I learn more about the Khmer language, I am amazed by the number of proverbs that relate to agriculture. One of my favorites is “Riding a buffalo across mud is easier than swimming,” which essentially means that you should take advantage of the resources at your disposal rather than making things more difficult for yourself. That proverb kept running through my mind during a recent U.S. Embassy-organized seminar that focused on the challenges facing the agricultural sector and possible solutions using modern technology. How can Cambodia “ride the buffalo” towards increased production, higher incomes for farmers, improved nutrition, and better food security?

Agriculture is the most important sector of the Cambodian economy. It employs almost 80 percent of the population and in 2012 amounted to 36 percent of the country’s Gross Domestic Product. Yet over 34 percent of Cambodian children are malnourished and 70 percent of producers are engaged in near-subsistence farming. While Cambodian jasmine rice won the award for World’s Best Rice at the 2013 World Rice Traders Conference in Hong Kong for the second year in a row – a terrific accomplishment – much of the sector’s potential remains untapped.

One of the primary constraints to increased productivity and profitability stems from the limited use of modern farming technology, equipment, and inputs. For example, although effective irrigation technology is available, Cambodian agriculture continues to rely heavily on fragile rain-fed systems focused on paddy rice production. The use of modern equipment could also make harvests more efficient and help to move produce to market more quickly and in better condition. Finally, modern agricultural inputs such as seeds, agro-chemicals, and fertilizers can dramatically reduce losses. I recently read that up to 40 percent of the world’s potential crop production is lost annually due to the effects of weeds, pests, and diseases.

These solutions are within Cambodia’s reach. The adoption of modern technology such as “precision farming” – a new technique that boosts crop yields and reduces waste by using satellite maps and computers to match seed, fertilizer, and crop protection applications to local soil conditions – can pay for itself. This is farming in the 21st century, and it is technology that is accessible to all farmers, not just those in the United States. Precision farming also offers greater export opportunities as we’ve seen in the United States, where one-third of farm acres are planted for export, resulting in over \$140 billion in U.S. agricultural exports in 2013. Moreover, modern farming does not necessarily mean corporate farming – 97 percent of all American farms are still operated by individuals, family partnerships, or family corporations.

So how can Cambodia ride the buffalo across the mud? By utilizing proven modern farming techniques and science-based solutions, which are readily available in Cambodia, farmers can increase productivity, efficiency, and profitability as well as reduce malnutrition and enhance food security. These techniques also pay for themselves. The increased productivity, even for small land holders, means that they can afford many of the needed inputs. For more expensive equipment, farmers have the option of pooling their resources to share ownership.

The United States is also providing scientific expertise and assistance to Cambodian producers. Under the U.S. government’s Feed the Future initiative, USAID is assisting Cambodian farmers to diversify their incomes with different crops and seasonal rotations and engaging the private sector to provide services and agriculture inputs such as fertilizers and farming tools. Over the past three years, USAID programs have led to increased productivity and incomes for thousands of small-scale rice farmers. USAID also supports the global research of the International Rice Research Institute, which is helping to develop new rice varieties and crop management techniques to improve production and sustainability worldwide. All of these efforts are helping the agricultural sector grow into a sustainable business model based on modern technology.

This post originally [appeared](#) on Ambassador Todd's official blog. [Learn more](#) about Feed the Future's work in Cambodia.