



EnterpriseWorks/VITA

Fighting Poverty With Profit

The \$420 Million Water Pump

The Story Behind the Story

Readers, especially those concerned with hunger and water issues, may have noticed the huge front page photo in the Sunday edition of the *New York Times* on February 11th, 2007. The photo depicts several Nigerien boys operating a foot pump to draw water for irrigation. EnterpriseWorks/VITA (EWV) invented and adapted this Africa-friendly version of the treadle pump and introduced it into Senegal in the early 1990's, and subsequently into Mali, Niger, and elsewhere in Africa.



While the *New York Times* article references mostly tree and soil issues, quoting conservationists and researchers, this treadle pump is a key to the positive results the article describes. A viable solution for many African nations facing irrigation issues, EWV's treadle pump is made locally by EWV trained artisans and sells for less than \$60, making it infinitely less expensive than imported solutions. It requires no costly spare parts, uses no fossil fuels, and with a few hours of "treadling" per day it will multiply by three or four times the land under cultivation for small-scale farmers and entrepreneurs, increasing their cash incomes accordingly. In the last ten years alone over 60,000 farmers in West Africa have benefited from EWV's treadle pump and with an *annual* increase in income of over \$1000 this represents a global benefit to poor farmers of \$420 million over the seven year average life of the pump.

Gardeners and local manufacturers alike have built profitable businesses around this technology. Moussa Sagna, a small farmer in Djifanghor, a village of about 2,000 people near the southern Senegalese town of Ziguinchor, is one of the farmers that have benefitted from the technology. Before being introduced to EWV's treadle pump and training sessions, Mr. Sagna was earning the equivalent of \$500 from his 150 square meter garden. Today, he has nearly tripled the size of his land to 400 square meters, and is earning over \$3300 from his crops. The boost in income has made a huge difference. Mr. Sagna now employs five full-time workers to tend to his fields, and in another five years he plans to own a very large parcel of land and employ at least 10 people.

Another beneficiary is the community of Golom, Niger, a region known for its sweet peppers which are marketed in neighboring Nigeria--an endeavor that has been the community's main source of cash income for many years. As the water table dropped over the years, farmers dug deeper and deeper into the sandy soil to reach the water their plants needed to survive. With the arrival of EWV in 1999 and the introduction of the treadle pump, farmers gained access to the groundwater that is still there but too deep to reach by traditional means and the valley once again flourished. The pump, like the other steps taken and described more fully in the *New York Times* article helped to transform the regional ecology, restoring its biodiversity and productivity.



As is evident when reading the stories of Mr. Sagna, the community of Golom and those in the *New York Times* article, a simple, and affordable technology such as the treadle pump coupled with relatively small changes in human behavior helped to alleviate some of the problems facing those in rural, poverty stricken and environmentally challenged regions. Don Feil, EWV President & Chief Executive Officer, says, "It is very important for people to understand the scale and impact that a relatively simple tool can have in transforming incomes, lives, local economies, and environments, when properly implemented – this is the essence of what EnterpriseWorks/VITA does."

To read the *New York Times* article "In Niger, Trees and Crops Turn Back the Desert", by Lydia Polgreen, please visit the "In the News" page of EWV's website at <http://www.enterpriseworks.org/display.cfm?id=5&sub=9>

For More Information

Ashby Walsh
Office & Communications Manager
EnterpriseWorks/VITA
1825 Connecticut Avenue NW, Suite 630
Washington, DC 20009 USA
Phone 202.293.4600
Fax 202.293.4598
Email: info@enterpriseworks.org
www.enterpriseworks.org