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Benin Small-Scale Irrigation Project

October 1997 — January 2005

This project aims to increase the incomes of small-scale market gardeners by introducing simple cost-effective technologies for enhancing irrigation of fruit and vegetable crops. EW/Benin is currently working to establish an infrastructure for the manufacturing and sales of foot-powered irrigation pumps and hand-augured PVC-lined tubewells. In Benin, the treadle pumps are marketed under the brand name Naguézé, which means "I'm going to be on easy street" in the predominant local language. EW/Benin is training private businesses to produce and distribute these technologies and will assist in promoting them through demonstrations and advertising. To further aid producers, EW/Benin is also promoting the commercialization of several high-yield varieties of fruits and vegetables, including onions, potatoes, strawberries, and tomatoes.

Economic Participants
4,831 --- in 2001

Enterprises Assisted
901 --- in 2001

Total Monetary Benefits
$509,237 --- in 2001

Cumulative TMB
$1,185,905

Project Budget
$865,942

Primary Funders
USAID/Benin

OBJECTIVES

- Test a range of low-cost water lifting technologies, then train local artisans to manufacture and commercialize them.
- Test the feasibility of hand-augured small-diameter wells for irrigation use.
- Train 20 local metal workers to manufacture the standard treadle pump in those areas with the greatest potential for expanded irrigated production.
- Train 15 well-diggers and/or pump manufacturers to produce and install small-diameter wells.
- Market and commercialize these irrigation technologies.
- Sell 1,500 pumps and 300 tubewells over the life of the project.

PROGRESS REPORT

New treadle pump promoted during final quarter 2002. Baptized the Naguézé Kinnin, the new model is a miniature of its predecessor, lower to the ground and easier to transport. Twelve of the 23 Naguézé Pump manufacturers were trained to produce the new pump. Dozens of village demonstrations were held during the period. Television commercials advertising the new pump price of 45.000 CFA were also diffused. 42 pumps well sold during the quarter (ending January 2003).

Commercial fruit and vegetable promotion ongoing. Onion and potato sales continued in 2002, though a serious bacterial disease in the primary target market, the Malanville district, destroyed a large part of the onion production. Demand for strawberry's is very strong, but transport difficulties have hampered commercial success as some loads become overripe by the time they get to the markets. Trials of different varieties of industrial tomatoes are being conducted in and around Natitingou. The aim of these tests is to determine which varieties produce the highest yields of tomatoes appropriate for processing. The trial tomatoes will be harvested over the first quarter 2003.

EW/Benin incorporates NGO collaboration as central strategy for pump sales. The new plan is an army of independent sales agents remunerated on commission. EW/Benin has been actively recruiting field agents from local Beninese NGO's to fill this role. Memorandums of Understaning (MOU) have been signed with eight NGO's allowing their field personnel to work simultaneously as market gardening sales agents. These sales agents -once briefed- market and sell Naguézé Pumps, seed and fertilizer, while at the same time focusing on the primary job for which their NGOs pay them. Also, in all cases the NGOs operate micro-finance projects whose capital they have promised to orient toward the market gardening subsector.

Cooperation with micro-finance institutions essential for pump sales. Pump sales in the first 12 months of the project were about half of the project's sales target. The limited availability of credit contributed to these slow sales since small-scale gardeners often lack the cash - well over $100 - needed to invest in an irrigation pump. The project originally worked with VITA's Microbank to provide credit for EW/Benin clients, and had to negotiate loan requirements and their willingness to include rural farmers in their client base. EW/Benin's principal partner, as of the later stage of the project, PAPME, a local decentralized micro-finance institution, has also been engaged in providing credit to gardeners anxious to invest in their farms. EW/Benin has signed a MOU with PAPME which details the actions each institution will undertake to promote the sub-sector, and under what conditions market gardeners can access financing. Already the director of PAPME and the director of EW/Benin have toured the country to inform colleagues and partners of the importance of this collaboration.

Subsidization of manufacturers remains an issue. EW/Benin has had trouble identifying suitable manufacturing partners who do not rely on some sort of subsidy such as donated equipment or tax-free imports of raw metal. While there is no apparent danger that the project's artisans, who are well established, will go out of business when the project is completed, the long-term success of the local pump manufacturing industry can only be based on demand-driven commercial sustainability - which is not guaranteed with subsidized manufacturers.

LESSONS LEARNED

Pump sales in Benin depend on purchasers' access to credit. The project quickly learned that providing credit to clients was essential for sales made early on in the project. Just as importantly, EW/Benin focused heavily on assembling an effective distribution network, so that when the products were promoted sales could quickly follow.

Timely repayment of loans determines whether future loans will be extended. PAPME encountered difficulties recuperating loans in the Grand Popo area, just as Vital Finance experienced previously. Farmers in the region apparently do not take their financial requirements seriously and the project is considering eliminating credit access to farmers in that region.