

## Pilot Chlorination Project in Nicaragua Nears Completion

One major cause of infant mortality in developing countries can be attributed to contaminated water supplies. Compatible Technology International (CTI) with funding from the R. C. Lilly Foundation is in Phase II Testing of a low cost Chlorinator in Nicaragua.

Charlie Taflin, CTI Volunteer and former Engineer for the City of Minneapolis, developed the CTI Chlorinator after testing eight different models.

The CTI-8 chlorinator is designed for rural areas with a gravity supply of water and populations of 200 to 1000 people. The system is constructed of available PVC pipes, plates, and fittings and has a cost of construction and installation of \$100, including piping and valves. Disinfection is achieved through the use of chlorine tablets. The chlorine tablets are placed in an inverted T in a side line to the main water flow line. An outlet weir controls the depth of water in the chlorination tube. Water flows through the chlorine tablets and the flow can be regulated to provide the desired dosage of chlorine to maintain chlorine residual throughout the village of 0.5 to 3.0 mg/l.



Fred Jacob, Project Manager for CTI, and Charlie Taflin in collaboration with the Central Water Ministry for Nicaragua (ENACAL) and the Laboratories for Rural Health (TASCA) began testing the CTI-8 in the Matagalpa region of Central Nicaragua.

Phase I of the Project was the installation and testing of a single unit. Chlorine residuals were maintained within the desired levels during the test.



Phase II involves the installation and continued testing of 15 additional units. Ivan Lira, the Head of the Division of Operation and Maintenance (UNOM) of the Rural Water Division (DAR) has been very supportive of the project and the installation, personnel training, and monitoring of the additional units. Adaptation of the CTI-8 by Ivan Lira of UNOM to systems with higher flow rates and for pumped water system, if proven, will allow much greater application of the system.