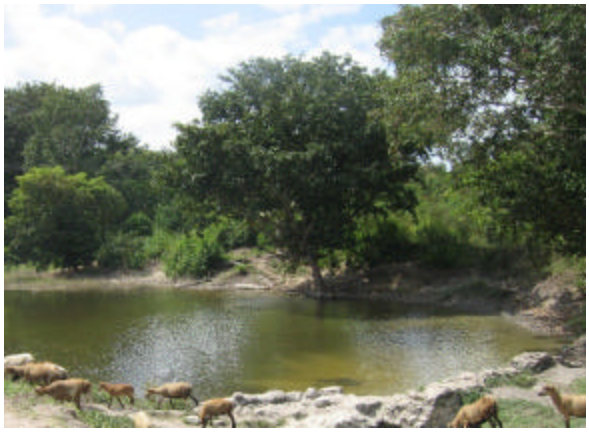
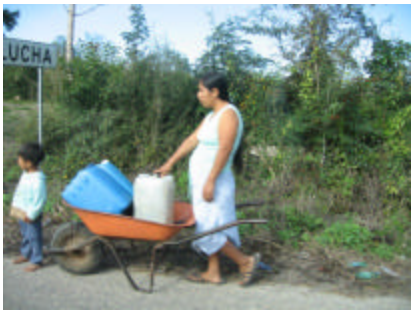
Eight Las Vegas and Pahrump Rotarians
Work on a Humanitarian Mission
February 2006

The residents of Southern Nevada fret about whether enough water will be available to furnish their needs and the needs of the 6,000 plus new residents moving into the valley each month. Most residents think that the water running from our faucets doesn't "taste" very good and there are complaints about the number of days each week that residents are allowed to water their yards.

Now, imagine living in a place where water does not flow from a faucet and by necessity drinkable water must be purchased in bottles and people pray that there will be enough rain to provide for their meager crops. In the Mayan Chol village of Manuel Castilla Brito, Campeche, Mexico located north of the Guatemalan border in Mexico's Yucatan peninsula, women and young girls walk daily, often times more than a mile, to a depression in the land that collects rain water to fill their 5 gallon containers for cooking, washing clothes, bathing and most times for drinking. Although the water in these depressions looks clear, I remember seeing goats and pigs walk and drink of the same water that was collected for household use earlier the same day.



During our daily trips to the village, we passed 4 separate areas where water was standing and this was the clearest water. Here are pictures of the other standing water areas.



The village women and young girls collect their water from the closest body of standing water and cart it back to their homes using mostly wheel barrels, although some carried water in their tricycles or bicycles. We did not know how far their homes were from the water but it was at least a mile before we saw any homes near where this picture was taken.

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Rotary International members in Las Vegas started working to fund the building of concrete water collecting cisterns as a way of providing families in the village of Manuel Castilla Brito with a viable, renewable source of potable water. This area of Mexico has no lakes, rivers, streams and the water table is too deep to drill wells. The Mexican government provided a below ground metal cistern so that these villagers could have a source of rainwater nearby; unfortunately this cistern requires a pump which is usually broken and/or requires gasoline to run. The nearest gasoline station is more than 10 miles away and there are very few motorized vehicles in the village. This type of communal cistern is also prone to leaks and is very difficult to repair because the collecting pool is underground. Individual family concrete cisterns with a capacity of 5,200 gallons have proven to be a much more reliable source of potable unpurified water.

An American missionary living in the area for the last 10 years, Todd Luke has made it his goal to improve the lives of these villagers. Through donations obtained primarily from United States Presbyterian churches, Todd has been able to build 45 concrete cisterns in the village of Manuel Castilla Brito.

Past Rotary International President, Glenn Estess, made Water Management a prime area of service for Rotarians during his 2004-2005 Presidency. The Las Vegas Southwest Rotary undertook the task of raising $30,600 so that 18 of these cisterns could benefit about 20% of the village's population. The initial funding for this project came from Las Vegas Southwest Rotary and the Las Vegas, Northwest, West, Pahrump Valley, Diamond Bar (California) and Chetumal (Quintana Roo, Mexico) Rotary Clubs added to those funds. Since there is no administrative overhead reducing the Rotary contribution, 100% of the money donated will be used for the construction of cisterns.

On February 4, 2006, a group of eight Rotarians and spouses (Tom and Donna Martin, Keith and Sherrie Thomas, Fred and Gwen Fukumoto, Adrienne Cox and Darlene Howard-Treat) traveled to the town of Xpujil, Campeache, Mexico to assist Todd Luke and the villagers with the building of the 1st two of the 18 cisterns that Rotary is funding.

Xpujil has been a truck stop for truckers coming from the western states of Mexico to the resort region of Cancun in the northern Yucatan. Lately Xpujil's economy is improving because it recently became the county seat, the Mexican military established a permanent base there and the town's proximity to Mayan ruins that can still be explored and climbed into, unlike the more famous Mayan ruins at Chichen Itza and Tulum which can only be viewed from behind restraining lines.

The town of Xpujil, like the village of Manuel Castilla Brito, has no natural source of water but the Mexican Government sends water trucks 3 times a week to fill containers located on the street outside homes with unpurified water. In order to receive water from these trucks, the inhabitants must purchase these containers. However, the Mexican Government does not supply water to the village of Manuel Castilla Brito.

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Recipients for the Rotary cisterns were chosen by a committee of local villagers. Each recipient agreed to furnish up to 90 pieces of 2" x 2" lumber 7 feet long, provide workers for their cistern, feed the workers and agree to help the other cistern recipients with the construction of their cistern. There were 12 or 13 villagers helping to construct the 2 cisterns this group worked on; the villagers worked very hard without any breaks. These workers were also learning a trade.

The lumber you see above is wood more dense than oak. The recipient of the cistern cuts this wood and squares it into 2x2's with a chain saw.

For one week, the group straightened, cut and tied rebar in a grid for the 14 ft. diameter cistern foundation. They assisted with the excavation of the foundation, removing and wheel barrowing the dirt to another part of the yard, and helped to mix and pour the concrete for the cistern's foundation and walls.

The complete construction of a cistern normally takes about 2 weeks; the foundation can be dug and poured the same day; the next day 3 ft. of the 6 ft. wall is framed and poured; the next day (or when the 1st 3 feet of the wall is cured) the 2nd part of the 6 ft. wall is framed and poured; the next day a 18" square post is framed and poured; when the walls and square post are cured, a concrete roof is framed and poured; gutters are attached to the house and connected to pvc pipe that drains into the cistern; finally a concrete trap opening is poured in the roof, the inside walls sealed with a thin concrete mixture and the inside cleaned out so that rainwater can be collected.

The dry season in this area usually runs from December to May; because of the lack of rain, each recipient is asked to limit the daily their total daily water usage to 25 gallons

for an average family of 5. The Las Vegas Valley Water District website says that the average inside usage of water is 220 gallons per day.

Some of the women in the group taught the local ladies how to construct dress patterns from butcher paper and sew dresses and outfits that were a "hit" with the recipients.

The group felt that the people in the town of Xpujil and the village of Manuel Castilla Brito were happy and content with their lives despite the lack of piped fresh water but appreciated the contributions to improve the quality of their lives.