

Final Report

Water for Mori, India Rotary Partnership Project

January 2013



Our team arrived in India after surviving a LONG trip delayed by snowstorm in London, re-routing after 9 hours to Mumbai, spending another 5 hours and transferring to Hyderabad only to learn that our delays had made the Spice Jet

transfer to Rajamundry impossible as it only goes once daily.

We arrived
in
Rajamundry
to join a
small "old"



British- remnant cab to drive 3 hours to
the rural village of Mori-Podu, Andrah



Pradash, India located on the Southeastern Delta of the Godavari
River.

We had left Costa Rica Thursday morning and arrived to Mori Podu on Sunday morning due to a combination of time-zone differences and unavoidable flight time and weather/missed flights delays. Total travel time: **61.5 hrs.** (Not to worry... return only took a little more than half of that with no troubles!)

Tired, but joyful in a safe arrival, along with high expectations for a rewarding week of intensive and varied service, we were greeted by some of the orphan children and a few staff gifting us beautiful and *fragrant Marigold Necklaces* in their tradition of friendship.



The travel down to Mori-Podu from Rajamundry was an adventure in itself. The road-conduct was not by rule of law, but rather by rule of horn and bravado with the drivers.



Along the way, sights revealed parts of the issue of the reason for the mission.

Local River Water is shared by Many Users



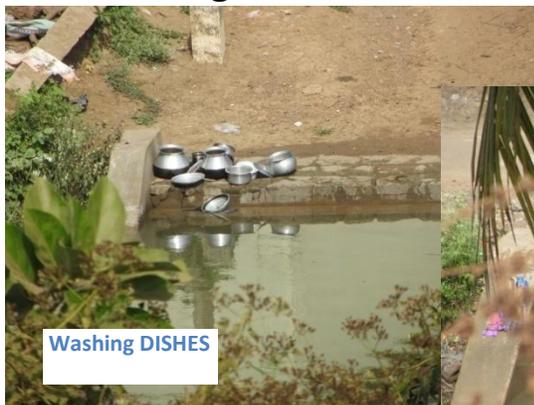
Bathing Bodies



Trash and Feeding Hogs

01 25 2013

Water usage and Sanitation concerns abounded as seen by just one contiguous portion of the river near the village.



Washing DISHES



Washing CLOTHES



Brushing TEETH

01 25 2013

Water Sanitation and Hygiene

Lessons and instruction materials had fortunately been prepared for presentation to the School teachers, village visitors,



students and orphanage staff by the Water Missions International Foundation and forged into a PowerPoint presentation by Maribel.

Layout of Water Treatment System and Distribution:

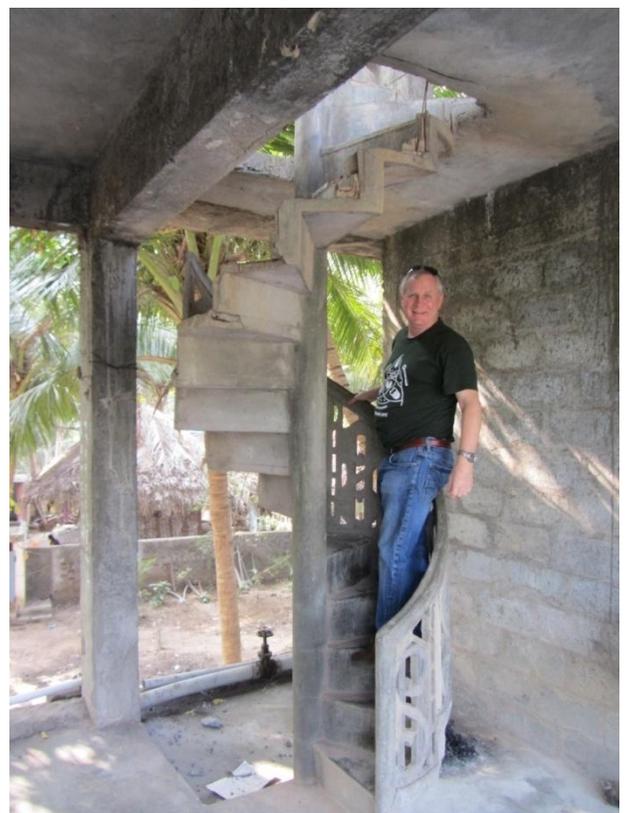
Focus goals: Hospital, Orphan Residence, School,

Mori-Podu access- faucets.

Now, how do we go from here
...UP... onto the final tower



project without modern machines and only this SPIRAL-staircase for access?



**The old fashioned way, with
hard work, and...**



PRAYER!

**The school teachers, local bus drivers, and two hired
plumber/electrician workers all pitched together to
“reach the goal”**

WATER TREATMENT SYSTEM INSTALLED IN MORI PODU, INDIA



HOISTING THE EQUIPMENT TO THE FOURTH FLOOR FROM THE SECOND FLOOR



The Hoist Team after a long day!

Final System on Fourth Level tower!



INSTALLATION OF THE WATER DISTRIBUTION SYSTEM

The clean drinking water supply is being delivered in a **separate purified water system** to reduce operations cost of the drinking water. Pipes are laid throughout the area to the various points of most effective distribution of drinking and cooking water. **(See Blue lines on Village/Campus Plan on Separate Attachment showing the Hospital, Orphan Quarters, Kitchens and Village distribution points)**. The cost of purifying cleaning and landscape irrigation water would result in a waste of energy and chemicals and thus was left untouched.



WATER TREATMENT SYSTEM ASSEMBLY WITH PUMP AND ELECTRICAL SUPPLY



The team assembled the water system components. Effort was made to have the users learn how to build



the system to assure capability to provide ongoing

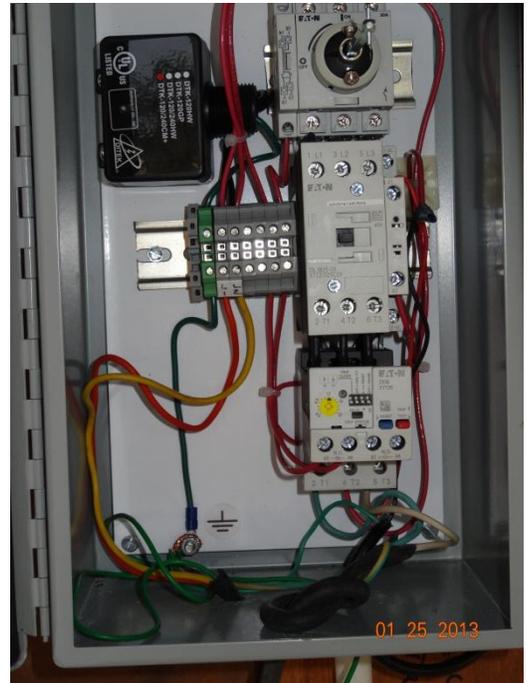
maintenance and operations. **All work was done by local labor** with direction from Dale Gray, an experienced International water engineer.



Installation of the Water Pump and Electrical Components



Explaining how to wire the pump



Finalizing the water and pump connections



CONNECTION OF THE WATER TREATMENT SYSTEM TO THE CLEAN WATER STORAGE TANK.

The 1000 gallon (5000L) tank provides a multiple day supply of drinking water to provide surge use during meal preparation and school lunch hour but also assures an adequate supply in the event of an extended power outage or destructive storm event.

Connection to Water Treatment System



Pipe run over to Storage Tank



FINAL WATER TESTING AND TRAINING PERFORMED BY SITE MANAGER UNDER ENGINEER'S INSTRUCTIONS.



Final Test Results: 0.86 NTU Turbidity (EPA Standard <1.0)

Free Chlorine: 0.2 PPM at delivery point

(Recommended level 0.2)

The system has been installed and tested and exceeds US Water Safety Standard. Testing Prepared by: Dale Gray, Executive Director of Engineering, Sustainable Outreach Solutions, Inc. (dba: SOS). January 26, 2013

Many thanks go to the Rotary Clubs of Carlsbad, Carlsbad High-Noon, Mission Bay



Rotary, Rotary District 5340 District Grant, and the India Businessmen Partners contributing through Rotarian Vinit Ahjooja and their partnership with Smiles International Foundation for the overall initiation, funding, planning and execution of this Humanitarian Project. Over **6,000** persons living in the region will be positively affected and all patients who are treated at the local Subamma Christian Hospital will

have enhanced outcomes of beneficial health.

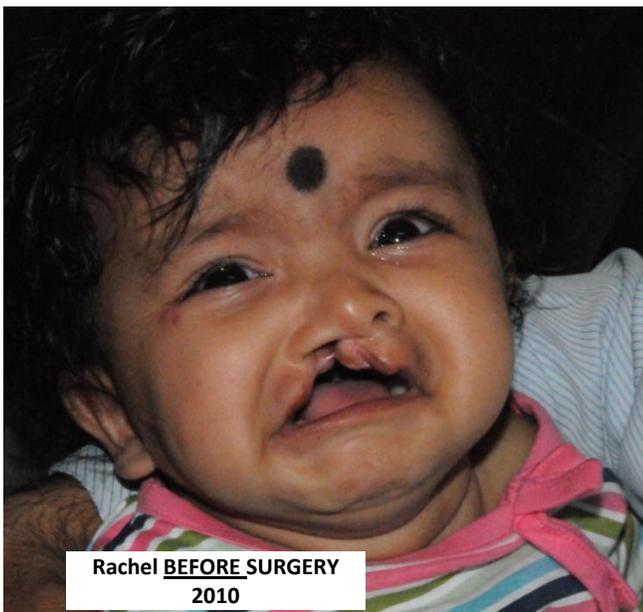
Follow-up photo on a cleft lip and palate patient during the site's screening clinic that was treated two years ago at the village hospital by the Smiles International "Smiles of India" surgical mission shows a happy father and is growing into a beautiful young child.



Above, screening and emergency Dental Outreach Clinic 2013



Happy Father of Little Rachel operated in 2010 Clinic.



**Rachel BEFORE SURGERY
2010**



**Rachel AFTER SURGERY
2013**

WATER-FOR-MORI TEAM TRIP SUMMARY

- 1. Construction, shipping, transportation and installation of (at cost) \$40,000.00 USD water purification plant to Village School/Orphanage/Regional Subamma Christian Hospital site. This provides pure drinking water to over 6,000 persons with purity levels exceeding EPA standards for over 10 Yr. expected equipment durability.**
- 2. Design and construction/installation of pure water distribution to orphanage housing, main meal preparation kitchen, residence housing, and regional Subamma Christian Hospital for supplying purified and safe water for cooking and drinking consumption, Surgical/Medical/Dental water usage.**
- 3. Postoperative screening clinic performed for patients having undergone surgical correction of facial cleft lip and palate deformities in 2010 Rotary “Smiles of India” surgical mission. Further diagnosis and continued treatment plans given.**
- 4. New patient care village outreach Dental Half-Day Program provided in conjunction with Subamma Hospital Dental team clinicians examining and treating over 54 adult and pediatric patients for dental pain and hygiene concerns.**
- 5. Separate lecture and participation symposia presented by Maribel V. Moses for Safe Water Hygiene and Sanitation Methodology for each Class of their 450 Students attending the Riverside Mori-Podu School. Additional classroom instruction given and presentation materials distributed to the classroom teacher of this school for ongoing children’s instruction in years to come.**
- 6. Self esteem training program for teacher’s instruction for student preparation throughout grade school and Junior Grade levels. Lecture material distributed/given to teachers for later usage throughout various levels of instruction for children attending school.**

Respectfully Submitted: Jeffrey J. Moses DDS, FAACS