



Water Project: **Focus on South India**

Bio-Sand Filter Project Sponsored By:

Rotary Club of Hamden Foundation, Inc.

South Asia Pure Water Initiative, Inc.

India is Colorful



India is Exotic!



India is Poor



Water is Guarded – it is Precious!

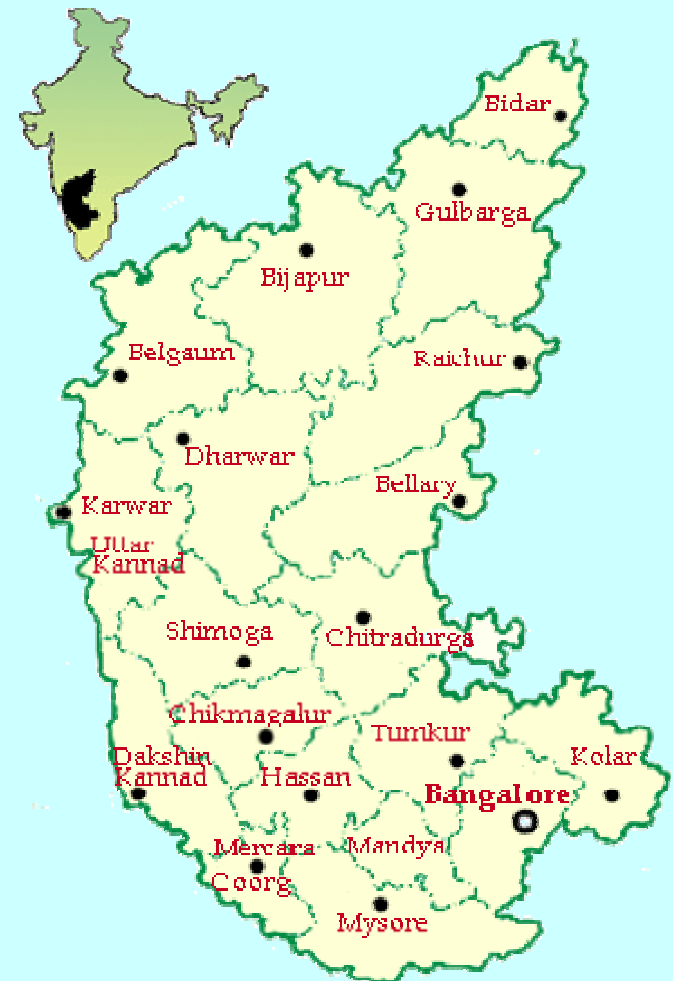




The Facts: Unsafe Drinking Water

- **80% of the world's illness are believed to be related to poor water supply and sanitation**
- **5 million people die each year from contaminated drinking water and inadequate water treatment**
- **In India, over half of the population have no access to safe drinking water sources.**

Where is our Filter Workshop? Answer – KOLAR!



Kolar- High, Dry and Rocky



Water Delivery System

Most town residents collect their household water from trucks filled at the municipal deep well.

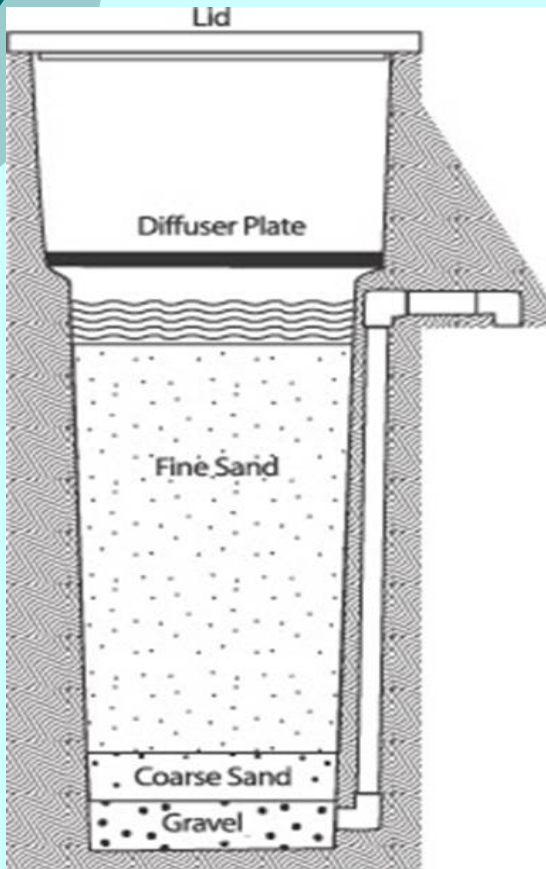


The People of Kolar Need Help with Water



Problem Solved with The Bio-Sand Filter

A concrete structure with layers of sand and gravel inside that eliminate impurities as water passes through



- Water is poured into the top of the filter as needed
- Diffuser plate allows for slow drain into the sand bed
- Water passes down through the layers of sand and gravel
- Purified water in the pipe is dispensed to a clean container

Results – Bio-sand Filters from Our Workshop!



Effectiveness

The Bio-sand filter removes:

- **Over 95% of bacteria, fecal coli form**
- **100% of parasites, protozoa and worms**
- **50-90% of organic and inorganic toxicants**
- **95-99% of zinc, copper, cadmium and lead**
- **Over 67% of iron and manganese**
- **Over 47% of arsenic**
- **All suspended sediments**

HOW YOU CAN YOU HELP?

US Dollars go a Long Way in India - For Example:

- \$25 - subsidizes filters for 3 families or 45 people
- \$300 - pays a community steward for one year
- \$500 - water and sanitation educational program
- \$1,000 - 3 filter molds producing 6,000 filters
- \$3,500 - cement mixer with 8 filter capacity
- \$5,000 - filter delivery and service vehicle
- \$10,000 - funds a brand new workshop

Bio-Sand Filter Information Sources

- **South Asia Pure Water Initiative, Inc.**
Hamden, CT USA – mike@lipmancpa.com
- **Centre for Affordable Water and Sanitation Technology (CAWST), Calgary, Canada –**
www.cawst.org
- **DHAN Foundation-Madurai, India**
www.dhan.org
- www.purewaterfortheworld.org
- www.thirstingtoserve.org