

# Hydrogeologists Without Borders (HWB)

## Update 2009

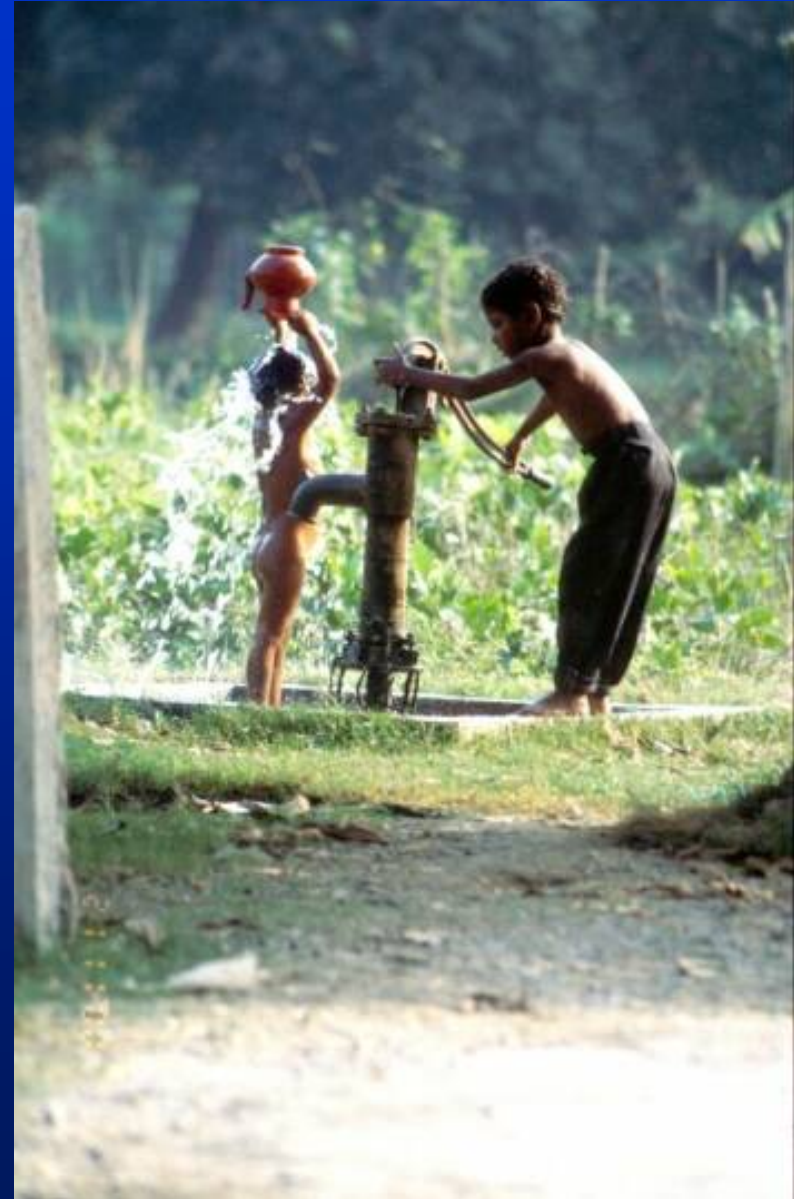


**Presented by**

**Craig Robertson, M.Sc., P.Geol., P.Ag.**

# Outline

- Who we are?
- What are our goals?
- Who are we working with?
- Recent activities.



# Hydrogeologists Without Borders



- We are a group of hydrogeologists, water well technicians, groundwater specialists and groundwater organizations who share a concern about the world water crisis as it pertains to the importance of groundwater in developing countries.

# Without Borders



- HWB works within the "without borders" approach to assisting developing countries.
- The issue of access to safe drinking water is paramount and the developing world's already high usage of groundwater for potable water supply is expected to grow considerably in the next decades.

# Resource Management



- HWB seeks to help developing countries benefit from their groundwater resources, as well as, manage and protect their groundwater for future generations.

# Unimproved Drinking Water Sources

- Unprotected well
- Unprotected spring
- Rivers or ponds



# Improved Drinking Water Sources

- Protected dug well
- Protected drilled well or borehole
- Protected spring
- Rainwater collection



Globally groundwater provides:

- 50 % of potable water supplies
- 40 % of self-supplied industry
- 20 % of irrigated agriculture.



In India groundwater directly supplies 80 percent of domestic water supply in rural areas, with 2.8 to 3.0 million hand-pump boreholes having been constructed over the past thirty years.



# Goals of HWB

- Act as a clearing house to **bridge the gap** between NGOs who require professional help and individuals who have skills to offer
- **In the expansion stage** – started in 2006 and have our functional procedures finalized.
- **Currently** based in Canada, potential to grow internationally



# Goals of HWB

- **Increase awareness** within the hydrogeological community of the crisis;
- **Educate NGOs** for the need for professionals;
- **Support the expansion** of university/college programs in developing countries, partnering with Canadian universities, sponsorships;
- **Promote education** of elementary/secondary aged children by supporting existing NGO programs;



- **Provide support to field programs** that are aimed at increasing access to safe water or improved sanitation;
- **Provide a list of individuals** who are willing to offer assistance to these programs.

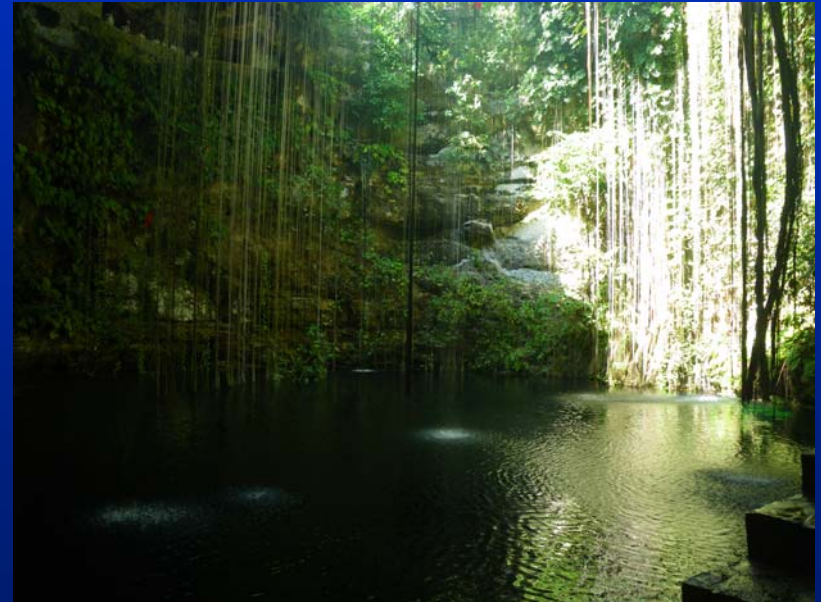
# Partner Organizations

- Central American Water Resource Management Network (CARA)
- Centre for Affordable Water and Sanitation Technology (CAWST)
- International Association of Hydrogeologists (IAH)
- IAH Burdon Groundwater Network (IAH BGN)
- Environmental Services Association of Alberta (ESAA)



# Current Focus

1. Establishing the HWB organizational/administrative structure.
2. Building awareness in Canada on the importance of groundwater in developing countries via public presentations and the HWB website.
3. Supporting the CARA M.Sc. programs in hydrogeology through the HWB-Farvolden Fellowship.
4. Partnering with organizations requiring hydrogeologic assistance and linking HWB volunteers to these organizations.



# Ngapagok School Project – Sudan

- Helping define water needs and set up trickle bed filter system using shallow groundwater until permanent water supply can be established.



# Ethiopia



- Picking up initiative on piping clean water from mountains to area village
- Developing water supply for local school

# Well & Pump Rehabilitation South America

- Assisting retired well driller train individuals for the repair and maintenance of damaged water wells and pump systems



# What Can You Do?

## 1. Volunteers:

- Volunteer with the HWB Organization here in Canada
- Volunteer as a professional hydrogeologist, water well technician or other groundwater specialist for local public education programs
- Volunteer as a consultant with an existing NGO on behalf of HWB
- Volunteer to help raise funds to support the CARA Network hydrology M.Sc. Programs

## 2. Partner Organizations:

- HWB is looking for like-minded organizations involved in groundwater development, management and protection
- These organizations could be located anywhere in the world
- You could contact a Steering Committee member and help form another networking opportunity

## 3. Donations:

- HWB is pleased to accept donations of books, journals, teaching materials and field or laboratory equipment related to groundwater management
- Financial donations are being accepted from individuals and companies who wish to become Charter Members. These funds will support the process of HWB becoming a registered society and charitable organization
- HWB is also interested in partnering with other organizations and businesses in applying for grants to support groundwater management and education

**Thank-you for  
your attention**

