



# Water for Cambodia



**Annual Report 2010**

# Clean Water, a Human Right not a Luxury

**Our mission is to provide clean water, hygiene and literacy education to rural Cambodian families, improving their health and helping to break the cycle of poverty.**

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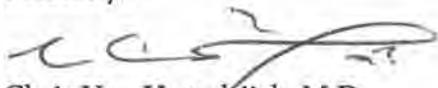
## Message from the Chairman...

Let me start by thanking our sponsors, contributors and community partners for promoting the success of Water for Cambodia. A special recognition goes out to our Cambodian staff and the field workers who help build and install our biosand filters. This project could not have achieved its milestones without their hard work and dedication.

Water for Cambodia has come a long way since its inception as a pilot project launched by Gunther Hausen in 2006. Following the installation of just 30 filters, Gunther, along with the Middletown Rotary Club were awarded a prestigious 3H (Health, Hunger and Humanity) grant from Rotary International providing \$300,000 in funds from 2008 through 2011 to build and install 7,500 biosand filters and provide literacy classes for 2000 rural villagers. These goals will be fully achieved before the end of 2011. This exceptional work has impacted over 50,000 rural villagers in Cambodia.

Looking to the future we will build on our existing network of international and corporate sponsors with a goal of increasing our donor support to meet the challenges ahead. With over a half million people without clean, disease free water in the Siem Reap Province there is still much work to be done. There is no doubt that reducing child mortality and illiteracy has a multiplier effect on reducing poverty and enhancing productivity. Together and with your support we will continue to fulfill our mission.

Sincerely,



Chris Van Hemelrijck, M.D.  
Chairman of the Board of Directors

## The Problem...

Cambodia is a country of 14 million people, one of the poorest in Asia and still recovering from the Khmer Rouge regime where estimates of 2 million citizens were massacred. The highly educated were targeted leaving the country with few doctors, teachers, engineers and an undeveloped infrastructure.

The statistics:

Over 50% of the rural Cambodian population does not have access to safe drinking water.

Only 18% have access to improved sanitation.

20% of the deaths of children under 5 are due to waterborne diseases.

32% of the population is under 14.

Although water is in abundance, typical drinking water sources are unsafe especially in the rural villages where 80% of the Cambodian population resides.

## Our Solution...

Water for Cambodia builds biosand water filters, household units that produce clean drinking water directly from contaminated sources. With over 6000 filters in place we have brought clean water to more than 50,000 people. Literacy classes providing basic reading, writing and numeracy skills have been provided to many of the same villagers.





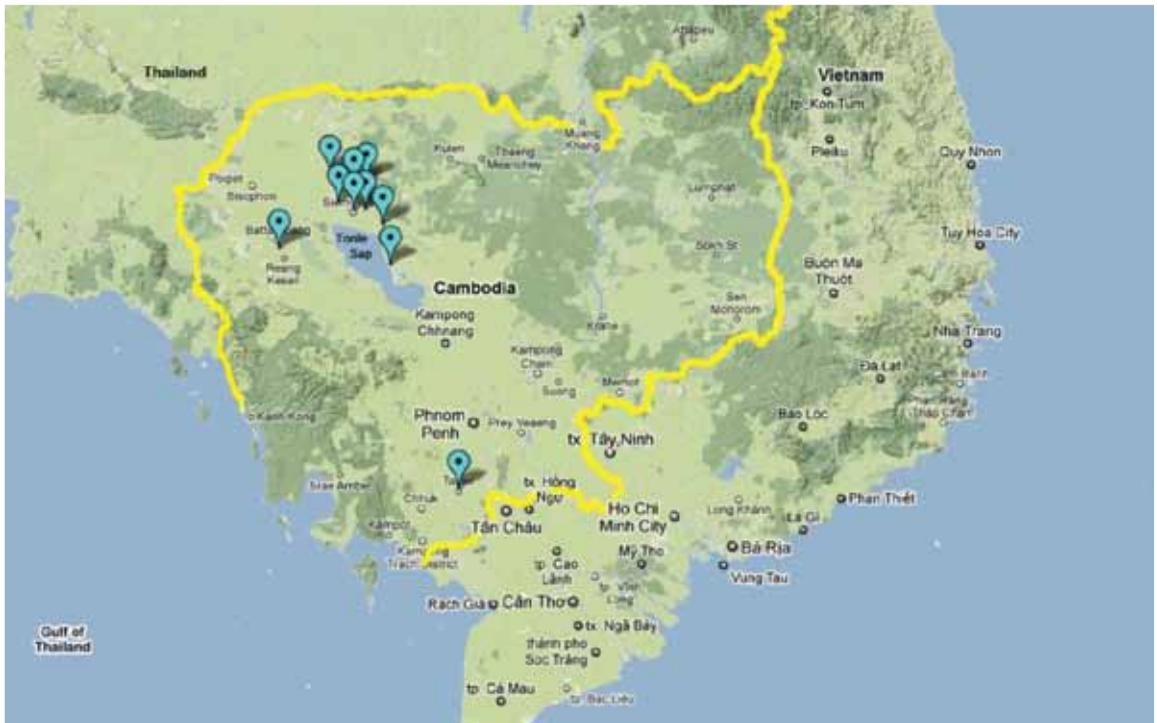
## Highlights and Accomplishments 2010...

- Early this year the US Board of Directors in conjunction with the team in Cambodia developed a Mission Statement (inside front cover) defining our principles and a strategic vision for the next 5 years (page 8).
- During the 4th quarter Water for Cambodia became recognized as a Cambodian registered Non-Governmental Organization (NGO).
- This past year also saw the full implementation of our partnership with the Singapore International Foundation (SIF) called WATER FOR LIFE. This project, with funding from Deutsche Bank and Ngee Ann Development Pte Ltd will provide another 2,000 water filters, literacy classes and chemicals for lab testing for the next three years.
- 2,047 Biosand filters were installed by our Cambodian team this year and 24 six-month literacy classes totalling 600 students were conducted with a 94% graduation rate.
- The lab added a new research assistant, Peang Sok Heng to its staff and began a collaboration with Pannasastra University in Phnom Penh under the guidance of Dr. Kevin Curry from Bridgewater State University.

## Our Biosand Filter Project...

For the past 6 years Water for Cambodia has been building and installing biosand water filters in rural villages of Cambodia. These filters are household units that produce clean water directly from contaminated sources. Polluted water is poured in the top, filtered through the sand and gravel layers and within minutes clean drinking water pours from the spout. The biological zone consumes harmful bacteria, parasites, and other pathogens. Each filter produces enough clean water for a family of 6-8 people.

A family receiving a biosand filter is actively involved in the installation giving them a vested interest in maintaining them. Also instruction in filter operation and maintenance as well as basic education in hygiene and sanitation are provided. Biosand filters in general require very little maintenance (occasional stirring up of the top few inches of sand and scooping the suspended sediment) and are still functioning effectively at other sites more than 10 years after installation. For a detailed diagram of a biosand filter visit our website.



*Map showing districts where Water for Cambodia biosand installations are located.*

## Our Biosand Filter Impact to Date...

- Over 10,000 biosand filters installed
- Bringing clean water to over 6<sup>4</sup>0,000 people
- Saving the lives of hundreds of children
- Reaching over 160 villages



*Biosand filter on the Tonle Sap.*

## Our Water Testing Lab...

Our lab is the only water-testing lab outside the capital city of Phnom Penh 200 km away. Not only does the laboratory help us to monitor the effectiveness of our biosand filters, but it also aids in identifying areas where training in installation, use and maintenance, must be strengthened. The lab also offers commercial testing locally which helps fund itself.

Since the addition of Sok Heng to our laboratory staff Mieko Morgan, our lab manager, has had more time to devote to research aspects of the project. One study is helping to solve the problem of high turbidity of source water and filter clogging at one of our newest installation sites with an alum flocculation study. Since our filters are too heavy for some of the floating village homes on the Tonle Sap, experimentation with a lightweight filter design by Heng Sathya is under way. In conjunction with Dr. Curry, a diarrhea study evaluating the effectiveness of biosand filters in reducing the incidence of diarrhea is being done.



*Sok Heng working in the lab.*



*Above shows bacteria in source water (A), gone after water filtered (B) and slight recontamination in stored water (C).*

Sok Heng and Seang Seur (our laboratory field/lab technician), have worked closely with students from Pannasastra University to evaluate the impact of filters installations. Our partnership with the Singapore International Foundation brought a Singapore volunteer, Ms Diane Kwok, to the lab for 6 months to teach the staff to analyze and organize data and create reports. Dr. Kevin Curry, professor of biological sciences at Bridgewater State University and a longtime consultant to the lab spent a 9-month sabbatical teaching at Pannasastra University in Phnom Penh, Cambodia this year. His students were able to travel to Siem Reap and utilize the lab facilities for course work and research.

## Our Literacy classes...

As part of the holistic approach envisioned at the beginning of Water for Cambodia, basic education of the village women was considered a cornerstone for success. Our classes are offered mainly to village women who never had the opportunity to learn to read, write or do simple math. Each class has 25 students and runs for six months. They are held in the village usually at night and include education in health, hygiene and sanitation. In 2010 we had over 600 students enrolled with a 94% graduation rate.



*Students taking a literacy class.*



*Children enjoying books from one of our libraries.*

## Our Libraries...

We have five libraries open with plans for several more underway. Our library logs documenting library visits showed the books were accessed over 9000 times this year.

## Strategic Initiatives 2010 to 2015...

Build and install at the rate of at least 2000 filters per year.

- Seek additional work partners.
- Collaborate with other NGOs to leverage their talents and strengths.
- Strengthen supplier relationships.

Expand local to regional to national impact.

- Expand recognition through collaboration and partnering (WATSAN, CAWST, Panasastra University, Ministry of Rural Development and other NGOs).
- Register as a local (Cambodian) NGO.
- Continue to support efforts in other provinces (Takao, Battambang, Mondilkiri).
- Leverage laboratory assets (source of income).

Reach beyond Rotary funding

- Develop marketing material
- Refresh the website
- Continue to work with the SIF and its supporting project sponsors
- Expand community level fund raising activities
- Network with businesses/philanthropists/rotary members and clubs.
- Maintain 501 (c)(3) status through Rotary
- Enlist others to publicize the project
- Use social networking media i.e. twitter, facebook
- Public school education and promotion
- Find a national/international sponsor i.e. water company, Starbucks
- Partner with other Rotary projects

Put the lab results to work for us.

- Organize the data
- Publish the data
- Relate the results to outcomes
- Market the results



# Statement of Revenue and Expenses 2010...

## Revenue

Balance December 31, 2009	\$58,049
Donations received	\$73,436
3H Rotary Grant funds received <sup>2</sup>	\$116,467
SIF funds received <sup>3</sup>	\$58,790
<b>Total funds received in 2010</b>	<b>\$248,693</b>

## Expenses

Funds transferred to Cambodia <sup>4</sup>	\$148,218
Other expenses <sup>5</sup>	\$15,267
Total funds expended in 2010	\$163,494
<b>Balance December 31, 2010</b>	<b>\$115,742</b>

**Middletown Rotary Charitable Trust is a a 501(c) (3) tax exempt organization. No member of the Board of Directors or any donor agency or individual donor receives any compensation, travel expenses or gratuity from funds raised.**

### Notes:

1. Prior to 2010 the project organization was known as Health, Pure Water and Literacy for Cambodia.
2. Management, control and use of 3H Grant funds were subjected to a CPA review in mid-year. This is a requirement of The Rotary Foundation and must be done on an annual basis as a prerequisite to releasing the next year's funds. Our program and control of funds was found satisfactory in all respects.
3. These funds were provided through the Singapore International Foundation (SIF) by their corporate donors for work done on the WATER FOR LIFE initiative. All activities and relationships on behalf of the SIF are governed by Memos of Understanding endorsed by both parties.
4. This represents funds provided to the project team in Cambodia covering salaries, material and operating costs for the bio-sand filter program, literacy classes, libraries and laboratory operations.
5. These costs cover miscellaneous expense items and expenses associated directly with fundraising.



## Our Cambodian Team...



**Heng Sathya**  
*Project Manager*



**Mieko Morgan**  
*Lab Manager*



**Thlan Sakhon**  
*Field Coordinator/Educator*



**Peang Sok Heng**  
*Research Assistant*



**Seang Seur**  
*Village liason, Lab technician*

## Events...



Annual Dinner Fundraiser  
Newport, RI

Staff party in Cambodia during  
Board of Director's visit.



Singapore International Foundation's  
launch of the 'Water for Life' project  
implemented with Water for Cam-  
bodia.

## Family Story...

I am Vatt Vann, the husband of Kiem Ronn and we live in Boss village of Dom Dek commune, Soutnikum district, Cambodia. We are the parents of 9 children.

Our biosand filter is so important for the 11 members in my family using it. Before we had got it, 3 of my family members had typhoid and everyone especially I, the father suffered from diarrhea often. We were spending a lot of time and money being sick. But, after getting the biosand filter I have noticed that no more diarrhea or typhoid happening to my children and making me believe that the filtered water is a medicine which can cure my children. I do not worry so much about my family getting sick.



My family and I really like the biosand filter also because I do not have to spend time boiling our water or filtering it through a cloth to remove the sediment. Furthermore we are having clear water with no more iron or turbidities especially I am not worried any more on the problem of the kidney stone and stomach ache. It is surely easy to use and I only have to fill it a few times a day.

Nowadays, it is not only my family using the water filters but my words spread and more people in my village have rushed and got it for their family's good health. I am so happy more people in my village now understand how important clean water is for their family's health.

Thank you to all the donors who have helped my family stay healthy!



Water  
for  
Cambodia

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