

Water

The emergence of new international reports highlighting the crisis of water in south Sudan and Darfur prompts CASS to launch a new initiative

A Quarterly Newsletter

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Looming shortage

As climate change continues to have impacts around the world, south Sudan and Darfur are not immune to its effects. If water resources continue to decline, many other programs will be put in peril.

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An Emerging Crisis

Newly released reports suggest the need for water will transcend all else in Sudan

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Issues of Health

With the arrival of peace between north and south Sudan, numerous efforts are being made to build community clinics. Yet 80% of infectious diseases are water-born - prompting a reassessment of future programs.

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The Water School



A new initiative promises to heal lives through the power of the sun.

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CASS Projects

CASS's projects continue to go forward. Learn more about Abuk's Herd, educational possibilities and women's micro-enterprise projects as Canadians continue to have an ongoing influence in the Aweil East region.

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Christmas Ideas

Various projects provide unique and meaningful ideas for Christmas presents to families and friends.

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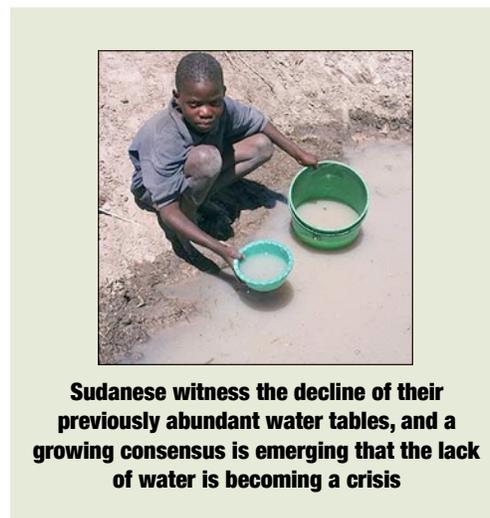
A Declining Resource

The encroachment of the great Sahara Desert has forced communities in the border regions between north and south Sudan to worry about their future.

Not too long ago, if someone had mentioned that south Sudan would be facing a water crisis they would have been met with looks of skepticism. But the region that has been called the "watershed of the Nile" has recently begun experiencing declining water tables and ever shrinking river beds.

International Concern

A fragile region at the best of times, recent international studies documenting the decline and safety of water in Sudan have caused concern that the amount of refugees will surely increase as people come more nomadic in their search for water. Complicating the issue are growing doubts as to whether the Comprehensive Peace Agreement



Sudanese witness the decline of their previously abundant water tables, and a growing consensus is emerging that the lack of water is becoming a crisis

(CPA) can hold once regional struggles ensue over the search for water.

An Integrated Approach

Anyone interested in peacemaking, poverty reduction and south Sudan's future needs to take a serious look at the water problems in the region. While the rest of the world tends to concentrate on political realities and solutions in areas that have

previously suffered conflict, we must seek for a growing understanding of how the natural environment greatly exacerbates regional tensions.

The recent United Nations report on the water crisis in Africa concluded:

"There is a very strong environmental, global warming story developing in sub-Saharan Africa. We've looked at the implications for the production of food staples of shifting climatic patterns, and there is an emerging story in which the international community needs to take a more serious interest in the coming struggle for the years ahead."

Spreading water scarcity is contributing to food insecurity and heightened competition for water both within and between countries, according to a new report from the Worldwatch Institute.

As the impact of this evolving reality creeps into the region where **Canadian Aid for Southern Sudan** operates, we have opted to deal with the situation directly by launching a new water and public health initiative. You'll find much more information on this within this newsletter. Read on and see how you can help.

“Unless solutions are found to develop clean water in Sudan, the benefits of peace will not be reached and more suffering will ensue.”

*...Worldwatch
Institute*



An Emerging Challenge

A new assessment of the country, including the troubling border regions between north and south Sudan, and Darfur itself, indicates that among the root causes of decades of social strife and conflict are the rapidly eroding environmental resources. The most serious concerns involve water shortage and desertification. In Sudan, the Sahara Desert spread southwards by an average of 100 kilometers over the last four decades and is now accelerating.

There is mounting evidence of long-term climate change in several parts of the country, including the region in which CASS itself operates its programs. The irregular but marked decline in rainfall has been evident to us during our journeys in the last decade. The rainy season has shortened in length and the people themselves, unaware as we often are of the threat of global warming, remain confused as to the outcome of it all.

Forecast climate change is expected to further reduce food production due to declining rainfall. A

drop in crop yields of up to 70 per cent is forecast for the most vulnerable areas, according to the Sudan Post-Conflict Assessment. The Report concluded:

“This encapsulates the scale and many of the driving forces behind the tragedy of Sudan - a tragedy that has been unfolding for decades, touching the lives of millions of people and thousands of communities.”

Reports such as these make it clear that the emerging environmental realities are something Canadian Aid for Southern Sudan must take into account in its future programming.

Issues of Health

In Sudan, 20 per cent of country’s freshwater resources are produced internally from rainfall. The rest comes from sources outside the country, like the Nile River. It is becoming increasingly clear that the quality of water, and not just its amount, is in serious trouble in Sudan.

While massive efforts have been poured into Sudan to provide effective emergency medical needs, the reality is that the majority of diseases are caused by the lack of clean drinking water. Ecoli levels in local water supplies are alarmingly high, leading to deteriorating health situations in the Sudan. Unless solutions are found that can provide clean water, much of the health interventions presently taking place will quickly lose their effectiveness.

For this reason the board of CASS has opted to partner with the WATER SCH200L. But to be effective, months of education will be necessary before the program can be implemented effectively. **We need your help.**



THE WATER SCHOOL₂



In September of this year, CASS officials met with Bob Dell, President of the Water School - a meeting that proved to be fortuitous. The meeting was

arranged by Alex Lau, a long-time CASS supporter, and a member of our last two trips to Sudan.

Knowing of our concern about water in Aweil East, Alex had learned of the success in Uganda of the Water School and wondered why our two organizations couldn't work together. As a result of our similar outlooks and understanding of the need, CASS has decided to partner with the Water School.



Bob Dell's passion is easy to see. "We can be saving lives through the sun," he stated. And, in fact, his group has done just that by initiating a unique project that distributes plastic water bottles to families. Contaminated water is placed in these bottles, which in turn are placed on above-ground corrugated metal shelves. Through the sun's Ultra-Violet rays the water is purified in 24 hours, effectively killing all disease causing organisms such as amoeba, ecoli and bacteria. It is a process called Solar Water Disinfection (SODIS) and it's revolutionizing rural Kenya and Uganda.

The concept is simple enough and is ideally suited to CASS's work in Sudan, where people travel kilometers for water that is ultimately filled with pathogenic and non-pathogenic bacteria, mainly fecal coliform. The result of the intake of such water? Chronic illnesses such as dysentery, intestinal cramps, typhoid fever and even Hepatitis A that ultimately lead to the deaths of tens of thousands of children each year in Sudan. The Water School discovered that unsafe water and poor sanitation are responsible for half of the deaths in children under five in Uganda - the equivalent of one child dying every 15 seconds.

We all remember Walkerton, Ontario and the deaths that resulted when E. coli contamination greater than 200 E. coli per 100 milliliters of water was found in the supply. The Ontario standard for drinking water requires the total absence of E. coli. Yet in Uganda, and likely in Sudan, water levels have been measured as high as 15,000 cfu per 100 milliliters of water. The situation is obviously desperate.

Numerous non-governmental organizations around the world have been striving hard to bring clean

drinking water to people and the result has been a marked increase in the health of local populations, lower mortality rates, higher school attendance and an overall more positive attitude of the locals.

Our problem in Sudan has always been its remoteness and the expense of transport over large distances. Boiling water can be of help, but the lack of firewood in the Aweil East region makes it of little effect. That is why the use of clear plastic bottles can help to revolutionize the physical health of hundreds of thousands in the region.

And it's simple. The sun's UV rays penetrate the plastic bottle, killing all harmful organisms that cause disease. The concept is also environmentally friendly since there is no need to use firewood by cutting down trees. Children can use it without fear of getting hurt by fire or boiling water. And once the bottles become too scratched to permit the sun's rays to do their magical work, they can be used for other tasks such as transporting cooking oil or storing sugar.

The SODIS knowledge has now been around for the last 20 years and has demonstrated dramatic results where it has been implemented properly. In 2005, over 2 million children died because they could not get a glass of clean water. The Water School is now changing that dynamic.

Obviously the process works best when the sun's rays can go clearly through the water. For this reason it was determined early in the process that corrugated metal sheets placed atop wooden shelves would effectively reflect the rays back through the bottle, thereby permitting the Ultra Violet full access to the water.



The entire process takes one full sunny day or two partly sunny days to complete and once it's done the water is 100 per cent drinkable and clean - a remarkable yet natural process.

When the United Nation's Human Development Report for 2006 was published a short time ago, it

contained the following quote:

"THE MOST EFFECTIVE VACCINE AGAINST CHILD DEATH IN AFRICA IS A GLASS OF CLEAN WATER."

The Water School has understood this challenge and sought to meet it by applying the SODIS project to Kenya and Uganda. And now the organization will be spreading its effective influence through partnership with CASS in Sudan. We are thrilled with the prospects. But for the project to be successful we will require two things. The first is a broad-based educational program designed to help the local Sudanese run the program effectively.

And the second thing needed is YOU. To its other programs of school building, women's micro-enterprises, Abuk's Herd and assistance for Darfur refugees CASS must now add this new dimension. We have no other choice, really - the emerging water crisis in that entire region of Africa demands that we develop an effective response. And here's some numbers that show just exactly how you can make a key influence in the region where CASS is working.

\$50 - to provide clean water for a family of 5

\$500 - provides for a cluster of 10 families

\$5,000 - provides for an entire small village

\$50,000 - provides for an entire large village

It's all so simple really and all it requires is your help. Canadian Aid for Southern Sudan is a 100% volunteer organization and all money contributed goes directly to programs such as this.

CASS has asked Alex Lau to head up the operation for us and he has already been high effective. A financial investor, Alex knows how to put together a clear business plan and we are excited to support his efforts.

And to Bob Dell and his friends at The Water School, we offer our sincerest thanks, not only for their willingness to partner with us but for the ground-breaking work they are doing in this region of Africa. The number of children saved by their efforts has been significant and we now look forward to applying their well-learned principles to assist the people of Aweil East. Check out the Water School at www.thewaterschool.org

CASS Projects

From assisting returned slaves and child soldiers to expanding educational opportunities and assisting refugees from Darfur, Canadian Aid for Southern Sudan continues to enhance life in Aweil East.

Abuk's Herd

The concept is simple and yet it has worked to great effect in southern Sudan. Families returning from slavery or exile are provided a few goats from which they can start their own herds. This enables them to have a sustainable beginning in their home communities. For the cost of \$60 per goat (\$30 per baby goat), entire families have a chance at a new life. CASS secures the goats from local markets, assisting the local economy and community development at the same time. Abuk's Herd has

quickly become CASS's most popular project.

Smart Aid

Life for the women of south Sudan is onerous and burdensome, but through new small business initiatives, life for many has begun to change. Whether it's starting their own sewing business, operating a grinding mill for grain or opening a business for the recycling of water bottles, women have a chance to improve the lives of their families while at the same time acquiring status and leadership within their own

communities. As peace has continued to spread throughout the region, CASS has used it's "Smart Aid" program to energize the local economy and also elevate the status of women in their respective communities.

Darfur

In January of this year, CASS representatives discovered 100,000 Darfur refugees hiding in the region to escape the conflict. CASS worked with Senator Romeo Dallaire to bring the plight of these people to the knowledge of the Canadian Parliament. As

their numbers increase the need for action has become urgent. CASS has been working with Belinda Stronach and Rick Mercer to provide mosquito netting to protect these families from malaria. The disease is the largest killer of small children in Africa and something must be done. A net costs \$10 and can protect an entire family. As the Darfur crisis worsens, CASS has been working with Canadian parliamentarians to develop some kind of appropriate and timely response. Yet the hour is late and any more delay could result in even more devastation. We will be

pursuing our options in our upcoming January 2008 trip to the region.

100%

Canadian Aid for Southern Sudan is a fully volunteer organization. This permits us to donate 100% of all donations to our programs in the Sudanese south. A generous benefactor has helped cover the costs of such things as mailings and administration. While based in London, Ontario, CASS's board is also made up of individuals from Toronto and Victoria, British Columbia.

Want to Help?

Some Great Christmas Ideas



CASS's programs can only remain effective with your ongoing support. Here are some practical ways you can assist. And remember, because we are a fully volunteer organization, 100% of all money donated goes directly to the programs in Sudan.

Canadian Aid for Southern Sudan

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London, Ontario N6C 1G5

(519) 679-1429

email: cass.can@sympatico.ca

web: www.casscanada.net

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|--------------------------|-----------------------------------|---|-------|
| <input type="checkbox"/> | <i>Brick for secondary school</i> | - | \$10 |
| <input type="checkbox"/> | <i>Baby goat</i> | - | \$30 |
| <input type="checkbox"/> | <i>Goat for Abuk's Herd</i> | - | \$60 |
| <input type="checkbox"/> | <i>Clean water for family</i> | - | \$50 |
| <input type="checkbox"/> | <i>Operation of grinding mill</i> | - | \$100 |
| <input type="checkbox"/> | <i>Starts a sewing business</i> | - | \$500 |



Charitable Receipt Number - BN 86394 8212 RR0001