

## **Drilling Well, Providing Clean Water and Promoting Peace in Borena, Ethiopia**

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### **Background**

Special advisor to the World Bank, Ismail Serageldin, remarked that "the wars of the next century will be about water."<sup>i</sup> More than 1.2 billion people around the world live in what are termed *water-stressed conditions* due to regional water scarcity, and that number is expected to rise as the world population increases.<sup>ii</sup> Not surprisingly, water scarcity is most severe in developing countries where population growth has far out paced scientific and technological capacity to meet increased demand.

The Borena region of Ethiopia has historically been affected by water scarcity with important implications for local peace. Inhabited by multiple ethnic groups, the nomads of the region are byproducts of decades of ethnic conflict between the local Oromo people and the nationally-dominant Amhara ethnic group.<sup>iii</sup> Borena has been the safe haven of displaced refugee farmers for decades but unfortunately, the region is one of the driest places in all of Ethiopia and is constantly plagued by drought and famine, spurring various resource conflicts. The latest occurred in 2006 when increased tension over access to clean water between the Borena and Guji groups sparked a battle that resulted in the death of 150 people and the displacement of thousands more. Everyday consequences also result from this scarcity, since many Borena people, typically women and children, are forced to walk miles to the closest spring or well. It is not uncommon for women to be subjected to harsh harassment or even rape, while children must leave school to spend their days walking for water.<sup>iv</sup> The dire situation resonates on a personal level with our three group members from Ethiopia, who have all seen first hand the extraordinary challenges people face in securing clean water. Funding would give us the chance to implement a simple, economical method to create a more peaceful and secure Borena.

### **Proposed Project**

Our group project, if funded, proposes to drill one well in central Borena that would serve as an easy and convenient location for people to access clean, fresh water. The dry terrain of Borena as well as the low precipitation in the region means the area's streams and the rivers dry up quickly after the rainy season, leaving drilling a well the most feasible option.<sup>v</sup>

Our group has partnered with Oxfam International to drill one well. Oxfam has an extensive background in dealing with water scarcity issues<sup>vi</sup> and has already done activist work in Borena, making it the best-equipped possible partner. In collaboration with Oxfam International, our team will facilitate the construction by inviting contract bids to pick the most efficient drilling company, as well as coordinate with government representatives and the local population. Since depth in this region is estimated at 150 feet, a hand-dug well is risky so we will use the rotary drilling method.<sup>vii</sup> The tough metal in the rotary drill bit is ideal for Borena's rocky landscape. Upon completing the drilling process, the well will be covered to prevent pollution while the drainage system is prepared and a hand pump is installed to reduce the physical effort of drawing up water.<sup>viii</sup> This facility will be equipped to provide clean water for approximately 500 people.<sup>ix</sup>

In conjunction with drilling the well, our group will design and host a four-day Peace Workshop to educate local villagers about the lasting impact of violence and the many peaceful alternatives with which they can solve conflicts. We plan to involve thirty members of the community, including female and youth representatives, with participants split between the formerly embattled Borena and Guji clans. The workshop aims to utilize local leaders and knowledge, and contribute new insights to the understandings of these leaders by covering one theme per day: tolerance, sustainable use of resource, the role of women, and activities to promote community cohesion. Each training session is composed of activities to bring the community together, discussions about current community issues and speeches from Oxfam representatives, teachers and local religious leaders. By the end of the workshop, we will create a community art project and will also ask participants to come up with five statements that summarize what they gained from the workshop and their commitment to work together. These statements will then be published on pamphlets and posters to carry the message to other parts of the region. We will request the community to contribute labor to the well along with us as well as engage in a Peace Workshop.

Their contribution will create a sense that the well belongs to all while also symbolizing tolerance in peacefully sharing a common resource.

### **Time Frame**

Pre-arrival: Recruit guest speakers; work with Oxfam to find a drilling company;

First and Second Week: Meet with local residents, community leaders, and Oxfam representatives; chose drilling location; conduct the necessary advocacy work to make sure even number of attendees from both Borena and Guji zones; process licensing to drill the well

Third Week: Conduct the workshop; prepare performance

Fourth and Fifth Week: Water well drilling; coordinate volunteers

### **Sustainability and feasibility of the project**

As noted above, and endorsed by our Oxfam contact David Kelley, a well is completely feasible and is in fact the best way to extract water in the Borena region. Oxfam's contacts will facilitate our interactions with the host community and provide guidance in any unseen occurrences during the project, allowing us both flexibility and security. During our stay in Borena, our team members will stay with host families. In regards to sustainability, we will work with local activist, such as our contact Mitiku Tiksa, to create a security system for the well's protection to enclose the area by establishing certain access times. We will set up maintenance schedules. In addition, we encourage the active involvement of the youth, which will further develop their organizational and leadership skills to give them the tools to later initiate other development agendas. The peace workshop will also have a lasting impact on the peace and unity of the region because women and youth have the ability to impact the community in the long term. We, along with the peace workshop participants, will place the final day's art project by the well to remind all users of unity and tolerance.

### **Lewis & Clark College Community Contribution**

We plan to raise about \$1500 in the Spring semester to cover additional costs by hosting fundraising events in collaboration with ISLC and ASLC, which will raise our project's profile in the LC community. We will hold a round-table inviting community members to help contribute to the Peace Workshop, along with using resources at 3CE and other offices, so that community members can truly contribute to the project. Finally, we plan to sell T-shirts, traditional jewelry, and baked goods throughout the spring semester to maximize the impact of our project through available funds as well as with community involvement.

Upon our return to Portland next fall, we will not only host a presentation, but we will also invite both professors and students to participate in a dialogue about the project. Since three of the team members will be at LC for the following years, we can remain a resource for anyone interested in learning about or supporting the region. Lastly, we will tap LC's website, the Piolog, and relevant Portland-based weeklies to spread the word about our initiatives.

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<sup>i</sup> Ortega, Joshua. "Water wars: Bottling up the World's Supply of H2O." The Seattle Times, 2005:

[http://seattletimes.nwsourc.com/html/opinion/2002213327\\_sundaywater20.html](http://seattletimes.nwsourc.com/html/opinion/2002213327_sundaywater20.html)

<sup>ii</sup> United Nation Dept. of Water for Life, "International Decade for Action, 2005-2015: Water Scarcity."

<http://www.un.org/waterforlifedecade/scarcity.html>

<sup>iii</sup> Absolute Astronomy Encyclopedia, Borena Zone: [http://www.absoluteastronomy.com/topics/Borena\\_Zone](http://www.absoluteastronomy.com/topics/Borena_Zone)

<sup>iv</sup> Ernest , Waititu. "Drought Spurs Resource Wars." *CLP* 2008: n. pag. Web.

<[http://clpmag.org/article.php?article=Drought-Spurs-Resource-Wars\\_028](http://clpmag.org/article.php?article=Drought-Spurs-Resource-Wars_028)>

<sup>v</sup> Rosenberg, Tina, "Clean Water No Cost? Just Add Carbon Credits." *Opinionator*, 2010:

<http://opinionator.blogs.nytimes.com/2010/11/15/clean-water-at-no-cost-just-add-carbon-credits/?ref=ethiopia>

<sup>vi</sup> Alliancevision: Fighting Poverty Through Safe Clean Water: "Water for Kenya." July,

2006:<http://www.alliancevision.org/water-well-cost>

<sup>vii</sup> Watson, Elizabeth. "Preliminary Research Findings from Borana, Oromia Region, Ethiopia." University of Cambridge Dpt. of Geography. May 2001, No. 4. <http://www.geog.susx.ac.uk/research/development/marena/pdf/wp4.pdf>

<sup>viii</sup> Wateraid Technology Notes. 2007.

[http://www.wateraid.org/documents/plugin\\_documents/technology\\_notes\\_07\\_web\\_1.pdf](http://www.wateraid.org/documents/plugin_documents/technology_notes_07_web_1.pdf)

<sup>ix</sup> Unicef. Advance Humanity Press Release: [http://www.unicef.org/ethiopia/ET\\_media\\_PR\\_rig.pdf](http://www.unicef.org/ethiopia/ET_media_PR_rig.pdf)

## 100 Projects for Peace Budget

Expense	Estimated Cost	Source	100 Projects for Peace Funding
<b>Drilling the Well</b>			
Mobilization (Bringing the machinery and crew to site)	\$150	Oxfam International	\$150
Rig Rental	\$450	Oxfam International	\$450
Rotary drilling (250ft)	\$2,610	Oxfam International	\$2,610
Casing, Perforated Casing	\$1,000	Oxfam International	\$1,000
Sealing Materials	\$250	Oxfam International	\$250
Supervision (Paid with the crew)	\$0	Oxfam International	\$0
Driver Shoe (needed for safety reasons)	\$150	Oxfam International	\$150
Screen	\$540	Oxfam International	\$540
Pump Test on Well	\$300	Oxfam International	\$300
Grouting (Needed to seal the space between the side of the drill hole and the casing to prevent contamination)	\$1,100	Oxfam International	\$1,100
Disinfection	\$100	Oxfam International	\$100
Government License/Fee	\$400	Oxfam International	\$400
Pay for Skilled Crew (supplement with volunteers)	\$1,000	Oxfam International	\$1,000
Pump and Accessories	\$800	Oxfam International	\$800
Testing (A final test to see if the well actually works.)	\$100	Oxfam International	\$100
Cleaning (Done by volunteer and LC students)	\$0	Oxfam International	\$0
<b>Subtotal</b>	\$8,390		\$8,390
<b>Peace Workshop</b>			
Guest speaker	\$200	Mitiku, Borena SOS Sahil	\$200
Rental hall	\$150	Mitiku, Borena SOS Sahil	\$150
Posters and -T-Shirts	\$200	Mitiku, Borena SOS Sahil	\$200
Food and drink for workshop participants	\$400	Mitiku, Borena SOS Sahil	\$400
<b>Subtotal</b>	\$950		\$950
<b>Travels and accommodation</b>			
International airfare (donated miles, fund raising, and personal funding)	\$0		\$0
Accommodation and domestic transportation (host families and personal funding)	\$1500	Mitiku, Borena SOS Sahil	\$0
Visas (2x70 for Ethiopian Visa and 3x\$140 for a US visa) /personal funding	\$560	<a href="http://ethiopia.usembassy.gov/">http://ethiopia.usembassy.gov/</a> <a href="http://www.ethioconsulatela.org/">http://www.ethioconsulatela.org/</a>	\$0
<b>Miscellaneous</b>			
Post-drilling/peace workshop dinner	\$100		\$100
<b>Grand Total</b>	\$12,060		\$10,000