# **WASH + Irrigation + Reforestation**

# A Community-Led Sustainable Development Pilot Project in Burkina Faso

Implemented in Coordination with
The BARKA Foundation
and
the Village of Tantiaka



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Confidential

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# **Project Overview**



# Needed Changes in the Approach toward MDG satisfaction

The BARKA Foundation (BARKA) is working in concert with the indigenous people of Tantiaka, a rural village in the Gourma province of eastern Burkina Faso to co-create a holistic micro-model for achieving UN Millennium Development Goals (MDGs). The ultimate goal is to enable the conditions necessary for sustained empowerment to break the cycle of poverty. BARKA has adopted the MDGs as its framework for poverty eradication; these 8 goals were agreed upon by every member nation of the UN and span a wide gamut of disciplines and sectors. BARKA's in-depth focus on the West African country of Burkina Faso, one of the poorest on the planet, and a time-released, multi-phase approach makes it feasible to operate with such a wide lens. According to the UN MDG tracker, MDGs in Burkina Faso are either off target, lacking sufficient information or achievable if changes are made. In order to serve as a catalyst for those needed changes, BARKA Foundation established the BARKA Burkina Consortium, a growing collective of organizations dedicated to innovating strategies for MDG achievement within Burkina Faso.

## The Foundation of Clean Water

The village-based, community-led development model BARKA is piloting begins with clean water, the cornerstone of all the MDGs and the essence of life itself. The women of the village determined that need first above all others. Clean water involves its component

## The UN's 8 Millennium Development Goals









hunger

achieve universal primary education

women

promote gender equality & empower

mortality









other diseases

ensure environmental sustainability

for development

parts: sanitation and hygiene education (WASH). Yet this project reaches beyond WASH in four significant ways:

- Household Water Treatment and Safe Storage (HWT): Distribution of locally produced ceramic water filters as a cost effective, sustainable solution to enable clean drinking water for every villager
- Water for Food: Introduction of low-tech irrigation to economically and technologically empower farmers, resist drought, and increase food security
- Land Use Management and Adaptive Strategies for Climate Change: Reforestation of Moringa trees with biochar and organic fertilizers as agricultural inputs
- Education & Cultural Arts: essential ingredients in developing an inter-cultural, grassroots, viral methodology using communication technologies (ICT) to create 1-to-1 relationships between people, schools and communities of different cultures, civilizations and paradigms

#### WASH + Livelihood

The ultimate success of this pilot will be measured not by short-term indicators such as number of water points created/restored, nor number of beneficiaries served, as these can be misleading and inaccurate indicators of sustainability. The true gauge of success is in the long-term ability to co-create a sustainable

financial mechanism necessary for the village to function independently without the need of further NGO support. This will be made possible through small community business initiatives which will emerge from project inputs and benefits. This project therefore falls within the domain of WASH + livelihood. The ceramic water filters, irrigation and reforestation all contribute toward livelihood opportunities as well as additional value by impacting the following sectors:

- Environment (MDG 7)
- Health (MDGs 4,5,6)
- Women's Empowerment (MDG 3)
- Education (MDG 2)
- International Partnerships (MDG 8)

### Two Tiers of Phase 1

This micro-model pilot program is structured into two Tiers, both geared toward socio-economic empowerment and MDG achievement.

**Tier 1:** WASH + Ceramic water filters, irrigation, reforestation; inter-cultural ICT; North American community engagement (2011-2012)

**Tier 2:** Healthcare strengthening initiatives, microfinance, renewable energy; deeper inter-cultural ICT & community engagement (2012-2013; not represented in this Tier 1 project proposal)

# Co-Creating a Replicable, Scalable Village Micro-model

Community-led development (grassroots and indigenous) traditionally defies scalability. This project sets out to pioneer a methodology that enables both participation at the local level and scalability to the national level. Networks of local communities and villages are the key. Phase 2 involves a village-oriented scale-up plan to the regional level of 300,000 people from 2012-2015 and Phase 3 involves a 10-year

national implementation plan within the 12 other regions of Burkina Faso.

## The Opportunity

This pilot project is expected to benefit a total of 10,000 people in Burkina Faso and North America at a cost of \$29.32 per person.

Water, sanitation & hygiene services in the village in Burkina Faso are budgeted to be delivered at a cost of \$37.77 per person.

BARKA is seeking strategic partners to finance project funds for Tier 1 of Phase 1 (2011-2012) with investment in BARKA's organizational capacity to enable scale-up plans to a regional level from 2012-2015.

## The Really Big Idea

Imagine one of the poorest, water-stressed countries in the world setting an example to the world of ensuring clean water to



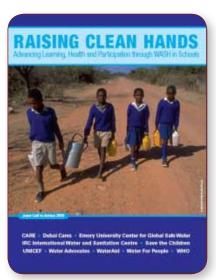
every household.

This can be accomplished by distributing ceramic water filters to Burkina's 3 million households (in the process of distribution there is a great opportunity to deliver hygiene education, bednets, shoes and other goods and services). BARKA Foundation envisions the achievement of MDG 7 in Burkina Faso on target by 2015 with the cooperation of government and UN agencies, the private sector, local communities in developed nations, local and international NGO's, donor organizations and most importantly the participation of the local Burkinabe population.

## WASH + Ceramic Water Filters

The integrated approach of addressing water, sanitation & hygiene ("WASH")

is the foundation of this pilot project. BARKA will establish access to hardware and basic services with regard to sanitation and water supply at the com-



BARKA is a member of UNICEF's Global Call to Action for WASH-in-Schools

munity level (wells), the household level (latrines), and the individual level (ceramic water filters and hygiene education). In this region there is a high incidence of broken wells (estimated 33%) and open wells which supply unpotable water. The project includes the rehabilitation and extension of existing networks. Two gender-specific composting latrines at the local school will be used as a showcase for the community to learn the benefits of sanitation. Strong



Ceramic water filter



Water filtration process

demand for sanitation will be created through the social marketing of a local water & sanitation committee, village meetings, public performances of WASH ART (WASH-related cultural arts created by children) and a hygiene education program at the school. Further reinforcement will be made through written materials (illustrated comics) and local radio programming. Funds for this project will be leveraged to access financial assistance from the local



Gender-specific toilets -Photo courtesy, UNICEF



This is an open hand-dug well in Tantiaka targeted to be sealed, purified and given a rope pump for greater ease of use.

government to meet sanitation targets and provide materials for villagers to create their own latrines. Educational emphasis on handwashing with soap, safe feces disposal, safe storage and home water treatment will create long-term behavior change. On the national and international level, BARKA will work with project partners and solidarity organizations to improve the enabling environment through policy influence, advocacy, increasing awareness, community mobilization, and the development of public/ private partnerships. BARKA intends to contribute its findings to the growing body of research striving to understand what makes communities willing to adopt and maintain improved sanitation. (See also Appendix, Page 3: Addressing Known WASH Obstacles)

# Irrigation, Reforestation & Biochar



Irrigated garden in Fada

Working with the local smallholder farmers, the project will extend the traditional WASH platform to address issues of using water for food and agricultural water use and management. Low-tech **irrigation** (treadle pumps) will combat food insecurity, drought and the annual "hunger season" through an increased diversity of crops and a more frequent and reliable harvest. Increasing desertification, climate change and poor land use techniques will be addressed through a multi-purpose reforestation project of **Moringa trees**. Moringa is known locally as the "tree of paradise" or "miracle tree". Its leaves are highly nutritious and have proven effective against malnutrition. Its bark is used as a medicine and sold as a cash crop to local pharmacies. Oil from its seeds

is used in cosmetics, as a biofuel and also as an edible vegetable oil enabling small businesses. Husks from the seeds are an effective organic flocculent for turbid water, and all other plant material is suitable as feed for livestock. It is indigenous to Burkina, grows quickly, thrives in poor, dry soil and requires little water. In addition, biochar (charcoal made from biomass) will be used as an agricultural input to revitalize and remineralize the soil in which moringa and crops are planted. Biochar is an ancient indigenous technology used originally in the Peruvian Amazon and has been shown to boost crop yields, increase their nutritional value, and sequester carbon from the atmosphere. Biochar is becoming widely accepted as a cost-effective, low-tech solution for climate change mitigation through terrestrial carbon sequestration. The production of biochar (known as pyrolysis) also has potential to provide renewable energy to the village, an aspect to be explored in subsequent project phases.



Baby trees awaiting planting in Tantiaka





Moringa

Biochar

# Inter-Cultural, Community-Led, Viral Development

By "community-led sustainable development",
BARKA refers not only to the village in Burkina
Faso, but also to "partner" communities in developed countries. BARKA has a successful history of directly connecting schools and local community

organizations in North
American cities to their
counterparts in Burkina
Faso. This type of crosscultural bridge-building
raises awareness, fosters
cultural sensitivity,
promotes innovation and
enables a grassroots, participatory environment
in which people of all

ages and backgrounds are

encouraged to contribute



3rd graders in US make WASH ART (2007)



Railroad St. Youth Project (2008)

to a more sustainable future. Cultural arts (music, dance, film), information & communication technologies (ICT) and service-learning educational initiatives are utilized as the connective tissue and fuel to power this engine for a western audience. Simple video camcorders will be distributed to students in both Burkina Faso and North American schools. Students will be empowered to become

digital storytellers and to create their own films to share with each other, creating a video dialogue. Through content platforms on the internet such as UNESCO's Power of Peace Network, these digital stories will be shared with the world. Such activities

of global citizenship and planetary responsibility in today's youth. Schools, Rotary Clubs, faith-based organizations, women's associations, artists and local leaders will be tapped



Middle School meets with BARKA (Pleasantville, NY, 2009)

within communities to become project stakeholders and volunteers. **Sister-city relationships** have already resulted as communities realize how they can learn from and assist each other. **Exchange opportunities** will emerge as BARKA's capacity increases. The exchange of information between two different civilizations is critical to create a sustainable support system and ongoing dialogue which will lead to innovative, viral, bottom-up solutions jointly made with community stakeholders. Development needs to be local and also bi-directional in order for both partners' gifts and wisdom to be shared with the other. Charity is obsolete. The new development paradigm is a model of reciprocity.



Traditional dance performed in BARKA's honor



Traditional music at Peace, Water & Wisdom Concert, Ouagadougou, 2009



Ouaga Walk for Water, Peace Day 2009



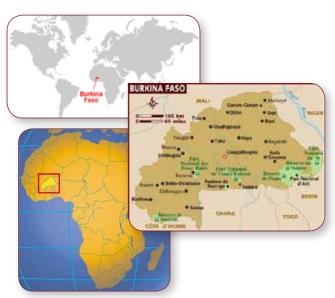
3 Berkshire County schools Walk for Water

# **About BURKINA FASO**

## **Burkina Faso**

Population: 15.264 million (2008)

**Geography:** Total area: 274,200 square kilometers (slightly larger than the state of Colorado)



Burkina Faso, Africa

Burkina Faso is a landlocked country. It is surrounded by six countries, Mali to the north, Niger to the east, Benin to the south east, Togo and Ghana to the south, and Côte d'Ivoire to the south west. Burkina has two types of terrain: peneplain (land worn down by erosion to a level plain) and sandstone massif found in the southwest. Its highest peak is 749 meters.

#### **Environment/Climate:**

- Average temperature is 84°F. Highest average temperature is 104°F (March)
- Temperatures are expected to rise 1.7% by 2050; average rainfall is set to fall 7.3% (UN Africa Renewal)
- Burkina suffers from recurring droughts during the 8-month dry season (Oct- May) and flooding during the 4-month rainy season (June-Sept).

- Desertification is severely affecting agricultural activities
  - population distribution and the economy. Overgrazing, soil degradation and deforestation are also current issues.
- 29% of Burkina is forested; between 1990 and 2006 Burkina lost 5% of its forest cover due to archaic mining techniques, slash-and-burn agriculture and tree-cutting for fuelwood (Mongabay, com)



Drv. caked earth of Burking



## Economy:

Burkina is home to the baobab tree

- Burkina is ranked 177 out
   of 182 countries on the Human Development Index
   (UNDP 2009). Burkina is among the poorest countries
   in the world. However its growth rate of 3% is one of
   the fastest in sub-Saharan Africa.
- GDP: \$7.95B.
- Average income per capita: \$300
- The economy is vulnerable to external shocks

## **Employment:**

- 62% live on less than \$1/day (Financial Times).
- 90% of Burkina Faso's population lives on subsistence farming. Employment for the majority of the nation is seasonal with irregular income

### Religion/Culture:

- 50% Muslim
- 10% Catholic
- 40% Indigenous
- There are 69 indigenous languages within Burkina Faso

Burkina Faso was recently cited as the worst country to live out of 100 countries surveyed (Aug 16, 2010 Newsweek).

#### Health:

- Burkina holds the worst rating on the planet in overall health and development status of mothers (Save the Children).
- Infant mortality rate is 20%.(UNICEF)
- Nutritional status of children has worsened since 1993 and malnutrition is the underlying cause of 50% of all-cause child mortality. (UNICEF)
- 50% of all deaths in children under 5 are due to malaria.



Village children with distended bellies



1 in 5 children die before age 5

- There is less than 1 doctor per 10,000 people
- Life expectancy: 42 (Financial Times)
- Burkina has the 3rd youngest population on the planet with more than 46% of its population under the age 15, a result of such short life expectancy (2010, Population Reference Bureau)

### Literacy:

- It has the highest illiteracy rate in the world. (UNDP)
- It is estimated that in a rural village 1 person in 1000 may be able to read. (International Service)

#### Water & Sanitation:

- Less than half of the population has access to clean water and in rural regions less than 10% to adequate sanitation. (UNICEF)
- Water availability has decreased annually for the past 45 years. (Better by the Year)
- Sub-Saharan Africa has the least sanitation coverage on the planet; rural regions have the least sanitation and improved water coverage within Africa (WHO/UNI-CEF 2008).
- Recently the Burkina Faso government made a strong political commitment to achieve MDG sanitation



Women and children wait for water

targets. In August, 2010, the government announced a plan to build 55,000 latrines per year to achieve MDG #7 by 2015.

# **Area of Intervention**



- The village of Tantiaka is referred to by locals as "Le Petit Village" or simply La Petite
  - Region: EastProvince: GourmaDepartment: Yamba
- Population: roughly 500 1000 people
- Gourma is home to the Gour'mache people who speak the potentially endangered language of Gulimanchema



Tantiaka, Burkina Faso

# **About The BARKA Foundation**



# The BARKA Foundation

- Incorporated as a 501c3 charitable organization in January 2006
  - > IRS Tax ID: 20-4372789
- Registered as a non-profit corporation in Burkina Faso in 2009
  - > 2009-654/MATD/ SG/DGLPAP/DOASOC
- Affiliation with UN DPI NGO in 2009
- Currently there are two Burkinabe members on the Board of Directors, one is the country's foremost authority on youth mobilization with extensive reforestation experience, the other a veteran in the field of women's empowerment and clean water.

Mission: To serve as a catalyst for the achievement of MDGs in Burkina Faso with particular emphasis on clean water, indigenous rights, women's empowerment, the development of inter-cultural relationships, education and cultural arts.

## **Organizational Capacity and Achievements**

- 34 volunteers on 4 continents
- Coordination with local and national government
- Strong local and international NGO support (Wateraid Burkina, WASH Coalition, UNICEF Global Call to Action WASH-in-Schools)
- Public/private partnerships locally in Burkina and internationally
- Growing relationships with several communities in North America (NY, MA, ME, Quebec)
- In 2008 initiated a small micro-finance initiative with a collective of 87 women in the Fada region; intention to develop this program in the future
- Co-Founders share 15 years collective experience in Burkina, well adapted to local context, culturally sensitive, embraced by local village, familiarity with indigenous technologies, adaptive leadership in both Burkina and North America; hosted Radio Program on

- WBCR, Great Barrington, MA 2006-2008; recipients of Shining World Compassion Award by Master Ching Hai International Association
- In 2006 and again in 2007 Co-Founders were gifted parcels of land in Tantiaka which will be potential sites for the irrigated agriculture and reforestation projects
- BARKA Burkina Consortium, a collaborative international effort to achieve MDGs in Burkina Faso, unveiled on Peace Day 2008; wide UN and government support; founding partners include Earth Day Network, Pathways To Peace, Global Water Network, ZZYX Entertainment, Aquadynamic Solutions, and numerous local organizations
- Feature length documentary film "BARKA! BURKINA!" premiered in competition in 2009 at FESPACO, Africa's largest film festival
- 500-mile Walk for Water from the United Nations to Maine traveled through 20 cities in 20 days to raise awareness and advocacy of water scarcity in Burkina Faso
- Inaugural Peace, Water & Wisdom Concert & Festival in Ouagadougou took place on Peace Day 2009; received pan-African TV coverage; advocated for increased access to clean water



Steering Committee for 2009's Peace, Water & Wisdom Concert & Festival

# **Partnerships**

#### La Petite

- BARKA has established close bonds with villagers of Tantiaka and earned their trust
- Working relationship with elders and women of Tantiaka

# Government Relations (local, national & traditional)

- Sister-City Proposal for Mayor of Fada N'gourma (already ratified by Great Barrington, MA)
- Early stage coordination with local government to draw papers for 20 hectares gifted to BARKA Co-Founders by King of Yamba
- 2009 Sponsorship from ONEA (National Office of Water & Sanitation)
- Expressed support from:
  - Fada Naaba, traditional leader of Gourmache people
  - His Majesty Emperor Mogho Naaba, most significant traditional leader in Burkina Faso and King of Moussi people
  - Ministers of Water,
     Culture, Promotion of Women
  - > FESPACO, CENASA (Cultural Arts)
  - > RTB (Radio Television Burkina)
  - Burkina Faso Embassy to the US
  - US Embassy to Burkina Faso (American Cultural Center)



His Majesty Emperor Mogho Naaba



Fada Naaba



Minister of Water



Baloum Naaba and US Embassy Cultural Director



King of Yamb

Photo credits: Patrice Napon, Youmandia, Thiambiano, Anna Thiam, Papparazzi, Karim Combary

## Private Sector (Burkina)

- LONAB (National Lottery), Air Burkina, McCann Erickson Burkina, Jirma (water company), OuagaFM, Horizon FM, TVZ, Bamig (ICT)
- Local NGO's(Burkina)
  - UNIC Ouagadougou (UN Information Center), UN Permanent Mission of Burkina Faso, Africa Youth Network, Impact Sud, Citizens Club Initiatives, WASH Coalition, Wateraid Burkina, End Water Poverty, Paper For All
- US and International NGO's
  - Partners within BARKA Burkina Consortium, All For Africa, UNICEF WASH-in-Schools, Global Water Network, World Water Organization, UN IDP NGO Steering Committee, Pure Home Water, Live Earth, International Biochar Initiative, FlipVideo, Akvo, Global Giving, Pathways To Peace, Cercle de Paix, PeaceDayTV, GIS Worldwide

## Partner Schools (USA):

- The Calhoun School (New York City Under consideration)
- Monument Valley Middle School (Great Barrington, MA)
- Monument Mountain High School (Great Barrington, MA)
- Waldorf High School (Great Barrington, MA)
- Crosby Elementary (Pittsfield, MA)
- Taconic High School (Pittsfield, MA)
- Pittsfield High School (Pittsfield, MA)
- Sullivan Elementary (North Adams, MA)
- Gabriel Abbot Memorial School (K-8) (Florida, MA)
- Bapst High School (Bangor, Maine)
- Marblehead High School (Marblehead, MA)
- Marblehead Community Charter Public School (Marblehead, MA)
- Odyssey Academy (Rochester, NY)
- Wassookeag Home School (Orono, ME)

## **Community Engagement**

 Community organizations including Rotary Clubs, Church groups and Women's Associations in Berkshire County, MA, Marblehead, MA, Bangor, ME and Quebec, Canada are partnering with BARKA on inter-cultural initiatives



# **Progress to Date**

### The BARKA Method

 Developing a village micro-model for MDG achievement that can be replicated and scaled

Low-tech indigenous

technologies (ceramic
water filters, traditional divination) combined with
modern technologies
(well drilling, hydrological analysis); emphasis
on inexpensive, simple,
homegrown, cutting
edge solutions (biochar,
ecosan, permaculture,

renewable energy)



BARKA's initial microfinance initiative in Tantiaka

Sand Divination is an indigenous

spiritual technology

- Participatory, community led; decisions in the planning and management of development projects and programs are jointly-made
- Cultural arts and education as integral components within sustainable development model
- Multi-stakeholder dialogue and coordination
- Public/private partnerships
- Inter-cultural, interfaith, inter-generational
- Holistic, cross-cutting, trans-disciplinary
- Acknowledging the centrality of water and women's empowerment to MDG satisfaction
- Placing MDG achievement within the context of cocreating a culture of peace

### Well Drilling

 Geofor, one of Burkina Faso's most reputable well drilling companies has been secured for the drilling of a new borehole well

### **Ceramic Water Filters**

 300 ceramic water filters are being produced by Pure Home Water at their women-operated factory in Tamale, Ghana (300 miles from Tantiaka)

## **Composting Toilets**

 BARKA has developed numerous relationships with local vendors in the nearby city of Fada N'gourma. There is good understanding of the local supply chain for goods

and services which this project will require. The construction of the sanitation facilities at the school will be carried out by local contractors. An open, transparent bidding process for infrastructural components by local entrepreneurs is especially feasible given the familiarity with local custom, geography and economics. Local government both in Fada and within the village will offer guidance in this process.



70 children per class in Fada N'Gourma



Young farmers of Tantiaka

# Inter-cultural Viral Development (North America)

- Several US schools are ready to integrate curriculum studies with BARKA's sustainable development project, particularly to create a video dialogue and WASH ART in exchange with Burkinabe students
- See also Community Engagement above



4th graders, Crosby Elementary, Pittsfield, MA

# **Project Scope**

# Village Micro-Model

**Phase 1:** Phase 1: Define replicable and scalable village/community approach to WASH+ livelihood (2011-2012)

Timeline of Phase 1 Activities				
ACTIVITY	YEAR 1			
	Q1	Q2	Q3	Q4
Drill New Water Source		Χ	Χ	
Rehabilitate Existing Well		Χ		
Distribute Ceramic Filters		Χ	Χ	Χ
Composting Toilets		Χ	Χ	
Water & Sanitation Committee	Χ	Χ	Χ	Χ
WASH Program At School	Χ	Χ	Χ	Χ
WASH Radio Programming & Comics		Χ	Χ	Χ
WASH Art/Digital Storytelling	Χ	Χ	Χ	Χ
Farmer's Coalition	Χ	Χ	Χ	Χ
Irrigation	Χ	Χ	Χ	Χ
Reforestation	Χ	Χ	Χ	Χ
Agricultural Input: Biochar	Χ	Χ	Χ	Χ
Community Engagement (North America)	Χ	Χ	Χ	Χ
WASH Advocacy	Χ	Х	Х	Χ

## **Phase 1 Goal: Establish best practices**

# Scale Up Plans

**Phase 2:** Scale model to Gourma Province (2012-2015)

• Population: 300,000

• Total area: 4292 sq. miles

• 55 villages (~900 households per village; 6 people per household on average)

• 58 schools

### Strategy

 Work with villagers of Tantiaka who speak local language to help promote behavioral changes regarding sanitation and hygiene within the local region. This strategy is multipurpose. Not only will it encourage neighboring villages to adopt new WASH techniques more quickly, it will



Phase 2 Area of Intervention: Gourma Province

also empower the initial beneficiaries and reinforce

WASH principles for them

in the process. Instead of the usual attrition commonly seen after implementation, behavioral change will be strengthened. The villagers of Tantiaka will become positive role models as they help their neighbors to achieve the same positive benefits.

- Utilize irrigation, Moringa reforestation and traditional soapmaking to develop new economic opportunities necessary for ensuring sustainable management and operations of new water systems, water quality and water quantity.
- Create ceramic filter factory (Potters for Peace method) run and operated by women

Phase 2 Goal: to enable communities to become self-supportive so that they have the financial and technical means to maintain and replace their systems without having to go back to a dirty water source or depend on further charitable support.

**Phase 3:** Scale model to all 12 other Provinces within Burkina Faso (2015-2025)

• Population: 15 million

• Number of households: 3 million

Phase 3 Goal: to enable every household in Burkina to have access to clean drinking water, improved sanitation facilities and basic hygiene education.

# **Monitoring & Evaluation**



# Sustaining Positive Behavioral Change

BARKA is present in Burkina Faso for the long-term and can monitor and facilitate lasting behavioral change long after the 12-month implementation phase, avoiding the problems encountered when NGO's pick up and leave after program implementation. West Africa is strewn with broken wells due to lack of follow through and ongoing maintenance by well-meaning NGO's which lack capacity. A key differentiator is that BARKA is not only building wells, it is building longterm relationships in this small country. Wells can be drilled quickly, however sustainable behavioral change and strong demand for sanitation can take years of patient and persistent interaction and reinforcement. BARKA's continued presence in Burkina, particularly in Gourma Province during the next several years will help to accelerate and continue demand creation for total sanitation and handwashing.

## Water Sector Governance

From the onset, BARKA will work with villagers and local government authorities on sensitive issues of trans-boundary water co-operation and joint management of water resources. The local water & sanitation committee, farmer's coalition, women and elders' council will be called upon to guide the process with neighboring villages, and ensure a peaceful outcome to any potential conflicts which may arise due to new water services or hardware.

# **Testing**

BARKA plans to work with labs in Africa and the US to test the quality of water, particularly for arsenic levels and other toxic natural occurring elements in new water sources and existing sites within the intervention zone. The local watsan committee will receive training from the well drilling company on how to properly monitor water quantity. Particular emphasis will be placed on improving efficiencies of water use, water leak detection and understanding when repairs are needed. Metering and water saving devices will be considered by the local stakeholders.

The local farmer's coalition will help collect soil samples which will be tested to determine what nutrients the soil lacks in order to properly gauge how to naturally augment the soil quality without the use of chemical fertilizers. Tests will be conducted before and after the use of biochar.

# Indicators of Success, Goals, and Metrics

BARKA is focused on providing high quality services to communities that will be lasting and empowering. The indicators to measure this are:

#### Year 1: Quick Wins

- Water quality and quantity
- Number of users per water point
- Widespread adoption of ceramic water filters
- Incidence of diarrhea, child mortality and other water-borne disease\*
- Farmer adoption of irrigation systems

- WASH education migrating from school to home
- Full cooperation of the village in all project aspects; cooperation for planning and development of phase 2
- Music and dance functioning as a unifying force and to communicate with communities in North America
- US schools and community organizations actively engaging in the project

## **Longer-Term Sustainability Issues**

- A financial mechanism in place that will enable the village to have the fiscal soundness to repair a well when it fails
- Continued use of water filters and sanitation services
- Higher attendance at school, particularly by girls
- Economic empowerment of women through increased use of time for more productive work and small businesses
- Moringa trees growing healthily, providing business opportunities
- Successful implementation of relevant biochar trial
- Humanure and urine being adopted as effective, organic agricultural inputs where appropriate
- Advocacy efforts affecting policy change

\*Health outcomes are difficult to measure without extensive surveying to establish baseline and endline data, a control group and costly evaluations, however government data will be combined with data collection from the local school and villagers.

# **Evaluation Methods**

BARKA intends to use process evaluations throughout the project to determine whether basic tasks are being completed and services being delivered. If not, process evals will help to determine where the breakdown is occurring.

Upon completion of the project, BARKA will work with stakeholders to conduct an impact evaluation to determine whether the program changed lives and if so, how. In order to do an impact evaluation the "counterfactual" must be determined to gauge what would have happened in the absence of the program. BARKA will use this pilot project to take initial steps at data collection through surveys and intake interviews to create base-

line and endline data and will compare these results with similar data collected from a nearby village not benefiting from program services. In this way it will become possible to understand the true nature of the program's impact. Although current capacity in terms of financing and expertise will make this challenging, the experience gained will be valuable in anticipation of the Phase 2 scale-up plan which will integrate more robust experimental evaluation methods into the program. BARKA's Co-Founder was recently awarded a full scholarship to attend the Social Program Executive Training Course by MIT's Jameel Poverty Action Lab (J-PAL). Colleagues at J-PAL will be relied on for field guidance, econometrics and consultation in this area.

# Instilling M&E Consciousness into the Village

BARKA will work with villagers and steering committees from the onset to provide feedback and understand the importance of evaluating the services delivered. Through their knowledge of local custom and behavior, and a clear feedback loop, it will be possible to determine best practices and lessons learned, increase overall efficacy and monitor/evaluate effectively. The feasibility of creating an indigenous monitoring team to collect data before and after the program will be explored.

# Keeping Stakeholders Informed

Project updates posted by online partners Akvo and Global Giving, as well as BARKA website blogs, tweets and facebook updates (communicated via mobile phone while in the field) will be carried out at regular intervals to keep donors and grassroots stakeholders (students, community orgs, online networks) informed of project status, successes and failures.

# **Budget**

Program Item	<b>Total Cost</b>
WATER SERVICES	
Drill 1 well	\$12,969
1 Rope Pump	\$700
1 Borehole (for rope pump)	\$2,100
Engineer consultant	\$1,500
Site Survey	\$750
Ceramic Water filters	\$4,800
Local Specialists (filter use & maint.)	\$2,000
Water Purification for Open Well	\$250
Water & Hydrological Analysis	\$750
TOTAL WATER	\$25,819
SANITATION	
Concrete (for composting toilet)	\$5,000
Engineer Consultant (for construction)	\$1,500
School Handwashing Station	\$150
Locally made soap	\$300
Demand Creation	\$2,000
TOTAL SANITATION	\$8,950
IRRIGATION	
Treadle pumps	\$1,500
Wellpoints	\$500
Irrigation Consultant/Trainer	\$1,250
Field Coordinator 1	\$12,000
TOTAL IRRIGATION	\$15,250
WASH EDUCATION	
Education Specialist (local language)	\$1,250
Supplies	\$500
WASH ART Director	\$1,250
TOTAL WASH EDUCATION	\$3,000

(Budget Continued on right)

	VG-WAT
RE-FORESTATION	
High Quality Moringa Seeds (estimated)	\$1,000
Fencing Materials (1 hectare perimeter)	\$1,750
Soil Analysis	\$265
Local land-use fees; ensuring property rights	\$550
Agronomist/consultant	\$1,250
Field Coordinator 2 (1 year)	\$12,000
Biochar (Estimate; 1 ton)	\$1,000
TOTAL RE-FORESTATION	\$16,815
TRANSPORTATION	
Filter transport from Tamale, Ghana	\$600
RT airfare US to BF	\$8,000
Travel insurance	\$200
Car rental within Burkina	\$6,000
Gas & maintenance	\$3,000
Driver	\$300
Insurance	\$390
Taxis within Ouaga	\$1,200
TOTAL TRANSPORTATION	\$19,690
LINGUISTIC INTERPRETATION	
French to Gulimanchema	\$6,000
English to Gulimanchema	\$6,000
TOTAL LINGUISTIC INTERPRETATION	
<b>COMMUNICATIONS &amp; TECHNOLOGY</b>	
Laptop computers (3)	\$3,000
Flip Video Camcorders	\$2,250
Photographic Camera for documentation	\$275
Memory Card for photo camera	\$118
Video Camcorder	\$2,625
Digital Videotape	\$2,500
Camera accessories	\$550
Cell phone charges (within country and to US)	\$2,850
Internet/fax communication	\$250

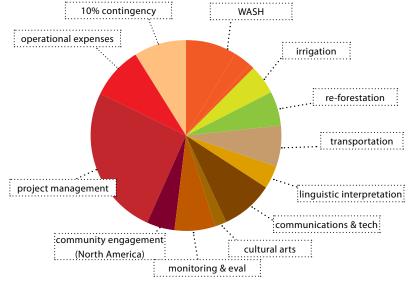
Publicity/Press/Public Relations in	
Burkina	\$400
Cameraman (Documentarian)	\$12,000
TOTAL COMMUNICATIONS & TECH	\$26,818
CLUTURAL ARTS/ENTERTAINMENT	
Village celebrations	\$900
Client meetings in Ouaga & Fada	\$375
Cultural Arts programs	\$1,500
BARKA Wende Music (traditional music troupe)	\$2,100
TOTAL CULTURAL ARTS	\$4,875
COMMUNITY ENGAGEMENT (North America)	\$15,000
MONITORING & EVAL	
Baseline survey	\$5,000
Endline survey	\$5,000
Data collection analysis & software	\$10,000
TOTAL M & E	\$20,000
PROJECT MANAGEMENT	
Program Director	\$18,000
Project Manager	\$18,000
Administrative Assistant (Ouaga)	\$12,000
Security	\$12,000
Controller	\$15,000
TOTAL PROJECT MANAGEMENT	\$75,000
OPERATIONAL EXPENSES	\$25,000
10% CONTINGENCY	\$25,000
TOTAL	\$293,217
Funds Availabe (including Pledge)	(\$25,281)
Total Funds Needed	\$267,936
Local Currency (\$1=469 CFA a/o 10/12/10)	
•	

**Notes:** In 2009, the US dollar lost almost 20% of its value to the Burkina cfa (XOF). 52-week range is from 434 to 569.

While food and labor in Burkina are extremely cheap, other items such as construction materials, transportation costs and telecommunications are very expensive.

MONEY IN (Contributions to Date)	
Berkshire County, MA Schools 2008	\$7,000
Ching Hai International Association (2009)	\$20,000
Peace, Water & Wisdom Walk (2009)	\$10,000
LONAB (Burkina Faso National Lottery) PLEDGE	\$11,365
Global Giving online fundraiser (2010)	\$3,616
Community Walks for Water (2010)	\$3,800
All For Africa (ongoing)	\$7,500
Total Accumulated Funds	\$63,281
Total In Kind Donations to Date	\$170,000
Funds Spent to Date	\$38,000

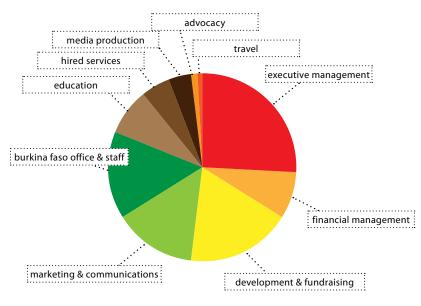
# **Breakdown of Expenses**



# **Organizational Budget**

ORGANIZATIONAL BUDGET 2011			
	In US Dollars		
Executive Management			
Executive Director	65,000		
Executive Producer	65,000		
Financial Management			
CFO	35,000		
Tax Preperation	5,000		
Development & Fundraising			
Development Director	25,000		
Peace, Water & Wisdom Concert (BF)	40,000		
500-mile Walk for Water (US)	25,000		
Marketing & Communications			
Marketing & Communications Director	25,000		
Marketing Initiatives	15,000		
Webmaster	15,000		
Designer	15,000		
Legal			
Legal Consultation Donated by Partner			
A4ID	0		
Burkina Faso Office & Staff			
Director of Sustainable Development	36,000		
Bi-lingual Administrator	18,000		
Office Rental	7,500		
Equipment, Furniture	2,000		
Expendables	1,500		
Tech: PC, Printer, fax, etc.	5,000		
Tech Services: Internet, wifi, telecom, etc.	. 2,500		
Utilities	1,350		
Education			
Education Coordinator	35,000		
Service-Learning Programs	5,000		

	- AIE
Hired Services	
Consulting Services	25,000
Media Production	
Video Editing	15,000
Technology Expendables (CDs, DVDs,	
videotape, etc.)	4,750
Hard Drives	1,500
Advocacy	5,000
Travel	3,500
Conferences	1,400
TOTAL	500,000



# **Budget Narrative**

BARKA Foundation is in start-up mode. Over the past 5 years the organization has demonstrated fiscal responsibility, transparency and accountability. BARKA has proven its resourcefulness by accomplishing much on a shoestring and proven its credibility by engendering the support of a diverse constituency of stakeholders ranging from government officials to 3rd graders, indigenous emperors to colleagues in the field. The groundwork has been lovingly and comprehensively laid for serious potential impact on a grassroots, national and global level. As an organization, BARKA has arrived at its next stage of evolution and requires the funds to implement the task at hand. Clearly, the immediate needs and overall relevance of the organization has outstripped the modest financial resources which have sustained BARKA to date.

This Project Summary is a joint request for Project Funds in the amount of \$267,963 and organizational funds in the amount of \$500,000.

## **Project Funds**

These will fund the 12-month implementation plan of Phase 1 Tier 1 to occur in Burkina Faso and North America in 2011 as outlined in this document. This pilot project will very positively impact thousands of children in Burkina Faso, the US and Canada. This project will be cited by the Culture of Peace Initiative, a network of 3000 international organizations, as an example of best practices related to peace building through the achievement of MDGs. Moreover it is being designed from the ground up as a model for replication and scale and therefore holds significance in the field far beyond the scope of La Petite. Given the expected results of the project, and the growth

trajectory of BARKA Foundation, there is no doubt that operational support is warranted and necessary for project success.

## Organizational Funds

BARKA has been an all-volunteer organization to date. Although the staff of dedicated volunteers has been an integral part of BARKA's success, the organization will be able to grow in accelerated fashion once it can hire full and part time employees. These funds will build organizational capacity through initial paid staffing assignments in both the US and Burkina Faso. Director positions in the key sectors of Development, Education, Financial Management, and Marketing & Communications will be hired in the US and a Director of Sustainable Development and Administrator will be hired in Burkina. The establishment of an office in Ouagadougou will make BARKA's development work on the ground in Burkina sustainable year-round. Funds for Media Production will be geared toward brand awareness, outreach and original content creation in both film and music which will create new revenue potential. BARKA's reach and capabilities will be vastly improved with regard to advocacy and community engagement in the US and Canada.

A contribution of this magnitude will make an enormous impact in the lives of thousands of Burkinabe, dozens of communities in North America, hundreds who will work with BARKA Foundation as staffers or volunteers, and to the organization as a whole. It will set the stage for sustainable growth and enable the environment for BARKA to procure long-term investment from strategic partners for expanded impact.

# Logframe

#### Inputs **Impact** Needs Outputs **Outcomes** Less time spent by women sourcing **Empowerment of** New water points Closer access to clean water women Lack of access to clean Rehabilitated water water source Decrease in water-Greater opportu-Clean water in every borne diseases espesources nity for villagers and Ceramic water filters household cially in children children Increase in school attendance Gender-specific composting toilets at Improved health for Creation of a model school Using improved Leverage of project for community-led village as a whole sanitation facilities in No sanitation funds to gain materi-Cessation of open total sanitation in subthe home defecation als from government Saharan Africa to build household latrines WASH program at school Public WASH ART Increased hand-washperformances ing practices Self-empowerment Graphically illustrated Clean hands Demand creation for No basic hygiene written material improved sanitation Improved hygiene Improved overall Local Radio programfacilities health practices Village participation in Water & sanitation committee meetings committee (Village intervention) Greater insulation to external shocks such Decrease in malnutri-Increased crop as drought and ecotion and hunger Chronic food insediversity nomic fluctuations Increased autonomy curity Low-tech irrigation More frequent and Improved land use for subsistence farm-Vulnerability to exter-Moringa tree plantareliable harvests techniques and ers nal shocks Improvement in soil practices Economic empower-Poor land manage-**Biochar** chemistry Possibility of surplus ment Small business opment crops and Moringa Climate change mitiportunities products to sell at gation market Peace-building Inter-cultural con-Establishment of a nections with North Increased awareness Communication with participatory, grass-Isolation from interna-American communiof cultural difference people from another roots development tional community ties: digital storytelland sensitivity culture and civilization model with respect ing, cultural arts, Local pride for indigenous culture educational initiatives and identity



# **Appendix**





# **Development with Culture**



# Toward a New Development **Paradigm**

Because of the intensely collaborative process with which BARKA is engaged with the local population of the village, the villagers are considered to be project partners more than recipients or beneficiaries. BARKA is striving for a form of development with respect for indigenous culture and identity. The UN Permanent Forum on Indigenous Issues has provided invaluable guidance on this issue, particularly with regard to "Free, Prior & Informed Consent" by indigenous peoples for projects on their lands as cited in the Indigenous Rights Declaration. In addition to the social justice and indigenous rights aspect, this methodology is derived from the conviction that some of the smartest, most sustainable solutions are homegrown, low-tech, inexpensive and local to the people where they are being applied. Similar to the philosophy which drives participatory rural appraisal (PRA), BARKA sees potential in tapping into the collective wisdom and body of knowledge of indigenous people and local communities. When appropriate or necessary, the implementation of

modern technologies and knowledge can complement indigenous technologies and expand impact. For this reason, BARKA is a bridge between two worlds, connecting



Elders at a village gathering 2009

local communities across the globe and piloting an innovative approach to a model of sustainable development for a global village.

This pilot project originally began in March 2008 during meetings with village women when it was jointly decided that the first step to take together would be to ensure access to





BARKA meets with village women

# **Treatises, Declarations, Policies**

# BARKA is strategically aligned with the following:

#### National:

- PAGIRE: Action Plan for Integrated Water Resources
   Management of Burkina Faso to "Contribute to
   the implementation of Integrated Water Resources
   Management in the country, adapted to the national
   context in conformity with the orientations defined
   by the burkinabè Government and respecting the
   principles acknowledged on the international level
   in relation to a sustainable, and ecologically rational
   management of water resources".
- PN-AEPA: National Water Supply and Sanitation Program to achieve the Millennium Development Goals for water & sanitation.

#### International:

- UN Declaration on the Rights of Indigenous Peoples:
- UN General Assembly Resolution: The Human Right to Water & Sanitation (7/28/10)
- The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions:
  - Emphasizing the need to incorporate culture as a strategic element in national and international development policies; recognizing the importance of traditional knowledge as a source of intangible and material wealth, and in particular the knowledge systems of indigenous peoples, and its positive contribution to sustainable development, as well as the need for its adequate protection and promotion; parties shall endeavour to integrate culture in their

- development policies at all levels for the creation of conditions conducive to sustainable development.
- The Vision 21, put forth by WSSCC; Approved by the second meeting of the World Water Forum held in The Hague (Netherlands) in March, 2000.

#### The Four elements of Vision 21:

- Strengthening people's energy and creativity at all levels: this implies giving the required means to the populations and strengthening the capacities of the households and the communities to participate in the process planning, to take necessary steps and to apply the technologies likely to meet the current needs.
- A comprehensive approach which recognizes hygiene, water and sanitation as a fundamental right connected to human development, elimination of poverty, viability of the environment and Integrated Water Resources Management;
- A supervised and compassionate involvement and good governance which empowers the authorities and the institutions, so as to support the households and the community in the management of hygiene, water and sanitation and in the responsibility vis-àvis the users as customers;
- A synergy among all the partners, by favoring a shared commitment among the users, the politicians and the professionals of the sector.
- Senator Paul Simon Water for the World Act, S. 624

# **Addressing Known WASH Obstacles**

# WASH + Strategies

#### **Demand Creation**

There are technical, cultural, and logistical challenges which BARKA anticipates, particularly with regard to transitioning from no sanitation to community-led total sanitation. It has been shown that demand for sanitation and hygiene must be created and vocalized before systems are put in place. It takes time



Women at the well



Young girl at well instead of school

to create demand and the skills required are unique from the engineering skills needed to implement water systems. The decision making process of villagers must be understood and varies based on the input: a decision about a new water source is made at the community level, sanitation is made at the household level, while personal hygiene is made at the individual level. Understanding these processes allows for appropriate promotion techniques and social marketing at each level.

#### **HWWS & HWT**

Handwashing (HWWS) with soap and point-of-use water treatment are the most effective interventions in reducing diarrhea morbidity (Fewtrell et. al. 2005). HWWS is a cornerstone of WASH education. The women of Tantiaka also make traditional soap

from soapnuts which grow on trees indigenous to Burkina. Special attention will be given to the creation of small women-owned soapmaking businesses to reinforce the importance of HWWS while simultaneously providing the soap needed by the local school and village population. Secondly, distributing ceramic water filters to every village household will ensure that every villager can have a reliable source of clean water, possibly for the first time in their lives. Basic hygiene information will be delivered during the distribution process when locally trained specialists will teach proper use and maintenance of the filter. The filters will also provide a safer alternative for water storage than old plastic jerry cans which breed disease.

## Holistic Approach

Some studies indicate that integrated WASH approaches proved less effective than individual interventions. BARKA is learning from the mistakes others have made, and will seek out advice of international experts as well as local experts on the ground in Burkina such as Wateraid Burkina and the WASH Coalition to



Women discuss BARKA's water initiativ



Spiritual leader speaks at village gathering

avoid pitfalls and incorporate best practices. Hygiene education will make use of empirical evidence to il-

lustrate the connection between open defecation and health impacts. UNICEF has employed this simple technique to great effect in neighboring Mali to motivate villagers to build their own latrines even at their own expense. Water, sanitation & hygiene will be treated as 3 parts of one whole.

### Village Financial Mechanism

The villagers of Tantiaka are referred to as ultra-poor, chronic-poor, or poorest of the poor, living on \$.50/ day. Development projects are known to be less effective and sustainable when program services are provided entirely for free. However these villagers are unable to afford economic interventions or co-financing schemes to pay for WASH services. This is an issue which will be discussed at length with the village. "Sweat equity" has been shown to be an insufficient motivator to create full investment and ownership of development projects. Labor from within the village will have to be used initially. Project funds will then be leveraged for additional funding and materials from the local government. Consideration will be given to revenue generating initiatives derived from the moringa trees, irrigated gardens, soapmaking and per-use micro-payments at the new well. It is only through local ownership of all project aspects and economic empowerment that the cycle of poverty can be truly broken. The true litmus test of whether a village has broken the cycle of poverty is its ability to replace or repair the water point hardware when it eventually fails (Breslin, Rethinking Hydrophilanthropy).

## Changing landscape of Land & Water Rights

Land use and water rights are legally owned by the state however in practice are still carried out tradi-

tionally. BARKA works with local leaders, village kings and elders' councils as well as local government officials, mayors, governors, and prefects to ensure that both constituencies are working together in a coordinated effort.

In Burkina, responsibil-

ity for watsan services

is being transferred



Girls pound millet after it's harvested



Harvesting peanuts in October

from the central government to local governments. Decision making and project work is becoming more closely connected with local communities. However, local authorities don't have the expertise or budgets to carry out the work expected of them. BARKA will work with the local government, support it in its new role and help build its capacity. Particularly during scale-up phases, local government data will be essential in determining where new water points are most needed and where broken water points can be rehabilitated.

# Financing Water & Sanitation for the Poorest of the Poor

#### Cost-Effectiveness

- \$1 invested in clean water, sanitation & hygiene yields \$9 in benefits (WHO 2007)
- Hygiene and sanitation investments are among the most cost effective AND the most effective at reducing disease (Fewtrell et.al 2005)
- The most effective WASH practices (hygiene promotion, sanitation demand creation, and point of use water treatment) are the cheapest (UNICEF 2007)

## **Urgency**

- The impact of diarrheal diseases [alone] in children under 15 is greater than the combined impact of HIV/AIDS, malaria, and tuberculosis (WHO)
- UN-Water Global Annual Assessment of Sanitation and Drinking-Water (GLAAS) Report indicates that between 1997 and 2008 total development aid commitments for sanitation and water fell from 8% to 5%

## Insufficient and Inadequate Funds from Multi-Lateral Donors

- Over the past three years only 42% of aid for water and sanitation has been targeted at least developed and low-income countries where the need is the greatest (GLAAS Report)
- Only 37% of that aid is targeted at sanitation; the gap to reach the Millennium Development Goal for sanitation (MDG 7) is estimated at \$35b-\$93b/ year making MDG 7 either off track or unattainable for many of the poorest countries
- Out of the \$6b invested in WASH projects in 2007, only 20% was invested in individual WASH projects; 80% went toward large scale infrastructure (Measuring Aid to Water Supply and Sanitation OECD-DAC, Feb 2009)

## Co-Financing WASH Projects

The purpose of integrating irrigation and reforestation into the village model WASH pilot is to create a financial mechanism that will economically empower the village to sustain program benefits over the long term

- Donor funds will be used to leverage counterpart funds from government and local communities
- Co-financing is necessary to create real ownership of the project by the local population
- Co-financed projects are more sustainable than ones in which 100% of payment is made by an NGO combined with 'sweat equity' of village (Breslin, Hydrophilanthropy)
- Local communities in North America, particularly schools, have demonstrated a willingness to invest in watsan services in Burkina villages
  - Creates a strong sense of stewardship which will aid community project financing
  - Contributes to local ownership of projects on both sides of the Atlantic

## Advocacy

- Loans and grants to the state from external donors account for 88.5% of the total investment in water & sanitation, but even this is 14b CFAF short of the 32 billion CFAF required to reach MDG 7 (Wateraid Burkina)
- Burkina Faso government has a national policy on sanitation with goals in line to reach MDG targets. There is a sector investment plan and a single body to coordinate action. However donor support and sufficient budget allocation are insufficient to meet targets. There is also no single budget line for sanitation. BARKA will increase its advocacy work to lobby for greater investment in the watsan sector, particularly as it applies to WASH principles and hygiene education
- BARKA will work collaboratively with solidarity organizations, in-country UN agencies and local country-based organizations such as WASH Coalition and CREPA to share best practices, expand impact and strengthen mutual capacities
- UNICEF WASH-in-Schools is particularly interested in mapping information to define which schools have WASH programs in Burkina. BAR-KA will be able to provide detailed feedback as well as advocacy within Gourma Province.

# **Estimate for the Well**



DEVIS N°D0911/009

Ouagadougou le 16 novembre 2009

#### REALISATION DE UN (01) FORAGE POSITIF EQUIPE D'UNE POMPE MANUELLE

PROVINCE : NGOURMA VILLAGE : Tantiaka

DOIT : The BARKA Foundation - inaandesu@barkafoundation.org (USA)

Ν°	Désignation	U	Qté	Prix unitaire	Prix total
1	IMPLANTATION	u	1	400 000	400 000
2	AMENEE ET REPLI DU MATERIEL	u	1	500 000	500 000
3	FORATION				
3.1	Foration dans les altérites diamètre min 9"7/8	ml	25	22 000	550 000
3.2	Foration terrain dur en diamètre 6"1/2	ml	35	20 000	700 000
4	EQUIPEMENT				
4.1	Fourniture et pose tubage PVC plein 110/125	ml	41	7 500	307 500
4.2	Fourniture et pose tubage PVC crépinés 110/125	ml	20	8 000	160 000
4.3	Fourniture et mise en place du gravier au droit du captage	u	1	50 000	50 000
4.3	Mise en place d'un packer ou d'un bouchon	u	1	75 000	75 000
4.5	Remblai de l'espace annulaire en tout venant	u	1	40 000	40 000
4.6	Cimentation en tête des derniers 6m	u	1	45 000	45 000
5	DEVELOPPEMENT				
5.1	Développement air-lift	h	4	30 500	122 000
5.2	Pompage d'essai	h	12	32 500	390 000
5.3	Analyse d'eau	u	1	65 000	65 000
5.4	Mesure de la remontée	h	2	10 000	20 000
6	INSTALLATION POMPE				
6.1	Margelle mur de clôture, canal, abreuvoir, puits perdu	u	1	850 000	850 000
6.2	Fourniture et installation d'une pompe manuelle INOX à 30 ml	u	1	1 100 000	1 100 000
Prix	Prix total				5 374 500
TVA	TVA 18%				
Prix	Prix total				

Arrêté le présent devis à la somme de :

SIX MILLIONS TROIS CENT QUARANTE ET UN MILLE NEUF CENT DIX FRANCS (6 341 910) Francs CFA TTC

Conditions des travaux.

Avance de démarrage : 50 % soit la somme de 3 170 955 FCFA

Fin du forage : 50 % restant soit la somme de 3 170 955 FCFA

Le Directeur Général

Regis de LAMBILLY

# References



"I am the Mossi King representing more than half of the Burkina Faso population. I am a man of peace, having received this country's highest honor for building peace. My full support of this endeavor is based on the social, spiritual, economic, and moral benefit for the people of Burkina and for all the people in our global village. It is with gratitude that I acknowledge the respect that BARKA Foundation has shown me and the spiritual traditions of my country. Together we hope to change the world in some small yet significant way for the betterment of all. This is a project for the children of the future and I will employ all within my power to ensure its successful outcome." - His Majesty, Emperor Mogho Naaba

"We welcome this endeavor to improve the living conditions of Burkinabe and also to share Burkina's gifts with other parts of the world. The BARKA Burkina Consortium is an innovative model leading the way toward a new form of cooperative development and humanitarian assistance. The Burkina Faso government looks forward to working with the Consortium and its partners." - His Excellency, Ernest Paramanga Yonli, Ambassador, Burkina Faso Embassy to the US

"The BARKA Burkina Consortium has the support of the Burkina Faso Permanent Mission to the United Nations." - His Excellency Michel Kafando, Ambassador, UN Permanent Mission of Burkina Faso

"The 7 year project (2008-2015), aimed at supporting achievement of the United Nations Millennium Development Goals in Burkina Faso, is particularly significant as its work to eradicate poverty is being cast within the context of creating a culture of peace... I encourage you to give this endeavor your fullest support." - Anwarul K. Chowdhury, Former Under-Secretary-General and High Representative of the United Nations

"BARKA's work on the local as well as international level, its emphasis on integrating art and music into its humanitarian efforts, and its stalwart philosophy of working directly with indigenous people to develop a sustainable means of eradicating poverty and to share their cultural and spiritual wisdom with the West is blazing a trail toward reconciliation, healing, reciprocity and peace." - Michael Johnson, UN Representative, Pathways To Peace

"Should the Berkshires care about Africa's water problems? Absolutely." - State Representative Daniel Bosley

"This project is helping not only Burkinabe through the eradication of poverty and achievement of the United Nations' Millennium Development Goals, it is expanding the minds and hearts of everyone here in the Berkshires. The Consortium is providing a vehicle for cultural understanding and appreciation and offering us all concrete opportunities to experience the richness of living in a global village. Barka!" - State Representative William "Smitty" Pignatelli

"Barka is one of those rare foundations whose water efforts are born out of creative solutions. Ina and esu have globally engaged children, educators, and NGOs to help raise water consciousness, and to bring clean water to those in dying need in Burkina Faso." - William Waterway Marks, Author "Water Voices"

# **About BARKA's Co-Founders**

Ina & Esu Anahata split their time between the United States and Burkina Faso. Implementing the ambitious mandate of The BARKA Foundation is



Ina, Esu & Fataho lead 1000 people in Ouaga Walk for Water, 2009. Photo credit: Paparazzi

not a job for them but a calling. They live, breathe and sleep BARKA 365 days a year. Their work is aligned with a passionate sense of life purpose. This has inspired colleagues, students, volunteers and officials.

Ina was raised and spent most of her life in the rural Northeast of New Hampshire, Vermont and Maine. She was a stay-at-home mom and raised 3 children, growing much of her own food. She is an experienced hunter and was a licensed Hunting Guide in Maine for many years. Ina is an artist, published singer/songwriter, musician, and accomplished jewelry designer. She was a professional gardener, landscaper and is a budding herbalist. Ina created her own unique form of transformational bodywork in a professional massage practice spanning 10 years. She is a Reverend ordained by the Temple of the Feminine Divine. Ina is a grandmother of three.

Esu was born in New York City, earned a Bachelor of Arts degree from Williams College in 1988, and studied theatrical direction at the Trinity Rep Conservatory under world-renowned director Anne Bogart. Following a brief acting and directing career in NYC, Esu received training as a video editor and television producer He was part of the startup team of two cable networks in two years, FOX's fx and CNN fn, producing origi-

nal programming for both cable stations. In 1998 Esu joined RealNetworks, the pioneer of streaming video on the internet. Esu worked in media production, marketing, promotion and product development. He applied these skills at Microsoft and in a freelance consulting business from 2001-2004.

When in the US, their home and corporate headquarters is in unorganized territory, Maine. Ina & Esu live on the shore of a lake in a rustic cabin with no running water or electricity. They walk

"To work alongside Esu and Ina is to feel their relentless passion, energy and drive to make the BARKA Foundation into a significant force for positive change. They do this 24 hours a day, 7 days a week because they are driven by a greater force which compels them to act. They work at this feverish pitch not for their own gain, but because they see the urgency of the situation and know that time is of the essence for the future of the children in this world." - Adam Ruderman, Social Entrepreneur, BARKA Board Member

for water to a nearby spring in the woods and use the same hand pump they use in Burkina to filter water. They balance out this almost carbon-neutral, indigenous lifestyle with the assistance of modern technology, particularly a generator, iMac and satellite dish. This unusual work environment allows for an always-on intensity which enables their relentless pace. The pristine natural surroundings provide equanimity and nurturance. They intend to explore solar and wind power, a composting toilet and a ceramic water filter in their own home to continue to lead by example and to inform their work in Burkina.

In 2009 Ina & Esu received the Shining World Compassion Award by Supreme Master Ching Hai International Association. Their photography was recently awarded as a Finalist in Global Giving's Photo Competition. All photos within this document unless otherwise noted were taken by Ina & Esu.

# **Relevant Quotes**

"The MDGs recognize the centrality of water and sanitation in poverty reduction... Achieving these targets will also contribute significantly to other Millennium Development Goals including Education, Child Mortality, Gender Equality, Maternal Health, and Fight Against Disease." -His Excellency Thomas Stelzer, Assistant Secretary-General, United Nations

"Each minute 1 woman and two children die due to preventable disease. This is a gross injustice, a lost opportunity and a massive waste. Women are the thread that binds the MDGs. Whenever there is failure to achieve MDGs there is a corresponding failure of adequately supporting women and girls. - Secretary-General Ban Ki-moon

"Indigenous peoples are the custodians of some of the most biologically diverse areas of the world. They have an amazing amount of traditional knowledge about their environment which is transferred from one generation to the next, and this knowledge is essential for the success and sustainability of development projects aimed at achieving the Millennium Development Goals." - Elsa Stamatapoulou, Chief, Secretariat of the United Nations Permanent Forum on Indigenous Issues

"If you have come here to help me, you are wasting your time....
But if you have come because your liberation is bound up with
mine, then let us work together" - Lilla Watson, Australian
Aborigine Dreamkeeper

"Nothing in this world can take the place of persistence. Talent will not; nothing is more common than unsuccessful people with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan 'press on' has solved and always will solve the problems of the human race." Wolgang von Goethe

"Cultural, social, and spiritual dimensions deserve equal, perhaps higher places in the gallery of development than material consideration." - Bradford Morse's Foreward to Listening to Africa by Pierre Pradervand

If you can't feed a hundred people, then feed just one. - Mother Teresa

Do not wait for leaders; do it alone, person to person. - Mother Teresa