

**2008
BCC – A MODEL,
LEARNING VILLAGE FOR SUSTAINABLE
DEVELOPMENT AND WATER HARVESTING**

TAKE ACTION, BUILD A VILLAGE, DEVELOP CHILDREN, INSPIRE HOPE.



Water Harvesting Pond

**BCC Trust (Akash Ganga RWH)
Lift Kids, Inc**

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Lift Kids is an IRS approved 501 C (3) non-profit corporation

**BCC Trust (Akash Ganga RWH), 1653, 20th Avenue NW, St.Paul MN 55112
Akash Ganga RWH is a US IRS approved 501 C (3) non-profit**

I. Executive Summary

India accounts for 57 million of the world's 156 million malnourished children. India has the same malnutrition rate as Ethiopia at 47 percent. Each year 600,000 under age 5 child deaths could be averted in India if simple health interventions along with correct feeding practices were applied.

Seventy-seven percent of Indians or about 836 million people live on less than \$2.00 per day (85 rupees).

The BCC Trust has teamed up with Lift Kids to develop a project that will provide help to the people of India. A self-sustaining community center is being built that will provide training to mothers on nutrition practices, health practices, sanitation, and the use of potable water. Thirty-five percent of the health problems could be solved through good sanitation practices and the use of clean water. The community center is being built as a model to show how water harvesting can provide potable water and be used for farming in a very dry climate. This community center concept will benefit the people of 51 villages (322,680 people) in the Vilathikulam taluk (township) and will be used as a model that can be replicated in other parts of India and Africa to improve living conditions through the use of water harvesting, agricultural training, and assembly of solar panels to improve living conditions.

Your contributions will help the BCC Trust and Lift Kids complete the development of the first community center and continue the replication process to other areas of need.

The total budget for the project is \$240,000 of which 44% has already been contributed to allow the project to be started. We are requesting \$133,000 to complete the development of the Community Center featuring the Global Water School.

Goals of the Program:

- Develop a Global Water School to teach the local population about water harvesting and its benefits.
- Create a sustainable community center that will be replicated in India and Eastern Africa to teach water harvesting.
- Install a training center to educate the rural masses in socio-economic, health, education, and environment spheres.
- Provide a source for potable water.
- Train and promote sustainable agricultural practices.
- Promote a health clinic.
- Educate the balwadi (pre-kindergarden) and non-formal teachers on the skills necessary to groom the children.
- Teach and train the poor on livelihood skills for their sustainable development. (or provide education and training for the poor on livelihood skills...)

Metrics:

- The community center will have an impact on all 322,680 people in the Vilathikulam area over a ten-year period of time.
- The community center will provide a sustainable value add per child of 10 to 1 by affecting the lives of 13,300 children per year for ten years. The investment of \$133,000 (not counting the donation in kind and land donation) will affect 13,300 children over a ten-year period of time. (i.e. The one time investment will cost \$10 per child.)

II. Request

The BCC Trust in conjunction with LiftKids, Inc. are asking for the funding for building a community center that will train the local population to improve their knowledge on sustainable agricultural practices, provide a source of potable water, improve their knowledge of health and hygienic practices, and train teachers.

By donating to the BCC Trust and LiftKids, you will contribute to organizations that are focused on improving the current and future lives of children through water harvesting and education. We are seeking a total of \$133,000 to complete the community center and Global Water School. Here are a few ways your donation can make a difference:

- \$8,000 will build a potable drinking water system.
- \$54,000 will build the community center building that will house classrooms.
- \$16,000 will provide the seed money for building solar panels that can be used for light so that children can study at night.
- \$33,000 will cover the operating loss for the first two years.
- \$22,000 will build the health services program, education program, and testing labs.

Your donation to building the community center will inspire hope and develop the lives of children while creating a sustainable community center that can be replicated throughout the world. Your tax-deductible donation will allow the BCC Community Center to generate positive cash flow through its potable water sales, plant nursery, small farm, and solar panel sales. Please see tables in the appendix section for profit/loss projections for the scope of this business project.

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IV. Bharathiyar Community Center (BCC)

The Project:

In a joint effort, Lift Kids Inc. and The Bharathiyar Community Center Trust are developing a community center (BCC) at Kuralayampatti village near Vilathikulam, India. The community center is being developed as a mini model village to show surrounding villages in the region how to be self-reliant through education on health care and water harvesting. Educating people on the practice of good health care, the use of clean water, and proper sanitation will decrease their health issues by 35%.

Purpose:

The purpose of this project is to establish a sustainable community center to be a self-sustainable model village for the people of Vilathikulam that will provide training in areas of rain water collection, agricultural practices, health clinic, education, energy generation, and vocational training. This community center will be a Global Water School to teach about water harvesting and will be used as a model for replication in India and Eastern Africa. There are currently ten projects underway in India and Eastern Africa that utilize this model.

Background:

The Bharathiyar Community Center (BCC) project was started in early 2007. It was conceived after lengthy discussions with the local community about their continuing needs. The project is operated by the BCC Trust which was started by the dedicated volunteers of Dr. Jothimony, Mrs Madhuri Menon, and Ram Krishnan of Minnesota, US and Vilathikulam, India. The BCC has a similar vision to Lift Kids – sustainable business models that provide the project with the revenue and supplies needed to make the operation independent.

Lift Kids was formed in 2006. Lift Kids is focused on empowering the world's poorest children to bring about lasting change through its model of philanthropic franchising. Drawing on its core of professionals, it brings expertise in business development to help design, develop, and secure start-up capital funding for a sustainable village model. The core values of Sustainability, Education, Replicable models, Volunteerism and Empowerment (SERVE) align well with the BCC Project, making this a promising operating partnership.

Lift Kids Role:

Provide planning, due diligence, eco-volunteering, funding, quality control, and performance monitoring.

BCC Trust Role:

The BCC Trust will construct and manage the Community Center.

Timeline:

- Business Plan Development Phase: June - July 2008
- Fundraising Phase: July – Sept 2008
- Construction Phase: 2008 through 2009 (Construction has started)

Background:

The Bharathiyar Community Center is being built at Kuralayampatti village in the Vilathikulam taluk (township) in the Thoothukudi District. The Vilathikulam taluk is an area that suffers from unemployment and lacks industry. The area is located in southern India with Sri Lanka located to the east. The area receives an average of 565 mm of rainfall per year. The rain falls over nine days and needs to be captured so that it can be used during the entire year.

The Vilathikulam taluk is located 40 km northeast of Tuticorin, India and 540 km south of Chennai, India. The nearest airport is in Madurai (65 km north).

Population: 322,680 (49.42% men, 50.58% women)

Area: 82,243.77 hectares
(73,249.68 hectares cultivable, 750.57 hectares irrigated)

Crops: Chili, ragi, maize, cotton

Climate: Temperature 18.4 C to 40.5 C
Rainfall 565 mm per year (average for 5 years)

Languages: Tamil and English

Religions: Hindu 78.58%, Christian 16.71%, Muslim 4.63%

Economics:

The Vilathikulam taluk is one of the poorest in India. It suffers from a lack of industry, and the farming industry is dependent upon typically nine days of rainfall in October. If employment can be found wages are Rs 55 for women and Rs 70 for a man per day.

Why Help Bharathiyar Community Center (BCC)?

The BCC is serving an area of India that suffers from water scarcity, unemployment, low knowledge of sustainable agricultural practices, low knowledge of water management practices, poverty, and lack of education. The BCC is being set up to teach villagers how to manage water through the use of holding ponds, how to provide potable water, sustainable agricultural practices, and health services. A donation to this cause will change the lives of the people in all 51 villages in the Vilathikulam taluk. It will improve the lives of the children in the area by providing educational support and training for their parents for a better life. We thank you for your time and interest in this extremely important opportunity.

Goals:

- Install a training center to educate the rural masses in socio-economic, health, education, and environment spheres.
- Provide a source for potable water.
- Train and promote sustainable agricultural practices.
- Promote a health clinic.
- Educate the balwadi and non-formal teachers the skills necessary to groom the children.
- Teach and train the poor with livelihood skills for their sustainable development.

Expected Outputs:

- Reduction of health issues due to people implementing learning on health care, use of clean water, and sanitation practices.
- All of the women's self-help groups from the region and elected leaders have made frequent visits to the BCC, and learning yields a gained knowledge for sustainable development.
- The BCC is providing access to a complete knowledge package for the rural masses in the Vilathikulam block. The knowledge package will include information and training on water harvesting, farming, health practices, and energy practices.
- At the end of every training, all the training participants have successfully demonstrated a practical understanding of the learned sustainable agricultural practices.
- At the end of health awareness programs, most of the villagers who attended the programs have increased treatment and behavioral change.
- At the end of the year 2010, all the villagers (not having electricity) of five village panchayats (village council) of Vilathikulam block have demonstrated the use of solar light.
- Improved accessibility and availability of clean drinking potable water are enjoyed by the rural people of five village panchayats.
- At the end of every training imparted to the teachers, all the training participants have successfully demonstrated a practical understanding of educating the children with use of innovative pedagogies.

Five-Year Objectives:

- 51 village panchayat elected leaders of Vilathikulam block have increased awareness on replicating the model BCC village in their village panchayats.
- Nearly 25,000 villagers of Vilathikulam block enjoy increased accessibility and availability of clean drinking water.
- 10,000 rural people of Vilathikulam block enjoy frequent visits to BCC and have increased knowledge through good practices of water, food and energy.
- 75% of rural people of 51 village panchayats in Vilathikulam block are consistently producing good balance of agriculture productivity and consumption after their learning from BCC.
- 80% of the villagers of 51 village panchayats in Vilathikulam block are having increased health care services through BCC health clinic.
- 100% of the teachers trained in BCC have demonstrated pedagogical methods in increasing the educational standards of the rural children.

Monitoring and Evaluation:

A BCC committee will be formed with local people's representatives and BCC members, and this committee will plan, implement, monitor and control the BCC activities. A staffing pattern will be created, and the field staff will mobilize and organize the rural masses for trainings and visiting the BCC. The management staff will review the BCC activities and prepare records and documentation transpiring at BCC. Periodic monitoring and evaluation will be carried out by both Mr. Ram Krishnan and Dr. K. Jothimony.

Bio of Dr.K.Jothimony:

Dr. K Jothimony is a native of Vilathikulam. He has a Doctorate in Chemistry from IIT, Madras and served in the state owned Oil & Natural Gas Corporation for 18 years. He also worked as a Fluids consultant in different MNCs like Baker Hughes, EMEC, MI LLC in Dubai, Muscat, Iran and Saudi Arabia. He is presently working for Halliburton / Baroid in Angola (western Africa).

He is actively involved in community development activities in the Vilathikulam area by forming an NGO in 1997 in the field of rural education, health, women & children development and other livelihood activities.

Bio of Ram Krishnan:

Ram is a native of India and a graduate of IIT Madras. He is active in the IIT alumni activities and is president of IITM alumni group in the United States (U.S.) Ram has lived in the U.S. for 30 years where he founded and operated a logistics consulting company for 15 years in the U.S.

Ram has committed the next four plus years to work on sustainable and scalable projects in India and Africa. He specializes in water harvesting.

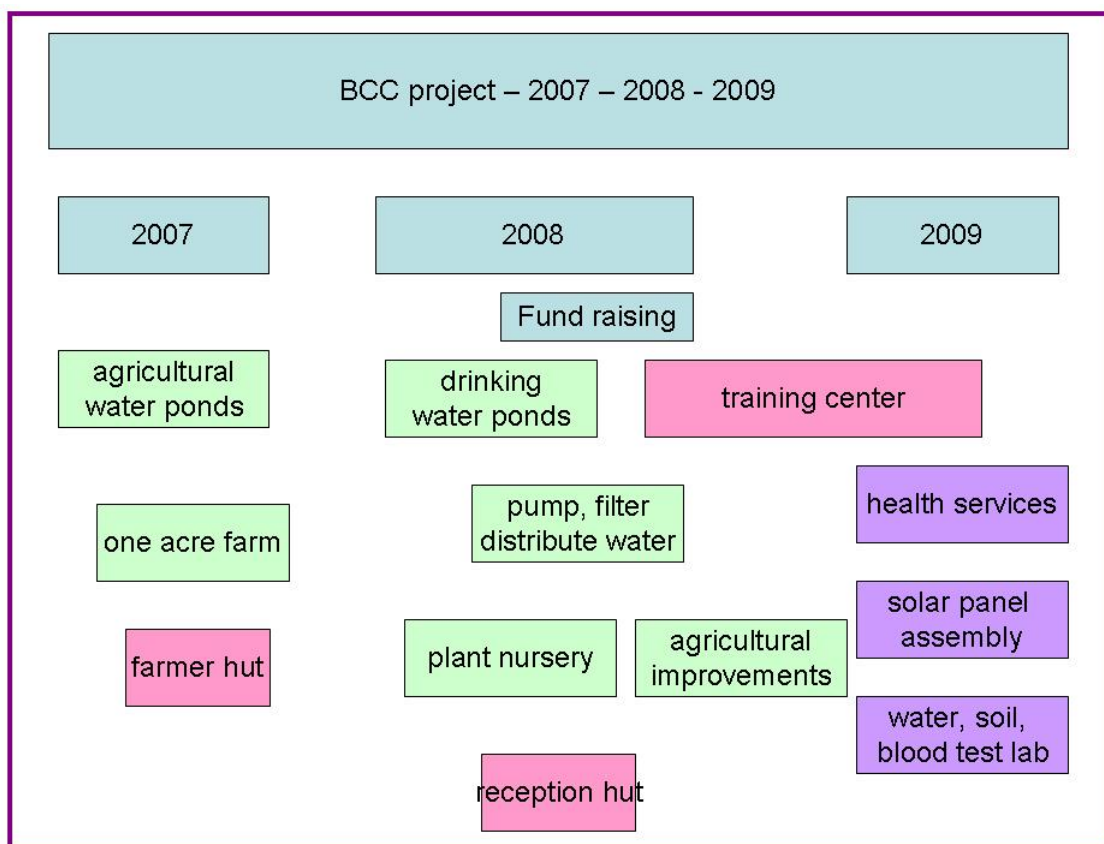
V. Operational Plans

Location:

The BCC is located on 13 acres of land. The land has been donated to the BCC Trust from Dr. Jothimony for 15 years with options for further extensions. The current market value of the land is estimated at Rs 13.0 Lakhs (\$30,445).

Construction of the project began once land was secured and funds were obtained for the agricultural water pond, one-acre farm, small hut, solar lanterns, drinking water pond, and a plant nursery.

The graphic below shows the different elements of the BCC project.



The attached link is for a video taken on July 28, 2008 showing the current view of the BCC. http://www.youtube.com/watch?v=Qv_YTe9VIGg

Overview of completed projects:

Agricultural water pond:

This region is a dry region. Unless we collect the rainwater and keep it available, no other tasks can be taken up.



Digging of this pond started in August 2007. The nominal size of the pond is 150 feet long X 50 feet wide X 14 feet deep. Most of the digging was completed with a scooping machine that rents for Rs 650 per hour. To haul away the mud, three small trailers were rented at a cost of Rs 350 per eight-hour shift. It took six days to complete this part of the project. Villagers closest to the Community Center site were hired for another week to complete the final trimming, laying steps, etc. A team of 20 workers, costing Rs 75 per day, completed the job. The total cost of this pond was around Rs 1.2 Lakhs (\$2810) .

One-acre farm wonder:



One acre of land close to the water source was used to construct this special one-acre farm. The design and concept came from an Agricultural Professor who has constructed other similar one-acre farms.

Almost 90% of the farms in India are about one acre in size. In this test farm, a farming couple is meant to grow all their food needs by themselves, without hiring any extra labor. Selling excess food and produce items could earn the couple about Rs 35,000 (\$820) a year.

Construction of the one-acre farm, buying the seeds, setting up a water pump to pump water, and feeding the plants cost approximately Rs 1 lakh. A second pond (24 ft X 25 ft X 14 ft) was constructed to collect excess water draining from the one-acre farm. The cost was Rs 50,000. Here is a 23-second video link of the construction <http://www.youtube.com/watch?v= ahSC7H89gs>. The monthly wages of two villagers to work the farm is Rs 8,000 (\$187) per month.

Small Hut and Solar Lanterns:



The hut is used for the two villager staff to cook food and sleep, hold some supplies, and is a small meeting place in the shade. The thatched roof hut cost Rs 45,000 (\$1054).

Two solar lanterns were purchased to provide light and a measure of security at night. The solar panels are mounted on the roof of the hut. The lanterns automatically turn on at dusk. The

cost of these two solar lantern lights was Rs 15,000 (\$351)

Drinking Water Pond:

Construction of the pond started in April 2008. The size of the pond is 150 ft X 50 ft X 14 ft and costs Rs 1.4 lakh (\$3279). Pictures and videos taken during April 2008 are shown in the attached link <http://www.youtube.com/watch?v=RJCKc816i5k&>.

Plant Nursery:



The 13-acre plot has no large trees and no shade. The Vilathikulam region gets very hot (105 degrees F) during May and June. The nursery uses special netting on all sides and the roof to provide protective shade for plants. The size of the nursery is 100 feet by 120 feet with an eight-foot roof.

To prevent most of the hot sun, we have installed a 75% netting with a ultra-violet ray protector. This means that 75% of the sun's rays will be prevented. Only 25% will enter the nursery. On the four sides,

where only the less-hot morning and evening sun will impact, we have installed 35% netting.

The material cost of materials and installation of the netting for the nursery was Rs 1.6 lakh (\$3747).

Note: As of June 2008, the Northern side of this nursery has collapsed due to high winds. We have not started using the nursery and are currently re-designing the nursery to avoid a repeat of the collapse. No further expenses are requested as part of this plan.

Overview of proposed project for the second half of 2008:

Drinking water – pumping, purification and distribution:



A water storage tank elevated at a height of six feet above the ground will be designed and constructed so that water can be supplied to the water purification system and storage container filling station. A solar pump will be used to pump the water from the drinking water pond to the storage tank. A three-stage water filtration system will be used.

The filtered water will be stored in thick PET plastic containers that are 10 liters and 20 liters in capacity. These water containers will be taken on a small trailer to the center square of a village and distributed to the villagers. There will be a one-time deposit fee for the containers to make sure they are returned when empty. The purified water will be distributed at a highly subsidized rate of Rs 0.5 (\$.011) per litre.

The cost and revenue projection details for the drinking water system are provided in appendix G. The capital cost is Rs 3.45 lakh (\$8079). The operating expense is Rs 28,000 (\$656) per year. The revenue generated from one million liters is Rs 5.0 lakh (\$11,709) per year.

Electric Power Generation:

Power for the complex will be generated by solar power during the day and a bio-mass unit at night. The community center complex will be connected to the local electric grid where the local electricity board will reimburse us for the energy put onto the grid.

Bio-mass energy unit:

We will produce 11 KW of energy by burning locally available bushes. These bushes have no food value. The villagers already use these trees to make charcoal.



The design and installation of the system will cost around Rs 6 lakhs. One of the Trustees in the BCC trust has taken the responsibility to design the system and raise the necessary money. The capital cost is not requested as part of this proposal. The operating cost will consist of eight bio-mass carts of wood per day. The cost is Rs 250 per load for a total of Rs 2,000 (\$47) per day. The cost of one staff to operate the Energy center is Rs 5,000 (\$117) per year.

Workshop for assembling solar panels:

A workshop to assemble solar panels, solar lights, and lanterns is part of the Training Center. We will train a group of village women and young men to assemble, install, and maintain the units. The first few batches of solar panels will be used within the BCC itself. Once the workers gain proficiency; the panels and lights will be sold for installation in nearby villages.



The start-up costs for the solar panel assembly project are Rs 3.0 lakh for material and Rs 4.0 lakh for training for a total of Rs 7.0 lakh (\$16,393).

The operating cost in 2009 will be Rs 10.98 Lakh (\$25,714) and the revenue will be Rs 12.0 Lakh (\$28,103). Details can be found in appendix H.

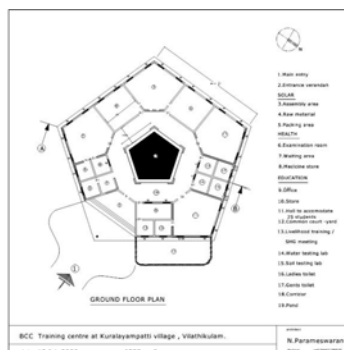
Community Interaction during 2008:

Using the proven system of collecting rainwater, the BCC will start working with a few of the nearby villages to encourage them to start digging small water ponds. We are likely to hire one or two staff, with previous experience, to inspire and work with the village communities. The three ponds in the BCC will be working examples of how to collect water. We will also complete a demographic survey of these villages. The survey will be used to collect data on how many families are helped, the number of people in the family, their occupation, the health status of each individual, and their education level. The data will be put into a database and be used for analysis to understand the needs of the people and to measure changes in the future.

Pentagon shaped Training Center:

This is the high-priced item in the BCC construction. Our Architect has prepared the design to house the various functions and has estimated the building cost at Rs 23 lakh (\$53,864). The cost to outfit the building with lighting fixtures, fans, and a minimum of furniture is Rs 2.5 lakh (\$5,855). We are currently reviewing the design and looking for ways to lower the total cost. Almost 40% of the building cost is bricks. We are looking at the possibility of making the bricks at the site. The bricks would be pressed in a mold and sun-dried. The bricks will nest and create a continuous air chamber in the walls for insulation from the heat.

The BCC will provide accommodations in the community center for eco-volunteers to stay in the village.



The Training Center will house the following activities:

- Health services
- Balwadi – ‘head start’ teacher training
- Workshop for assembling solar panels
- Three testing labs – water, soil and blood
- Eco-volunteer accommodations.

Health Services:

A visiting doctor will see both male and female patients one or two days of the week. There will be separate examination rooms for male and female patients. The plan is to offer the examination service medicines at a highly subsidized rate.



We will also offer this facility as a platform for mobile medical services that are common in the State – such as the Arvind medical camp once a month.

Capital cost: Equipment for the examination rooms is Rs 3 lakhs (\$7,026).

Operating cost: Staff, doctor fees, and medicine is Rs 2 lakhs (\$4,864).

Revenue: Charging for examination and medicines is Rs 25,000 (\$586).

Balwadi – ‘head start’ teacher training:



“Balwadi” refers to pre-Kindergarden training for three and four-year olds, somewhat similar to the ‘Head Start’ program. In India, just like here in the U.S., it has been shown that both pre-KG and grades 1 and 2 hold the key to the child’s progress. If they have not learned how to read and comprehend by grade 3, children struggle to keep up with their classmates. We are linking with Pratham, an NGO (Non Government Organization) that is well known for this training (www.pratham.org). In our BCC, we will

primarily train the teachers. The teachers will then offer this training to the children in other locations such as their own houses.

The facility is planned to train approximately 25 teachers per year. The capital cost for furniture and training material is Rs 1.5 lakhs (\$3,513). The training takes 2-3 months, and each teacher will be provided a stipend of Rs 1,000 (\$23) per month. The annual training cost for 25 teachers is Rs .75 lakh (\$1,756).

Revenues: Pratham has expressed their intent to reimburse some of the variable costs associated with this project. The exact reimbursement has not been negotiated.

The estimated revenues for the training is Rs .75 lakh (\$1,756) for the first year.

Three testing labs – water, soil and blood:

The lab is being set-up to test drinking water quality, soil quality, and blood for diabetes and HIV. We are in contact with IIT Madras for the water and soil testing procedures and equipment. We are currently searching for a company that can provide HIV testing equipment and procedures. Start up costs for the furniture and equipment is Rs 2.5 lakh (\$5,855).

Operating expenses and Revenue is shown in appendix I.

VI. Management

Lift Kids, Inc. Description:

Lift Kids, Inc. is a registered Delaware corporation based in St Paul, MN, and is registered as a 501(c)3 tax-exempt organization with the IRS. It was formed in 2006 by Joseph Barrett. The mission of Lift Kids, Inc. is to feed, shelter, and educate children by partnering with organizations on the ground to create small, sustainable villages according to a model that can be replicated around the world

BCC Trust Description:

The BCC Trust is an India non-profit organization. The contact in Vilathikulam is:
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Tamil Nadu India 628 907
E-mail: jothimonyk@yahoo.co.in
Mobile number - 91- 94440-33674

The BCC uses the State Bank of India for Banking:
State Bank of India
Nungambakkam Branch
No 110/1 Uthamar Gandhi Salai
Nungambakkam Chennai 600-034
Tamil Nadu India
Account Number : 30307956873

Contributions in the USA in US Dollars can be made to:
“Akash Ganga RWH” and mail to the Contact in the U.S.
“Akash Ganga RWH” is a 501-c-3 non-profit unit with a Tax ID =41-2013214

The BCC Trust contact in the USA is:
Ram Krishnan
1653, 20th Avenue NW, St.Paul MN 55112 USA
E-mail: ram.krishnan@yahoo.com
Home phone: 001-651-631-8622
US cell phone: 001-612-867-9425
Indian cell phone – 91-94444-13260

VII. Capital and Operations

Startup Cost:

The start-up expenses for this community center project are detailed in summary format in the appendix B and C. The start-up expenses cover seven different projects and operating losses the first two years. The construction of the community center building will require Rs 23 lakh (\$53,864). The start-up expenses for the potable water project will be Rs 3.45 lakh (\$8080). The solar panel assembly project will cost Rs 7.0 lakh (\$16,393) in start-up costs. The operating loss for the first two years will be \$32,955. The remaining projects will cost Rs 9.5 lakh (\$22,248).

Profit and Loss Projection:

Profit and loss projections are summarized in the appendix D, E, and F. The first two years of operation are expected to result in an overall loss. However, it is expected that starting in the year 2011 the BCC community center will break-even and become self-sustaining with opportunities for continued growth.

VIII. Appendices

Appendix A – Money Conversion:

- Rs 1 Lakh = Rs 100,000
- \$1 = Rs 42.7

Appendix B – Investment:

	Investment Expended to date	Capital needed to complete in 2008 (Rs)	Capital needed to complete in 2008 (US\$)
Land Value Donation	Rs 13.0 Lakh		
Donation in Kind from Board Memebers	Rs 20.0 Lakh		
Large Water Pond	Rs 1.2 Lakh		
One Acre Farm	Rs 1 Lakh		
Smaller pond (25ftx25ftx14ft)	Rs 0.5 lakh		
Small Hut construction	Rs 0.45 lakh		
2 Solar Lanterns	Rs 0.15 lakh		
Drinking Water Pond	Rs 1.4 Lakh		
Plant Nursery	Rs 1.6 Lakh		
Drinking Water System		Rs 3.45 Lakh	\$8,079.63
Bio-Mass Energy Unit (Funded outside of this plan)	Rs 6 Lakh		
Pentagon shaped Training Center		Rs 23 Lakh	\$53,864.17
Utilities and Furniture		Rs 2.5 Lakh	\$5,854.80
Health services		Rs 3.0 Lakh	\$7,025.76
Balwadi –education		Rs 1.5 Lakh	\$3,512.88
Solar panel assembly		Rs 7.0 Lakhs	\$16,393.44
3 testing labs		Rs 2.5 Lakhs	\$5,854.80
Total (Rs)	Rs 45.3 Lakh	Rs 42.95 Lakh	\$100,585.48
Total (US\$)	\$ 106,088.99	\$ 100,585.48	

Appendix C – Cost to complete and break-even:

Total remaining to build out the project and reach break-even.	
Capital	\$ 100,585.48
Operating Loss 2009	\$ 18,852.46
Operating Loss 2010	\$ 13,442.62
Total	\$ 132,880.56

Appendix D – Cash Flow:

	2009	2010	2011	2012	2013
Total (Operating Expense)	Rs 28.27 Lakh	Rs 28.99 Lakh	Rs 31.255 Lakh	Rs 34.686 Lakh	Rs 34.686 Lakh
Total (US\$)	\$ 66,206.09	\$ 67,892.27	\$ 73,196.72	\$ 81,231.85	\$ 81,231.85
Total (Revenue)	Rs 20.22 Lakh	Rs 23.25 Lakh	Rs 32.44 Lakh	Rs 36.19 Lakh	Rs 36.19 Lakh
Total (US\$)	\$ 47,353.63	\$ 54,449.65	\$ 75,971.90	\$ 84,754.10	\$ 84,754.10
Cash Flow	(Rs 8.05)	(Rs 5.74)	Rs 1.185	Rs 1.504	Rs 1.505
Cash Flow (US)	\$ (18,852.46)	\$ (13,442.62)	\$ 2,775.18	\$ 3,522.25	\$ 3,522.25

Note: Efficiency gains in the operation will offset inflation costs.

Appendix E – Revenue:

	Revenue 2009	Revenue 2010	Revenue 2011	Revenue 2012	Revenue 2013
One Acre Farm	Rs 0.35 Lakh	Rs 0.42 Lakh	Rs 0.50 Lakh	Rs 0.50 Lakh	Rs 0.50 Lakh
Plant Nursery	Rs 0.5 Lakh	Rs 0.75 Lakh	Rs 1.0 Lakh	Rs 1.0 Lakh	Rs 1.0 Lakh
Drinking Water System	Rs 5 Lakh	Rs 6.0 Lakh	Rs 7 Lakh	Rs 7 Lakh	Rs 7 Lakh
Bio-Mass Energy Unit			Rs 1.5 Lakh	Rs 1.5 Lakh	Rs 1.5 Lakh
Health services	Rs 0.25 Lakh	Rs 0.6 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh
Balwadi – education	Rs 2 Lakh	Rs 3.0 Lakh	Rs 4.0 Lakh	Rs 4.0 Lakh	Rs 4.0 Lakh
Solar panel assembly	Rs 12.0 Lakh	Rs 12.0 Lakh	Rs 15 Lakh	Rs 18.75 Lakh	Rs 18.75 Lakh
3 testing labs	Rs 0.12 Lakh	Rs 0.48 Lakh	Rs 1.44 Lakh	Rs 1.44 Lakh	Rs 1.44 Lakh
Total	Rs 20.22 Lakh	Rs 23.25 Lakh	Rs 32.44 Lakh	Rs 36.19 Lakh	Rs 36.19 Lakh
Total (US\$)	\$ 47,353.63	\$ 54,449.65	\$ 75,971.90	\$ 84,754.10	\$ 84,754.10

Appendix F - Operating Expense:

	Annual Operating Expenses (per year) 2009	Annual Operating Expenses (per year) 2010	Annual Operating Expenses (per year) 2011	Annual Operating Expenses (per year) 2012	Annual Operating Expenses (per year) 2013
One Acre Farm	Rs 0.15 Lakh	Rs 0.15 Lakh	Rs 0.15 Lakh	Rs 0.15 Lakh	Rs 0.15 Lakh
Monthly Farm Wages (2 people)	Rs 0.96 Lakh	Rs 0.96 Lakh	Rs 0.96 Lakh	Rs 0.96 Lakh	Rs 0.96 Lakh
Plant Nursery	Rs 0.50 Lakh	Rs 0.50 Lakh	Rs 0.50 Lakh	Rs 0.50 Lakh	Rs 0.50 Lakh
Drinking Water System	Rs 0.28 Lakh	Rs 0.28 Lakh	Rs 0.28 Lakh	Rs 0.28 Lakh	Rs 0.28 Lakh
Bio-Mass Energy Unit	Rs 5.25 Lakh	Rs 5.25 Lakh	Rs 5.25 Lakh	Rs 5.25 Lakh	Rs 5.25 Lakh
Community Interaction (2 workers - staffing)	Rs 1.20 Lakh	Rs 1.20 Lakh	Rs 1.20 Lakh	Rs 1.20 Lakh	Rs 1.20 Lakh
Pentagon shaped Training Center	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh
Health services	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh	Rs 2.0 Lakh
Balwadi – education	Rs .75 Lakh	Rs .75 Lakh	Rs .75 Lakh	Rs .75 Lakh	Rs .75 Lakh
Solar panel assembly	Rs 10.98 Lakh	Rs 10.98 Lakh	Rs 13.725 Lakh	Rs 17.156 Lakh	Rs 17.156 Lakh
3 testing labs	Rs 1.20 Lakh	Rs 1.92 Lakh	Rs 1.44 Lakh	Rs 1.44 Lakh	Rs 1.44 Lakh
BCC staffing – 3 managers Rs 8,000 per month per person	Rs 3.0 Lakh	Rs 3.0 Lakh	Rs 3.0 Lakh	Rs 3.0 Lakh	Rs 3.0 Lakh
Total	Rs 28.27 Lakh	Rs 28.99 Lakh	Rs 31.255 Lakh	Rs 34.686 Lakh	Rs 34.686 Lakh
Total (US\$)	\$ 66,206.09	\$ 67,892.27	\$ 73,196.72	\$ 81,231.85	\$ 81,231.85

Appendix G - Drinking Water Capital Cost Breakdown:

Capital Cost of the Drinking Water System		
Overhead water storage tank	Rs 25,000	\$585.48
Solar panel system	Rs 25,000	\$585.48
3-stage filtration	Rs 2.5 lakhs	\$5,854.80
Purchase empty PET containers	Rs 45,000	\$1,053.86
Total	Rs 3.45 lakh	\$8,079.63

Operating Expense of the Drinking Water System		
1 staff to operate and distribute water	Rs 8,000 per year	\$187.35
Other operating expenses	Rs 20,000 per year	\$468.38
Total	Rs 28,000 per year	\$655.74

Revenues		
1 million liters distributed at Rs .5 per liter	Rs 5 lakh	\$11,709.60

Appendix H - Solar Panel Operating Expense and Revenue:

Costs for 2009		
Labor Cost - 3 workers @ Rs 100/day ea.	Rs 7,500/month	\$175.64
Build 4, 20 Watt panels per day	100 panels/month	
Cost of solar cells for each 20 watt panel	Rs 1,200	\$28.10
Cost of other materials for each 20 watt panel	Rs 480	\$11.24
Total Cost of production each month for 100 panels	Rs 175,500	\$4,110.07
Production cost for each module	Rs 1,755	\$41.10
MSRP for each panel	Rs 2,000	\$46.84
Assemble for 6 months of the year (Labor & parts)	Rs 10.53 Lakh	\$24,660.42
Install for 6 months of the year (Labor)	Rs 0.45 Lakh	\$1,053.86
Annual cost of panels and installation	RS 10.98 Lakh	\$25,714.29
Annual Revenue of panels	Rs 12 lakh	\$28,103.04

Note: Operating and Revenue will increase by 25% in 2011 and again in 2012 to max production rate.

Appendix I - Testing lab Operating Expense and Revenue:

YEAR 2009
Costs
Each test cost about Rs 500
20 tests in a month
Costs - Rs 10,000 per month or X 12 = Rs 1.20 Lakhs (\$2,810.30) per year
Revenue
Charge around Rs 50 per test
20 tests in a month
Revenue = Rs 50 X 20 = Rs 1,000 per month or X 12 = Rs 0.12 Lakh (\$281.03) for the year

YEAR 2010
Costs
Each test cost about Rs 400
40 tests in a month
Costs - Rs 16,000 per month or X 12 = Rs 1.92 Lakhs (\$4,496.48) for the year
Revenue
Charge around Rs 100 per test
40 tests in a month
Revenue = Rs 100 X 40 = Rs 4,000 per month or X 12 = Rs 0.48 Lakh (\$1,124.12) per for the year

YEAR 2011
Costs
Each test cost about Rs 200
60 tests in a month
Costs - Rs 12,000 per month or X 12 = Rs 1.44 Lakhs (\$3,372.37) for the year
Revenue
Charge around Rs 200 per test
60 tests in a month
Revenue = Rs 200 X 60 = Rs 12,000 per month or X 12 = Rs 1.44 Lakh (\$3,372.37) for the year