

The Aakash Ganga story

Nilam Agrawal

Aakash Ganga: a project that started as a dream and now spawns across dark villages of Rajasthan, bringing water, relief and happiness to the lives of hundreds. Nilam Agrawal narrates her experience.

*"Dhola thare desh men, moti marvan aant.
Daroo milti mokali, paani ki koni chant*

Oh, Beloved!
In your land
Wine is plenty
Water is scarce
How would I survive?
But for your love
Thus laments a bride.

~ Nilam Agrawal

We are in Sardarpura, a village approximately 30 KM from Pilani. "*Pani aagayaa. Paani aagayaa,*" the children are running and yelling in its dusty streets. Women wrapped in colours rush with their *matkas*, large clay pots, on their waists - only to join the queue of *matkas* that arrived before them. The water tanker



had just arrived. It took only two weeks.

I set up my gear to begin shooting. Immediately, I am flocked by women with their pleas for water. I ask my father, Dr. BP Agrawal, to translate my questions into Marwari – the regional dialect, "How scarce water is, I ask?" A voice speaks from the crowd "Why ask? Just count the number of bachelors." I am puzzled. What is the relationship between water scarcity and number of bachelors? Another voice unravels the mystery. "No father or brother wants to marry off his daughter or sister in this village as she would then have to spend all day fetching water for her new family." I'm rendered speechless.

From Sardarpura, we drive to Lasedi. Images of the USA and the villages flash back and forth. I am forced to reflect on the daily water consumption of 500+ litres per person in the USA with the 10 – 15 litres in Sardarpura. I reach Lasedi shrouded by a pensive mood — hoping for someone to lift the pall of pensiveness. Raju Bhardwaj, our escort, takes us to a dug well, 200' – 300' deep. It is mid-day. The sun is bright and hot. Women, with rope tied to their waists, are drawing water, oblivious of the hot mid-day sun.



Vicki Williams, a University of Virginia student, is snapping photos of women and camels.

Amazed with their hardiness, I approached Shanti with "*Mai* (respectful variation of Ma), how old are you?" Her answer lifts the



Shanti: humour and hardiness!

pall — I crack up: “Just count the wrinkles.”

Humour and hardiness!

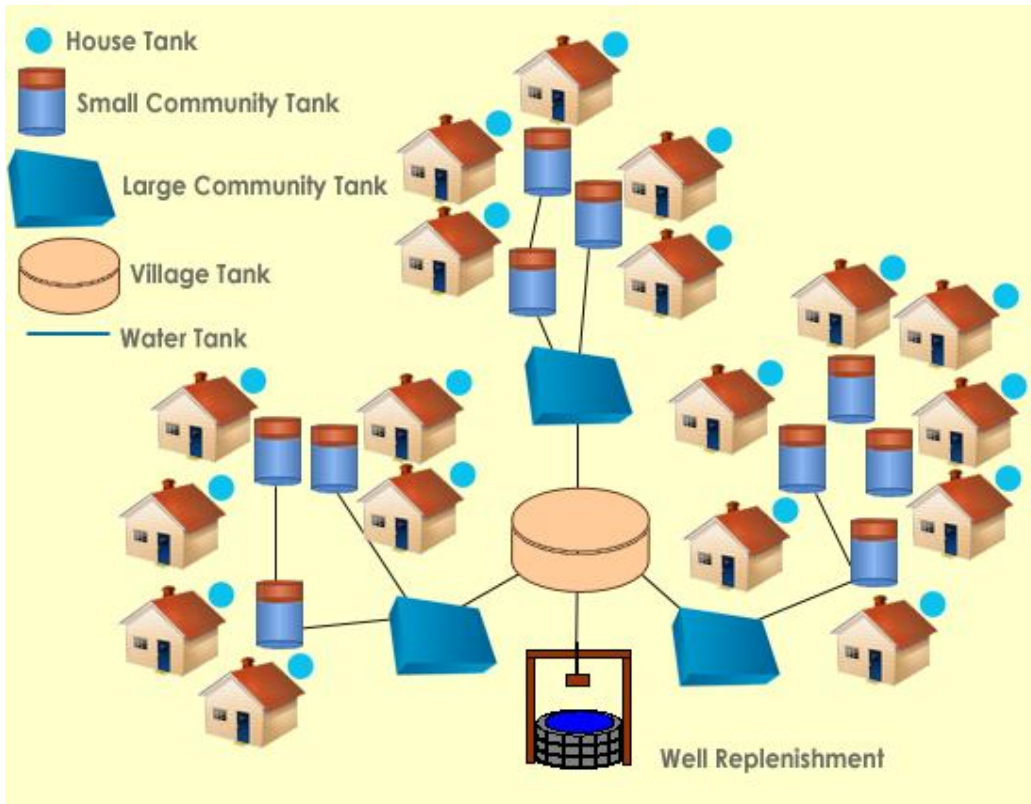
World Bank cited *Aakash Ganga* for its holistic sustainability - economic, cultural, social, technological, environments, and

Aakash Ganga just got a big break. The Government of Rajasthan signed a letter of intent with Sustainable Innovations

(www.sustainableinnovations.us) to implement *Aakash Ganga* in 50 villages as a public-private-community partnership or social enterprise. On completion, *Aakash Ganga* will provide drinking water to 125,000 people for generations, in perpetuity.

How it all works: *Aakash Ganga* (AG) harvests domestic rainwater in the “dark zone” of Rajasthan to alleviate the perennial scarcity of drinking water.

AG channels rooftop rainwater from every house, through gutters and pipes, to a network of multi-tier underground reservoirs as shown in Figure 1: Rooftop Rainwater Harvesting Network. AG has the capacity to collect and store rainwater sufficient to last for an entire year with average rainfall (up to 100,000 Ft³). AG is implemented as a social enterprise or public-private-community partnership (PPCP) to acquire rights from home owners to harvest their rooftop rainwater for a fee or subsidy. The harvested rainwater is supplied to the village as per a socially equitable distribution policy. Part of the water is used for revenue generation and cost recovery.



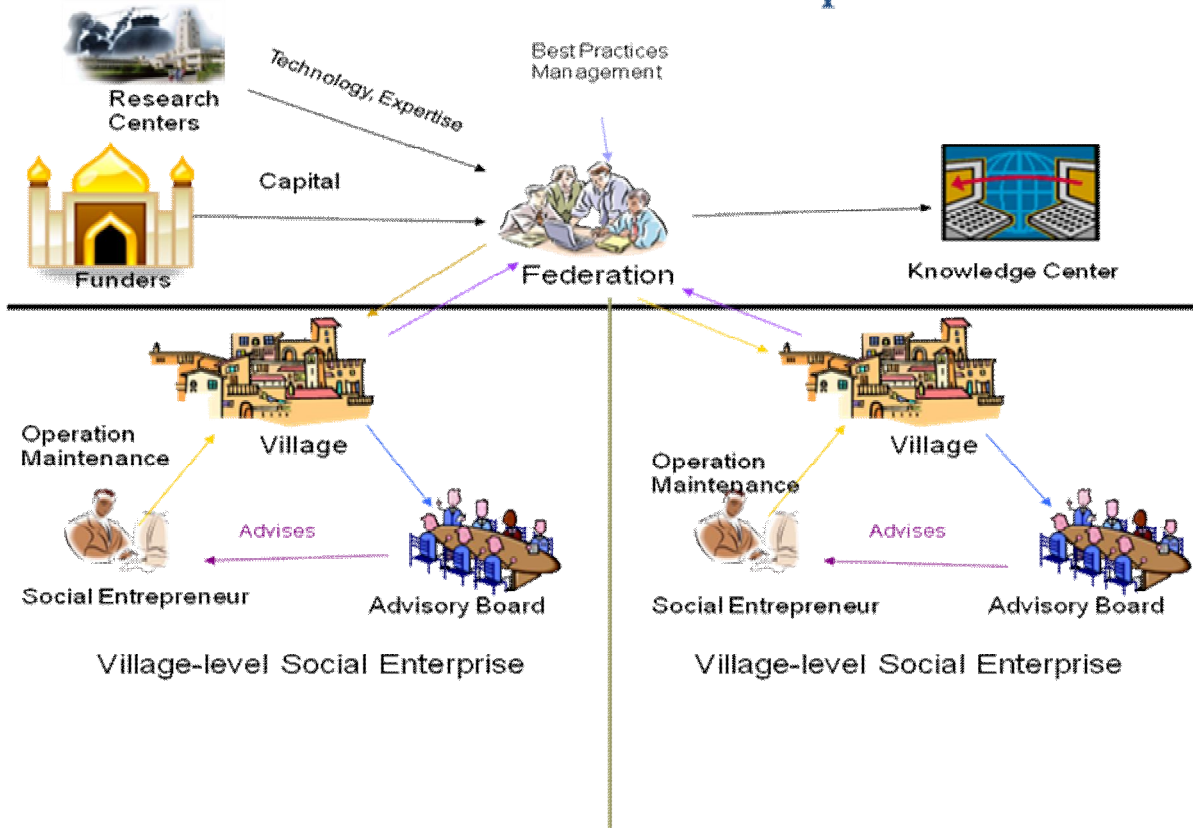
Rooftop Rainwater Harvesting Network

Let’s rewind. In 2003, *Aakash Ganga* (River from Sky), was conceived by Dr. BP Agrawal to alleviate the perennial shortage of safe drinking water in the “dark zone villages of Rajasthan. Birla Institute of Technology and Science (BITS) joined the effort. Shortly, thereafter, the chronic shortage of drinking water propelled the Rajasthan Association of North America (RANA) to provide seed funding for *Aakash Ganga*’s incubation. Three years later, *Aakash Ganga* won the World Bank’s 2006 Development Marketplace grant of \$200,000 in the global competition for innovation in the water and sanitation sector.

organizational. Now, *Aakash Ganga* has been piloted in 6 villages: Pilani, Raila, Indrasar, Kakreu Kalan, Lasedi, and Harinagar. The implementation partners were BITS, Indian Institute of Health Management Research (IIHMR) and Boruka Charitable Trust (BCT).

Aakash Ganga has been perfected as a two-tier social enterprise, refer to figure below. The first tier, village-level enterprise, manages *Aakash Ganga* in one or a cluster of villages. The Second-tier ensures flow of capital, technology, and management to the village-level enterprises.

AG – A Social Enterprise



Aakash Ganga social network

Aakash Ganga deploys quotidian ingenuity of villages, modernizes ancient levy traditions, adapts advanced technologies for rapid absorption by the communities, and ensures holistic sustainability – economic, cultural, social environmental, organizational, and technological. The social enterprise model is especially noteworthy. AG is organized as a two-tier social enterprise. Refer to Figure 2: AG – Two-tier Social Enterprise. The village-level enterprise (VLE), first tier, comports with century-old, socially-accepted, and ingenious levy traditions. The federation, second tier, ensures flow of capital, management, and technology to the VLEs. AG plans to recover the cost and grow organically.

How have rural citizens embraced AG? During my visit to Lasedi, people invited me to see their own innovations or quotidian ingenuity. One entrepreneurial homeowner had devised a way to hide the rainwater-channelling pipes by building awning. Another, individual built a platform around the in-home reservoir to serve as family gathering quadrangle. Yet, another devised a method to monitor the water utilization. Indeed people have embraced *Aakash Ganga* as their own project, the first step in ensuring *Aakash Ganga*'s continued success! As for me, I am awestruck with my sister's quotidian endearment, who, after visiting BITS along with my Dad, re-baptized us sisters as "Bits" short for "*bitiyas*." That is the BITS magic.

Editorial Note: SI plans to raise \$1.5 million from donors to match the potential government funding of \$8 million and community contributions of \$1.5 million for the 50 village implementation. Your contribution is tax deductible. We plan to set up an Aakash Ganga Club at Pilani for innovations, social entrepreneurship, and knowledge dissemination. If you have passion for volunteering, write to info@sustainableinnovations.us. Every little bit helps.

Aakash Ganga: Photo Gallery



Photograph 1: House reservoir, Raila



Photograph 2: "My cow's milk has doubled." Badami (Prior to Aakash Ganga, Badami didn't have enough drinking water for her cows)



Photograph 3: Shared reservoir, 400,000 litres



Photograph 4: Shared reservoir with plantation



Photograph 5: Waiting for water



Photograph 6: The wait ends