VNV Advisory

# Solar Water Filtration for Safe Drinking Water in rural India

# Project Implementation

India lags behind the rest of the world in access to safe drinking water: an estimated 97 million people are still un-served with improved drinking water sources (WHO/ UNICEF, 2012). Especially the poorest and most disadvantaged households have the lowest access to an adequate water source. Unsafe and unsustainable drinking water supply is a major national economic burden in India. A study by the World Bank estimates that this economic burden is US$4.2bn per year, with the costs of household water treatment alone accounting for US$2,471 million. According to official estimations of the Indian national Census 2011, only 32% of Indian households use treated drinking water (The Hindu, 2012).

The vision of Spring Health is to "provide safe and affordable drinking water to one and all". In addition, the goal is to reduce the incidence of waterborne diseases and the related expenses for medical treatment. The enterprise addresses the problem of safe drinking water access in rural India by offering customers a ten-liter jerry can with safe water at a cost that is around sixty times less expensive compared to alternative products, such as bottled water or packet water. Spring Health has in place a very rigorous monitoring procedure to ensure that the water quality meets World Health Organization standards. In particular, the WHO has set as a guideline that chlorine content should be below 5mg/L to be safe for drinking. Spring Health's water has chlorine content of 1mg/L.

The goal behind this project team is to bring together international expertise in the two complementary fields of carbon finance and household water treatment and safe storage (HWTS) in order to develop innovative and scalable business models to bring safe drinking water to millions of people while protecting the natural environment and inducing related socio-economic benefits for the targeted communities.

The purpose of this Project activity is to reduce fuel consumption, such as wood, as it is traditionally used to boil water to make it safe to drink. Offering low-income populations affordable and easily accessible treated water that is safe to drink does this. This leads to reductions in carbon emission as lesser fuelwood is used.

- The project reduces the amount of energy required to provide safe drinking water: by using a low energy filtration and electro-chlorination at the point of sale, water no longer needs to be boiled at the point of use, at people's homes, thus reducing energy use by the end user.

- The quality of service is not reduced, as end users still have access to safe drinking water

## Location & Key Focus Areas

***Country:*** *India*
***State:*** *UP, Bihar and Assam*

Annual average emission reduction over the crediting period

**60,000 tCO2/year**
**300,000 tCO2 for 5 years**

Duration of the Project

**5 Years**

Number of Systems/installations

**200 installations**

# The Benefits

SUSTAINABLE DEVELOPMENT GOALS

**Additional Time**
Reduction in wood consumption implies relief from drudgery and more opportunity for productive activity, arising from less me spent collecting fuel to boil water for drinking

**Employment Opportunities**
This programme has given rise to employment opportunities for new technicians, assistants, office staff and other related jobs.

**Mitigation of Climate Change**
One of the many goals of the project is to reduce greenhouse gas emissions through the filtration system, which reduces use of wood for boiling of water.

**Livelihood Benefits**
Circumstances of poor families have improved since the safe drinking water reduce fuel cost for boiling water. Safe drinking water reduces sick leaves for workers and farmers.

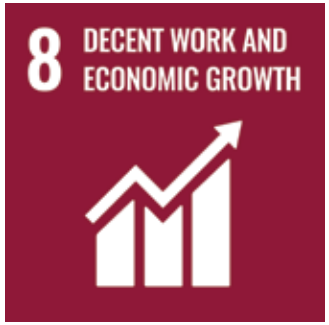
**Human & Institutional Capacity**
The programme as part of its large-scale promo on and advertising has facilitated capacity development among the employed staff through trainings and workshops .

**Safe from water borne diseases**
Since the water is treated with various processes it is safe from water borne diseases which, is a growing concern for village people in India and helps reduce medical bills.

# SDGs addressed by the project









## VNV ADVISORY

VNV Advisory Services has been at the forefront of working with climate change and livelihoods. Our decade-long experience has seen us develop low-carbon projects that support these communities in getting their basic needs while adapting to and mitigating the harsh impacts of climate change. We work in areas of clean cooking, social forestry, sustainable agriculture, rural energy access and many other related community based technologies. With support from over 40 NGOs and implementation partners, our work encompasses over 4 million rural households and 50,000 hectares of forest areas under management across the South Asian (India, Bangladesh, Nepal, Laos, Myanmar and Sri Lanka) region. We have also been able to engage with businesses to address issues of Social Responsibility, Environmental Sustainability and Carbon Neutrality.

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