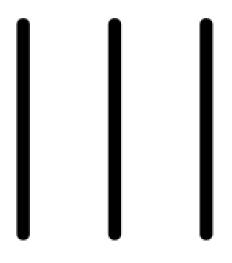
Update Report

Follow-up for the Prithvi Narayan Secondary School, Goldhunga and Khanigaun, Kavre.

Submitted by: Best paani pvt. ltd. To: Rotary Club of Kantipur



2023-08-17 2080-04-32

About Best Paani

Mission

Best Paani's mission is to install personal, commercial, and industrial-scale sustainable water, fuel and energy systems all over the world. We do not use any harmful chemicals that create environmental pollution. Our services include:

- Rain Water Harvesting System
- Best Paani Water Filtration System
- Groundwater Recharge System
- Wastewater Treatment

Contact

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<u>Prelude</u>

In 2018, we initiated a project at two primary sites to address water needs and sustainability. Five years have passed, and this report provides an update based on our recent site visit to evaluate the ongoing functionality and effectiveness of the systems.

Site Visit By:

Gokul Dangal, Best Paani Pvt. Ltd.

Site 1: Prithvi Narayan Secondary School, Goldhunga

- Rainwater Harvesting: The current rainwater harvesting system successfully provides for the daily water needs of 1,000 students and staff. In the rainy season, Even after fulfilling daily requirements, an extra 60,000 L of water is channeled into the reserve tank.
- Water Filtration and Recharge: Both the biosand filter and rapid sand filter are functioning efficiently, maintaining clean water quality. The groundwater recharge system is also in optimal working condition.
- Feedback: The staff and students of the school are extremely content and grateful for the consistent supply and quality of water.

Site 2: Khanigaun, Kavre

- Water Lifting Project: During the rainy season, the gravitational flow pipeline is able to accommodate a high volume of water flow, eliminating the need for water lifting. However, between November to June, the water supply is not sufficient, making water lifting essential.
- Infrastructure Damage: Due to a recent landslide, both the pipelines and the electricity line servicing the site are damaged. The community, recognizing the importance of the project, has decided to undertake repair works post the rainy season, likely in October.
- System Status: Despite the damages mentioned above, the water tank, pump, pumping house, and the rest of the system remains functional and in good condition.

Conclusion:

While both projects are largely successful, there is a clear need for repair and maintenance at the Khanigaun site. We appreciate the proactive approach of the community and anticipate smooth repair works in October.

Thank you to the Rotary Club of Kantipur for your continued support in ensuring the success of these water projects. Your commitment to these communities makes a profound difference in their everyday lives.

<u>Gallery</u>



Fig 1: lifting tank and pump house.



Fig 2: generator house and tank

Future & Continuation

Bio-Sand Filter is a point-of-use water treatment system adapted from traditional slow sand filters. It removes pathogens and suspended solids from water using biological and physical processes that take place in a sand column covered with a biofilm. Bio-sand filters have been shown in removing heavy metals, turbidity, bacteria, viruses, and protozoa. It also reduces discolouration, odor, and unpleasant taste. Studies have shown a correlation between the use of bio-sand filters and a decrease in the occurrence of diarrhea. The bio-sand filter system is effective, easy to use, and lacks recurring costs, so it is considered an appropriate technology for countries like Nepal. A water quality test was carried out to make sure the water from the well is safe for drinking. The orientation on operation and maintenance of the systems to the users will maintain the systems for a longer period of time.

Groundwater recharge is an important process for sustainable groundwater management since the volume rate abstracted from an aquifer in the long term should be less than or equal to the recharged volume rate. It also helps to increase the lowering of the water table.

Rainwater harvesting is a simple low-cost technique that requires minimum specific expertise or knowledge and offers many benefits. Collected rainwater can supplement other water sources when they become scarce or are of low quality like brackish groundwater or polluted surface water in the rainy season. It is also a good alternative and replacement in times of drought or when the water table drops and wells go dry. Particularly in arid or semi-arid areas, the prevailing climatic conditions make it of crucial importance to use the limited amount of rainfall as efficiently as possible.

Having worked in urban, rural, and remote areas with rainwater harvesting, bio-sand filtration, groundwater recharge, and greywater treatment, Best Paani asserts top-quality work within the required time and financial limits. Best Paani's work in the rainwater harvesting sector is highly recommended by all its former and current customers.

Our Core Team Members:



*We also refer to advisers for different purposes. We have over 40 years of industry experience and are a learning-oriented team.

Final words

We believe that this initiative is worthy as it will benefit many people. We, therefore, are very excited to be partners with you and hope to make this initiative a win-win solution leading to both short and long-term benefits.

Our satisfied partners provide introductions to those that they feel can benefit from our services and experience. In doing so, we have been able to continue to grow our practice and invest our time in servicing our clients. We appreciate the trust and confidence that our clients have placed in us.

Please know that anyone that you introduce to us will be handled with the same level of utmost care and dedication that our clients have experienced. Should you have any questions or wish to discuss this project further, please reach us.

prepared by:

ESTD.

Aavash Sapkota Best paani pvt. ltd.