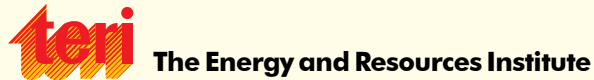


RBF contact information India



TERI has 25 years project experience in India and other countries. Its experienced and dedicated staff of over 700 are drawn from a wide range of disciplines and experience is supported by state-of-the-art infrastructure and facilities. The central element of TERI's philosophy has been its reliance on entrepreneurial skills to create benefits for society through the development and dissemination of intellectual property. TERI promotes research, training and demonstration projects leading to development of specific problem-based advanced technologies that help carry benefits to society at large.

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URI (University of Rhode Island) is a public institution of higher education and a major research university. As Rhode Island's only land-grant, sea-grant, and urban grant University, URI is committed to working toward the solution of problems of societal concerns through its service, research and teaching outreach activities. URI forges partnerships to apply essential knowledge throughout the state, nation and world resulting in mutually beneficial relationships and the exchange of knowledge.

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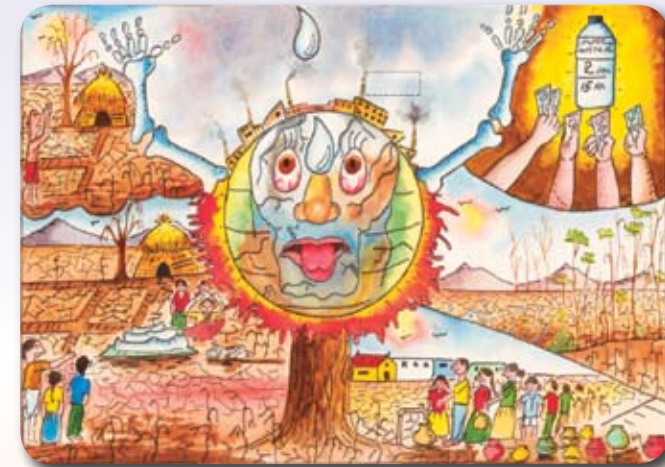
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Safe Water

by riverbank filtration



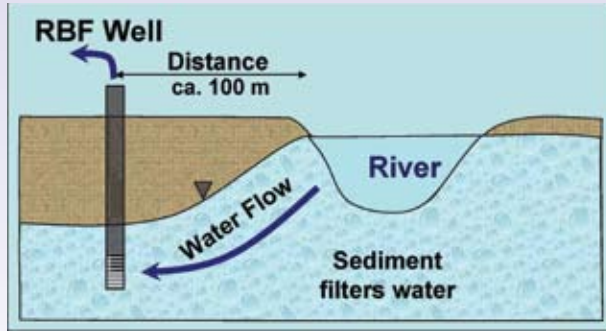
A demonstration of an appropriate water treatment technology



Riverbank filtration

How it works

RBF (Riverbank filtration) technology can successfully deliver safe water and produce income and employment in rural communities.



Riverbank filtration operates by extracting water from the wells located near the rivers. Most of the extracted RBF water originates from the river. Contaminants, like bacteria and toxic metals, are removed by overlapping natural processes. Hence, RBF does not require chemicals or heavy maintenance.

Although simple in concept, the performance of an RBF system is dependent on local conditions. We assess site conditions by employing modern spatial data referencing methods, that is, GIS (geographical information systems) and monitor the water quality with approved, yet inexpensive and easy to use analytical methods.

Advantages of riverbank filtration

- Inexpensive – natural processes remove pollutants – no chemical additives needed
- Can be used along most rivers
- Mechanically simple, requires little maintenance
- Long history of use and success in Europe
- Easy to scale to the community needs
- Provides income and employment

RBF water quality and acceptance

How it works

TERI carried out long-term tests to assure water quality and yield of the RBF well during all seasons. In addition, a RBF water quality sample was sent to an independent and accredited chemical laboratory in Bangalore, Karnataka.

RBF Water Quality

An independent laboratory analysis confirmed that RBF water quality meets all standards per IS: 10500-1991. Particularly, our RBF water is free of the following.

- E. Coli bacteria
- Toxic metals
- Pesticides
- Chlorinated compounds, including dioxins and phenols
- Petroleum hydrocarbons
- Odour free

The RBF water was readily accepted by the villagers because of great taste and high quality. We demonstrated RBF technology in other countries with similar results.

A community operated water treatment system

Local communities are in charge for operating the RBF system, including periodic testing the water quality and collecting fees for water use.



Riverbank filtration



We demonstrated RBF technology along the Kali River in Karnataka. Two villages with 1500 inhabitants depend on the river, but it is affected by industrial effluents and untreated domestic wastes and sewage. Without treatment, the river water is unfit for use under current Indian water quality standards.



We installed a RBF treatment system and now deliver water via pipeline to the villagers. The water meets all Indian drinking water standards. The RBF was transitioned into local ownership and operation. A water cooperative was organized that collects water use fees and oversees the RBF operation.



Our RBF system has a capacity to serve 4,000 people, but up-scaling is possible. It cost about INR 600 000 to install and INR 63,500 annually to operate. The cost of water to the customer is about RS 70 per year.



Potential RBF users

- Bottlers and other high water quality demanding industries and businesses
- Corporates as part of their CSR
- Municipalities and water supply managers
- Public Works Departments
- Entrepreneurs in the water business
- Non-government organizations