



## TWIN RING METHOD OF RAINWATER HARVESTING THROUGH BORE WELL RECHARGE

**Recharge even dried up bore wells with our proven method  
of rain water harvesting**

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### THE PROBLEM

In India we have 4% of world's water but 17% of the world's population. Despite having vast resources, much of the country is facing water shortage.

Agriculture takes approximately 80% of the available water mainly from ground water with the average availability of that water shrinking steadily.

Too many bore wells being dug - to deeper and deeper depth. Many bore wells dried up or poorly producing.

### SRDS APPLICATION TO THAT NEED

SRDS innovative method of rain water harvesting through twin ring bore well recharge is a proven method of restoring the underground water supply (the aquifer) during rainy season to give abundant water for the subsequent dry times for small marginal farmers in the rural areas.

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### IMPACT

- Groundwater levels are going up and even dry bore wells are giving water again.
- Farmers can grow more types of crops and have enough food to eat.
- Unused farmland can be irrigated and used.
- No need for farmers to leave their homes to find work elsewhere.

SAVING RAIN WATER FOR A BETTER TOMORROW

- We don't need to dig as many new wells for water.
- More labour can find jobs working on farms.
- Improved quality of underground water.
- Cost effective solution to irrigation needs.
- Reduction in erosion caused by rainwater runoff.

## Recharging Bore wells, Crops and Lives:

To date March 2023: Sankalpa Rural Development Society (SRDS) has restored 2700+ bore-wells in 10 states including Karnataka, Telangana, Maharashtra, Andhra Pradesh, Punjab, Tamil Nadu, Madhya Pradesh and Gujarat.

### Innovative Solution through Rain Water Harvesting and Water Management Practice



#### Awards:

- Nadaprabhu Kempegouda Award June 2022
- Rotary Champion of Change Award 2022
- International Water Association 2019 - Category Practice
- Energy Globe World Award 2018 - Category Water - chosen from 2300+ entries from 182 countries
- Mr Sikandar Meeranaik (founder) received the prestigious Deshpande Foundation fellowship in 2008
- Incubated in Deshpande Foundations' EIR program in 2008
- NABARD Rural Innovation Award 2012
- Best Water Harvesting N.G.O award 2012-13 from Water Digest Private Limited, Delhi.
- "Business Responsibility Award" from FICCI, Bangalore.
- Karmaveer Award 2013 from Satya Sai Seva Organization, Maharashtra

#### Achievements:

- Total 2700+ bore-wells recharged
- Working actively in 10 states:
  - Karnataka
  - Maharashtra
  - Andhra Pradesh
  - Punjab
  - Telangana
  - Tamil Nadu
  - Kerala
  - Madhya Pradesh
  - Gujarat
  - Uttar Pradesh
- Subsidised all projects by 50% through partnerships with Deshpande Foundation, NABARD, & Save Indian Farmers, SBI Foundation, Fincare Small Finance Bank and others
- Roof top water harvesting, Industrial, Schools, apartments, housing complex
- Farm ponds and bunds - agroforestry projects.

## Viability

SRDS guarantees the improved water level.

Projects completed have proved that the project cost can be easily recovered within a period of 1 to 2 years.

## Sustainability:

The unique technique of SRDS uses materials which are **easily available and long lasting**. And reduces erosion of the precious topsoil by arresting the runoff water from the farms and open fields. There is little maintenance required.

## The Model:

**Our primary goal is to end water scarcity in India.**

Droughts have become a harsh reality to billions of people across the world. With water being the substance that sustains life, it is more important now than ever before to use innovation to bring a steady supply of clean water to the people of Karnataka and across India.

SRDS makes sure to incorporate an individual approach to each project.

We carefully study each site and design site-specific structures to meet the needs of the farmer. Such an approach also helps SRDS to eliminate many farmers' concerns regarding the issue of space usage.

Small-scale farmers who are dependent on agriculture find it impractical to use valuable land for water catchment areas. By giving you the option to choose the size of the ponds (water catchment area), this can help with these concerns.



## Methodology of Implementation

The Twin Ring Method of harvesting of rainwater can be seen on our website at: <https://srdsindia.org/program/borewell-recharge/>

### SRDS Model

In cases where the farmer is unable to afford the cost of Rs. 38,350, SRDS seeks funding to support the implementation. We will support farmers who cannot afford this by asking you to contribute through materials and labour costs (usually to the amount of 50% of the full cost)

**Please Note:** The table below indicates average budget for implementing one project. Budget may vary according to geographic and weather conditions and standard local labour wages.

The Organisation Consultancy fee is 25% of the total costing.

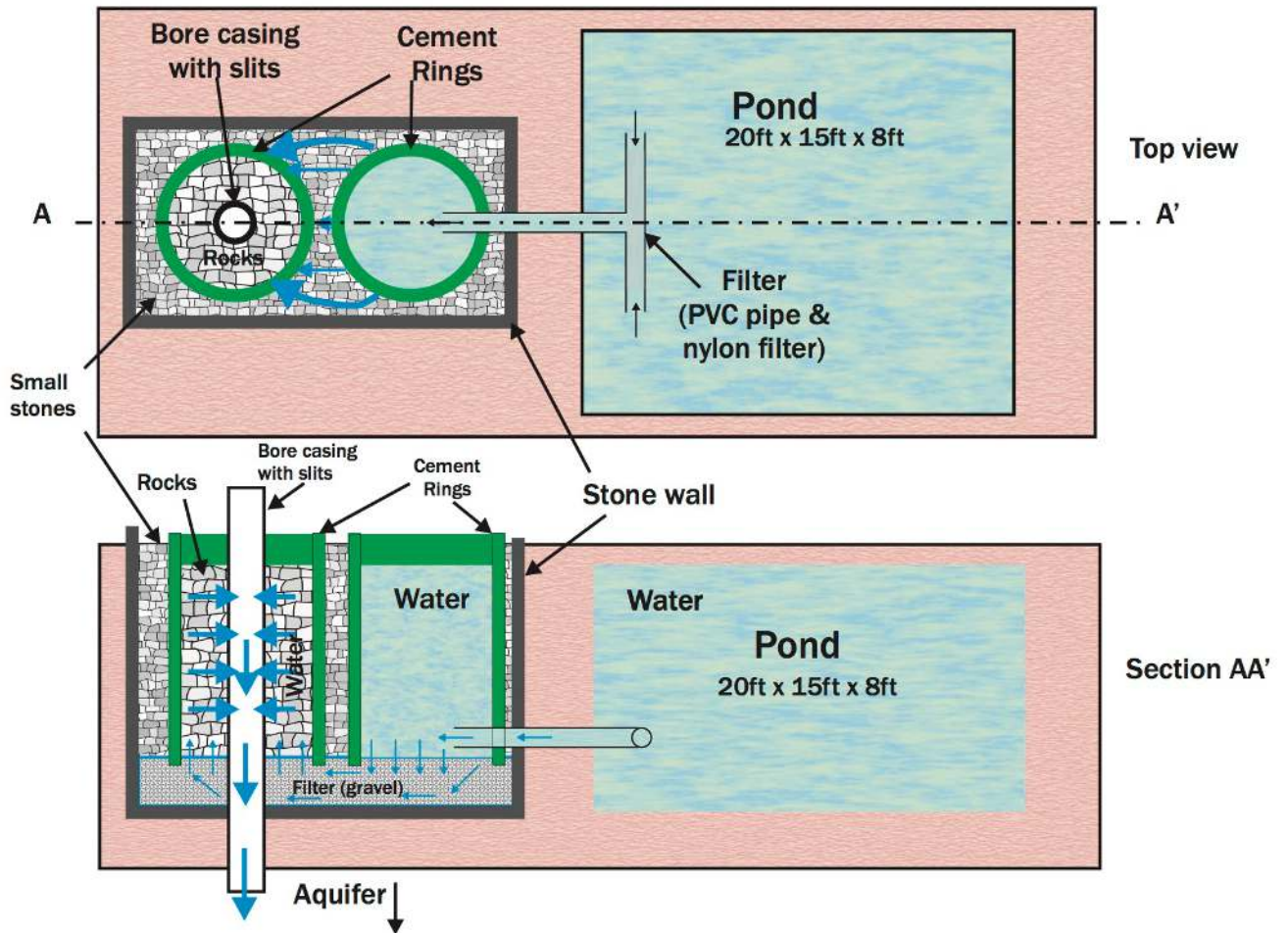
### Average Budget for one Project

No	Bore well Recharge Budget Details - Twin Ring Method	Quantity	Rate	Total Amount
2	Cement Rings 3 feet diameter	10	550	5500
3	Cement	1 bag	500	500
4	Nylon Mesh - and nylon rope			1000
	JCB Hire	6 hr	1200/hr	7200
5	Cement Cover	1	550	550
6	Pipeline (pond to bore well)	1	2000	2000
7	Filtration Material 20mm and 6mm and 40mm Jelly	3 tractors	5500	16500
8	Labour 2 x 1 day, 4 x 1 day - @600 day		600	3600
9	Finishing work			1500
10	Total			38350

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### BORE WELL RECHARGE USING TWIN RING METHOD




SRDS dreams of a world where there is plenty of water for everyone. Its vision is “Enough water for all”.

There are many videos available on both the method and the success of this method on our Youtube channel: <https://www.youtube.com/c/Sankalparuraldevelopmentsociety>




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## RAINWATER HARVESTING BORE WELL RECHARGE - TWIN RING METHOD


Day by Day - method


**Day 1**



**Materials collection**  
Signed agreement with farmer - collect materials for commencement


**Survey site**  
Choose water collection pond site  
Mark area for JCB work






**JCB Excavator**  
excavates pit around bore well casing and digs pond


**Layering gravels**  
Base layer - 2 feet filtration materials - 40mm, 20mm and 6 mm stones in bottom of pit.





**Cut slits in casing and wrap mesh**  
Tech supervisor cuts water entry slits in bore well casing pipe. Tightly wrap nylon mesh - tie firmly .

**Placement of Cement Rings**  
Labour place 5 x cement rings around bore well casing pipe and 5 in tower next to this on pond side.



water from pond de-silted here

pipe from pond

**Day 2**

**Seal Cement Rings**  
Gaps between cement rings are filled with cement to seal them.



**Fit feeder pipe**  
3" Plastic feeder pipe fitted between pond and first cement ring well to carry water from pond



**Day 3**

**Fill around casing pipe**  
The cement ring well around the casing pipe is filled (20mm stones.)



**Pit filled**  
All the pit on outside of cement rings now filled with stones.



**Completion**  
Farmer instructed in maintenance needs for pond and recharge system. Farmer signs off on completion.






# Results




Every rainy season water enters bore well to store in aquifer for dry season




Simple cost-effective permanent solution even for dried up bore wells



### Twin Ring Method Pictures:



**Sikandar wins the Energy Globe World Award Water Category**





### Contact Details:

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A handwritten signature in black ink, appearing to read "Sikandar Meeranaik".

Sikandar Meeranaik  
CEO  
Hubli, Karnataka