

**Dual Pump Scheme a boon for Rural Women.
Use of Solar energy as Renewable Resource for Dual Pump Scheme.**

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Background

More than 75 percent of India's population live in rural areas and 85 percent Rural Water Supply of India is groundwater based. Hence bore well with India mark II hand pump is most important element of Rural Water Supply. But it is also a matter of fact that during summer when the water level depletes, efforts required to fetch the water increases. If pumping level depletes below the lifting capacity of hand pump, 36 meters, they stop working and water scarcity is declared in that area in spite of having water in the bore well. In rural areas, generally women have to face all these drastic effects.

Groundwater Surveys and Development Agency, of Water Supply and Sanitation Department of Govt. of Maharashtra,(GSDA) realized the plight of rural women and have come forward with Innovative and pacifying solutions and named as **Dual Pump Scheme and Solar Energy Based Dual Pump Scheme.**

Dual Pump Scheme

In this scheme a single phase 1 HP submersible pump is installed in the existing high yielding bore well having a hand pump. Pumped water is stored in a 5000 liters tank and water supply is provided to each house through tap. Roof Top rain water harvesting is mandatory to make the scheme sustainable. Hence water supply is restored by either one of the pump.

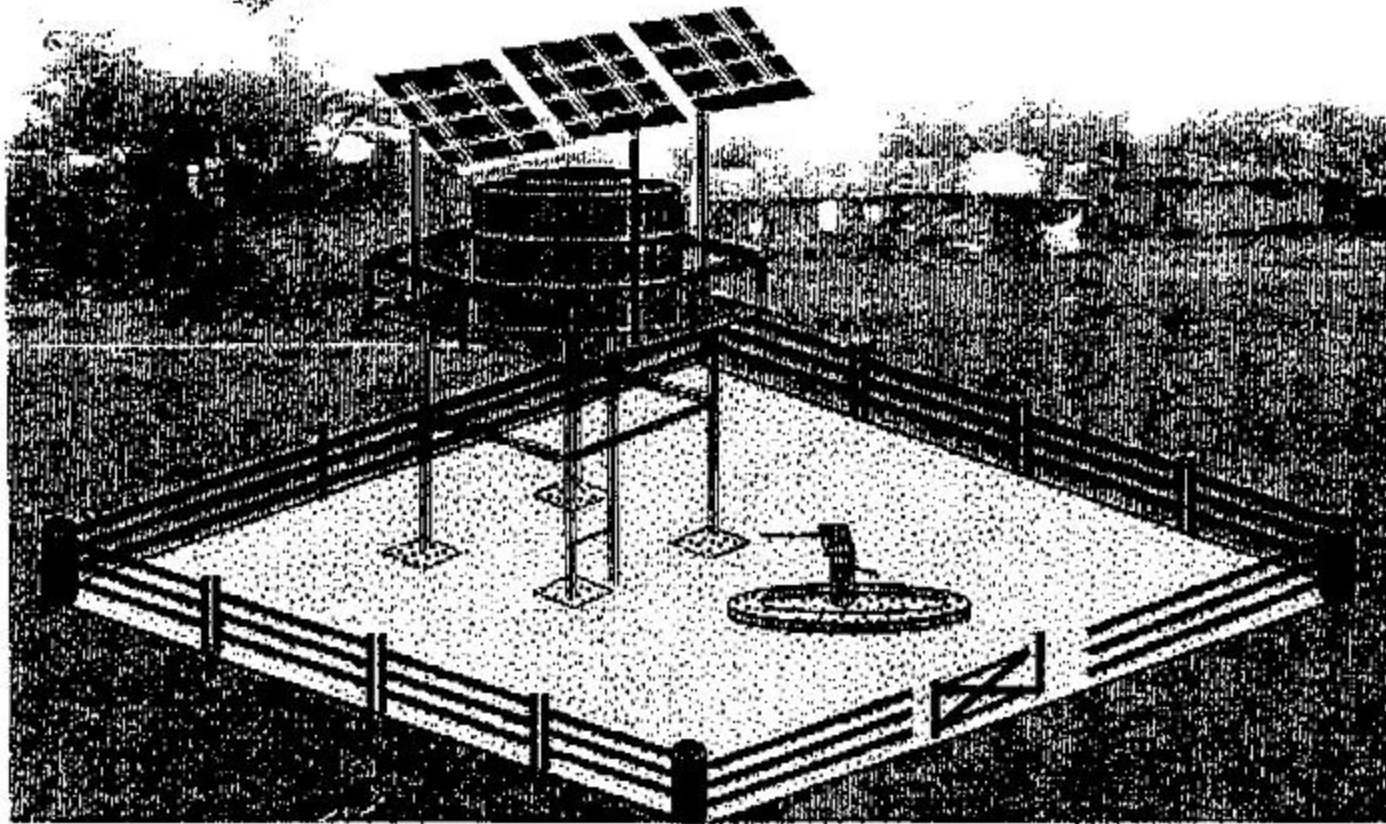
Solar Energy Based Dual Pump Scheme.

With the same concept this scheme is designed. Energy is taken from the solar photovoltaic panels, in difficult hilly habitations where electricity supply is not available. Priority is given to the Left Wing Affected areas.

Due to this Scheme dream come true of Rural Women hence this scheme become one of the most useful, economical, environmentally friendly technologically innovative.

Socio- economic scenario in the rural area is definitely uplifted due to this innovative scheme.

Solar Energy Based Dual Pump Scheme.



DESCRIPTION OF THE WATER SUPPLY SCHEME:

Basically this scheme comprises following major components:

1. High yielding Bore well / Tube well
(Yield not less than 2800 Liters per Hour.)
2. Installation of Solar energy powered submersible pump with required photovoltaic arrays.
3. HDPE Storage tank of 5000 Liters and arrangement of elevating it on 3 meter height to give sufficient head for the distribution system.
4. Distribution system for 30 Houses with individual Tap connection.
5. Rain water harvesting structure.

Key factors of success and advantages.

1. Effortless pumping.
2. Assurance of 24 X 7 water supplies.

3. No electricity charges.
4. Five years free maintenance by the contractor.
5. Security of water due to 5000 liters storage tank.
6. Arrangement of special water chamber for easy removal of hand pumps for the maintenance, without disturbing submersible pump.
7. Availability of spare time for agriculture and other house works.
8. School going girls punctual in schools.
9. Sustainability of scheme and source.
10. It works during summer when hand pumps get dried due to depletion in static water level below the pumping capacity of it. Because solar pump can pump water below that level easily.

Capital and operation maintenance cost

Capital cost is 5 Lakh and operation maintenance cost is 26 paisa per family per month

For more details, contact

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