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## NATIONAL WATER MISSION

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Agriculture contributes to 80% of all water withdrawals in India. The irrigation efficiency in India is 38%, according to the National Water Mission. This Mission aims at improving water efficiency by 20%, through Integrated Water Resource Management. Data on water available and water use at a community and farm level, will be the key to the success of this mission.

### Key Benefits to Farmers

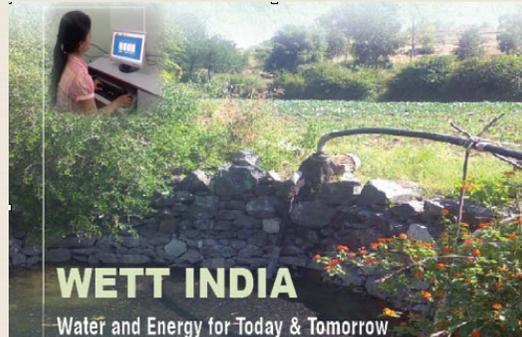
- Improved Predictability of Water
- Matching Aquifer Yields & Withdrawals
- Sustainable Water Management
- Avoid/Reduce Pump Burnouts
- Reduced Energy Use
- Extended Well Life
- Climate Change Impact Mitigation
- Improved Agricultural Productivity



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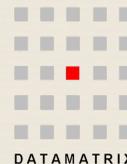
## SUSTAINABLE VILLAGE

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Each pump connected to Datamatrix creates a wealth of knowledge for the farmer as well as the community.

Datamatrix Platform provides real time knowledge on the water availability in the aquifer and daily water use, to optimise the village water resources. It will also monitor the energy use and efficiency of the pumps.



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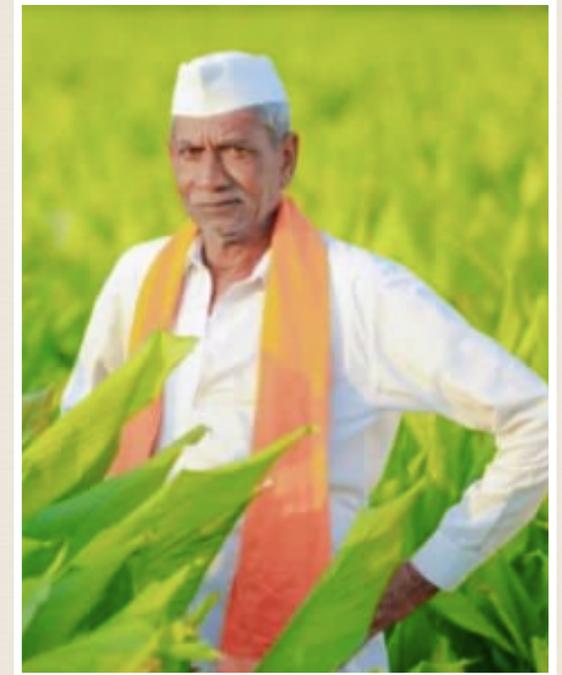
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## SAMURDDHI

Sustainable Irrigation Management Services

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Improve Farm Productivity  
Through Integrated Water-Energy  
Resource Management

### Matrix Pump Control

Sustainable irrigation, balancing  
water use & need against availability





### Recent Awards & Our Background

Datamatrix Invented a method to derive hydraulic (water) parameters of the pumping system from its energy signature (Patent No. 236496). The invention made it possible to remotely monitor the water use of the pump through its energy usage. The technology development was funded and piloted by some of the leading academia such as Columbia University, Several IITs of India, and institutions such as Climate Works Foundation, NABARD and ICAR-CIFT etc. The Technology is currently deployed under the India-Israel Smart Agriculture Program in partnership with EESL, targeting 100,000 Agricultural Pumps. The technology will solve water-energy nexus challenges in India for sustainable Agriculture.

# INTEGRATED RESOURCE MANAGEMENT

Datamatrix Technology transforms the agricultural pump into a Smart Pump, giving visibility to its performance, energy and water use. The patented technology monitors water through energy. It will also monitor the aquifers and optimise the irrigation, productivity and sustainability.



### SMART PUMP CONTROL

Datamatrix Smart Pump Control Panel gives visibility of real time energy and water use and pump performance. It will facilitate remote monitoring with smart control, automation and optimisation of the irrigation. The Smart Pump Control Panel will provide protection against erratic voltage, single phasing, over load, dry run and other custom features for condition monitoring.



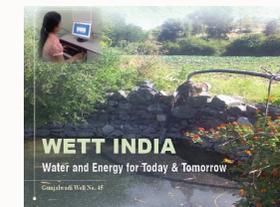
Datamatrix Remote Pump Monitoring & Control Panel



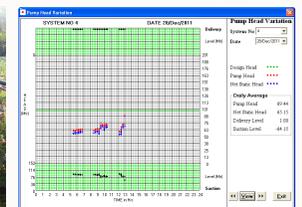
Irrigated Agriculture using Groundwater

### WATER INTELLIGENCE

Datamatrix Smart Pump communicates to Datamatrix Cloud. Datamatrix Cloud continuously monitor and analyse the pump data and initiates alarms or control actions for optimum irrigation. It will also provide the real time information of the water use by each pump connected and keep track of the water available in the underground natural reservoirs (aquifers).



Remote Monitoring centre at Each Village



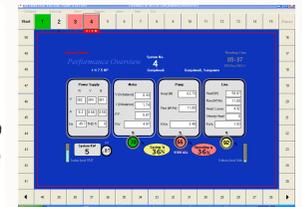
Monitor daily water use and groundwater stock

### WATER-ENERGY-ASSET

Datamatrix cloud creates a digital twin of the pump from the field test data of pumps. It monitors the performance and condition of the pumps from its energy data (Datamatrix Patent). Datamatrix facilitates Integrated Water-Energy Resource management, with performance and condition monitoring of pumps.



Popular types of Pumps, used in Agriculture in India



Pump Performance Overview Dashboard