



## NANO GANESH

**Area of Focus:** Irrigation

**How it works:** Nano Ganesh is a remote control system for controlling water pumps by mobile phone. Once the device is connected to a water pump by attaching it to the electric starter, farmers can use their mobile phone to access to their water pump remotely. Using a unique code number, farmers can turn the pump on and off, monitor the pump, and check on the pump's power supply without ever having to leave their home to go to their fields. Calls made to the pump are free to the farmer. The device has been designed to help farmers save wasted time while more efficiently manage their water pumps, thereby potentially reducing water and energy waste, and increasing crop yields. Every model, except for the basic, low-cost model, includes a charging dock for the mobile phones that are connected to them, so that farmers do not need to collect their phone for charging every few days. Some models also can be connected to an external battery to allow for controlled charging of the onboard mobile phone and also to power the device's internal memory.

**Technology used:** Nano Ganesh device, auto switch, mobile phone

**Implementer/Funder:** Nano Ganesh is manufactured by a private firm, Ossian Agro Automation Pvt. Ltd.

**Fees:** Purchase prices depend on the model and range from Rs 560 (USD \$11) to Rs12,500 (USD \$250). Users are also responsible for purchasing an auto switch and mobile phone to use with Nano Ganesh. The highest end model has a built-in GSM unit and only requires a SIM card.

**Primary Markets:** India

**Users:** Farmers who own an irrigation pumpset and local village control bodies responsible for community water supplies. To date, more than 12,000 devices have been installed with a target of 200,000 units sold by 2014.

**Business Model:** Ossian Agro Automation, the manufacturers of Nano Ganesh, is a for-profit, private enterprise. Most of the sales and distribution of the device are handled directly by Ossian, although the company is exploring partnerships with distributors, retailers, and technicians to sell the devices and provide technical support directly to farmers. Since the device relies on mobile phones and SIM cards, Ossian believes that it may also be able to partner with mobile phone manufacturers and mobile network operators that are exploring ways to expand their rural markets. In order to achieve the scale it is seeking over the next few years, Ossian will need additional equity investment or funding.

**Impact:** Ossian estimates that farmers using Nano Ganesh save on average 1,000 liters of water, three to five units of electricity, two hours of labor, one liter of fuel, and two hours of machine time per day, leading to decreased soil erosion and cost savings.

**For more information visit:** <http://www.nanoganesh.com/>

**Sources:** Information provided by Santosh Ostwal, CEO of Ossian Agro Automation Pvt. Ltd.

### DISCLAIMER

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