IRRIGATION

WATERING WITH A DIFFERENCE

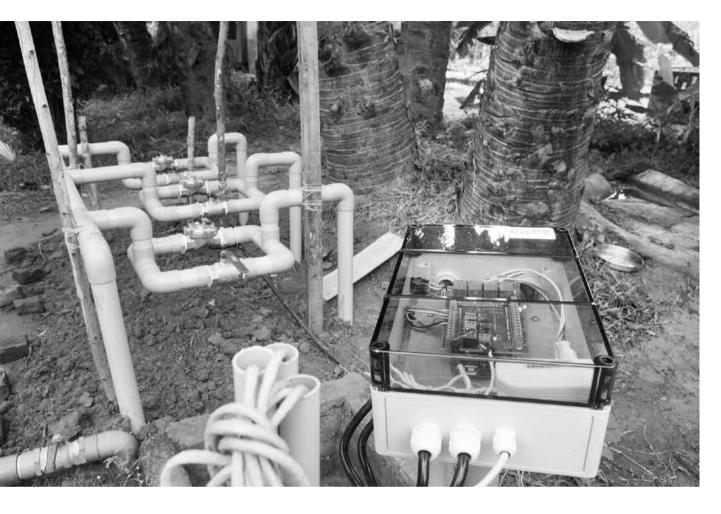
A main objective of SCORRES (Smart Control of Rural Renewable Energy & Storage) is the development of financially viable, robust, location-specific irrigation systems for the Indian agricultural sector.

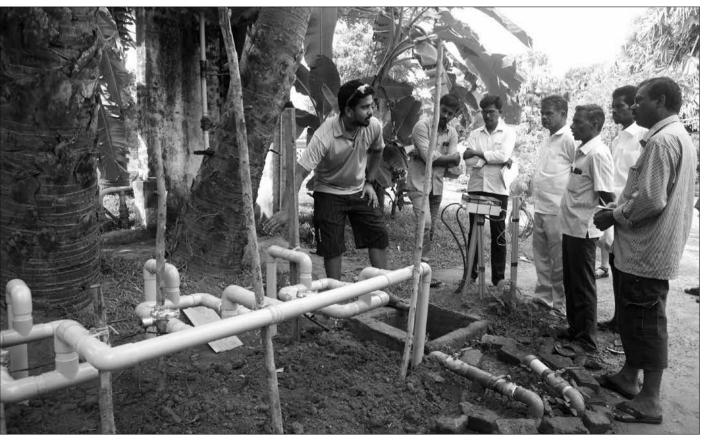
he systems are optimally sized to deliver 'right-time, right-volume' irrigation to farms, reducing water and energy consumption, increasing crop yields and food nutrient content and improving soil condition.

The "smart" part of the system is an ICT software



Left and right page: Buddha Garden, the irrigation system







Buddha Garden

which designs, forecasts and controls the crop-specific irrigation. A water balance model uses crop information combined with soil moisture data from sensors and weather forecasting to control valves, which activate the irrigation. Self-learning algorithms improve the irrigation forecasts to respond to crop needs. The system also optimises the solar photovoltaic panels and batteries to energise solar pumps and irrigation delivery.

The project develops clean technology that addresses the soil-water-energy-food nexus with reduced water and energy consumption of up to 80%.

It is interesting to note that Indian agriculture is currently responsible for 22% and 85% of India's total electricity and water consumption respectively.

Heriot-Watt University in Scotland in the UK are developing SCORRES in collaboration with Findhorn Foundation College, Auraventi and Scene Connect (UK) and Auroville Consulting, Buddha Garden, Centre for Scientific Research and Sustainable Livelihood Institute (Auroville, India).

Martin Scherfler



