Solving Irrigation for the Developing World!

Decentralized solutions for smart energy and water use in the agri-food chain

Inadequate Irrigation is a major cause of Agrarian Distress

Lower Yields	Loss of a Crop	Low Quality Produce
30%	**1**	**30%**

Potential Loss of Output to the farmer is severe

Lower Prices

Cost of Diesel is causing Under-Irrigation & Skipping of Irrigation Cycles

Irrigation is dependent on costly diesel fuel to pump underground water

Diesel based Irrigation has become untenable due to high and rising diesel prices

30%

Of India's crops irrigated by diesel pumps

10 Million

Diesel Pumps

Consume 3 Billion Liters of Diesel Yearly

$2.2
per hour

→ Current Cost of Irrigation

We are Decarbonising Agriculture thru Innovating Irrigation in India

Replacing Diesel by Solar

Solar Irrigation As a Service via mobile trolley

Irrigation focused Solar Mini Grids

Solar Irrigation Pumps via Govt. Subsidy programs

VIDEO: https://www.youtube.com/watch?v=oJflugfH2c8

Solar Irrigation-as-a-Service via Mobile Trolley

Technology & Business Model Innovation

PAYG Solar Irrigation Service

Sales Model: On-demand Irrigation; Pay-as-you-go (Direct to Farmer), Lease/Rental (Direct to NGO, B2B)

Engineering: Solar power + IoT Electronics fitted on Battery operated Elec. Vehicle (EV)

Technology Platform: Easy booking, payment and use

Vision is to create an 'Uber'-like platform for farmers to schedule, book, and pay for irrigation services

Claro's Business Model Address Key Challenges to Adoption

Cost
to farmer

Opex: Around 50% lower in operating cost than diesel

$1/hr for Solar vs $2.2 for Diesel

Capex: No upfront cost (no purchase necessary)

Convenience
to farmer

Solar Pump to your field: Solar power + IoT Electronics fitted on Battery operated Elec. Vehicle (EV)

Pay-as-you-Go Technology Platform: Easy booking, payment and use (beta)

Fast Capital Recovery
Demand > Supply

Increase Command Area: Expanding service to more farmers

Intelligent Irrigation Forecast: Building actionable forward looking Farmer-crop-irrigation schedules (demand gen)

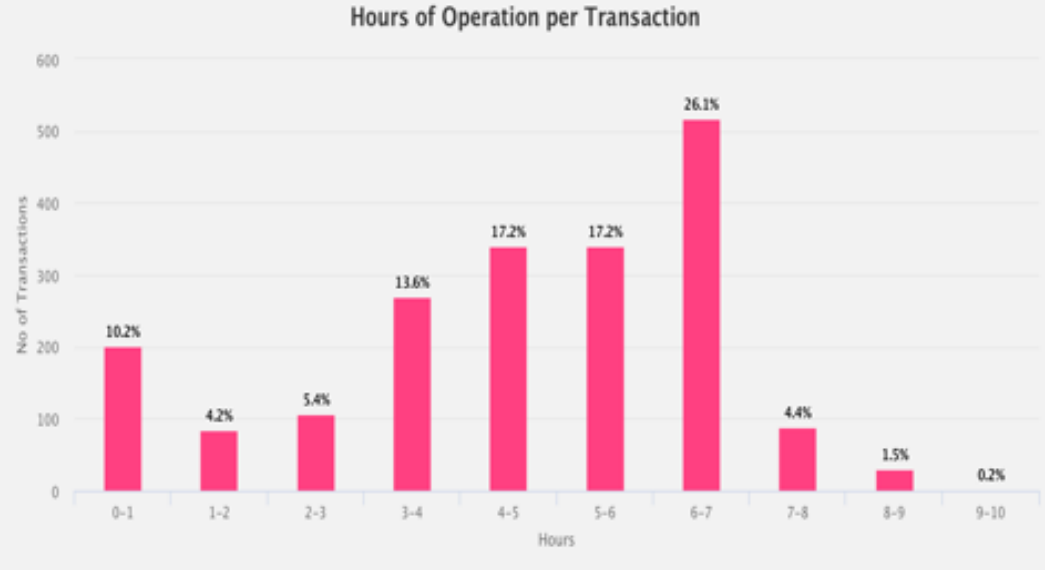
Smart Trolley: Movable (not stationary) to fulfill demand in a radius of 30 km

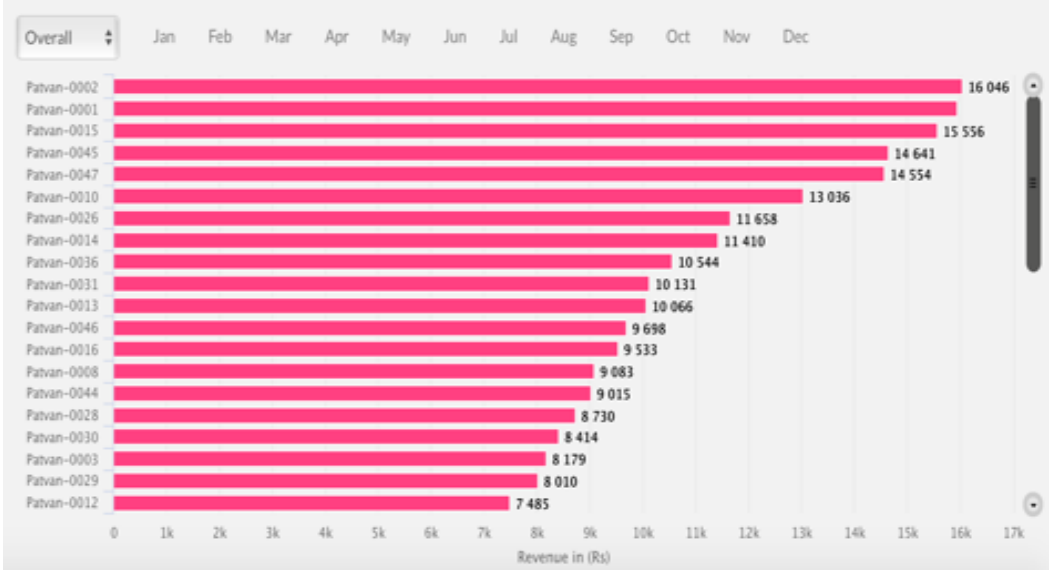
Compelling Economics for Solar Irrigation as-a-Service

Movable Trolley + 3 x 2000 W Solar Carry Pack	$1500

	Leasing	**Pay-as-you-Go**
Customer	NGOs | FPOs | Village Entrs	Small & Marginal Farmers
Revenues	ARR : $900 / year	ARR : $1100 / year
Cost	OpEx : $200 / year (repairs)	OpEx : $700 / year (O&M)
Breakeven	**~ 2 Years**	**~ 4 Years**
Challenges	Misuse ; Underuse Loss of Interest	Operators Needed

Strong Starting Market Traction for Solar Irrigation as-a-Service





4 Avg. Daily Operating Hours

250 Avg. Annual Irrigation Days

100 Movable Trolleys in Operation (beta)

1600 Farmers and a rapidly growing base

An Interactive Solar Irrigation Map & Data Analytics Portal

10,000+

No. of Solar irrigation systems deployed

25,000

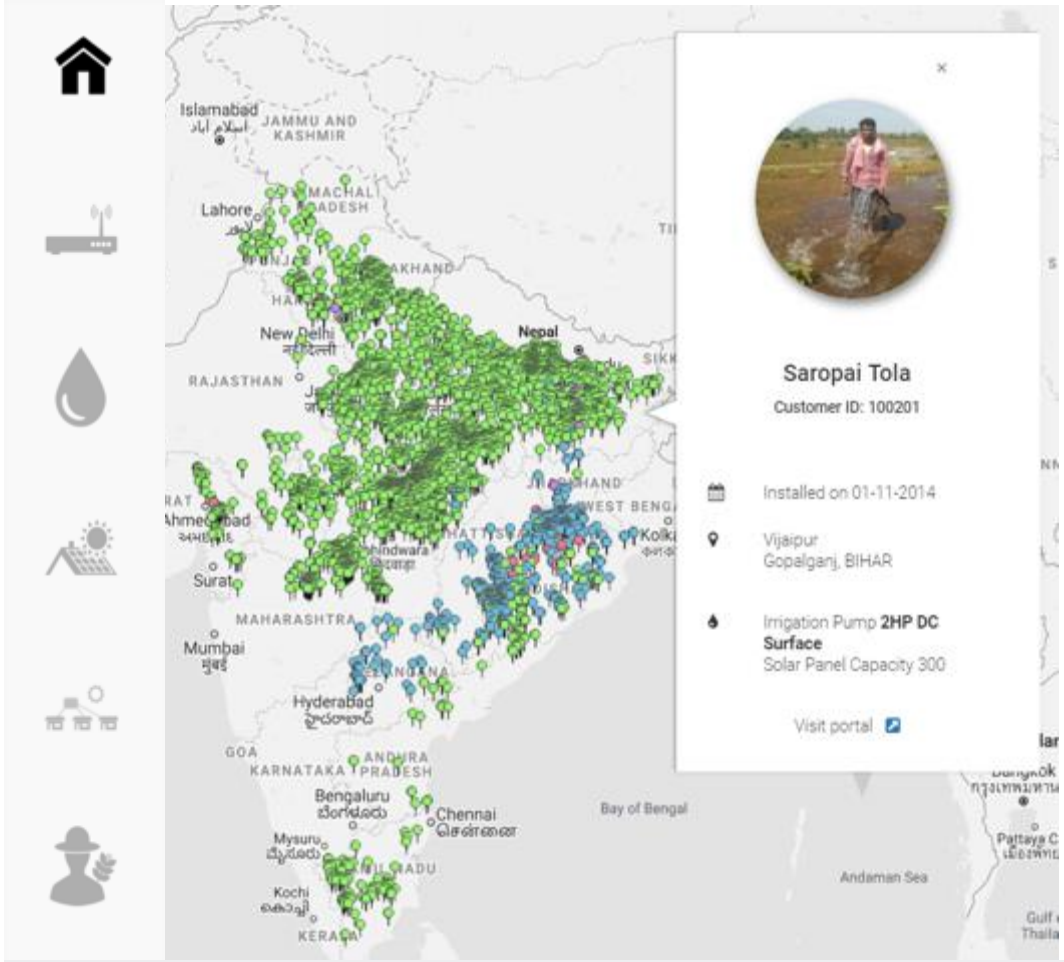
Farmers doing profitable agriculture using solar irrigation

35 MW

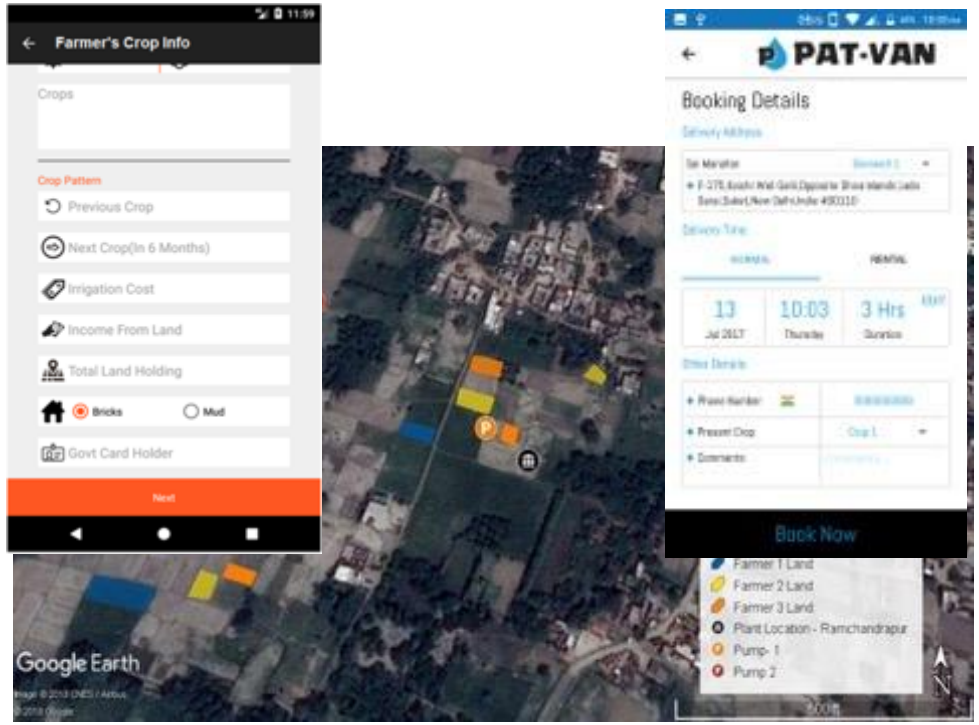
Solar capacity installed

50,000

Acres Under Cultivation



Creating India's Largest Database of Authentic Agri. Data



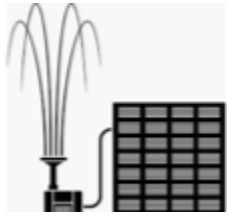
Irrigation pump | Patvan | Drinking water | Minigrid | Rooftop | All states

Impact of our work

Solar irrigation delivers impact on several fronts

THANK YOU

$315 million
Cumulative Farmer Income Generated



10,000+
Solar Irrigation systems deployed

3200+
Women farmers empowered

50k acres Under reliable and affordable irrigation

35MW+
Solar capacity installed

500 tons
Annual reduction in GH gas emissions through our solar irrigation systems

~25%
Improved Attendance. Our farmers are more likely to send their kids to school

THREE
Farmers with access to solar irrigation are likely to grow 3 crops a year

200%
Average increase in farmer income using solar irrigation

25k+
Estimated farmer families benefitted