Agri-Startup Category: Precision Irrigation







Irrigation made easy for farmers

Mr. Srinivas Malladi founded AgriRain to offer small scale farmers affordable, hassle-free and timely irrigation, facilitating increase in farmer's income while mitigating climate risk. They work to mitigate the problems of dry land farmers with meagre income through an innovative "Irrigation as a service "model that provides pay per use, scalable, reliable, cost-effective and on-demand irrigation as a complete irrigation package.

Mr. Srinivas Malladi, presently the Director/
Manager of Business Development at India
Lindsay Corporation has over 13 years of
experience in IT consulting, corporate strategy,
business development, business process
improvement and managing large enterprise
projects. He has travelled globally, providing
services in manufacturing, distribution,
agriculture, software, entertainment, food,
engineering and service sectors.

Mr.Srinivas graduated with a Bachelor of Technology (Electrical Engineering) from Jawaharlal Nehru Technological University (JNTU), Hyderabad,



India, followed by an MS in Physics from Alabama A&M University, Huntsville and an Executive Masters in Business Administration from the University of Nebraska, Omaha.

His father hails from West Godavari, Andhra Pradesh and ran a silicon carbide manufacturing company till 2005 and is now retired. His mother is a homemaker. His two elder sisters hold PhD in Microbiology and Computer Science respectively.

Mr Srinivas was aware about the low adoption rate of micro-irrigation among small scale farmers due to the lack of financial capability and ability to operate modern equipment. Increasing the adoption rate required huge subsidies which will cost the government. In a rainfed situation, erratic rainfall and prolonged dry spell lead to reduced yield and failure of crops.

Thus Mr. Malladi founded the organization AgriRain in 2017 to provide the farming community with modern, efficient and equitable irrigation solutions that will save water and increase the productivity. He adds "The triggering point was when I was with the right people at the right time. It was a collaborative effort. As a team of 11, we made AgriRain. Our first employee was hired in June 2017 and now we have grown to 34".

No capital expenditure is needed from small farmers. And the product is compatible with a variety of water sources available. "We had several names like IrriWheels, Water on Wheels, but nothing was resonating with what we do on the ground, delivering artificial rain. So, we named it AgriRain", remarks Mr Malladi.

Start-up Details

AgriRain connects with small and marginal farmers to understand their needs and offers laaS model as a pay per service, precision, water efficient irrigation service.

Their operational model focuses on rural entrepreneurship through social engineering. They train rural youth and women in the community to be water entrepreneurs and they are responsible for providing



precision irrigation services at critical stages. These trained operators use the fully integrated mobile hose reel technology to provide on-demand irrigation.

Hose reel is an automated micro-irrigation system that provides irrigation in the form of rain. It is a mobile, self-propelled rain gun that is fitted on a cart and integrated with a diesel pump and HDPE pipe. The inlet hosepipe can pump water from the existing water bodies like farm ponds, water tanks, lakes or pipelines. The machine hauls and transits the water through a 250m long hosepipe connected to a sprinkler cart and enables the sprinkler to move freely and reach all around the farm. Water is split into minute droplets and is sprinkled as uniform

rain. The quantum of water being used to irrigate the crop can be measured and regulated as per crop requirements from time to time. The per litre cost of irrigation is 80 paise factoring operational expenses.

Moisture sensors are installed in the field for measuring soil moisture content. Weather data with historical records on air temperature, humidity, precipitation and calculated evapotranspiration is collected. All this data is tracked on the state-of-the-art android app *Jal Suvidha*. Geo-fencing of the land parcel is done separately for each farmer. The mobile app populates irrigation schedules for a cluster of 40-60 acres for each of the water entrepreneurs and mobile notifications are sent to respective water entrepreneurs and individual farmers in the respective irrigation clusters.

Water entrepreneurs deploy irrigation calibrated to soil moisture and estimated precipitation. With the right partnerships, the model has proven to be scalable and the farmer's income has increased significantly.

Business & Marketing Strategy

AgriRain believes that understanding customer requirements and building relationships are the keys to success. When it comes to the marketing strategy, AgriRain applies its proprietary model PPP (People, Persistence and Patience) to build the organization. A business strategy is in understanding the customer's pain points, developing solutions through iterative pilots, collaboration with customers and demonstrating village to village with the aid of major organizations.



AgriRain follows a decentralized business strategy model. Agents are hired at the village level to deliver the irrigation service. They train and appoint region wise representatives, viz., a marketing agent who enables connection with the farmers; a technical agent who maintains the irrigation system, and a service provider who delivers the irrigation.

Live demonstrations are used to spread awareness. Channels like NGOs, Corporate and Government are used to build clusters for bringing in economies of scale. Pricing strategies are made according to the region, crop and type of farmer (FPO, Individual farmer or Contract Farming).

"AgriRain has made coalition with 20 FPOs and 7784 farmers. We are interconnected with 25,000 farmers. We have built a vast network with major organizations like Syngenta Foundation, ASA, EUCORD, WAGENINGEN, National Scheme Corporation, WELSPUN Group, Govt. of AP and World Bank" says Mr Srinivas.

At present, AgriRain is in the developing phase. Their operations are not much affected due to Covid-19 Pandemic as the players are in a decentralized system. Staying home has allowed them to be more organized and build a better team, plan, and brainstorm and set things, though Mr Malladi misses meeting the customers and interaction with farmers. "My only biggest competitor is rain," says Mr. Srinivas with pride.

His Dos include building an insurance program (for heavy rainfall), deploying the team for developing the price matrix app and working on a new business model for FPOs.

Areas of Operation

They are operating in Maharashtra, Madhya Pradesh, Rajasthan, Karnataka and Andhra Pradesh.

Achievements National Startup Award 2021 - From Startup India Runner up: Water entrepreneur award - From FICCI Published paper in International Council for Irrigation and Drainage (ICID) Published poster in collaboration with IARI Presented poster at International Water Management Institute conference

Association & Key take aways from MANAGE

Incubation at MANAGE helped him build further associations in the field and better comprehend government schemes. It simultaneously helped him to build a network and also aided in funding.



Best at training, imbibing entrepreneurial mind set and recommended for start-ups and Entrepreneurs.

- Mr Srinivas

Vision as an Entrepreneur

AgriRain the 100 million dollar enterprise aims to reach a million farmers by 2025.





Company Name

AgriRain



Date of Incorporation

24 March 2017



FaceBook

https://www.facebook.com/Agrirain-1803002799827304/



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National Institute of Agricultural Extension Management (MANAGE)

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