An aging farmer sits alone by the water, quietly eating his dinner. A teenage boy on summer vacation comes up behind him hoping to be offered a bit of food to satisfy his gnawing hunger. But when he sees the old man’s feast, he shrinks back. It is nothing but mud!

17-year-old Sathya Raghu remembers being shocked.

“I shouted at him out of fear and helplessness. I didn’t know how to deal with that situation. The tears rolled down from my eyes. I wondered how someone who grows food didn’t have enough to eat. ”

He asked the farmer why he was eating mud. In a feeble voice, the farmer explained that his crops had failed and he had no money to buy food.

Sathya couldn’t sleep that night and the image of the old man surviving on mud was etched in his mind.

“I spent my leisure in the next 5 years reading about Indian farming and farmers,” says Sathya. During this period, my career was going great, a wonderful work experience. But the sight of what I saw kept coming back to me.”

Sathya began thinking about how he wanted to spend the next 10 years of his life. He thought back to the old farmer and he made a decision right then and there to try to understand the real problems of rural India firsthand and come up with solutions to solve them.

As a first step, he and a college buddy took up farming. For two years, they grew crops, lived in a village with no telephones or electricity, suffered through sunburns and heat stroke and learned the hard way how tough the lives of farmers can be and how many challenges they face, including having access to markets and dealing with natural enemies, like unpredictable weather events and insects.

“Farmers have no control of environmental risks," says Sathya. “They face challenges in access to quality inputs, financing, farm knowledge and market access.
“While we initially thought that market linkages alone would be enough to create significant impact, we soon realized that it was not how we wanted to solve this problem.”

Based on their experiences, Sathya and his colleagues came up with a plan...an innovative idea that would help farmers outsmart the climate and other environmental risks.

“We decided to build technology that can protect a small piece of a farmer’s land from all uncertainties, to generate reliable and dependable monthly income. That’s how we made “Greenhouse-in-a-box.”

Four years ago, Sathya co-founded Kyeti with plans to bring their innovation to a wide swath of farmers.

Greenhouse-in-a-box is a tent of sorts that takes up just 4,000 square feet of land and uses a fraction of the water farmers usually need to grow their crops, while producing 7 times more food.

The 2,500-square-foot modular greenhouses allow farmers to control temperature, humidity and pests. Field officers train the farmers and give them high quality seeds and fertilizer. Kheyti also provides access to retailers for produce markets and loans to purchase the greenhouse.

Sathya spent two years testing the technology with 100 farmers to prove that it could generate about $100 a month from just one hour of work each day, with plans to reach 50,000 farmers in the next 5 years.

“I want my product to be a life changing investment for smallholder farmers, who are more than 90% of the 120 million farmers in India.”

But Sathya has an unusual perspective on why he is doing this work. Ironically, it is a kind of selfishness that ends up benefiting many others.

“My personal purpose of life is to be supremely happy from the time I get up till I sleep. I work with farmers not for any altruistic purpose, but to fulfill my personal goal of building technology and services to solve one of the world’s toughest problems. The process of solving such problems at scale gives me a personal ‘high’ and I love that feeling!”

Before co-founding Kheyti, Sathya worked in accounting, taxation and finance. He founded a couple of Agriculture startups to increase his happiness and increase income for farmers which led to the formation of Kheyti. He writes on farm matters in Business Line, HuffPost, SSIR, SciDevNet and became an Aspen New Voices Fellow in 2016, and Acumen India Fellow in 2014. Kheyti has won many awards including MassChallenge, Millennium Alliance, Design Impact Awards etc., and has been featured in NatGeo, CNBC, and Forbes among others.