In 2012, the municipal corporation of Mangalore had banned plastic bags. However, there were no proper alternatives in the market—only a few viable options were available in the country. This set me thinking. A few of my friends were scientists working in the field of biotechnology in Europe. We discussed alternatives for plastic bags and then started working on certain tapioca-based products. After a struggle of almost four years, in 2014, my friends and I came up with a 100% biodegradable product which did not have any plastic or chemical content. We decided to use this as a base for making bags for different purposes.

PUTTING THE PLAN IN ACTION
We then started working on different applications of the product—handbags, trash bags, aprons, etc. We launched in Qatar in 2016, in association with the Government of Qatar. Following encouraging response there, we forayed into the Middle Eastern and Southeast Asian markets.

Soon, I had an opportunity to meet Mr Prakash Javadekar, then Indian Minister of State for Environment, Forest, and Climate Change. I explained to him our work in Qatar and the feasibility of our products. He encouraged me to foray into the Indian market. We started off in India in the state of Karnataka.

In India, plastic has become an integral part of life and one cannot eradicate the problem of plastic
THE BAGS SERVE THEIR PURPOSE well, and when they are discarded they decompose soon under natural conditions.

pollution overnight. Our products serve as a good alternative to plastic. Further, the Indian government’s initiatives such as ‘Make in India’ and ‘Swachh Bharat’ are spreading awareness about such alternatives. In fact, ‘Make in India’ has attracted a lot of NRIs like me and also many foreign companies to set up manufacturing plants in the country. Incentives such as tax benefits, industrial certification, and licences are quite attractive.

THE PRODUCT ON OFFER

We have made twelve products till date. EnviGreen bags are made out of 100% natural starch (like tapioca), vegetable oil derivatives, and vegetable waste. The speciality is that they dissolve instantly when they come in contact with hot water; also, they burn like paper without melting, dripping, or releasing toxic fumes. Although they look like polythene bags, they do not contain any plastic. These bags serve their purpose well, and decompose soon under natural conditions once they are discarded unlike plastic which takes up to a thousand years to decompose.

Since the bags are 100% biodegradable, they will help in fighting drainage problem in India. During the rainy season, metros like Mumbai and Chennai face the problem of flash floods. Since our bags are water soluble, they will not choke drains and thereby reduce the extent of flooding. Also, we often see stray dogs and cattle eating garbage that may contain plastic; this is hazardous. However, even if eaten, our bags get digested within a span of eight hours.

NOT MUTUALLY EXCLUSIVE

Industrial progress and the environment can go hand in hand. Just like one needs both hands to clap, this will need determination and participation on the part of industrialists and policymakers, and support from consumers. The need of the hour is for industrialists to be seriously concerned about the environment. They should show interest in saving it and promote eco-friendly alternatives. A good example to follow is to pursue the ‘Swachh Bharat’ mission.

CHALLENGES FACED, OPPORTUNITIES SEIZED

Our main challenge was to educate people on the difference between plastic, biodegradable, and compostable products. The words ‘biodegradable’ and ‘compostable’ are highly misused. All that is biodegradable is not necessarily compostable. Further, we also needed to make people understand what is 100% biodegradable—products that decompose under natural conditions without human intervention. The Central Institute of Plastics Engineering and Technology recently certified our products as 100% plastic-free.

FUNDING

Initially, I relied on my own resources. More than ₹10 crore was invested when we began and today, our investment stands at ₹76 crore. We received tremendous response to our offerings, in Qatar and other markets.

Green Technology

- EnviGreen products have an electric dissipative feature (suitable for electronic wrapping)
- They are dust repellent, have oil/grease resistance, and helps in oxygen barrier-corrosion prevention
- The bags dissolve in hot water (80 degree Celsius) and softens in water at room temperature.
OUR MAIN CHALLENGE WAS TO educate people on the difference between plastic, biodegradable and compostable products.

Although they paid 30-35% more for our products compared to plastic-based bags, people were happy that they were completely environment-friendly. We are now ready with six new innovative products, and waiting for the right time to launch.

WHAT’S NEXT...
Presently, we are catering only to businesses and not to individual consumers. Some of our important clients include Reliance Retail, METRO Cash & Carry, Godrej, and Havells, and we are open to any other client who shows interest. Reliance Retail—the largest retail chain in India—has also been supportive.
We have now started a distribution network across India and will soon start supplying to individuals too. Three months down the line, we intend to enter the European market too.
Qatar has been very supportive to me, but being an Indian, I feel like contributing to my own nation too.

I am more than happy to be a part of the ‘Make in India’ initiative.

INNOVATION ECOSYSTEM
Indians have historically been innovators; it is in our genes. In fact, Indian innovations have contributed significantly to the world. Though the country has suffered certain setbacks, we are back in the game today and are progressing in the field of technology and innovation rapidly. Many of our young entrepreneurs are trying to do something new and not just copy others. Most of them have succeeded in their ventures too, and the government has been very supportive.

(As told to Ashutosh Gotad)