

My Eco Hero:

Kevin Kumala



Bali, Indonesia, is the idealistic tourist destination that is heralded for its clear-water beaches and luscious greenery. This means the island attracts a massive amount of tourists. While it does receive the benefits of economic growth from the 4.4 million tourists who flock to Bali yearly, it also is forced to deal with the tons of waste that are left behind by those 4.4 million visitors. In fact in Bali alone, 680 cubic metres of plastic garbage is created a day, and less than 5% gets recycled.

Kevin Kumala is a native from Bali, Indonesia who grew up near Kuta Beach, which is now one of the most popular beaches in Bali.

Kumala left his home to study college in the field of medical biology, business and even research in the emerging field of bioplastics in the US. After 10 years of strenuous study, he decided to go on sabbatical from studying in the US in 2009 and decided to visit native Indonesia to surf and clear his head. When he arrived at the Kuta Beach he grew up at, however, what he saw did the opposite of clear his mind. In his own words, the change “was so dramatic. It was no longer the Kuta that I know”

When Kumala revisited his childhood Kuta beach, he saw the massive amounts of plastic in the ocean when he tried to surf. He recalls that a straw even went up his nose, and when he went diving he even saw a turtle pass by with its neck entangled in plastic. He stated, “When I went surfing or diving it was not a pleasure for me- I found plastic every place I went in Bali and that became something that frustrated me”

Kumala realized how the overuse of plastic resulting in this pollution, and concluded that change was needed- now. He then decided to stop pursuing a medical degree at UCLA and returned to Indonesia to study the viability of opening a business as well as the overall plastic pollution problem in Indonesia. He believed that it was “too late to change our habits” and to get people to use less plastic or recycle more, so he decided to find a replacement for plastic bags made from petroleum, which can take up to 1000 years to biodegrade. This shows, sadly, every plastic bag ever made, still exists today.

So Kumala started his research in 2011, in what he called the “Bat Cave”, in Jakarta Indonesia.

Here he committed 18 hours, 7 days, for 4 years straight to work towards solving the plastic epidemic.

The years of commitment and research proved fruitful, as he found an alternative to plastic in the cassava root. In Indonesia, 25 million tons of cassava are grown annually, but the uptake of the root is much lower, resulting in cassava waste. He decides to take the “waste” of cassava and utilize it to make a biodegradable plastic. His plastic bags, coined “Not Plastic” is the only biodegradable plastic to pass all oral toxicity tests, meaning it is safe for humans to ingest. Even better, if the plastic ends up in the ocean, it is also safe for sea-life to ingest! In addition, his plastic bags biodegrade naturally in 60-90 days, compared to the thousands of years petroleum based bags take.

Kumala was then able to open his company Avani Eco in 2015. While the “Not Plastic” bags are the jewel of the company, Kumala also developed a range of products that replace other single-use plastics.

He makes PLA ponchos, corn starch products ,Bio-Paper Straws from F5C, which certifies that the paper/wood comes from sustainable forests. He also makes Bio-Paper cups and bowls and lids and Bio-Wooden Cutlery from F5C wood and paper even Bio-Boxes from bagasse, a fibrous by-product that is produced after sugarcane juice is extracted. All of these products biodegrade in 180 days, and come from sustainable sources.

As of 2016 in Bali, the use of Avani products replaced 197 tons of plastic waste with their biodegradable components are used in 20 different countries.

Kumala’s story resonated with me, as my mom is full Indonesian and I’ve also visited Bali multiple times. There, I was able to see the gargantuan amounts of plastic pollution along the beaches, as well as in gutters where rafts of plastic waste floated.

Upon the opportunity, I would ask Kumala:

- 1.) How did it feel to take the risk and what did it take to discontinue your previous endeavour at UCLA to solve the plastic pollution problem in Indonesia?**
- 2.) Will you expand the “Not Plastic” bags and assorted biodegradable products further?**
- 3.) What advice do you have for students who are striving to accomplish change in their communities to better the environment?**