



Cleaning Rivers to Keep Our Oceans Clean

Gary Benchehib

Bali

Growing up in Bali, Gary Benchehib loved walking on the beach with his younger brother Sam, and their older sister, Kelly. Bali beaches are famous among tourists for their beauty - clean, white sand beaches as far as the eye can see. However many of these gorgeous beaches are increasingly being covered with plastic litter – from water bottles to straws, and single use products.

Each week they picked up the litter hoping they could help return it to their natural state of beauty. At first Gary thought that the beaches would stay that way. But the very next day, there was more trash – plastic waste everywhere. Week after week, more plastic kept appearing on the shores.

Gary soon realized the sheer volume of garbage on the beaches couldn't just be from tourists and local people littering. It was a much bigger problem. And as it turned out, he was right: it was an upstream issue. He soon discovered that Bali's rivers were actually the source of the plastic pollution. People living along Bali's rivers were using them as a garbage dump, since they was no waste management system, nor any green alternatives. So Gary and his brother Sam started rallying volunteers to clean up plastic pollution from the beaches. They formed Make A Change Bali to explore ways to help clean up the riverways.

Gary was curious to see if other countries had this problem too. They were shocked to learn that 150 million metric tons of plastic are in our oceans, and 8 million metric tons of plastic waste are added each year - and a sizeable percentage of this waste is from river sources. So Gary and Sam expanded their local organization to create Make A Change World to address this problem globally. What made their second venture different from their first is that they now decided it was equally important to focus on education - knowing that if people didn't understand the consequences of their habits, then they'd have no reason to change to greener lifestyle choices. And Gary felt that the best way to educate people about the environmental crisis is through film.

So Gary embarked on an adventure: first he moved to New York to attend film school at the New York Film Academy. In conversations with Americans, he noticed the same lack of awareness around plastic pollution that he had found in Bali - rivers were largely being ignored as a source of ocean pollution. So he decided to make his first film about the Mississippi River, the longest river in the United States, which runs right through the center of America's heartland.

He decided that linking his film with one of the most famous characters in American literature, Huckleberry Finn, would be a good way to get people's attention. So he sailed the 2,300 mile length of the Mississippi River on a raft constructed of 800 plastic bottles, and created a short documentary series to raise awareness of this problem.

Gary named his raft "Ioco" and he put together a team of skilled engineers, who took readings about the health of the river's water as they traveled. What they discovered was frightening. There were unsafe levels of microplastics, extremely tiny particles of plastics, in nearly every area they tested. This type of pollution is toxic to the fish and harmful to the humans who eat them. "My purpose in making the film was to show the problem visually," he says. "But since you can't see microplastics, you can only measure them, that wasn't successful in raising awareness."

Thankfully, this problem didn't stop Gary.

To get his message across, Gary knew he had to find a way to create a great visual. So, as he searched for a great visual image that would inspire action, he learned, much to his dismay, that the most polluted river in the world was in his very own backyard, in Indonesia.

The stretch of the Citarum River in West Java is the textile capital of the world. There the factories of the world's largest clothing companies are dumping dyes and other pollutants directly into the water, in alarming amounts. To raise awareness of this catastrophic issue, Gary and his brother Sam made another film as they sailed down the river on two boats made of recycled plastic.

Downstream from the factories, they saw the water tainted with artificial colors from the dyes, dead animals floating in the water, and piles of burning trash. What was most shocking to them was that the river was entirely covered in plastic. With every stroke of their paddles, their oars would hit another bottle. "It really hit me how far we've come in the destruction of our planet," Gary says. "I just wanted to do everything I possibly could, every day of my life, to clean the environment and save the planet."

Gary and Sam's first video went viral overnight. "Our little journey, traveling on a raft of plastic bottles, became international news," Gary says. "We were speechless! We were finally starting to get the attention that this movement needs."

People all over the world began messaging Gary and Sam online to find out ways they could help. Four months later, the brothers were invited to meet with Indonesian President Joko Widodo. They talked about the urgency of the Citarum's situation and he assured them that he would personally see to it that they receive help to address the problem. Gary and Sam were very pleased when he declared a "garbage emergency" a few months later. In February 2018, he mobilized 7,000 military troops for a cleanup campaign, with a seven-year commitment. Gary joined in, with check-ins every 2-4 months, to see the progress that was being made, and to learn from the cleanup effort what he could bring to the rest of the world.

One day while observing the workers, who were both troops and technical experts from the Ministry, Gary had an idea for a new kind of monitoring process. *What if we could measure the things we can see--like plastic bottles--as well as the things we **can't** see -- like lead, uranium, and toxic chemicals in the water?* he asked himself. *Would that make a difference?* He envisioned this new system as a way to exchange knowledge and best practices from the global community, who'd been reaching out to him in droves, wanting to help.

Sungai Watch is an open-source online platform that uses geographic software like GIS and AI to track ocean cleanup in real time. It then provides data on what pollutants are in the water. This allows scientists to determine which cleanup methods – barriers, skimmers, or other technologies – are most effective. This open sourcing of environmental solutions encourages the global community to share both data and technologies, so that effective solutions can benefit more communities, and can become refined through applying collective wisdom.

"It's exciting, exchanging ideas and methods from around the world," Gary says. "But to be most effective, we really need local communities to inform our work." The local communities he works with span from Jakarta to Singapore and beyond. And it's in these local communities that he's found valuable knowledge about things that he didn't know about prior. For example, they know the local irrigation channels, and how seasonal things, like monsoons, can impact places on the equator. "The monsoon effect causes cities on the equator to produce a disproportionate amount of plastic pollution, because when the rivers swell, it sends garbage into the oceans. These are the kinds of things we're now learning from people around the world." He adds, "Now more than ever, we need our global community to inform our decision making."

For young people looking to make an impact on the environment, Gary has two main messages. One is that positivity bridges all divides. "We learned early on to always take a positive approach," he says. "No pointing fingers. This isn't about blame, it's about finding solutions. We want to help, and we don't want anybody to feel as if they need to apologize."

Gary also believes that big, far-reaching ideas are what the movement needs most. “No idea is too crazy!” he says. “We need big ideas, and we need risk takers to go above and beyond to put these wild and crazy ideas into action. That’s the only way for us make sure we sustain the planet for future generations.”

As a filmmaker, Gary is always thinking of new ways to get his environmental message out to the world. One day, with his brother Sam, they had an idea for another way they could raise awareness – and that was to run across the United States. He realized that people living in middle America might not feel very connected to the problems of the ocean. And, as he had learned in Bali, an overwhelming amount of ocean pollution comes from upriver. That’s why it is important that even people living far away from the ocean understand that they may be contributing to the problem. And also learn that they can also contribute to the solution.

And so, on July 26, 2019, Sam embarked on a 191-day, 3,055-mile journey from New York City to Los Angeles. He ran an average of 23 miles a day for 145 days—almost a marathon’s length nearly every day, for more than five months. He ran in upcycled plastic shoes, made from the very plastic they’d collected on their cleanups. On the days he wasn’t running, Sam was busy raising awareness, working with the media, with schools, and with local governments. He met face to face with more than 10,000 people. And through the six-part film series he and Gary made to promote the journey, they will connect with thousands more.

Through his filmmaking, his explorations, and his passion for positivity, Gary has vastly expanded environmental awareness about the health of our oceans. There’s no telling what’s in store for the future – but with youth leaders like 25-year-old Gary pushing the boundaries of what is possible, more youth than ever will be inspired to join the exciting journey toward remaking our world sustainable.

Indonesia’s pledge is to have the Citarum become the Cleanest River in the World by 2025. With a clean river, comes clean beaches. And with a committed community behind the effort, Gary, Sam, and Kelly will be able to enjoy their favorite past time in Bali – once again taking walks along the pristine, white sand beaches of their beautiful home.

*In rivers, the water that you touch is the last of what has passed
and the first of that which comes; so, with present time.*

Leonardo da Vinci

Call To Action: Get involved with Gary and Sam’s work of cleaning up our rivers and oceans. Learn how at Make A Change: <https://makeachange.world/> .

Stone Soup Leadership Institute
www.stonesoupleadership.org
www.soup4youngworld.com