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CHIME THROUGH THE YEARS

“FLIPPING THE SWITCH” BY DAVE MOUTRAY

CHIME FOR CHANGE Through the Years: The Female Fabric is a series curated by CHIME Managing Editor Mariane Pearl featuring stories from the CHIME journalism platform archives by women around the world.



It was enough to hike out of a deep ravine, after filming on a rainy day in the mountains of Guatemala, to hammer home the differences between the hardships I experienced growing up and the drastic poverty we were witnessing. My lungs burned and my legs ached. My waterlogged clothes felt as heavy as the camera gear I carried. Right alongside us, walked a man who must have been 15 to 20 years older than me. He had an easy stride and a thin smile, this for him was routine.

My friend photographer Felipe and I had set out to capture the lives of disadvantaged women turned solar engineers. A critical story from distant corners of the world where women are leading the rise out of crushing generational poverty. **These women (now representing nearly 100 countries and numbering close to 3,000) leave everything they know and travel to Barefoot College in India: a women-centred global network dedicated to sustainable development. Despite barriers of literacy, language and culture, and over a period of six months, they learn to single-handedly channel solar energy to electrify their villages and literally bring the light to their respective communities. In fact, all the women I worked with, whether sitting in London or sinking in muddy trails, understood each other in ways that were not bothered by any types of barriers.**

Barefoot College Solar Mamas, as they are fondly known, have provided a sole source of power in places as distant and cold as the Arctic and as sultry as the desert of Mexico, from the heights of the Andes to the beaches of Belize. Once trained in building, installing and maintaining solar panels and batteries, the women also learn entrepreneur skills. Some turn sewing into a craft business. Others cultivate coffee. One of the most successful programs is beekeeping. The beekeeping suits worn in Zanzibar and India to cultivate honey are made by the Solar Mamas from discarded boat sails.

The heavy canvas and netting protects them from swarms of bees as they do their work. Bees swarmed around me and my rubber boots filled with sweat. I did feel self-conscious, the crew and I stood out with our cameras and microphones. It felt as if our laughter was too loud and our body language overconfident. I was concerned about disrupting their well-beings even if unintentionally.

I grew up in the American Midwest. When I was a child, we struggled financially like many families in our small town of 2,700 people who depended on two broomcorn factories for income. **I remember my mother splitting napkins in half so they would last longer. It was instinctive for us to save ketchup packets from McDonalds and my haircuts were done by placing a mixing bowl on my head and my mom trimming around the edges.** This past came back to me at odd moments, as I travelled last year in the remote regions of the world.

Miles of Mistakes

We made our first trek out of the crushing traffic and noisy snarl into the bone-jarring pot-holed roads deep into the forests where less than a generation earlier, indigenous people fled to survive the brutal civil war.

In these places that once offered the only source of protection, they carved out homes. We spoke to everyone we could, as if taking the pulse of our story and when all was said and done, we filmed in eight countries on five continents with people who spoke six different languages.

The story that emerged wasn't as straightforward or simple as donors would like it to be. **For every "improvement" came other challenges. For every new story of impact came other stories of need. This change was happening one woman at a time who were taking life transforming action in places where it is increasingly difficult to live the present, let alone dream a future.**

Light, Opportunity, and New Problems

On our critical visit to Guatemala, we travelled deep into the rainforest to the community of P'al but mudslides and uprooted trees could potentially cancel our plans. We woke at 4 a.m. We had a green light. **What happened next was the most challenging, unnerving, without a doubt, most impactful and inspiring treks of my life.**

Our driver Armando met us in a small village at the bottom of the mountain. And just like that, we bounced in the rain over roads that often were only big enough for us to hug along between a steep decline and the side of the mountain.

I sat in the front seat and looked over a fog-drenched valley that had to be miles below us. We were told that a big tree had been uprooted and slid down, blocking the dirt road to the village. I watched in amazement as Armando worked the clutch, gas, brake and emergency brake in unison to keep the truck from climbing up the ravine. Between a bridge that was held together by rain-soaked wood, much of it drooping in aged shreds, to large potholes that required deft manoeuvrings by Armando, we kept going.

Until we didn't anymore: we'd reached the tree. So, we emptied out our truck, gathered our equipment, made sure it was protected from rain, and there we went. We were told it would be a two-hour walk each way.

The rain was palpable at first, acting as its own steady gloom, then it lessened as we went further down, until we noticed that the drenched landscape had turned stunning—green upon green, until it met the grey of a fading rain cloud (I could see its upper edge—that's how high up we were).

We made it to the village towards the bottom of the mountain.

It started with one small hut, covered in grass and built in wood. And then another, and then two more connected, but built upon a steep incline.

As we entered the village, we saw a short man in rubber boots wearing a skullcap and a plastic bag to protect himself from the rain. Our guide introduced him. He was the newly elected mayor of this village of 140 homes.



Bee keeping is one of the main activities Solar Mama develop once they bring light to their community. The solar lights, they said, were a sign of progress: they could be productive much longer. Their children could study at night.

I saw two women making a fire to cook dinner, their home filled with smoke. A young mother washing dishes in the rain, her feet covered in mud. This was supposed to be the dry season, but torrential rains had been pounding those treacherous dirt roads we'd just traversed, ruining critical crops like coffee and cardamom.

It's not just acute poverty these people were confronting, but also climate change and culturally entrenched gender inequality. The women at this modest little village were at the frontline of the most important issues facing our world today.

In Belize, we met Barefoot College's Carmen Carmona

"Today you have one problem: no light," Carmen said. "But soon you will have many other problems. Concerns about collecting the payments, investing in future maintenance and many other things. With opportunity comes challenges, but if you work on these together, you will succeed."

For his part, Xavier Juncadella Medina, Director of East Africa for Barefoot College said his fulfilling work is fraught with problems, expected and unexpected. He mentioned the critical need to fund solar power equipment for these women when they return home from their training. Some, like in this village in Belize already had their equipment financed. But others must wait. **Solar engineers return and confront red tape, financing and transit hurdles to bring the equipment they've been trained to install.**

"Indeed, when we first arrived in P'al, one hundred homes had power. Forty still did not, as the funding was only for the first 100 homes. These discrepancies were complicated, the mayor said. It's an imperfect world, but these programs make a huge difference, even as they all wonder if they could do more.

At the Last Mile



Our crew with "Debra Mashwamba Mama" and her solar panel

"For every dollar invested in a woman in the developing world, 86 cents go back to her family, for health, education and better food. For every dollar a man earns it's not even 36 cents," Barefoot College International CEO Meagan Fallon says.

Women are the untapped solution and underutilized resource in every country on Earth. When the obstacles are removed, their potential is limitless.

