

# Pods of Promise: Cacao's Role in Soil Revival

A pair of white-brown butterflies flit about, wings flashing and vanishing from view amid a mosaic of fronds and branches. Flanked by tropical trees to one side and a regiment of oil palms on another, the clearing becomes their stage. A primeval dance is taking place, the cicadas and bush crickets providing the musical accompaniment.

With earth caked on the soles of his boots, sweat dotting his temples, Nurwanto Jarwono emerges from a thicket of banana trees. Squinting overhead, he settles on a wooden bench, finding a spot somewhat covered from the hot sun.

“Here we grow fruits ... mangoes, durians, guavas. They extend all the way there,” he tilted his head towards where the terrain slopes up. “All the way to the waterfall. That’s ours.”

Nurwanto left Java, the island of his birth, for Ketapang, West Kalimantan, nearly two decades ago. Armed with a resolve to make life better for his family, and a childlike curiosity for cultivating new crops, he moved to Sumber Priangan, a hamlet in the southern pocket of Desa Simpang Tiga

Sembelangan in Kecamatan Nanga Tayap. The villagers—mostly of Sundanese and Javanese descent—called him “Pak De”, a term reserved for a family elder. Like most who live there, Pak De spent years working for a nearby oil palm plantation. Then, in 2012, with his savings he bought a parcel of land to plant some for himself.

The land he’d purchased was far from prime. The surrounding forest, though verdant at first glance, had undergone several fires. Its mature trees had been illegally logged. Much later, he found that a part of his plot was within the ‘hutan desa’—a designated village forest—where oil palm cultivation is prohibited by law.

Initially, of course, Nurwanto got dismayed. He sought counsel from those around him, including from Janrahman Simarmata, an avid forest explorer and conservation specialist at Bumitama. The company had devised a range of agroforestry initiatives to rehabilitate fragile and damaged forests, and at the same time empower locals to generate livelihoods from these otherwise underutilised and specially designated areas like hutan desa. In Janrahman’s eyes, Nurwanto’s land held great potential for transformation. He believed he had just the right model for Pak De.



“

**The company had devised a range of agroforestry initiatives to rehabilitate fragile and damaged forests, and at the same time empower locals to generate livelihoods from these otherwise underutilised and specially designated areas like hutan desa.**

“We now have about 1,700 cacao plants here, across four hectares,” Nurwanto explains. “They aren’t fully grown yet. We will enjoy their yield in the future. In the meantime, the bananas and other fruits have been feeding us, and bringing us some income.” Bunches of freshly picked bananas pile up nearby, their waxy green skins catching the late-morning sun.

Throughout 2022, Nurwanto planted on his clearing various seedlings obtained from Bumitama, through a programme designed by the company together with IDH. He gathered 25 like-minded farmers, forming a KUPS (Kelompok Usaha Perhutanan Sosial—Social Forestry Business Collective). Members of the collective embedded their aspiration into the group’s name. It was to be Sumber Joyo—a wellspring of prosperity. Three years on, the planting has turned the fruitless field into a melange of leafy, living spires—legumes like petai and jengkol stand side by side with mango, orange, and banana trees. Some have begun to bear fruit.

Despite their decidedly imposing figures, these trees play supporting roles in Bumitama’s, and the collective’s, vision of agroforestry. The main protagonist is a plant with a much humbler size. A plant whose beans are beloved of billions, but prefers to remain in the rainforest’s understory.

A cacao tree loves shade. Without plenty of it, younger saplings get easily stressed and soon wither. Mature ones grow best, and give generous yields, in the presence of a shade-giving sidekick. Taking centre stage on Nurwanto’s plot are cacao trees with varying degrees of maturity: from shoots with copper-tinged leaves kept in plastic bags, to denser shrubbery featuring tiny pinkish flowers and the occasional pod.



“But if it weren’t for Bumitama, none of this,” he adds, spreading his arms as if ready to embrace a visitor, “would have been possible.”

Since taking up Janrahman’s idea in 2021, Nurwanto and his fellow farmers have received shipments of cacao seedlings from Bumitama. Three thousand seedlings have changed hands. Beyond that, Bumitama and IDH are supporting KUPS Sumber Joyo with fertilisers, agronomy training, even operational funds to manage their plot.

“

**Three thousand seedlings have changed hands. Beyond that, Bumitama and IDH are supporting KUPS Sumber Joyo with fertilisers, agronomy training, even operational funds to manage their plot.**



The trees look healthy, promising. “We can already find pods on some branches. The plants are learning to bear fruit,” Nurwanto says. This early success encouraged them to add another 800 seedlings in 2025, covering roughly two hectares. Neighbours and other farmers, for whom cacao is an unfamiliar crop, are watching the collective’s project closely. Will it live up to its promise?

For Janrahman and his colleagues at Bumitama, persuading oil palm farmers to experiment with agroforestry crops, cacao being one, was challenging. Even Nurwanto was initially sceptical. “I had never worked with it, never tasted it,” he admits. “How could I be enthusiastic from the get-go? So, during the first year, I forced myself to embrace the idea, despite riddled with worry. I didn’t know anyone who’d buy it.”

Amran Sinaga offers a contrasting personal history with cacao. All this while, Sinaga has been sitting quietly on a weathered piece of timber, listening intently to his friend’s account. Sinaga takes his turn to talk. “I’ve known cacao all my life,”—his voice soft, his pace measured—“but there are always hurdles that keep my trees from growing well.”

Sinaga grew up in the hills of Simalungun, North Sumatra, where cacao is a prized commodity. Playing with his friends, young Sinaga often dirtied his fingers opening ripe cacao pods to suck on the sweet, fresh pulp within. It was only natural, his desire to plant it upon relocating to Sembelangaan in the early 2000s. But the soil he worked on had refused to comply.

His current cacao batch came from seedlings that Bumitama sourced from Puslikoka (Indonesian Coffee and Cocoa Research Institute—ICCRI) and handed over in 2022. Sinaga’s collective, Sumber Tani, was one of the two collectives selected by Bumitama to host a cacao demonstration plot—the other being Nurwanto’s Sumber Joyo. But while in Sumber Joyo the seedlings showed promise, in Sinaga’s land they faltered.

The problem lay largely in the soil. Tests by Bumitama staff, analysed with the help of Soetanto Abdullah, Indonesia’s leading cacao researcher, found the soil to be very acidic, with pH around 3. This caused the crop used for its shade—jeruk madu susu, a tangerine cultivar native to West Kalimantan—to grow poorly, and in turn, stressed the cacao.

“

**His effort to transform his inhospitable land is gradually paying off: he's been enjoying good harvests of tangerines and bananas. From the fruits' sale, and thanks to Bumitama and IDH's assistance, Sinaga is obtaining more cacao seedlings.**

Sinaga's ambition for Ketapang to rival Simalungun in cacao cultivation, and Nurwanto's worry over securing buyers, have found an ally in Yohana Tamara Yunisa, Pontianak-based social entrepreneur and chocolate connoisseur. Ara, as she likes to be called, has a dream: bringing top-grade cacao from Kalimantan to the world. “Indonesia is the seventh largest producer of cacao globally, the biggest in Asia. Almost all major islands, Sumatra, Sulawesi, Bali, Java, Papua, cultivate it. But Kalimantan? People doubt it when I say it can also produce good beans. I will prove them wrong.”

Through Kalara Borneo, a boutique chocolatier she founded, Ara holds the key to the next stage of Nurwanto and Sinaga's journey as cacao growers. She's promised them that Kalara Borneo will buy, at fair price, any amount of beans they can collect from their orchards. On one condition: they must follow her instructions to the letter when fermenting the beans. Her strictness has purpose: Kalara's chocolates must meet her exacting quality standards.

“

**Indonesia is the seventh largest producer of cacao globally, the biggest in Asia. Almost all major islands, Sumatra, Sulawesi, Bali, Java, Papua, cultivate it. But Kalimantan? People doubt it when I say it can also produce good beans. I will prove them wrong.**

Nurwanto, Sinaga, and Ara still have much to play for. Pak De planted cacao without knowing its taste. Sinaga knows its potential full well—he just needs to coax the soil into yielding. Ara has brought three single-origin beans from Kalimantan to market. She is intrigued: What flavours will Ketapang's inaugural harvest reveal?

She is hardly alone in waiting for that first bite.



“

“

**Through Kalara Borneo, a boutique chocolatier she founded, Ara holds the key to the next stage of Nurwanto and Sinaga's journey as cacao growers. She's promised them that Kalara Borneo will buy, at fair price, any amount of beans they can collect from their orchards.**

Disheartened many times, but never hopeless, Sinaga continues to learn from his mistakes, trying out new techniques, soliciting tips from experts. He has applied empty fruit bunches of oil palm to raise the soil's pH, cleared the weeds, planted other shade-giving crops like petai and banana. Though much of the 2022 cacao batch had died, the surviving ones show enough resilience for Sinaga to keep his hopes up. His effort to transform his inhospitable land is gradually paying off: he's been enjoying good harvests of tangerines and bananas. From the fruits' sale, and thanks to Bumitama and IDH's assistance, Sinaga is obtaining more cacao seedlings. “I will persist. I want to see it through.”