QUARTERLY

NEWSLETTER 2 - 2026

April - June

We design agroecosystems and share knowledge to build a sustainable future together.

ecotica

Group photo with Agribusiness students from Universitas Sarjanawiyata Tamansiswa following a hands-on training in tomato passata sauce production.

CONTENT

PREPARING FOR THE JOURNEY AHEAD

In our previous newsletter, we shared our plans to conduct an on-site land survey in Borneo as part of Ecotica's efforts to develop community-centered and environmentally responsible projects. Since then, preparations have continued, shaped by logistics, transportation availability, and broader economic conditions that influence travel and fieldwork across Indonesia.

We are pleased to share that these preparations have now reached an important milestone: our ferry tickets have been secured, and we will depart for Borneo on 25 July 2026.

While waiting to begin our fieldwork, we continued strengthening Ecotica through both action and learning. From delivering educational programs to visiting inspiring initiatives across Yogyakarta, this quarter has deepened our understanding of sustainable food systems and the communities working to strengthen them.

These experiences have not only prepared us for the journey ahead, but have also reaffirmed a belief that guides our work: meaningful projects begin by listening, learning, and building relationships.

STRENGTHENING FOOD SYSTEMS THROUGH EDUCATION

Before embarking on our own learning journey, Ecotica had the opportunity to contribute to the next generation of food system practitioners through a Sustainable Food Processing Series at the Faculty of Agriculture, Universitas Sarjanawiyata Tamansiswa in Yogyakarta

A behind-the-scenes look at the hands-on training workshop.

Over four weekly sessions, Ecotica co-founder Putri worked with 60 students—36 Agribusiness students and 24 Agrotechnology students—to explore how post-harvest processing can reduce food loss, create value-added products, and strengthen local food systems. Combining classroom discussions with hands-on laboratory sessions, students learned to transform fresh tomatoes into shelf-stable tomato passata while also examining topics such as food safety, market access, sustainability, and product development.

Beyond technical skills, the series encouraged students to critically examine how innovation can remain practical, accessible, and relevant to the diverse agricultural contexts found across Indonesia.

As we often emphasize, building sustainable food systems does not end at harvest. It also depends on how we process, preserve, market, and create value from the food that has already been grown.

For those interested in learning more about the program, you can read the full story on our website: https://ecotica.org/sustainable-food-processing/.

LEARNING FROM LABORATORIUM DUSUN: REVIVING RURAL ROOTS IN GUNUNGKIDUL

Our learning journey began in Rongkop, Gunungkidul, where we visited Laboratorium Dusun, a community-based initiative founded by Este and Ida. The initiative responds to concerns around rural depopulation and shifting livelihood patterns while working to strengthen local economies through agriculture-based activities.

Gunungkidul's karst landscape presents significant challenges for farming. The rocky, porous soil makes agriculture highly dependent on seasonal rainfall. Local farmers have adapted over time by cultivating crops such as cassava, peanuts, petai, and rainfed rice varieties suited to dry conditions.

However, changing weather patterns are making farming increasingly unpredictable. During our visit, farmers were harvesting peanuts under exceptionally dry conditions. With limited rainfall in recent months, the soil had hardened, making harvesting far more labor-intensive. A task that would normally take one day had stretched into several days, as farmers were forced to break up compacted soil before they could collect the crop.

Beyond these physical challenges, farmers also face economic uncertainty due to fluctuating commodity prices, making their income increasingly difficult to predict.

A local farmer harvesting peanuts from compacted soil in Gunungkidul.

In response, Laboratorium Dusun works to strengthen market access for local producers by promoting Gunungkidul's agricultural products beyond the region. Their approach goes beyond selling raw commodities. Alongside peanuts, cassava, and petai, also known as the "stink bean," a tree bean widely used in Southeast Asian cuisine, they develop value-added products such as ampyang and cookies made from locally produced modified cassava flour (MOCAF).

They also embrace circular practices by upcycling used flour sacks into durable reusable shopping bags, adding another layer of value within the local production system.

Their work demonstrates that strengthening rural livelihoods is not only about increasing agricultural production, but also about creating more value from what communities already grow.

Freshly harvested peanuts and a meaningful exchange with Este and Ida, founders of Laboratorium Dusun.

SPECIES SPOTLIGHT: *PETAI* – MORE THAN JUST A STINK BEAN

The stink beans known locally as petai is an acquired taste, not unlike coriander in the sense that you either love it or hate it. Still this delicacy is an important income stream for rural life. Typically, a middleman would approach the tree owner and buy all the pods for a lump sum of money. The value can reach a minimal monthly wage in the area depending on the size of the harvest.

The tree, also known as petai, is Parkia speciosa, a member of the legume family called Fabaceae. This species illustrates yet another a fascinating flowering strategy nature has evolved. The tree produces many small flowers that are grouped together in balls called capitula. Each capitulum hangs from the tree like a carrot tied to a stick. Cream-colored flowers are packed together tightly and cover the surface of the capitulum.

This round ball of flowers is a perfect landing spot for bats. Bats are the main, and most likely the exclusive, pollinator (while not impossible, scientific studies showed extremely low fruit set rates from other pollinators).

Another very important fact to keep in mind is that each capitulum is viable only for one night. Anthesis, when flowers open, starts around sunset. The flowering party continues into the night but eventually stops a few hours before dawn. Different capitula of the same tree will flower on different nights, but each one has only one short night to be pollinated. If pollination doesn't occur on that fateful night, the tree will discard the capitulum.

When a bat lands on a capitulum, it gorges itself on delicious nectar. In return, pollen sticks to its fur and is carried away. The visits are swift and efficient, bats on average just spend a few seconds on the same capitulum.

The cave nectar bat, Eonycteris spelaea, is one important species for Parkia speciosa. As the name suggests it naturally roosts in caves. In some places the species has adapted to agricultural landscape dwellings like abandoned warehouses, but we know that globally bat populations are declining and that E. spelaea is also endangered by hunting. It lives in colonies that require undisturbed space for roosting that consists of large caves with high ceilings. In overpopulated areas, which is almost everywhere in Java, caves are disturbed by human activities such as quarrying or visitors.

In the city of Yogyakarta, we often pass in front of a petai tree producing capitula that eventually fall off the tree without bearing any fruit. We heard from villagers telling us about a certain year when all petai trees failed to produce fruits in their areas. This situation made us want to speak up and raise awareness about our furry flying friends. While we have only spoken about petai here, Eonycteris spelaea is also an important pollinator for valuable fruits produced locally like durians and jackfruits.

Another step we have taken already is to spread this information when we visit villages. While people are familiar with petai on their plate or with its trees present in their surroundings, the flowering mechanism and the symbiotic relationship with cave bats is not yet known and understood.

ADDING VALUE AT THE SOURCE: LEARNING FROM AGRADAYA

A solar dome dryer at Agradaya, supporting climate-smart post-harvest processing.

We concluded this quarter's learning journey with a visit to Agradaya, a Yogyakarta-based social enterprise that partners with smallholder spice farmers across Indonesia to strengthen sustainable production, post-harvest processing, and market access.

During our visit, co-founders Andhika and Asri shared the realities of building a market for high-quality Indonesian spices. In the early stages of their work, many of the spices sourced from local farmers did not meet the quality standards required by their buyers, particularly for export markets. As a result, Agradaya experienced considerable losses as products failed to meet the expected specifications.

Rather than lowering their standards or shifting to other suppliers, they chose a different approach: learning from their buyers and translating those quality requirements into practical guidance for farmers. Over time, this evolved into continuous capacity building, helping farmers improve harvesting, handling, drying, and post-harvest practices so that more of their products met market standards and generated better returns.

One of the highlights of our visit was Agradaya's solar dome dryer, a solar-powered post-harvest drying system that reflects the kind of innovation we believe is needed in Indonesia's agricultural sector. Rather than depending on highly sophisticated or energy-intensive systems, the dryer harnesses solar energy to dry spices more consistently while remaining affordable and practical for local producers. By reducing dependence on increasingly unpredictable weather, it helps improve product quality, reduce post-harvest losses, and strengthen farmers' resilience.

"The best technology is not necessarily the most advanced one. It is the technology that people can realistically adopt, maintain, and sustain."

That idea captured one of the strongest lessons from our visit. Innovation becomes meaningful when it responds to local conditions, builds on available resources, and empowers communities rather than creating new dependencies.

Beyond technology, another message resonated strongly with us. Andhika and Asri observed that relatively few young people, including graduates of agriculture-related disciplines, choose careers in farming or return to rural communities after completing their studies. Yet they remain optimistic that if more young professionals brought their knowledge back to farming communities, they could help unlock new opportunities for farmers, strengthen local livelihoods, and drive innovation where it is needed most.

The visit illustrated Ecotica's concept that value creation extends beyond harvest. It's achieved through knowledge sharing, practical innovation, and lasting partnerships that help farming communities secure a larger share of the value they generate.

LESSONS ALONG THE WAY

Although each experience this quarter focused on a different aspect of food systems, from post-harvest processing and market access to biodiversity, traditional knowledge, and rural livelihoods, they all reinforced one important lesson: sustainable development is built on relationships.

Whether between farmers and consumers, bats and petai trees, artisans and traditional knowledge, or local producers and markets, resilient systems are shaped by connections rather than isolated solutions.

Photo credit: Nick Baker, EcologyAsia.com

Cave Nectar Bat

For Ecotica, these experiences are more than learning opportunities. They strengthen our understanding of the environmental, social, and economic realities that communities navigate every day while helping us design future programs that are rooted in local contexts and informed by practice.

As Ecotica continues to grow, we remain committed to listening first, learning continuously, and collaborating with communities to build food systems that are both resilient and regenerative.

WHAT'S NEXT

With preparations now complete, Ecotica will depart for Borneo on 25 July 2026 to begin our long-awaited on-site land survey. This marks an important milestone in our journey to better understand the ecological, social, and logistical context of the region before designing future community-based initiatives.

The journey itself will take several days, combining train and ferry travel from Java to Borneo. While this route requires more time and coordination than flying, it reflects our preference to choose lower-impact travel whenever it is practical and feasible.

Local farmers harvesting peanuts from a cassava–peanut intercropping system in Gunungkidul.

Traveling overland also offers something equally valuable: the opportunity to witness the changing landscapes, ecosystems, cultures, and livelihoods between Java and Borneo. As an organization rooted in Yogyakarta, we recognize that every region of Indonesia has distinct environmental, historical, and cultural contexts. We see this journey not simply as traveling to another island, but as an opportunity to step beyond the landscapes we know and begin learning from a place that is entirely new to us.

Over the coming weeks, we will meet with local communities, visit potential project sites, and continue building relationships with local stakeholders. Rather than arriving with predetermined solutions, we believe meaningful projects begin by listening, understanding local aspirations, challenges, and opportunities before taking action.

Every journey begins with curiosity. As we leave Java for Borneo later this month, we do so not with all the answers, but with a growing collection of questions, experiences, and relationships gathered along the way. We look forward to sharing what we discover in the next chapter of Ecotica's journey.

If you're interested in collaborating, supporting our work, or exchanging ideas, we'd love to hear from you. Learn more about what we do at www.ecotica.org

Best regards,
Team Ecotica

ecotica