SPRINGS

THE RACHEL CARSON CENTER REVIEW

Issue #7 | 2025

May

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ORGANIC FARMING IN THAILAND: A CONVERSATION WITH JUDITH BOPP

Judith Bopp and Mascha Gugganig

Springs

The Rachel Carson Center Review

7 • 2025

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Judith Bopp is a postdoctoral researcher at the Rachel Carson Center for Environment and Society (RCC) working on her DFG-funded project "Fostering the Health–Nutrition–Ecology Nexus: Organic Farming Practices and Household Resilience in Rural Thailand." One of her friend's great fears is that she will eat all of his vegetables when she is on his farm in Thailand, and she has cultivated secret skills as a vendor at farmers markets across Germany. She shares her trajectory with Mascha Gugganig, who is currently writing a habilitation tentatively titled "Humans–Food–Environments: Contributions to the Environmental Humanities from Science and Technology Studies and Sociocultural Anthropology" at the RCC. Mascha has fond memories of her mother working for Schaltkreis, the first Viennese organic supermarket offering home delivery back in the '80s. Judith's background in cultural geography and (eco)linguistics, and Mascha's training in sociocultural anthropology, and science and technology studies makes for an engaging conversation, which once again shows that agriculture is a crucial field deserving more attention in humanities and social-science research.

Market Pang Mapha, Mae Hong Son Province, Thailand. Photo by Judith Bopp. CC-BY NC 4.0.

Mascha Gugganig: Your current project can roughly be placed in the field of the environmental humanities. Coming from cultural geography and linguistics, what are your disciplinary touchpoints with the environmental humanities?

DOI: 10.5282/rcc-springs-15640

Judith Bopp: I'm interested in the field of ecolinguistics, which studies the patterns of language—the vocabulary, framings, and metaphors used—and erasure, meaning terms that don't appear in speech but that are implied.[1]

MG: This might be a very naïve question, but the field of ecolinguistics doesn't deal with ecology in the biological sense, does it?

JB: Actually, it works both ways. For one of the big guys in the ecolinguistics scene, Professor Arran Stibbe, language is considered part of ecology since it is a primary way of interaction between humans, other animals, or plants. So, this branch of linguistics aims at revealing the speaker's relationship with the environment and actually has an activist moment, which is to challenge the stories we live by. For example, with capitalism—a system we take for granted as we live by that system—this means challenging that system and formulating new narratives for a more eco-positive language. This implies understanding and questioning existing destructive stories, such as capitalism, and the underlying narratives based on patterns and mental models in our language use; then, as a next step, these destructive stories need to be reformulated.

MG: Can you tell me a little bit about your project in your own words?

JB: There are two layers [*both laugh*]. Since this is funded as "basic research," I work on a model, which is my health–nutrition–ecology nexus. This nexus explores how in agriculture, farm ecologies including soils are linked with nutritional quality of products grown in these surroundings and with the health of those who consume them. It emerged from my observations that in common agriculture discourses, relationships of more than two factors are not really considered, for example, links between agricultural soils, human health, and resilience. So I decided to look at small-scale farmers in Thailand who shift to organic farming methods, assessing whether these methods attend to the relationships between health, nutrition, and ecology. And then, in a second step, I put that in the context of household resilience, including subjective resilience indicators—how people perceive their own resilience. My overarching, more practical goal relates to ecolinguistics. I'd like to see a change in the way we talk about farming—a change in the narratives—also in nonscientific contexts.

> *The health–nutrition–ecology nexus explores how farm ecologies including soils are linked with nutritional quality of products grown in these surroundings and with the health of those who consume them.*

MG: You mean not just in academic debates but also in view of other actors' knowledge dissemination?

JB: Exactly. Even on a societal level, I find that agriculture is often talked about in very technical terms. So, the medium of publication is one point, and trying to bring in subtly different vocabulary about agriculture another. But also, Thai farmers that I interviewed, they already describe their farming practices or their relationship to nature in a very sensitive, mindful way; it's something they grow up with. So, actually, they are already modeling what I would like to amplify.

MG: Could you give an example?

DOI: 10.5282/rcc-springs-15640

Vegetable beds on a regenerative farm in Trat Province. Photo by Judith Bopp. CC-BY NC 4.0.

JB: It's funny, because I also did research in Bangladesh, and farmers' answers showed very different mindsets compared to many Thai farmers for different reasons, for example, to prioritize economic improvement, for their belief in agrochemicals, or simply because they take a pragmatic approach to farming. When I asked the people I work with in Thailand about the relationship between their organic produce and their health, they say, "Well, it's obvious, we don't need any tests. Why do you want soil measurements? Look at my soil, touch my soil, smell it—which I do—and you will see it's healthy. We don't need a scientific explanation for why my product is healthier."[2]

There's something very dedicated to their practice, like an intrinsic motivation to grow good food for themselves, for their family, and for others. And if you do something in a mindful way, then the product will also be better.

There are studies on water molecules, and how they change when you treat a plant in a certain way, and how this relates to the product that you eat. I do think there's some relationship, and the Thai farmers I meet, they are convinced by that but without necessarily having read about this link. It's simply their understanding of how the elements relate.

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MG: So, coming from science and technology studies, I'm always fascinated by the question of how we know what we know. Why do people either embrace or reject certain *scientific* ways of knowing? And then there are all these other forms of knowledge, especially in farming, which is so practice-based. I've been doing research on farming in Canada and in the EU, and found that farmers who do organic or similar forms of farming generally feel they don't need scientific proof to justify that what they're doing is good. But they also say they want to have scientific studies as a way of monitoring, because they want to be able to talk to politicians, to translate their knowledge into this quantitative language of science and policy. I'm wondering if you could say a little more about the Thai farmers' stance on scientific ways of knowing, also in the context of the microbiome—of the soil and of the consumer.

JB: There are links between the microbiome in the soil and the microbiome in the eater. Some farmers are very scientifically inclined, saying, "Okay, we need to find a way to make this viable in scientific terms," just in order to have a voice. I actually started fieldwork with this as my basic intention: sampling the local soil and examining its nutrient and microbial content so that I could provide quantified proof. To do so, I would have needed to engage a team of soil scientists. Just before the beginning of my project, however, I had to shift my fieldwork from Bangladesh to Thailand at short notice, and I haven't been able to establish links with soil labs in Thailand yet, so I can only comply to the social-sciences part of my study for now. Some universities in Thailand and agricultural-extension offices offer affordable test kits. They don't measure the microbes in the soil but the different nutrient contents in soil, water-retention capacities, the composition of different types of soil, or its acidity.

DOI: 10.5282/rcc-springs-15640

MG: Is your intention to say: Microbiome is studied more and more scientifically in Thailand, and understood as a distinctly scientific term? Is your project the local vernacular of that? Or is it trying to add a new dimension to scientific research on microbiome through these local perspectives?

JB: The latter. There is a very common technique among many local farmers, especially those who were taught organic farming practices by their parents: fertilizing the soil with *jul insee*, which is a local fertilizing liquid based on microbes. Similarly, the Japanese microbiologist and farmer Fukuoka, who was quite influential with his natural-farming approach in Thailand, promoted the use of IM—indigenous microorganisms—which are microorganisms specific to locality. Almost every organic farmer in Thailand uses these microorganisms. It's basically a substance perfectly adjusted to the very local soil. It's like a culture, right; it's like a fungi culture that you have to vaccinate the soil with, stimulating the growth of beneficial microbes in the local soil.

Jul insee stored in a barrel. Photo by Judith Bopp. CC-BY NC 4.0.

MG: So, IM is the local name for a fertilizing practice applied to the local soil microbiome. Correct?

JB: Thinking about it now, as we talk, IM is probably the local version of the microbiome or what is now propagated as the soil microbiome in the Western world. The practical thing about IM is that their bases are not very specific. It can be a bit of leftover rice that you dig into the soil, and then the microbes multiply in it. Or you can make *jul insee* from scratch. Many people make it from kitchen waste. Or, if you happen to grow sugar cane on your farm, you can add some sugar cane.

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Organic pepper freshly collected from its host tree, Chiang Mai Province. Photo by Judith Bopp. CC-BY NC 4.0.

MG: It's fairly simple.

JB: It's *very* simple; it's very applicable. And, you know, the question of whether organic food can feed the world . . . It always comes up in the food-security context, or livelihood context. My answer to it is: The farmers I've worked with already practice very simple means. They radically cut their costs of external inputs. They have basically no investment. Once the soil is in good condition, they grow using the inputs they have on their farm.

> *The farmers I've worked with already practice very simple means.*

MG: Are they subsistence farmers, or do they also produce for a local market?

JB: The principle is always subsistence first, and then what is left, you sell at the market. A farm layout that I encounter often is: one plot for vegetables, maybe a rice field, and the rest would be orchard. But this is more of a concept among organic farmers, not among small-scale chemical farmers—those who use agrochemicals, which is still the standard in Thailand. Small-scale chemical farmers usually do monoculture on one rai, two rai, using agrochemicals (1 *rai* = 0.16 hectare), growing a cash crop instead of food for household consumption.

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Crop diversity in organic farming. (Left) Six rows of vegetables edged by banana trees. (Right) Two flooded rice fields integrated in a mango orchard and vegetable field. Chiang Mai Province. Photos by Judith Bopp. CC-BY NC 4.0.

MG: Are there a lot of small-scale farmers that use chemical input for monocultural, commodity farming in Thailand?

JB: Yeah, but most of them are indebted, and they have health issues. That was also one of the reasons why I wanted to inquire into the health context. Because you can see the health effects emerging from sustaining an unprotected—or not well-protected—use of agrochemicals. And then glyphosate, and pesticides that are banned in Europe, are very common in Thailand. Health effects are therefore more immediate than in Europe.

And what is very interesting: Most of the chemical farmers you talk to, they all know about organic farming, and how it works. It's not that I say, "Hey, don't you think that would be better for you?" They're praising organic food; many said to me: "It's super healthy, and it will be better for us. My wife has cancer." And then the "but" follows: "Yeah, but in my case, I can't afford the transition period." The transition to organic farming takes two or three years because the soil is usually more or less dead, depleted, so it will take a while to regenerate and stimulate the microbes. And there will be some loss during that transition period. Also, many of the small-scale farmers are elderly, and their kids will probably not take over their farms. This, I believe, likely further diminishes their motivation to change their farming system just before retirement. So, I really understand the complexities about shifting to organic farming.

> *The transition to organic farming takes two or three years because the soil is usually more or less dead, so it will take a while to regenerate and stimulate the microbes.*

MG: And what is their rationale behind the fact that cancer or other health issues are common? Is that a reason for them to consider transitioning to organic farming?

JB: Those who transitioned, they all state this was for health reasons. Which is so different from Bangladesh, where most farmers I encountered would say that they would shift for financial incentives. But in Thailand, most say it's health. And among those who haven't shifted, many told me they know where their health issues are coming from, the rashes or hearing deficiencies or indigestion, cancer in the worst case.

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Organic polyculture orchard run by three sisters in Chiang Mai Province. © Judith Bopp. All rights reserved.

MG: What about the Thai health minister, and what is the position of Thai politicians in general?

JB: The health ministry has a fund. Three percent of the taxes on alcohol and tobacco goes into *So So So* (a health fund), which supports people who engage in health-promoting activities, like urban gardeners, or people who run workshops using Thai herbs in the kitchen. They also fund organic-farming projects. So, this ministry tries to promote the transition to organic farming. But the agriculture ministry is a problem because it is infiltrated by the lobbyists of chemical companies. It's not Monsanto/Bayer AG as such, but they cooperate with Charoen Pokphand Group Company, Ltd. (CP), which is one of Thailand's biggest companies. They actually rule the entire food and agrochemical industry. CP operates all Seven Eleven stores. They're super common everywhere in Thailand. CP dictates what enters the stores and is sort of the anchor for Bayer AG. Some Asian companies try to get their agrochemicals and other agricultural supplies into Thailand through CP, and CP representatives sit in the ministry.

MG: And this is commonly known?

JB: That's commonly known [*both giggle*]. So, I think a bottom-up movement is the only hope. Nobody would rely on the government to issue policies beneficial to organic farmers. Probably globally, agriculture is caught in similar power dynamics it cannot escape from.

MG: I think this goes to what you mentioned earlier about your attempt to challenge the dominant narrative of agriculture, but doing it through policy might be too cumbersome.

JB: Yeah, too cumbersome and too ambitious. And maybe not always useful, because seeing that farmers can organize themselves locally, why should we scale it up when it works for them? One

DOI: 10.5282/rcc-springs-15640

insight I've had: It's good to look for simple solutions, which many Thai farmers also confirm. Just simplify things; make it work. Don't be overambitious. In Thai, you would say *po dee*, which means it's good enough, like, stop here, good enough is already fine. I think this is a good mindset. But I still think policy is important. And it would, of course, be beneficial if the ministry of agriculture decided to promote organic farming and institutionalize it more. But I just don't see it happen because of the powerful elites sitting in the ministry.

MG: It seems like you're interested in both studying and promoting alternative solutions that are already being implemented on a smaller scale. Is that correct?

JB: I mean, I question my role a lot. What am I doing, and who will benefit from it? But the Thai case offers so many models. And while my research is very region-specific, these models, and the motivations and mindsets behind them, are something that people, not only farmers but also consumers, could benefit from in other places of the world. I have been trying to connect stakeholders from my different case studies in Thailand and Bangladesh. They're also asking for that dialogue—they hope to meet and learn some concrete practices from each other, simple things such as IM, or just exchange knowledge. And I wouldn't underestimate the role of motivation and what it takes to spark someone's interest as well as the ability to realize an idea. You might be questioning a shift to organic farming for 10 years, and then someone comes along, and you suddenly think, "Wow, cool, it's possible, I'll try right now." So maybe this is something where I could help inspire, or make people meet or even present these ideas here in Germany. But the Thai case can't serve as a blueprint, it's more about motivation, like demonstrating how important mindsets—ways of seeing the world—can be in sparking confidence and driving a shift.

> *I wouldn't underestimate the role of motivation and what it takes to spark someone's interest as well as the ability to realize an idea.*

MG: This brings me to my next question, which is about the local understanding of organic farming. Concepts like biodynamic farming were popularized in Germany and then spread across the world. Organic farming was also very prominent in California. But what sparked the organic-farming movement in Thailand? Did they use the word organic in the beginning?

JB: There are different stories about Thailand's organic-farming movement, depending upon who you ask: One I encountered is that the movement set out in the 1980s, in the context of a government scheme, to improve the livelihoods of small-scale farmers. In the '80s, most regions were quite remote in terms of infrastructure, especially in the northeast, which used to be very rural, and people were poor. So it was in the context of securing livelihoods in remote areas that small-scale farming slowly turned organic. The schemes came from the department of rural development, not the agriculture ministry. These schemes were about rural development and economic resilience. And then this development quickly widened because a small, emerging health-conscious urban scene, mostly in Bangkok, gained interest in chemical-free supplies from the countryside. More and more small initiatives emerged, alongside that government scheme, building up consumer–producer groups over the following decades. And there was some influence from other Asian countries, like Korea and Japan.

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Organic restaurant and shop in Bangkok. Photo by Judith Bopp. CC-BY NC 4.0.

At the time, they didn't use organic certification in Thailand. But it started to emerge, I think, in the early 2000s, to broaden the range for consumers who shop in bigger supermarkets and asked for official proof. Those consumers are willing to pay more for certified healthy products conveniently provided by the supermarkets. Nowadays, I would say that organic farming is very much consumer-driven.

As for the term "organic," today it's used on a daily basis, but during my previous fieldwork in Thailand between 2013 and 2016, many people actually refused the term, saying that it was a Western-induced concept they didn't really adhere to. To make sure their farming approach was Thai in origin, they would call it *kaset thammachart* (natural farming) instead. Consumers are now probably the group that prefers the term "organic," which is why it's increasingly used today.

> *For most Thai organic farmers, organic means diversity, growing a range of plants, and not mono-cropping. That's why they say it's not only about the inputs but also about the soil.*

If you ask Thai people, they would say *kaset thammachart* is organic plus [*laughs*]—beyond organic. But I think this is due to the nature of the (Western-style) certified organic farms in Thailand, which are basically monocultures using organic fertilizers. For most Thai organic farmers, organic means diversity, growing a range of plants, and not mono-cropping. That's why they say it's not only about

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the inputs but also about the soil. If you are a little health-conscious and you know your farmers, then you don't need the certification.

MG: And do consumers go to farmers markets to get the food organic farmers sell?

JB: In Bangkok, a lot of organic food provision is self-organized and consumer-based. It works—and especially as a result of the COVID-19 pandemic—via direct delivery from the farm, and it's very cheap to have products sent to the city. Sometimes, consumers go on Facebook where farmers in the countryside advertise their produce: "My mango harvest is here. I've got 50 kilos. Who buys it?" And then farmers send it to consumers. Or like my friend in Bangkok: About 20 farmers he knows deliver their produce to his house, where his friends and extended friends pick it up on a weekly basis. The pandemic accelerated this movement since farmers weren't allowed to go sell at the fresh market then.


Village markets in Petchabun Province. Photos by Judith Bopp. CC-BY NC 4.0.

Farmers markets are difficult to maintain in Bangkok. Some supermarkets sell organic products, but they are much pricier than the delivered ones, almost double the price. That's actually another reason why most Thai consumers would go for non-certified products: The markup is almost insignificant compared to the regular price. And then, the supermarkets often use a number of different, often unclear quality labels, e.g., "organic," "pesticide safe," or "under conversion," the latter referring to the transition period of several years before a product can become certified as organic.

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I actually asked organic farmers how they've dealt with crises like the COVID-19 pandemic, and many of them said, "Yeah, well, we had no troubles selling our products, because people were even more interested in healthy products. We sell the stuff to our neighbors." They don't even need to ship it to Bangkok." The farmers had money throughout the pandemic, some of them even more than before.

MG: It's the kind of resilience that gets you through these crises. I saw this in Canada too, and in Germany: Community-supported agriculture (CSA) farmers did really well during the pandemic. But then after the pandemic, they had a dip because people went back to the regular supermarket. In some ways that shows you something, right? We constantly talk about resilience and crises, and how we're going to get through these—there might be something to learn from these farmers.

JB: Yeah, exactly! And then again, I would say: Keep it simple, and don't oversophisticate resilience measures.

Judith Bopp buying steamed vegetable from a street vendor in Bangkok. Photo by Thanomwong Chumphu. CC-BY NC 4.0.

Notes

[1] Ecolinguistics as a tool is concerned with "critiquing forms of language that contribute to ecological destruction, and aiding in the search for new forms of language that inspire people to protect the natural world." Arran Stibbe, *Ecolinguistics: Language, Ecology and the Stories We Live By* (Routledge, 2021), 1.

[2] Quotations are from interviews with Thai farmers conducted between 2013 and 2024.

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Judith Bopp is a cultural geographer working on organic food movements both in rural and urban contexts. She joined the RCC in 2023 with her DFG-funded research to work on "Fostering the Health–Nutrition–Ecology Nexus: Organic Farming Practices and Household Resilience in Rural Thailand." She has a background in linguistics as well and is passionate about ecolinguistics and how to shape relatable narratives to live by.

Mascha Gugganig is a senior lecturer (*akademische Rätin*), codirector of the Center for Life Sciences and Society at the Faculty of Biology, LMU, and an affiliated researcher at the RCC. With a background in sociocultural anthropology, science and technology studies (STS), and the environmental humanities, she likes to challenge boundaries between nature and culture, society and science, arts and technology, and currently researches grassroots innovations and emancipatory technologies for agroecological farming.

Cite this article

Bopp, Judith, and Mascha Gugganig. "Organic Farming in Thailand: A Conversation with Judith Bopp." *Springs: The Rachel Carson Center Review*, no. 7 (May 2025). https://doi.org/10.5282/rcc-springs-15640.

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ISSN 2751-9317

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Federal Ministry
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