



Ecologies of Coffee Sustainability in the Central Highlands

Sarah G. Grant

To me, Da Lat has two distinct images: one of industrialization and commercialization, and another of nature. The city is slowly putting on layers of cement structures, gaudy shops and long queues leading to sought-after Instagram backgrounds. Nonetheless, there exists, in a land far away from downtown, a peaceful farming community filled with workers, the sound of tractors and many stories told on the green patches of fresh produce and tea.

—Nguyen Hoang Ky Anh (2019)

1 COFFEE AND THE QUESTION OF SUSTAINABILITY

On a sunny day in 2018, I hiked the lesser known, “more natural” route to the summit of Langbiang Mountain, on the outskirts of Đà Lạt in Lâm Đồng province, with a new acquaintance named Phương. The most

S. G. Grant (✉)

California State University, Fullerton, Fullerton, CA, USA

e-mail: sgrant@fullerton.edu

© The Author(s), under exclusive license to Springer Nature
Switzerland AG 2024

U. K. Heise, C. P. Pham (eds.), *Environment and Narrative in
Vietnam*, Literatures, Cultures, and the Environment,

https://doi.org/10.1007/978-3-031-41184-7_10

popular well-traveled route to the peak is not environmentally friendly; it is a bait-and-switch that involves buying a ticket and hopping into a Jeep, only to race quickly to a false peak, accessible primarily by paved road. With the Jeep route, one gets the beautiful views without the sun exposure and the strenuous experience of hiking in the mountains. The paved road allows visitors to tackle the mountainous region, reaping the rewards of an incredible view, photo opportunities, and cloud-lined vistas in minutes, instead of the hours it might take hikers. For many domestic Vietnamese tourists, the peak is a far cry from their homes on the coast or in the big cities, but it is also quintessentially Central Highlands. Along with large swaths of agricultural land, waterfalls, extractive industries, and ethnic minority communities, the mountains frame the region and its lore.

Phượng, a local university student and someone deeply familiar with the agricultural landscape of the province, convinced me that although it would be difficult, taking the backroad trail to the “real” summit would be much more rewarding—the views, flora and fauna, and absence of other hikers would make the pain worthwhile. Besides, Phượng said, “It will feel like a getaway from traffic, work and life.” I was surprised to hear her talk about traffic and stressful life in a place like Đà Lạt. Despite these “two distinct images” of Đà Lạt, it does not compare to the traffic, pollution, and rampant urban development of places like Saigon and Hanoi. In fact, Đà Lạt itself is often perceived and sometimes described as “comfier, simpler and quieter” (Nguyen 2019) than the city (often a reference to Saigon). It turns out that Phượng and young adults like her—university students who are actively involved in student volunteer clubs, hiking organizations, and environmental groups—are adamantly opposed to the paved roads and Jeeps winding up the mountain. The paved route is “for the tourists from Saigon,” Phượng says. Her ideas about the environment and what constitutes nature are shaped by the social media groups she participates in and the regular conversation tables she attends at local cafés. One group, “*Cuộc phiêu lưu trong tự nhiên*” (Adventures in Nature) is part student organization, part social hiking group, and part volunteer club, mostly comprised of Vietnamese students who organize local group hikes and share articles and blog posts about the environmental problems plaguing the country.¹ Students like Phượng are keen to develop a more

¹ All names and private groups (such as a private Facebook groups or Instagram handles) are pseudonyms to protect the identity of these individuals and groups with the exception of notable artists, popular figures, or other publicly available material.

sustainable way of life through their mindful consumption and environmental habits. She considers activities like hiking and camping in the mountains a mode of appreciation and preservation, even sustainability. If Phương can cultivate a love of nature among her friends and classmates, perhaps the future of the Central Highlands looks brighter, if not cleaner. This land “faraway from downtown” is, however green, a symbol of industrial agricultural development for consumption across Vietnam and for export markets around the world. It is green; however, it is anything but sustainable.

The term sustainability, *sự bền vững*, is as complicated in Vietnamese as it is in English. The common “three e’s” of the western concept of sustainability—environment, economy, and equity—mean different things to different people across agricultural industries in Vietnam, including the coffee industry. Although Phương may feel strongly about protecting her own mountainous backyard and the natural world she values so much, not everyone equates *sự bền vững* with the environment. For example, in the Vietnamese coffee industry, sustainability initiatives are often shared by US and Europe-based sustainability programs funded by international financial organizations such as the World Bank or international non-profit organizations such as the Rainforest Alliance. These visions of sustainability are often imposed on farmers, framing the environmental part of the sustainability equation in terms of long-term economic outcomes. In many commodity coffee-farming spaces in the Central Highlands where *sự bền vững* is understood to be a western model of sustainability tied to long-term income and quality of life improvements, any environmental preservation is a secondary consideration, perhaps an incidental byproduct of “sustainable” coffee livelihoods. Farmers, however, are acutely aware of this and I occasionally heard farmers talking about a not-too-distant future where coffee is simply “over” (*hết*). For example, Tình, a man in his 40s who had been farming outside of Đà Lạt since the 1990s, often shared similar sentiments when I visited his farm or met him in town. He knew that coffee would not last forever, because “how could it?” (*làm thế nào*). Between the regular fertilizer inputs, pesticides, battles with coffee berry borer (*Hypothenemus hampei*), and the increasingly unpredictable dry and rainy seasons, Tình was convinced that coffee would not be a reliable source of income for his children in the future, although it had enabled him to buy land, build a house, and support his family to date. Although Tình never explicitly referenced the ways agricultural inputs directly impact the ability to farm coffee in the future, he certainly knew that the more

fertilizer and pesticide he used on his land, the less reliable his long-term coffee future was. Although Đà Lạt seemed green and natural, for coffee farmers like Tình, the coffee-producing areas surrounding the town had everything to do with cash crops, agricultural inputs, and economic livelihood. Sustainability was not a phrase Tình used, nor did he elaborate on what a sustainable future as a coffee farmer looks like; Tình already knew that his future in coffee was finite, whether he framed it in environmental terms or not.

When monetary incentives drive sustainability initiatives, it is no wonder that the “e for environment” side of the equation is deprioritized, even as most people working in the industry, including farmers, know that the future of coffee does depend on viable soil, access to water, and other climate contingent variables. If the three e’s are imagined as a long-term solution to sustaining cash crop production in a place like Vietnam, many farmers and young environmental studies students do not see it that way. A Vietnamese coffee agronomist once summed up his understanding of sustainability to me by stating that farmers must prioritize *either the environment or* their economic well-being and quality of life, not both. He believed that coffee farmers, especially in Đắk Lắk province, were often in the coffee industry for the possibility of a better life rather than the possibility of shaping a new, environmentally sustainable coffee industry in Vietnam. A better life might mean leaving coffee behind for a different industry at some point. Sentiments like this were often confirmed by small farmers who had transitioned into the coffee industry from other cash crops. Even a relatively wealthy Lâm Đồng province coffee magnate, “Bảo,” once told me and a local MARD representative that he could farm, essentially anything, “*cà phê, trà, bơ, cũng được*” (“coffee, tea, avocado, anything is fine”). Like many farmers who entered the coffee industry, not because they liked coffee but because they saw a financial opportunity, Bảo could have grown anything so long as it brought in a steady income. However, unlike most coffee farmers in Vietnam, Bảo, with his collection of vintage jeeps and ostensibly limitless resources, had the financial means to pivot when coffee was no longer a viable cash crop. Indeed, several years after I first met Bảo, I heard that he was no longer growing much coffee and had invested in several hectares of organic tea somewhere around Bảo Lộc. With his resources, he certainly could have invested in environmental initiatives or explored the local agricultural development projects around drought and pest-tolerant coffee varieties or fertilizer reduction, but Bảo demonstrated that sometimes coffee becomes

unsustainable when it no longer garners a certain income or the market appears dismal. In Vietnam, sustainable coffee (*cà phê bền vững*) often accompanies the term “sustainable development” (*phát triển bền vững*), which raises larger questions about whether agricultural development—especially land and labor-intensive agriculture such as coffee—is ever sustainable. Regardless, sustainability as a concept and value-added application materializes in diverse ways across Lâm Đồng province.

For young adults like Phương, sustainability materializes through reusable straws and reducing plastic waste, riding bicycles, or walking instead of taking a motorbike, and promoting her vision of a sustainable lifestyle through social media platforms and dialogue with friends and student peers. She has cultivated a mundane, everyday environmentalism that speaks to her hobbies, allows her and her friends to enjoy the mountainous region, and upholds the very coffee industry that Phương’s family is embedded in. Sustainability is about the environment and the future, rather than questioning the agricultural (and other) industries that necessitate conversations about sustainability in the first place. Phương’s concerns about consumption are primarily about packaging, plastic bags, and straws rather than the agricultural inputs in the Lâm Đồng coffee and vegetable industries that acutely damage the surrounding soil and waterways. By resisting common modes of development in the region and more cosmopolitan trends around conspicuous consumption, these students are actively forging a community of environmentally savvy youth while engendering new local identities for young adults living in the Central Highlands. Phương is happy to attend university in a town that, in her view, accommodates other students who love nature and value the environment the way she does. At the end of the day, she wants to promote a sense of environmental responsibility in Vietnam, even as she regularly drinks the commodity coffee that takes such a toll on the surrounding lands.

My hike with Phương did not disappoint as we encountered plants, insects, horses, and birds throughout the four-hour trip to the peak. Only at the summit did we run into other hikers who were also, incidentally, university students from the area. Phương flipped her hat backward, threw her hands up in achievement, and sighed in relief, “Look at how beautiful it is—some days you can see all the way to the coast.” We sat down to eat tangerines and chat about the growing hiking, camping, and backpacking culture in the province. An increasing number of Vietnamese youth from the cities come to Đà Lạt to hike, camp, and “escape to nature,” as Phương

puts it.² For Phương, who grew up working on her family's coffee farm a mere twenty kilometers from the center of Đà Lạt, going home or hiking Langbiang was an escape from her dark dormitory, classrooms, and the dated restaurant where she worked. The natural world, in Phương's own romanticized view, afforded opportunities to see new plants and animals, whether or not they were "naturally occurring." Of course, the pine trees that make the Langbiang hike so spectacular are a product of the long French colonial presence in the region and somehow simultaneously distinctly Đà Lạt and distinctly European (see Jennings 2011). And the view, however beautiful, consists of industrial grade coffee as far as the eye can see, primarily planted in a period of agricultural development in the 1990s.

The small coffee farm that Phương's family owns, despite also originating in the late 1990s, is still a product of colonialism, remade into a neo-liberal project of the market economy and global coffee industry, entangled with recent land-clearing initiatives for industrial agriculture across the province. As Michitake Aso points out, "[p]lantation practices have been difficult to reform because they have been built into natural and social systems" (2018: 9). The soil of the Central Highlands and the *Coffea robusta* so commonly grown in Vietnam retain its history, even as coffee plantations no longer exist in that form. Aso remarks that "[i]t is sometimes difficult to distinguish between contemporary multinational companies operating plantations and the previous plantation complex" (2018: 8). Even small farms on an industrial scale can be difficult to distinguish from plantations (then or now), especially when considering declining soil fertility and the attributes of cash crop production and export. Phương, for all of her hiking excitement, was well aware of this history, the perception of nature in Đà Lạt, and the contrived natural beauty of vegetable and flower greenhouses lit up at night. She was aware that many of the horses dotting the mountain were bred for the tourism industry—nature-themed wedding photos and horse-drawn carriage rides are in particularly high demand during the dry season. She knew, at least peripherally, that despite a growing café culture in Đà Lạt and cities across the country, most of the

² Motorbike "road trips," referred to in Vietnamese as *đi phượt*, to the mountains and more remote provinces of Vietnam are becoming increasingly popular among Vietnamese youth and young adults. The trips are often designed to provide a different view of Vietnam through camping, visiting less populated and less traveled "off the beaten path" routes of the country. Đà Lạt is a popular stopover to *đi phượt*.

coffee produced in Vietnam is for export. Even if Phương was detached from this industry, her family was in regular contact with coffee collectors.

The natural world Phương inhabits and imagines is remarkably close to the industrial farming world where nature manifests in a different, contested way. In fact, these worlds are entangled in the Central Highlands, where a small coffee farm is part of a larger ecology of coffee sustainability that thrusts a colonial history of coffee production into dialogue with contemporary coffee culture, transnational environmental movements, and local narratives about place and agriculture. This chapter focuses primarily on the latter. For all the publicly available development documents and well-funded projects about coffee production and sustainability in Vietnam, it is Vietnamese farmers and young, budding environmentalists and journalists who articulate the importance of place and land in understanding how to define sustainability and ask an important question: is coffee production *ever* sustainable?

This question raises key points about what a sustainable coffee industry might look like. Indeed, some farmers who know that the coffee they grow is intimately tied to the environmental degradation of the region strategically use coffee as a platform to move away from agriculture altogether. Tỉnh, who explained that he knows coffee is not forever, and that “fertilizer is bad for the soil,” demonstrates that coffee remains an opportunistic cash crop for his family and the hope that his daughters will attend university and find employment outside of the difficult (*khó*) agricultural industry. I argue that narratives like Tỉnh’s and others who question the sustainability of coffee are a mode of resistance to international development projects and illuminate a point that Kristina M. Lyons makes about the ways in which alternative (not better, not worse) modes of agricultural thinking and being in the world “highlight the built-in expectation of vulnerability present in an ecological sense of being in the world” (2020: 134). Vulnerability is present in the narratives I discuss throughout this chapter. The story template for Vietnamese coffee, agriculture, and the environment at the present moment is framed by local experiences of climate change-related loss; national narratives supported by development firms who frame the future of Vietnamese coffee in terms of GDP and the financial impact of climate change (see Tatarski 2016); and Vietnamese journalists who recognize the cultural significance of agricultural production in the Central Highlands, even as it rubs against the notion of sustainability and an environmentally sound future for those most vulnerable in

the region. There is also an ethnographic thread from my own research on the Vietnamese coffee industry. Phương's story is particularly important as an ethnographic narrative because it illustrates how the many parts of lived experience in the Central Highlands inform the whole ecology of coffee sustainability in Vietnam.

Ecologies of sustainability and recent narratives about climate change in the Vietnamese coffee industry illuminate the ways the environment is imagined in the Central Highlands region of Vietnam. This environment is one with a complex history, commingling with ongoing controversies over land use, resource extraction, agricultural production, ethnic minority livelihoods, and state/international development projects. Using the coffee industry and Vietnamese environmental writing as lenses, this chapter examines the ecology of coffee sustainability as it shapes and is shaped by the way agricultural communities interact with their environments and perceive climate change-related realities. In doing so, I question the trope of “industrialization and commercialization” on the one hand, and “nature” on the other (Nguyen 2019: n.p.) and tease out the blurred line between nature and agricultural landscapes in the Central Highlands, where coffee and other agricultural commodities (e.g., tea, cabbage, artichoke) are valorized even as they are environmentally destructive.

2 ECOLOGICAL REALITY AND ENVIRONMENTAL IMAGINATION IN THE CENTRAL HIGHLANDS

Da Lat has now gotten fat,
with streets stretched way out, houses recklessly thrown up.
Motor scooters have all stolen the peace of morning.
—Phan Nhiên Hạo (2020), “Đà Lạt, 1989–2002”

Đà Lạt, or Đà Lạt (water of the Lạt people), as the Indigenous origin story goes, is also known as the “city of fog” and the “flower capital of Vietnam.” It is the capital of Lâm Đồng province in the southernmost region of the Central Highlands. More commonly, Đà Lạt is referred to as “Little Paris” or “Little Switzerland,” the “honeymoon capital of Vietnam” or the “city of 1,000 pines.” Occasionally, the old men drinking coffee and smoking cigarettes in local cafés refer to it as the city of sadness—beautiful but sad (*đẹp nhưng mà buồn*). The anthropogenic change referenced in Phan Nhiên Hạo's poem “Da Lat, 1989–2002” is an iteration of this

sentiment, reflecting on the implications of development and the foggy mornings turned smoggy and noisy. Đà Lạt, despite its developed tourism infrastructure and conspicuous agricultural production industry, is often represented visually as pristine, with agricultural landscapes appearing as natural landscapes. Greenhouses chock full of agricultural products and requisite agricultural inputs—pesticides and fertilizers—become beautiful, firefly-like specks on the landscape at night. Nguyen Hoang Ky Anh's (2019) photo essay about Đà Lạt juxtaposes the bustle of town with a new kind of nature: agricultural production and tractors. In one photo, the quintessential Đà Lạt fog and terraced landscape with greenhouses are also speckled with trees and rising mountains off in the distance. This photo and others in the essay allow agriculture to exist in the natural world because agriculture in places like Đà Lạt seems peaceful and quiet rather than intense and destructive. The photo essay ends with an image of luxury lakeside villas, shrouded by pine trees and mountains and carefully manicured flowerbeds reminiscent of Đà Lạt's "Little Switzerland" moniker. These villas, the cabbage farms, and the tractors depicted in the photo essay, perhaps unwittingly, narrate a life that is anything but "simpler" than one in Saigon. Coffee in the Central Highlands, even as it stretches to the horizon in some cases, also narrates the complexity of intensive commodity agricultural production.

In the Central Highlands, the scale of small farming exists in a way that can no longer be considered environmentally small or simple. Millions of coffee trees materialize as a singular substance, coffee. In Sarah Besky's "Monoculture" lexicon, she states that "[w]hen agriculture reaches for economies of scale, plants become plant; think of the singularized nouns *soy*, *cotton*, and *rubber*. In monoculture, both botanical varieties and variety in the landscape disappear" (Besky 2017). These transformations, although sometimes venerated in visual celebrations of the region (lush farms of flowering coffee trees or bright red cherries), are still monoculture, and no one knows monoculture like a commodity coffee farmer. Recently, however, some farmers are pushing for crop diversification as a response to increasingly uncertain rainy seasons, fluctuations in market prices, and other barriers to financial stability for the small farmer.

Đà Lạt resides in the Vietnamese imagination as a place of respite; the flower and honeymoon capital of Vietnam, although misty and cold at times, is relatively temperate at nearly 1500 meters above sea level. Eric Jennings opens his history of the city by stating that "for a city of some 160,000 inhabitants, Đà Lạt today has achieved an almost mythical and

remarkably varied reputation: it is at once a site of romance, education, privilege, leisure, pilgrimage, and science—the latter thanks to its U.S.-built experimental nuclear reactor” (2011: 1). Đà Lạt and the surrounding Central Highlands are a contested site of agricultural production and perceived natural beauty where the very environment and atmosphere that make Đà Lạt unique are its undoing when it comes to environmental sustainability. Climate change and persistent drought are a threat to farmers’ livelihoods, and Vietnamese media regularly turn to the Central Highlands to explore the implications of drier dry seasons and unpredictable rainy seasons. For example, in a *Tuổi Trẻ* article about greenhouses, agriculture, and climate change in Đà Lạt, Dr. Vũ Ngọc Long of the Southern Institute of Ecology warns “[K]hông chỉ tôi mà nhiều nhà khoa học đã cảnh báo với cơ quan chức năng rằng nhà kính đã và đang phá hủy cảnh quan mộng mơ và ‘sức khỏe’ hệ sinh thái của Đà Lạt” (It’s not only me but many scientists have warned officials that greenhouses are destroying the dreamlike landscape and health of Dalat’s ecosystem) (Vinh 2018; translation mine). The greenhouses, coffee, tea, and terraced vegetable farms that make up Đà Lạt’s “dreamy” look are direct contributors to temperature increases and water pollution in the region even as they set Đà Lạt apart from other towns in the province and Central Highlands. Like other cash crops in the region, the ecological reality of coffee is that no matter how it is produced in Vietnam, it is an environmental challenge and one that questions the very definition of sustainability.

According to the narrative espoused by many tour guides, books, and urban-dwelling Vietnamese, Đà Lạt is unlike the rest of the country. For the influx of domestic tourists, it is a reprieve from the pollution and crowds of the city, in theory. Domestic and international tourism materials chronicle the town’s temperate weather and diverse natural features. Indeed, the Langbiang Plateau and its peaks frame the city while the lakes, waterfalls, and rivers accentuate the native flora and fauna. Đà Lạt, however, like many places in the Central Highlands, is primarily a city of agricultural production. The “city of flowers” moniker stands today because of the biannual flower festival and growing floriculture and export industry in Lâm Đồng province, not because native flowers adorn the mountains. For all the nicknames and stories of natural beauty, Đà Lạt is also a city primed for rapid environmental change, destruction, and the lived implications of climate precarity. And yet, the Central Highlands are often framed as an untamed frontier, far from urban, “developed” Vietnam. It is this misconception about what constitutes development that renders the

Central Highlands even more vulnerable to environmental destruction and change. This misconception also highlights a paradox about Vietnam's coffee success story: Vietnamese coffee and those who drive the industry, as with any agricultural commodity, play a role in exacerbating climate precarity and acute environmental damage. At the very least, the more "successful" the coffee industry, the more environmental pressure placed on people and land.

3 COFFEE SUSTAINABILITY AND EMERGING ENVIRONMENTAL MOVEMENTS

It is nearly impossible to travel around the Central Highlands without seeing some form of cash crop production—coffee is a ubiquitous cash crop, spanning multiple histories of French colonialism, war, Eastern Bloc relations, and 1990s foreign investment and development initiatives. The Central Highlands are a region comprising five provinces, recognized within Vietnam for its fertile basalt soil, prime for extensive industrial agriculture, and chock-full of natural resources, flora, and fauna. It is Lâm Đồng and Đắk Lắk, however, that live in the Vietnamese popular imagination as coffee-producing places. These two provinces, despite their shared borders and proximity, are at cultural and developmental odds, although each province is significant in the world of industrial agriculture and commodity cash crop production. Lâm Đồng is represented in popular Vietnamese media as idyllic; still a home of intellectuals and artists, of high-quality *Coffea arabica*, produce, mulberries, and a growing organic farming and dairy industry. Đắk Lắk, on the other hand, is represented as a frontier of industrial agriculture, economic booms and busts, and ethnic minority politics (Tan 2000). Đắk Lắk's capital city, Buôn Ma Thuột, draws coffee buyers and other industry professionals seeking to manage and capitalize on the sun-baked coffee trees. Climate change is critical in Đắk Lắk and other Central Highlands provinces as persistent droughts literally reshape the rivers and waters that irrigate coffee farms. Yet environmentalists in Vietnam and elsewhere are reluctant to take up the question of large-scale industrial coffee agriculture in the Central Highlands, perhaps because it is so embedded in thousands of livelihoods and part of larger state-led agricultural development initiatives. Coffee is a system of "slow violence" (Nixon 2011) that will undoubtedly impact ethnic minorities and poor farmers before anyone else when the climate crisis worsens.

Coffee embeds communities of farmers in the monoculture and perpetuates a paradox—without coffee, there is no livelihood but with coffee, these livelihoods are short-lived.

Where “bad environmentalism” (Seymour 2018) abounds in the West, young adults in Vietnam are trying out popular movements, often circulating their concerns on social media. Seymour (2018) defines the concept of bad environmentalism to move beyond the fatalistic, despair-oriented doom of climate change to a different tact of environmentalism, or environmentalism that carves out space for less discussion and more alternative modes of engagement such as humor, or in the case of *Phượng*, seemingly mundane nature walks. Privy to a growing hashtag-inspired environmental awareness, and increasingly attuned to larger global environmentalism, many young Vietnamese are actively looking for ways to express their deep concerns about the most pressing climate change emergencies in Vietnam while having fun and building community. Informed about the nuances of climate change in Southeast Asia or not, young students like *Phượng* are driven by the excitement of a camping trip and the vistas on a hike first, and the possibility of creating environmental change through nature appreciation second. *Phượng* and her friends are blurring multiple lines, between nature appreciation and environmentalism, for example, but in the process, having fun and recognizing that fertilizer and pesticide-intensive cash crops like coffee are an integral part of the perceived Central Highlands beauty and local livelihood. With the exception of intermittent ethnic minority protests in the early 2000s (see McElwee 2000), there is not an active environmental resistance to coffee in the Central Highlands, despite the environmental impact of the industry.

Between #trashtag social media challenges that spread across Vietnam in 2019 (See Vinh 2019), protests against urban development projects in Hanoi, or #ToiChonCa (#IChooseFish) in the wake of the 2016 Formosa Hà Tĩnh Steel mill toxic spill, there is no shortage of environmental activism around a multitude of issues in Vietnam, including viral videos and hashtag challenges.³ However, the disconnect between this burgeoning “bad environmentalism” and everyday industrial agriculture is widening. The coffee industry and swaths of coffee land devoid of activists across the

³ See Chapman (2017) for more on the “rising environmental awareness” across issues in Vietnam. Also see Nguyen (2020) for an overview of environmental activism “as an arena of contestation in Vietnam’s state-society relations” and popular discourses of nature conservation (2020: 33).

Central Highlands speak to this disconnect. Someone like Phương could resist coffee production because it will undoubtedly alter the landscape she loves to hike with her friends, but she also understands coffee's socioeconomic role in the region.

The “naturalness” of the Central Highlands is situated subjectively as the striking features of the landscape or attractions on long hikes through the mountains. These narratives open the possibility for inquiry into how environmentalism is shaped and reshaped by nascent forms of environmental activism and understandings of monoculture and its environmental impact. How do monoculture, nature, and people commingle in the Central Highlands? I am hesitant to draw a parallel between plantations and the small coffee farm holder system in Vietnam, but the legacies in the soil and emergent “forms of life” (Li and Semedi 2021) surrounding Vietnamese coffee are remarkable.

Like earlier “non-confrontational political” urban environmental movements that concentrated on social media, such as the “Tree Hug Movement” in Hanoi (Geertman and Boudreau 2018), attention to environmentalism in Đà Lạt emerges from young adults building a sense of community and global connection around a shared appreciation for the environment writ large. Environmental sustainability through recycling practices and organic farming initiatives are also popular among young Vietnamese in Đà Lạt. New Facebook pages and university student volunteer and hiking clubs take on an environmentalist slant as students share visual and text-based posts about their experiences in and appreciation of nature. These posts define nature in Đà Lạt through narratives about a resilient, pristine natural world in which commodity agricultural production is allowed to exist. For example, Phương and her friends once shared a Facebook invitation to join a student hike on the outskirts of Đà Lạt with the caption “*xem cà phê, cây thông và động vật hoang dã*” (“look at coffee, pine trees, and wild animals”). By allowing commodity agricultural products like coffee to exist within this natural world, a new form of precarity for already marginalized ethnic minority farmers, or any farmer without the means to intercrop or pivot beyond coffee emerges. When coffee becomes valued as part of the natural world, as part of the “natural” landscape of the Central Highlands, environmental sustainability in agriculture is disconnected from this vision.

Coffee, both the burgeoning “specialty coffee” varieties grown in the highest altitude areas of Lâm Đồng province and the plentiful *Coffea*

robusta grown in lower-altitude, shadeless farming areas, are part of a distinct ecology in which state, environment, climate change, and variable ideas of “sustainability” intersect. The state, specifically the Ministry of Agriculture and Rural Development (MARD) is ever-present in discussions about coffee development. At the same time, Vietnamese state and popular media regularly publish news and content about the devastating effects of climate change-related drought on Vietnamese coffee production and the domestic industry at large. It is the foreboding narratives about the environment coupled with the veneration of Vietnamese coffee in cafés across the country that partially construct the ecology of coffee sustainability in Vietnam. For Vietnamese and other regional scholars writing about coffee in Vietnam, there is not yet a clear emphasis on the environmental implications of coffee development, even as sustainability persists as a buzzword.

In *Coffee in Vietnam’s Central Highlands* (Phan et al. 2007), contributors explore the historical, anthropological, and economic dimensions of coffee in the Central Highlands. One chapter, authored by H’Wen Niê K’Dăm (2007), clearly outlines the perceived “problems”—poor farmers do not study agronomy or care about coffee quality—in coffee-farming villages in the Central Highlands and ends with recommendations to further expand the industry. The expert economist and agricultural development perspectives on Vietnamese coffee often espouse the concept of sustainability while they eschew sustainable practices. This should not come as a surprise as “sustainability” is an often-used term in the coffee industry at large, with little consensus about what it really means, or how it is practiced or implemented.

Translating sustainability is a job that often falls to the non-experts or translators who are hired specifically to turn the presentation of an international development organization into commensurable ideas for a Vietnamese audience. Although there are occasional coffee sustainability conferences and workshops in Vietnam, there is rarely attention to the ways in which the term “works” or does not, in Vietnamese. *Sự bền vững*, the Vietnamese word for sustainability, combines “solid” and “strong” (*bền*) with “secure” or “stable” (*vững*) to impart a sense of long-lasting endurance. When encountered in the Vietnamese coffee industry at farmer training seminars or workshops, or in certification scheme audits, *Sự bền vững* is meant to evoke a Western framework of sustainability that emphasizes building towards a sustainable environment and agricultural economy. After all, “sustainability is an English word” (Maldonado et al.

2016), and the ability to translate this concept is no easy task. Jerome Whittington points out that in Laos,

Sustainability refers not simply to environmental protection, but to questions about how economic growth happens, with special attention to complex articulations of ecology and economy for a country heavily dependent on agriculture and fisheries for its base economic safety net. Clearly, the term ‘sustainability’ does not refer to actual outcomes or to sincere intentions. (2018: 45–46)

In Vietnam, where agricultural development projects proliferate and environmental rule shapes the value of people (ethnic minorities), forests, and agriculture (McElwee 2016), sustainability operates differently in narrative form and policy practice. In popular media spaces, sustainability and environmental projects often take on a distinctly social focus.

The online content producer and digital media pioneer *Saigoneer* regularly features dual Vietnamese-English language articles about the environment and Vietnam. Recent reports range from “informal recycling workshops” in Saigon (Selkin 2020) and urban sustainability projects (Tatarski 2019) to the many climate change-related problems in the Mekong Delta (Tatarski 2020). Although the target audience of digital media publications like *Saigoneer* is a mix of Vietnamese and foreign nationals, the dedicated “environment” section focuses on the pressing societal issues that readers living in Vietnam care about. Given recent climate change-based initiatives in Vietnam, it is no surprise that popular media focus on the ways that local communities are experiencing and grappling with climate change and anxiety.⁴ Dual-language state media like *VN Express International* also regularly feature stories about environmental destruction, namely air and water pollution from manufacturing, as well as feel-good stories about environmental activists who blaze the trail for future generations. For these readers, however, the tricky problem of monoculture emerges again—coffee is singular, erasing the complexity of the Central Highlands growing region *and* the many varieties of coffee propagated and ingenious solutions to everyday farming problems developed throughout the region.

⁴ See McElwee et al. (2017) and McElwee (2015) for interdisciplinary scholarship on climate change in Vietnam.

4 ECOLOGIES OF VIETNAMESE COFFEE

The Central Highlands and its soil, atmosphere, and water are environmental actors in the ecology of Vietnamese coffee. The region is shaped by a long history of destruction, extraction, and abuse. Like rubber (see Aso 2018) and other colonial cash crops, coffee (*Coffea Arabica* and *Coffea robusta*) is also entangled in colonial and post-colonial histories of labor, ethnic minority politics, and exploitation. The commodity coffee (*Coffea robusta*) grown in Đắk Lắk and parts of Lâm Đồng is part of a unique coffee ecology that has drawn significant media attention to Vietnam and its large-scale coffee production. In this narrative process, Vietnam emerges as both a success story and a failure. The success lies in becoming the second-largest producer of coffee in the world—an arbitrary geopolitical title that erases ethnic minority displacements and the violence of colonial history and contemporary cash crop production. The failure lies in the lack of effective sustainability initiatives in the coffee industry—large-scale commodity coffee production is especially destructive for long-term land use and the surrounding environments.⁵

An ecology of Vietnamese coffee must also include the multiple narrative forms that describe coffee-growing land and café culture in Vietnam. These narrative forms—Vietnamese travel writing, blogs, social and popular media—that evoke a harmonious relationship between human and nature, especially in places like Đà Lạt, position coffee aesthetically and culturally. Indeed, cafés all over Đà Lạt and Buôn Ma Thuột take great pride in the coffee they use and the fact that it is locally produced. Coffee growing requires, at a bare minimum, decent soil, irrigation, and sunlight. It often requires agricultural inputs, *very* specific soil, particular kinds of irrigation, processing facilities, economic savvy, and experience, let alone specific knowledge about how to navigate agricultural and climate-related disasters. Whereas the coffee-growing highlands are admired in much popular literature about Vietnam, environmental writing is beginning to recognize what is and is not sustainable in agricultural production. Unlike a conspicuous environmental disaster such as a toxic spill, commodity

⁵ The environmental destruction that comes with coffee production also includes the capitalism of consumption. The primary consumers of Vietnamese coffee are *not* Vietnamese. The global Vietnamese coffee industry is built on export, transportation between the Central Highlands and southern ports in Sài Gòn, and the shipping industry that facilitates trade between Vietnam and western Europe, East Asia, and North America (the primary regions where Vietnamese coffee is consumed).

coffee production wreaks slow havoc on the earth and laboring bodies. Above all, commodity coffee production, as the industry continues to expand, requires land, converted from the complex classification schemes and forest management projects and the larger question of environmental rule in Vietnam (McElwee 2016).

On the surface, the narrative of coffee production in Vietnam is a success story, if success is measured in terms of production volume and world rankings for production and export. As the story goes, the rapid rise of coffee production in Vietnam is a marker of agricultural prowess; the Vietnamese state's capacity to navigate complicated global commodity markets that are often stacked against producers like Vietnam and the sheer recognition that there is a world of consumers eager to buy cheap commodity-grade coffee are the highlights of this story. At its core, however, the narrative of coffee production in Vietnam is a story of extraction. At times coffee is a means of economic development, but it is also the byproduct of a longer history of the Central Highlands in which ethnic minorities have been displaced from their land, forests cleared and replaced by cash crops, and fertility and nutrients depleted from the soil, rendering it much less productive for future agricultural production or subsistence farming. Although the Central Highlands are narrated as a beautiful frontier in Vietnam, industrial agriculture and extraction have permanently altered the landscape.

In addition to the environmental impact of agricultural production, natural resources such as bauxite are frequently extracted from the earth in the Central Highlands. Jason Morris-Jung's comprehensive examination of the bauxite mining controversy in the Central Highlands foregrounds the Vietnamese perspective through participant observation and interviews with many activists and scientists about the politics of mining. Morris-Jung describes a workshop held in the Central Highlands province Đắk Nông:

At the Đắk Nông workshop, Nguyễn Ngọc spoke about the "cultural" impacts of bauxite mining on the M'Nông people of the Central Highlands. For Nguyễn Ngọc, bauxite mining was like "standing before a life or death decision." Not only did it spell disaster to the ethnic minorities of the region, but it threatened the socio-cultural and geographic bonds that bound the Central Highlands to the Vietnamese nation. (2015: 72)

For Central Highlands-based writers like Nguyễn Ngọc, bauxite mining represented more than a discursive threat to those living in the region,

including many ethnic minority groups. Bauxite mining in all its controversy highlights the role of extractive industries in uprooting communities, their culture, and their future in the process. Like other extractive industries that remove metals, minerals, and oil from the earth, bauxite mining has grave environmental and human impacts (Abdullah et al. 2016; O'Mahony 2019). The bauxite mining controversy in Vietnam—specifically opposition to extractive mining—introduced a new kind of “performative” and “oppositional” politics to Vietnam (Morris-Jung 2015). As Morris-Jung establishes, there was no shortage of Vietnamese opposition in the media and other public venues during the 2008–2009 controversy. The opposition emerged in a very public way, weaving together concerns over environmental impacts, the proposed influx of Chinese migrant labor, and the Central Highlands as a place.

Like bauxite mining, coffee production in the Central Highlands has generated oppositional perspectives on socio-cultural impacts of large-scale agricultural production. Coffee may not be extractive in the literal sense—coffee production does not remove natural resources from the earth—but byproducts such as chemically produced fertilizers and pesticides strip the soil of vital nutrients and adulterate nearby water sources with toxic irrigation runoff. Coffee also exploits labor in complicated and uneven ways as Vietnamese and ethnic minority coffee farmers are subject to fluctuations in the global coffee market, climate-related variances in production volume, and the difficult manual labor that defines the annual coffee harvest. Coffee is not the only fraught agricultural industry in Vietnam, but it is slowly beginning to facilitate dialogue about unsustainable farming practices and the simultaneous cultural significance of coffee consumption and cafés.

Vietnamese creative artists and activists are also engaging in dialogues about the environment, becoming powerful shapers of environmental narratives in Vietnam. Themes of excess, waste, environment, and cultural identity shape the work of artists like Võ Trần Châu (see Factory Contemporary Arts Centre 2020), while interrelated ideas about nature and imagination, animals, and environment influence the work of Tuấn Andrew Nguyễn. Tuấn Mami's *In One's Breath—Nothing Stands Still* is also critically engaged with extraction, capitalism, and the environment (see Lovatt 2020 and Robert 2019). These artists and their colleagues approach the environment in Vietnam through a variety of visual and material forms.

The Bảo Lộc Project, hosted and sponsored by a large coffee export company, took place over several weeks in the Lâm Đồng province town of Bảo Lộc in 2007. The Bảo Lộc Project was meant to bring artists together with community members in a space that held important symbolic significance for the region—a coffee export warehouse and processing facility. Bảo Lộc is described on the official project website as “*Bảo Lộc là điểm khởi đầu của dãy Trường Sơn*” (the beginning of the Trường Sơn mountain range). Indeed, it is a coffee and tea-producing town, albeit without the attention that Đà Lạt receives in Vietnamese media and travel writings. It is a town that is often passed through without much of a stop, as the leading Vietnamese bus companies stop for lunch or a quick restroom and coffee break on long drives up from the city. In this passage, it is hard to miss the vast greenery of coffee and tea planted to the horizon and obviously an important part of the local agricultural economy. The Bảo Lộc project website also optimistically boasts that “the town of Bảo Lộc is one of the centers of Vietnamese coffee” (*là một thị xã của tỉnh Lâm Đồng, Bảo Lộc được xem như một trong những trung tâm của ngành công nghiệp cà phê Việt Nam*). The introductory essay from the Bảo Lộc Project catalog states that “[t]he Bao Loc Project had no grand aims of social change ... Rather, art functioned here as a place of symbolic communication and exchange within the notional, social and cultural realm” (Hadju [n.d.](#)). Sponsored by a large export company and experimental farming station, however, it draws attention to the ways in which capital flows into the community through agricultural development plans and flows out, extracting labor and soil nutrients alongside the coffee that is produced. If there were no aims of social change in the Bảo Lộc Project, simply focusing on coffee draws attention to the environmental implications of industrial agriculture in the Central Highlands.

5 CONCLUSION

Environmental narratives about coffee production and sustainability in Vietnam have only recently questioned the institutions that perpetuate environmental destruction and exacerbate climate change-related experiences. These narratives also draw parallels between the lived experience of the Central Highlands and extractive industries from natural resource mining to agricultural production that reshape ecosystems in the region. The paradox of coffee in Vietnam is that coffee’s destructiveness is

celebrated culturally, as Vietnamese coffee gains international notoriety as a popular drink, and the café, in many urban areas, has also come to symbolize creativity and possibility for many youths. In Đà Lạt, cafés can serve the purpose of connecting patrons (often young adults) to nature—coffee with a view and coffee *on a coffee farm* are major selling points. An “environmentalization of agriculture” (Cattelino 2019) has yet to take place fully in Vietnam, but the idea seems to be circulating among proponents of agricultural sustainability and those who think carefully about the interrelationship between future livelihoods, environment, and the economic role of industrial agriculture in the present. The work of visual artists is already drawing attention to the connection between Central Highlands ecologies and the environmental implications of capitalist extraction.

In Phương’s world, the landscape of the Central Highlands is ideally natural, and it does natural work—it promotes a particular kind of life and produces a world in which agriculture is produced not as currency but as life-giving. For me, the small plots of coffee, carrot, and artichoke interspersed with pine trees and horses along our hike are a reminder that the natural world is deceptive and always mediated. Flowering *coffea*, fragrant with delicate white flowers, in much of the coffee-producing regions of Vietnam is only as productive as the chemically produced agricultural inputs it absorbs. When we hiked up the mountain, we passed through coffee farms with berries in varying stages of ripeness; the barbed wire protecting the farms was evidence that the alternate forest route we walked led actually across a privately owned farm. From on high, we could see the careful demarcation between crops, high-use motorbike paths, and eroding, terraced vegetable farms. Paths like these are the “between” that Celia Lowe describes in *Wild Profusion*:

Natures are ‘made’ at the intersection of humans with their particular social histories, and plants and animals with their unique evolutionary and ecological histories. Neither ‘science’ nor ‘society’ will tell us all the interesting things one might want to know about these natures. To proceed further, one must travel along a path *between* the human and the wild profusion. (2006: 3)

For all Phương’s romantic ideas about “escaping to nature,” she was the one who pointed out the small fires and wisps of smoke curling across the valley—farmers were clearing land for new cash crop plantings. Perhaps Phương recognized that her own family is complicit in this clearing of land and the irreversible anthropogenic impact of agricultural commodity

production. The inseparability of nature and culture in ecological relationships reminds us that when the term *sustainability* is invoked by farmers, international organizations, or local environmentalists, they are operating under very precise understandings of what constitutes their respective livelihoods and values about the environment. Ethnographic narratives emerging from environmental anthropologies of Southeast Asia are particularly attuned to these entanglements, providing nuanced understandings of late-industrial environments and development schemes in Southeast Asia.⁶ Nevertheless, an interdisciplinary engagement across environmental anthropology and the environmental humanities in Vietnam will further our understanding of environmental change and the ways in which narrative forms are used by activists and draw our attention to the complex ecologies of coffee sustainability.

REFERENCES

- Abdullah, Noor Hisham, Norlen Mohamed, Lokman Hakim Sulaiman, Thahirahtul Asma Zakaria, and Daud Abdul Rahim. 2016. "Potential Health Impacts of Bauxite Mining in Kuantan." *The Malaysia Journal of Medical Sciences* 23.3: 1–8.
- Aso, Michitake. 2018. *Rubber and the Making of Vietnam: An Ecological History, 1897–1975*. Durham, NC: University of North Carolina Press.
- "Bảo Lộc Project." n.d. <http://baolocproject.org/>. Accessed 21 February 2020.
- Besky, Sarah. 2017. "Monoculture." *Cultural Anthropology Fieldsights* (28 June). <https://culanth.org/fieldsights/monoculture>. Accessed 11 November 2021.
- Cattellino, Jessica R. 2019. "From Green to Green: The Environmentalization of Agriculture." *Journal for the Anthropology of North America* 22.2: 135–138.
- Chapman, Nicholas. 2017. "Rising Environmental Awareness in Vietnam." *Kyoto Review of Southeast Asia* 21. <https://kyotoreview.org/yav/rising-environmental-awareness-vietnam/>. Accessed 25 July 2021.
- The Factory Contemporary Arts Centre. 2020. "Press Release: Leaf Picking in the Ancient Forest: A Solo Exhibition by Võ Trần Châu." https://factoryartscentre.com/wp-content/uploads/2020/02/Press-release_Leaf-Picking-in-the-Ancient-Forest.pdf. Accessed 8 May 2020.
- Geertman, Stephanie, and Julie-Anne Boudreau. 2018. "'Life as Art': Emerging Youth Networks in Hanoi and the Tree Hug Movement." *City and Society* 30.2: 210–236.
- Hạo, Phan Nhiên. 2020. *Paper Bells*, translated by Hai-Dang Phan. The Song Cave.

⁶For recent examples see Parreñas (2018), Porter (2019), and Whittington (2018).

- Hadju, Sue. n.d. "Sue Hajdu, The Bao Loc Project." http://www.suehajdu.net/curatorial_thebaoloc_project.html. Accessed 27 May 2020.
- Jennings, Eric Thomas. 2011. *Imperial Heights: Dalat and the Making and Undoing of French Indochina*. Berkeley: University of California Press.
- K'Dăm, H'Wen Niê. 2007. "Coffee Production in Vietnam's Central Highlands Provinces." *Coffee in Vietnam's Central Highlands: Historical, Anthropological and Economic Perspectives*. Ed. Thanh Phan, H'Wen Niê K'Dăm, and Ikemoto Yukio. Ho Chi Minh City: Vietnam National University, Ho Chi Minh City Press.
- Li, Tania Murray and Pujo Semedi. 2021. *Plantation Life: Corporate Occupation in Indonesia's Oil Palm Zone*. Durham: Duke University Press.
- Lovatt, Philippa. 2020. "(Im)material Histories and Aesthetics of Extractivism in Vietnamese Artists' Moving Image." *Southeast of Now: Directions in Contemporary and Modern Art in Asia*, 4.1: 221–236.
- Lowe, Celia. 2006. *Wild Profusion: Biodiversity Conservation in an Indonesian Archipelago*. Princeton, NJ: Princeton University Press.
- Lyons, Kristina M. 2020. *Vital Decomposition: Soil Practitioners and Life Politics*. Durham: Duke University Press.
- Maldonado, María García, Rosario García Meza, and Emily Yates-Doerr. 2016. "Sustainability." *Cultural Anthropology Fieldsights* (30 September). <https://culanth.org/fieldsights/sustainability>. Accessed 11 November 2021.
- McElwee, Pamela D., Thuyen Nghiem, Hue Le, and Huong Vu. 2017. "Flood Vulnerability among Rural Households in the Red River Delta of Vietnam: Implications for Future Climate Change Risk and Adaptation." *Natural Hazards* 86.1: 465–492.
- McElwee, Pamela D. 2016. *Forests Are Gold: Trees, People, and Environmental Rule in Vietnam*. Seattle: University of Washington Press.
- . 2015. "From Conservation and Development to Climate: Anthropological Engagements with REDD+ in Vietnam." *Climate Cultures: Anthropological Perspectives on Climate Change*. Ed. Jessica Barnes and Michael Dove. New Haven: Yale University Press. 82–106.
- . 2000. "Coffee, Christianity and Conflict: An Update on the Central Highlands of Vietnam." *Mekong Update and Dialogue* 4 (3): 2–4.
- Morris-Jung, Jason. 2015. "The Vietnamese Bauxite Controversy: Towards a More Oppositional Politics." *Journal of Vietnamese Studies* 10.1: 63–109.
- Nixon, Rob. 2011. *Slow Violence and the Environmentalism of the Poor*. Cambridge: Harvard University Press.
- Nguyen Hoang Ky Anh. 2019. "Tractors and Cabbages: A Different Da Lat Away From Urban Chaos." *Saigoneer* (18 June). <https://www.saigoneer.com/vietnam-travel/16751-photos-tractors-and-cabbages-a-different-da-lat-away-from-urban-chaos>.

- Nguyen, Quang Dung. 2020. "From Cyberspace to the Streets: Emerging Environmental Paradigm of Justice and Citizenship in Vietnam." *IIAS Newsletter* 86: 31–33.
- O'Mahony, Jennifer. 2019. "Bauxite Mining and Chinese Dam Push Guinea's Chimpanzees to the Brink." *Mongabay*. <https://news.mongabay.com/2019/05/bauxite-mining-and-chinese-dam-push-guineas-chimpanzees-to-the-brink/>. Accessed 3 May 2020.
- Parreñas, Juno Salazar. 2018. *Decolonizing Extinction: The Work of Care in Orangutan Rehabilitation*. Durham: Duke University Press.
- Phan, Thanh, H'Wen Niê K'Dăm, and Ikemoto Yukio. 2007. *Coffee in Vietnam's Central Highlands: Historical, Anthropological and Economic Perspectives*. Ho Chi Minh City: Vietnam National University, Ho Chi Minh City Press.
- Porter, Natalie. 2019. *Viral Economies: Bird Flu Experiments in Vietnam*. Chicago: University of Chicago Press.
- Robert, Christophe. 2019. "In One's Breath—Nothing Stands Still: A Multimedia Exhibition in Hồ Chí Minh City." *Journal of Vietnamese Studies* 14 (2): 145–154.
- Seymour, Nicole. 2018. *Bad Environmentalism: Irony and Irreverence in the Ecological Age*. Minneapolis: University of Minnesota Press.
- Selkin, Jim. 2020. "Tracing the Reincarnation of Plastic Waste in Saigon's Informal Recycling Workshops." *Saigoneer* (19 April), <https://saigoneer.com/saigon-environment/18608-tracing-the-reincarnation-of-plastic-waste-in-saigon-s-informal-recycling-workshops>. Accessed 8 May 2020.
- Tan, Stan B-H. 2000. "Coffee Frontiers in the Central Highlands of Vietnam: Networks of Connectivity." *Asia Pacific Viewpoint* 41.1: 51–67.
- Tatarski, Michael. 2016. "Vietnam Faces Dilemma on Forests as Climate Change Threatens Coffee Crops." *Mongabay* (December 1), <https://news.mongabay.com/2016/12/vietnam-faces-dilemma-on-forests-asclimate-change-threatens-coffee-crops/>. Accessed 6 June 2020.
- . 2019. "Loài Plastic: To Eradicate Plastic Items, Treat Them as Invasive Species." *Saigoneer* (19 August). <https://saigoneer.com/saigon-environment/17240-lo%C3%A0i-plastic-to-eradicate-plastic-items,-treat-them-as-invasive-species>. Accessed 8 May 2020.
- . 2020. "Dams, Sand, Rice: The Life and Possible Death of the Mekong Delta." *Saigoneer* (1 March). <https://saigoneer.com/saigon-environment/18401-dams,-sand,-rice-the-life-and-possible-death-of-the-mekong-delta>. Accessed 21 April 2020.
- Vinh, Mai. 2018. "Nhà kính bao vây Đà Lạt, màu trắng ảm đạm lẫn lút màu xanh." *Tuổi Trẻ* (25 June). <https://tuoitre.vn/news-20180625083110606.htm>. Accessed 25 July 2021.

- . 2019. “Vietnamese Youth Take on #Trashtag Challenge.” *Tuổi Trẻ* (15 March). <https://tuoitrenews.vn/news/lifestyle/20190315/vietnamese-youth-take-on-trashtag-challenge/49283.html>. Accessed 25 July 2021.
- Whittington, Jerome. 2018. *Anthropogenic Rivers: The Production of Uncertainty in Lao Hydropower*. Ithaca: Cornell University Press.