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FOCUS NEGOTIATING CHINESE INFRASTRUCTURES OF MODERN MOBILITIES: INSIGHTS FROM SOUTHEAST ASIA

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From transportation to urbanization, energy and digitalization, China-backed projects of infrastructural development are increasingly common throughout Southeast Asia and the global South as both a means and outcome of development. This trend has accelerated since China's Belt and Road Initiative (BRI) in 2013. Against this backdrop, the present ASEAS issue invites to rethink the roles infrastructure plays in forms of development that place connectivity at the center.
Exploring how the dialectics of infrastructure and mobility manifests itself on the ground, this special issue features five empirical case studies which address various mobility infrastructures in the Thailand-Laos borderlands, Vietnam, Thailand, Myanmar, and Cambodia. These five current research articles are complemented by two research workshop articles, which critically assess the conceptual linkage between infrastructures and mobility in the Chinese context. Taken together, these contributions complicate and complete the understanding of China's BRI and notions of global China in general. In particular, they show how visions and designs, or promises, of infrastructure cause both intended and unintended mobilities, or plainly immobilities or forced displacements, while they also mobilize, and are mobilized by, various actors with their potential interests, aspirations, skepticism, and resistance.

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COVER PHOTO
Simon Rowedder, 2019 (Laos, Oudomxay Province, construction of the China-Laos Railway)

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Contents

Negotiating Chinese Infrastructures of Modern Mobilities: Insights from Southeast Asia

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Since the launch of the BRI, particular modes of movement are integral to its vision of what it means to be a modern world citizen. Nowhere is this more apparent than in Southeast Asia, where China-backed infrastructure projects expand, and at great speed. Such infrastructure projects are carriers of particular versions of modernity, promising rapid mobility to populations better connected than ever before. Yet, until now, little attention has been paid to how mobility and promises of mobility intersect with local understandings of development. In the introduction to this special issue, we argue that it is essential to think about the role infrastructure plays in forms of development that place connectivity at the center. We suggest that considering development, mobility and modernity together is enlightening because it interrogates the connections between these interlocking themes. Through an introduction to five ethnographically grounded papers and two commentaries, all of which engage with infrastructures in different contexts throughout Southeast Asia, we demonstrate that there are significant gaps between official policy and lived experience. This makes the need to interrogate what infrastructure, mobilities, and global China really mean all the more pressing.

Keywords: Belt and Road Initiative (BRI); China-Backed Infrastructure; Development; Mobility; Southeast Asia

INTRODUCTION

As 2020 took hold, and the world began to grapple with the growing reality of the COVID-19 pandemic, the implications for mobility became increasingly evident. The recent ASEAS special issue on "The COVID-19 Pandemic, (Im)Mobilities, and Migration in Southeast Asia" (Missbach & Stange, 2023) demonstrated how former options to move – more or less freely, flexibly, spontaneously and at speed – around the world were suddenly curtailed. Tourists, residents, traders,

transport operators, involuntary migrants and more experienced evacuation, rushing to embark on one-way journeys to extended periods of forced immobility. China-backed promises of high-speed mobility across the borders of Southeast Asia and China gave way to border closures and draconian restrictions on one's ability to move seemingly anywhere.

If the pandemic can be regarded now as a largely unforeseen rupture in an increasingly mobile world, we can also see it as a merely temporary halt to the 'normal' business of mobile people and goods. As the world gradually resumes pre-pandemic levels of physical movement, the integration of digital connections into daily routines has not only persisted but has become more entrenched than ever before. While there has been no rethinking or slowing down of mobility infrastructure schemes, including those backed by China, the pandemic has plainly made visible the "temporal fragility of infrastructures" (Ramakrishnan et al., 2021). This highlights the cyclical, and not linear, character of "infrastructural time" composed of specific periods or moments of rupture, remodeling, and intensification (Happel, 2018). As periods of suspension can be seen as integral to open-ended, cyclical infrastructure times (Gupta, 2018), mobilities have also often been suspended (not only) during the pandemic, leading to immobile moments of waiting and uncertainty (Missbach & Stange, 2023, pp. 9-10).[1]

From transportation to urbanization, energy and digitalization, China-backed infrastructure projects have become increasingly common throughout Southeast Asia and the global South as both a means and outcome of development. This trend has accelerated since China's Belt and Road Initiative (BRI) in 2013. Southeast Asia and China can look back at a long history of transregional connectivity and mobility (Giersch, 2006, 2010; Walker, 1999; Yang, 2009). Hence, mobility, leading to various forms of voluntary and forced, intended and coincidental movements, is not a new phenomenon unique to and inalienable from modernity but is an essential feature of the region's history (Husa et al., 2014).

However, viewing China's recent push for mobility infrastructure and connectivity merely as a revival of ancient history, as China does so by referring to the legacy of the Silk Road (Freymann, 2021; Sidaway & Woon, 2017; Winter, 2019), would be too simple and dangerous – not least because it largely ignores the genealogy and associated imperial underpinnings of the term "Silk Road" itself (Sidaway & Woon, 2017). Additionally, the present official narrative of reviving ancient history also ignores China's modern history of restricting and tabooing mobility under Mao Zedong, which changed only in 1977, after his death, when the state officially endorsed mobility as a key element of producing modern citizens (Nyíri, 2010). We acknowledge that, regardless of historical continuities or ruptures, China's current and envisioned infrastructures of connectivity and mobility operate at a truly new scale and speed, fundamentally transforming Southeast Asia.

Against this backdrop, we suggest that it is essential to rethink the roles infrastructure plays in particular forms of development that place connectivity and concomitant mobility at the center of the BRI's vision and promise of mutually

1 For a more detailed conceptual discussion of suspension in the context of China's infrastructural development, see the commentary by Tim Oakes (2023) in this issue.

beneficial prosperity. New forms, scales, and speeds of movement are advertised as carriers of modernity, lived by newly transformed world citizens in an interconnected, always conveniently accessible world full of economic opportunities. These new forms of mobility are oriented towards, and ordered by, China. Infrastructures, as seemingly spatially fixed and immobile structures, are designed and engineered to facilitate modern mobilities. Yet, they are also themselves built on different forms of movement as they mobilize capital, land, resources, and labor, while displacing people who otherwise stand in the way of modern constructions of mobility and development. In this special issue, we explore how this dialectic of infrastructure and mobility manifests itself on the ground, what sort of lived realities emerge from, and in turn shape, infrastructures, and with which consequences.

Studying Chinese infrastructures of modern mobilities in Southeast Asia, it is impossible to ignore the BRI. Hence, there is an abundant and growing scholarship that deciphers the rationale, remit, wider geopolitical and economic implications, and concrete local impacts of the BRI (Freymann, 2021; Lampton et al., 2020; Liu & Dunford, 2016; Oliveira et al., 2020; Sidaway et al., 2020; Woodworth & Joniak-Lüthi, 2020). Such scholarship rightly tells us much about the rise of China's power, how, where and in what circumstances it intersects with the BRI. While such scholarship is vital for thinking through the BRI, going as far as to suggest the BRI as a method for thorough infrastructural thinking (Oakes, 2021), it has yet to grapple with the very notion of mobility itself.

Here, instead of asking large and abstract questions about what the BRI tells us about the rise of Chinese power in the world, we urged the contributors to this special issue to take an ethnographically grounded approach, considering concrete notions of mobility from the ground up, asking how mobility is understood and lived as part of these promises of a prosperous future. This ethnographic engagement helps in theorizing the multifarious role of mobilities in China's synonymous promises of infrastructural connectivity and development (see amongst others, Oakes, 2019, 2022; Rippa, 2020), both in official rhetoric and lived experience. With this special issue, we go beyond attempts to better understand ontologies, materialities, socialities, and politics of and in infrastructures. We thus complement "infrastructural thinking in China" – both as a research methodology to fully grasp infrastructural state power as a product of social, human-to-non-human, and material-technical relations, and as a key ideology of China's state and social reality of its citizens in and beyond China (Rippa & Oakes, 2023) – with mobility thinking, conceptually, ethnographically, and methodologically (Salazar et al., 2017). Hence, we argue that it is vital to consider the notion of mobility as a central avenue where development and modernity intersect both in political discourse and popular imagination of an interconnected and prosperous world in which everyone will flourish and in which people, goods, and capital will move.

The articles in this special issue scrutinize how this powerful discursive entanglement of infrastructure, mobility, development, and modernity is actually unfolding (or not) on the ground and what frictions exist between promises of seamless mobility and local interpretation and negotiations, acknowledging that "friction is required to keep global power in motion" (Tsing, 2005, p. 6). In doing so, we contribute to critical examinations of the mobilities paradigm across social sciences and among

policymakers. Our approach attends to the complex interrelations of mobilities, both produced as an object of knowledge and producing (or again produced by) subjects and subjectivities (Endres et al., 2016). From economic corridors, special economic zones, cross-border infrastructures, hydropower dams, and urban and rural transport systems to promises of how these developments produce modern citizens through sustainable, shared prosperous outcomes, the papers that follow attend to a series of important questions: What sort of subject is (supposed to be) produced here, and how does this embody (or not) the official rhetoric around mobility? Who is entitled to new forms of mobility? In other words, whose mobilities are envisioned after all? When asking what it means to be both modern and mobile in the age of the BRI, we must also consider the implications for older, allegedly unmodern forms of mobility. In addition, it is important to examine to what extent newly created mobilities produce new immobilities, or lead to hypermobility, resulting in a state of suspension, of never-ending movement, which in the case of ever-moving Chinese migrant workers is rather a manifestation of precarity than modernity (Xiang, 2021).

To answer these questions, the five *Current Research* papers of this special issue address various forms of mobility. The contributions by Saiyarod (2023, this issue) on cross-border mobility and trade in the Mekong region and by Nicolaisen (2023, this issue) on the partly finished, partly planned Hanoi Metro system examine mobility in its conventional sense of actual physical movement across rural and urban contexts. The three remaining papers explore mobilities as social, economic, and political practices behind, and effects of, Chinese infrastructures at large, and the BRI in particular, in different Southeast Asian contexts. Adopting the lens of Actor-Network Theory (ANT), Ayuttacorn (2023, this issue) analyzes Thailand's Eastern Economic Corridor (EEC) projects. She examines how emerging Chinese investor networks result in, and are shaped by, negotiations between various actors such as the Thai state, Chinese and Thai investors, and local Thai farmers. Similarly, Dean (2023, this issue) looks at the Myitkyina Economic Development Zone in northern Myanmar, an infrastructure megaproject combining logistics and transportation as part of China's BRI. Her key argument is that it is local authorities that centrally mediate and facilitate, as well as obstruct, Chinese, or any other external, infrastructure projects. In her paper on China-backed hydropower dams along and off the Mekong River in Cambodia, Käkönen (2023, this issue) outlines their simultaneous dynamics of both entanglements with and disentanglements from the recipient country's political power in shaping complex political-ecological relations, paradoxically as Chinese "entangled enclaves".

This special issue also features two critical commentaries in the *Research Workshop* publication category by Oakes (2023, this issue) and Brandtstädter (2023, this issue). Their discussions on the conceptual linkages between infrastructure and mobility enrich our understanding of China's BRI and the broader notions of global China. These complement the issue's focus on Southeast Asia with critical reflections from the Chinese context, China being the 'origin' of the infrastructures described in the five articles. Specifically, both commentaries show how visions and designs, or promises, of infrastructure can lead to a range of mobilities, both intended and unintended. This includes alternative or "deviated" mobilities as also discussed by Saiyarod (2023, this issue), as well as immobilities or forced displacements. Furthermore, these

infrastructure projects also mobilize, and are mobilized by, various actors with their potential interests, aspirations, skepticism, and resistance.

GLOBAL CHINA, THE BRI, AND SOUTHEAST ASIA

In their recent essay *China Beyond China,* Tyfield and Rodriguez (2022) argue that the defining question of our age is *how* China will use its influence and what this means for emergent world orders. They urge us to question what sort of world will be produced here and is in the process of unfolding. In this issue, we keep this in mind by asking what the rise of global China adds up to and consider this from above and below. Hence, we ask who is doing the unfolding and production of this new (Chinese) world order? What factors are at play here, and how do these manifest on the ground? In other words, what do these changes mean for ordinary people? How are they shaped by, and are in turn shaping, these changes? We suggest that in a world where China moves beyond China, and populations across Southeast Asia are more linked to the BRI hub itself, questions of just how people move, become (im)mobile, and how this features in changes that reshape world orders that impact us all, could not be more urgent. After all, to use the wording from Tyfield and Rodriguez, China is going beyond its own borders. It cannot do this without a physical movement of its people to other places. But then, it is worth asking what exactly is being exported here beyond the tangible. What about Chinese ideas? For recipient countries seeking development, as Kuik and Rosli (2023) argue, is there any real alternative, or in other words, is the BRI the only game in town? What does this look like on an everyday level and how does it vary?

Long before China's BRI, Southeast Asia had long been the focal point of diverse infrastructural connectivity schemes. These schemes, promoted by various actors, view connectivity as both a process and outcome of development with the Asian Development Bank (ADB) as one of the most prominent actors and advocators. Furthermore, the Greater Mekong Subregion (GMS) initiated in 1992 has played a crucial role in these developments. Underlining its unabated adherence to transport infrastructures as a key pillar for development and modernity, the ADB estimates that Southeast Asia will need an annual investment in infrastructure of USD 210 billion until 2030 (Asian Development Bank, 2017). Building on this largely externally induced infrastructural history, Southeast Asia is now connected increasingly to China, in metaphorical and literal terms. While we contend that mobility as integral to development continues a long-standing preoccupation in the region as to what development is and should be, it is for the BRI that this is articulated for the first time very explicitly. This makes Southeast Asia the ideal place to consider development, mobility, and modernity together. Here, China represents multiple things to different people: potential 'neo-colonizer', source of economic, social or educational opportunity, reason for concern, means to realize more prosperous futures and so on. These sentiments sometimes all come together in their contradictions within one statement, as one of the editors of this special issue demonstrates for local engagements with the 'Chinese dream' of infrastructural development in northern Laos (Rowedder, 2022; Rowedder, forthcoming). Therein, the often-heard statement that "soon, northern Laos will be part of southern China" could mean "a simple joke,

anger, uncertainty, fear, worry, fatalism, resilience, pragmatism, and aspiration at the same time" (Rowedder, 2022, p. 215). These entangled, and sometimes contradictory encounters with China in Southeast Asia as different people and goods negotiate new mobilities will be examined in the papers that follow.

In her work on understanding the global in global China, Lee (2022) argues for thinking of global China as policy, power, and method.[2] Here, we note that local engagements with China can be viewed as ground-level connections with Chinese policies – for example, the BRI and/or 'Going Out' policies – but also as engagements with different manifestations and practices of Chinese power. In this regard, the case studies presented in this special issue outline various encounters with the notion of China as something global, both in terms of the intangible, for example, policy and power, and the very tangible, for example, what these encounters produce. Finally, we do not lose sight of Lee's (2022) insistence on keeping the global in sight in terms of method, and demonstrate how the local influences what is global about Chinese actions. The papers in this special issue by Käkönen (2023) and Dean (2023) underline this point. To Lee's (2022) analysis, we also suggest that global China is all about movement, or mobility, to which we now turn.

MOBILITIES, AND WHY THEY MATTER

Following Sheller and Urry (2006), we regard mobility as a given in an increasingly mobile world and suggest that what sort of mobilities, by whom they are executed, and how these are imagined, as well as their discontents, are all fruitful areas of investigation. The question of whether people move or are impacted by mobility is fast becoming redundant in a world of increasing interconnections. Crucially, we do not only talk of people but also about movements of things: material goods and the intangible such as the movement and circulation of ideas (Trupp & Dolezal, 2013). This is particularly so with Naidu's (2007) observation in mind that mobility is key to understanding, and (re)presentations of, what it is to be modern. The internet promises information from across the world at one's fingertips, and a smartphone is an essential part of day-to-day life with an increasing number of practical matters. For example, accessing one's bank account would be completely impossible without the use of mobile technology. Similarly, fast fashion and imported food are the cornerstones of modernity to many and would have been unthinkable just a few decades earlier. Mobilities connect people with people, and people with things, and places that are geographically far away are now increasingly connected via infrastructure schemes that bring the faraway near both in literal and metaphorical terms. Behind much of this seemingly limitless mobility lies China, the source country for workers toiling across the world and raising the influence of global China in parts of Southeast Asia and beyond (Driessen, 2019). We draw here on the work of Stolz and Tappe (2021) in their sentiments that pioneering as a form of mobility has a long history in Southeast Asia, as a means and an outcome of future building, a point reflected in the special issue, particularly in the papers by Ayuttacorn (2023), Dean (2023), and Saiyarod (2023).

2 Regarding global China as a method, see also Francreschini & Loubere (2022).

Indeed, in considering how mobilities are understood and imagined, we suggest that movement also includes less tangible concepts including hopes and aspirations, a concept that Reeves (2017, p. 711) has termed "infrastructural hope". Even if universal opportunities for movement are largely a myth (Horstmann et al., 2020, p. 2), the potency of such notions matters (Johnson, 2020). Significantly, China beyond its borders is not homogenous, and, as demonstrated in this special issue, it is subject to a multitude of local perceptions and negotiations. We suggest here that hope can and should be considered in multiple terms because, even if the BRI is about China protecting its labor force and seeking new markets (Lee, 2018), how China is marketed to local populations in Southeast Asia as they see a rise in Chinese influence, Chinese people, and Chinese ideas in their countries matters very much (Po & Sims, 2022). As we will see in this special issue, many local actors take a pragmatic approach to new infrastructures and the papers suggest both optimism and disillusionment with how these are experienced and negotiated on the ground, a point demonstrated by Käkönen (2023, this issue) and Nicolaisen (2023, this issue).

The notion of mobility, infrastructures and their intersection with development is also vital because there is a significant overlap between the two. Rippa (2020) has argued that development and infrastructure are synonymous in the Chinese context. To him, it is simply impossible to have one without the other. This logic is not difficult to follow concerning the BRI, which of course prioritizes infrastructural connections. This, in turn, allows for the flow of goods and people that will follow. These too, are a key part of what it is to be developed. But while that sounds positive, the case studies in this special issue sound an important note of caution. Showing networks of Chinese investor networks, Ayuttacorn (2023, this issue) notes how trade flows can appear seamless but that does not mean that they are without very real problems that weaker parties have little power to resist. Development is on the one hand positive, but the promises of movement for all do not mean only positive consequences. As Hirsh and Mostowlansky (2022) show, infrastructure literally (re)makes the landscapes around us, encouraging and engendering new dreams while discouraging and hindering others.

We suggest that arguing for movement as a key part of development only takes us so far. An important question is one of movement but *from where to where?* Central to BRI is that it creates links to and through participating countries that connect them to China. Movement then is not just about the actual movement of people, goods, capital, and ideas; more crucially, it evolves along, and creates, new networks that follow the BRI's spatial logics of redefining linkages between the (Chinese) center and peripheries, all in line with China's "peripheral diplomacy", in which mobility infrastructures play a central role (Wang & Hoo, 2019). Nor is this a simple question of thinking of mobility in terms of logistics but to broaden the discussion by considering also how people take up infrastructures in their quotidian lives, by translating them (or not) into mobilities.

DIALECTICS OF INFRASTRUCTURES OF MOBILITIES

Infrastructures embody a sense of promise (Anand et al., 2018; Harvey & Knox, 2012; Hirsh & Mostowlansky, 2022) that speaks of a better tomorrow, a future that is within

sight or reach (Johnson, 2020; Oakes, 2022), thus embodying the "future perfect, an anticipatory state around which different subjects gather their promises and aspirations" (Hetherington, 2017, p. 14).

In Southeast Asia, movement happens in the Chinese register of mobility. Infrastructures can be pitched as part of national agendas of development, and such agendas are, overall, advertised as good for the nation, in which everyone is expected to benefit in some way or another, even if the shared nature of any benefits will not be felt equally, a point often not emphasized. As the papers in this special issue show, sharing benefits does not mean sharing equally. How far people believe these promises, especially when they lose out on them, is an important question and goes to the heart of how infrastructure schemes are negotiated on the ground.

It is therefore vital to consider what infrastructures mean for local conditions and local politics, as shown by Dean (2023, this issue), Saiyarod (2023, this issue), Käkönen (2023, this issue) and Brandstädter (2023, this issue). Paying serious attention to infrastructures through the lens of mobilities helps in establishing a relational, processual, and dynamic understanding of local political, social, and economic realities of promises of infrastructural development – negotiated, contested, and co-produced by complex social and power relations among a wide range of actors. Conceptually 'moving' infrastructures out of their spatial fixity and discursive determinateness reveals various forms of fragmentary, fragile, intended or unintended, expected and unexpected mobilities (see also Heslop & Murton, 2021). Therefore, officially proclaimed new infrastructures and new mobilities are far from abstract and can concretely shape local politics in their intersections with agendas for national development with those of China in its BRI strategy (Rowedder, 2020; Suhardiman et al., 2021; Wilcox, 2022). However, too close an association with China can also be controversial and costly. This is a point made by Nicolaisen (2023, this issue) in her arguments that the Hanoi Metro system represents an example of people growing weary of China. 'China fatigue' therefore appears as a tangible and potent force, and one with tangible effects, such as passengers actively seeking out alternative forms of transport. But even here, in cases where China might be rejected, mobility and the need for it is not. This speaks to the importance of considering mobility, modernity, local understandings, and development, together.

MODERNITY, AND ITS DISCONTENTS

As a development strategy, the BRI presents a particular vision of the future and as scholars have been quick to point out, with these visions of what the future will look like we also see the power of the non-tangible (Harms, 2012). In a similar vein, efficient transportation features prominently in the popular imagination of what it is to be modern. The fusion of transport with development/modernity was demonstrated aptly when interlocutors of Phill Wilcox (2021) were told that, for Lao students studying in China, China is modern because it has public transport in the form of public buses. This awe at public transport extended further upon the discovery of the city's metro system, which consolidated both joy at being able to move at speed with the novelty of being able to do it in new ways. The paper by Nicolaisen (2023, this issue) demonstrates with the case of the Hanoi Metro system how, in addition

to modernity, notions of being civilized are invoked for new efficient ways of urban transport mobility. Simon Rowedder (2022) had similar encounters with interlocutors in northern Laos who frequently travel to neighboring China for various purposes. Not a few of them were making fun of the backwardness of Laos' adventurous, zigzagging, rollercoaster-like roads, while they would simply draw straight lines in China, no matter what obstacle was to be overcome (Rowedder 2022, pp. 206-207).

These observations are an apt illustration of arguments made by High (2014) in connecting particular kinds of aesthetics and bodies that do certain things with understandings of modernity. What does it really mean to be modern? Where is a modern citizen supposed to travel, and through what means? We suggest here that a modern citizen not only travels, but has the economic and practical means to do so, and places that were previously inaccessible are now prominent in their imaginations, and accessible via shiny new buses and trains in whatever class of travel one avails oneself. The means to move something, or someone, at speed quickly and efficiently between one point and another therefore really matters, unless one has the freedom to choose to travel slowly, as Phill Wilcox (forthcoming) shows in a recent article on the appeal of cycling to middle-class youth in Laos. Many middle-class urban residents across Southeast Asia may experience embarrassment at rural, elderly relatives having little comprehension of how to navigate complex transport systems. As Oakes (2023) notes in his commentary in this special issue, infrastructure is not neutral, and new mobilities often render older mobilities obsolete, less modern, and less civilized. Depending on who is asked, this can be positive, negative, or both simultaneously. But at the same time, as Harms (2016) reminds us for the case of constructing a new urban zone in Ho Chi Minh City, the image of modernity is not the whole picture. Just because something might be said to symbolize the future does not mean that it is universally accepted as positive, and the papers by Dean (2023, this issue) and Käkönen (2023, this issue) point to the contested nature of engagements with infrastructure. As Brandtstädter (2023, this issue) recognizes, infrastructures can be said to be fragile, and subject to a range of different understandings that can change over time. This means that at the same time as optimism about the future, beneath there is often a world of discontent, contradiction, and negotiation as people see landscapes around them changing and often at bewildering speed.

At the same time, modernity and the performance of modernity is not as simple a matter as the construction of transport infrastructures. If developing a metro system in Hanoi is supposed to give travelers opportunities for access to utilize modern mobilities, there is a strong disconnect between rhetoric and reality, with the system under-used and the subject of much criticism (Nicolaisen, 2023, this issue). Saiyarod's (2023, this issue) interlocutors talk of taking what they term "the deviated route" for similar reasons. This does not mean that those disaffected by new infrastructures regard themselves as unmodern *per se*, even if they are very aware that they are losing from these initiatives (Harms, 2016; Lyttleton & Li, 2017). In contrast, they may simply regard that such infrastructures are not for them or may realize that they will lose more than they gain from such schemes even as they show apparently willing levels of engagement with such initiatives (Calabrese & Cao, 2021; Harms, 2012). As Käkönen (2023, this issue) shows in her paper, people may have very contradictory relationships with infrastructure, as her Cambodian interlocutors struggle with

reconciling hydropower projects that are, apparently, in the national interest (see also Dean, 2023, this issue), with the entrenchment of state power and what many of them regard as a green light for further cronyism and corruption.

This demonstrates a stark gap between rhetoric and reality. The BRI may appear as a coherent strategy on the part of Chinese policymakers (Cai, 2017; Yu, 2017), but on the ground, as we see here in this special issue, it is subject to a myriad of local negotiations, renegotiations, deviations and so on. This should not be a mere afterthought. Dean (2023, this issue) demonstrates how grand strategies are always subject to local negotiations and can only be fully understood in connection with the local contexts in which they are embedded. How infrastructure is negotiated in one country may look different in another, and often does. After all, the BRI – or any other (external) infrastructure project – is not operating in an empty space of exclusively passive recipient states. On the contrary, its full unfolding is centrally mediated by complex networks of different local actors – a point that is also central to Ayuttacorn's (2023, this issue) analysis of Chinese investment in Eastern Thailand through the lens of Actor-Network Theory. Moreover, as Brandtstädter (2023, this issue) shows, people are central to discussions on infrastructure, their promises, and discontents.

What constitutes the local with regard to land and water is not always clear, and has implications beyond the immediate and the visible. Ayuttacorn (2023, this issue) notes that in development initiatives such as special economic zones backed by powerful investor networks, farmers are at the front line of negative environmental costs in the form of rising levels of toxic waste, a point made elsewhere in this issue (Dean, 2023; Käkönen, 2023). This also underlines that what is apparently local has very real implications for places both near and far. It also underlines how infrastructure and mobility may well be the making of Asia (Hirsh & Mostowlansky, 2022), but that this has consequences that are both positive and less positive. This leads to the making of connections that are sometimes unwanted, ambivalent, or ambiguous (Saiyarod, 2023, this issue). These connections unfold in places where local, national, and global politics and agendas meet. The contributions to this special issue flesh out these connections between ordinary, local daily life and larger, transnational and global dynamics of change.

CONCLUSION

The COVID-19 pandemic brought a pause to many increasingly mobile lives but the overall picture has not changed even in the age of spiraling inflation and rising costs of living. What it means to be modern, and to be mobile, and how these points intersect remains topical, especially as the BRI has now reached its tenth anniversary. After all, if mobility really is so central to ideas of what the future might look like, then it is high time to put this together with development and consider the two together.

We have suggested here that considering development, mobility, and modernity together is enlightening because it interrogates the connections between these interlocking themes at different scales and levels – be it in official state discourse, in social, political and economic practices and networks, or in (non-)articulated affects, aspirations, hopes, and fears. Moreover, to examine local engagements and negotiations between these themes is revealing, because it shows that policy is one thing, but lived

experience is far more nuanced. We have outlined above that it is vital to take infrastructure, and local engagements with infrastructure, seriously.

Finally, if the picture from Southeast Asia is multiple, then further research is needed to consider the importance of geographical proximity between Southeast Asia and China, and how the dynamics raised by the papers here play out (or not) in other regions. These case studies from Southeast Asia provide fascinating insights into what the future may look like for those in close geographical proximity to China, and further away.

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The Deviated Route: Navigating the Logistical Power Landscape of the Mekong Border Trade

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In the past two decades, the Mekong region has seen an increase in infrastructure projects aimed at improving transportation and connectivity between China and neighboring countries. These projects feature border control points, customs checkpoints, and security forces, leading to state control over cross-border trade mobility. Logistical power has gradually penetrated the social life in border trading, selectively facilitating certain groups while excluding others. Despite the overarching influence of state control, local traders still assert their agency in shaping cross-border trade practices. However, the transport and border control infrastructures hindered small-scale trading during the global pandemic and filtered out less economically important goods from cross-border mobility. This paper highlights the dynamic relationship between state control and various actors in cross-border trade in the Mekong region. It calls for an inclusive strategy in developing border infrastructure, aiming to ensure equitable benefit distribution and actively integrate the voices and experiences of those most impacted by these changes into the planning and execution of regional projects.

Keywords: Border Trade; China; Infrastructure; Logistical Power; Mekong Region

INTRODUCTION

On a sweltering July afternoon in 2020, I parked my car at the main entrance of the second Chiang Saen Port, situated in the Chiang Saen District of Chiang Rai Province in Northern Thailand, patiently waiting for the security guard to let me in. The port, which was built after the first began operations in 2012, was about 10 km east of the town. I had an appointment with Ms. Philai[1], a port employee, to discuss and gather general information about the port's operations. A long concrete road stretched from the main gates where security guards stopped every vehicle before entering. The only two office buildings appeared empty and

1 For the purposes of confidentiality and privacy, all names used in this paper are pseudonyms.

quiet. The second Chiang Saen Port was significantly larger than the first, with a larger capacity for handling cargo and vehicle traffic, as well as providing better security measures. When I entered the room, Ms. Philai greeted me from behind a long counter. She invited me to sit on a sofa and began the conversation by drawing circles on a piece of paper, pointing to the largest one and the smaller ones and saying:

> Look at this. This is China, Thailand, Laos, and Myanmar. Our port is right here. These goods, some from European countries and others from across the globe, need to make their way to China. What, in your opinion, would be the best method of transportation? Naturally, the cheapest route, wouldn't it? (Philai, personal communication, 25 July 2020, Chiang Saen Port No. 2)

This conversation reveals keen insights, underscoring the strategic significance of Chiang Saen Port No. 2 within the vast landscape of global trade. Her insights shed light on the complex challenges of navigating cost-effective decisions in the expansive realm of international trade, especially when the port in Chiang Saen stands as a pivotal nexus on the Mekong.

LOGISTICAL POWER AND THE DEVIATED ROUTE

The Northern Mekong border regions, specifically those encompassing parts of China, Laos, Myanmar, and Thailand, have been vital trade pathways for centuries. In recent decades, the bustling trade in these regions has undergone significant transformations, shaped by the interplay of state directives, local dynamics, and international trade influences. While towns along the Mekong in Northern Thailand, such as Chiang Khong and Chiang Saen, have witnessed profound shifts in trade dynamics over recent decades, the stories and experiences of local traders and their networks are often eclipsed by grand narratives of regional infrastructure development. This paper aims to explore these transitions, spotlighting the intricate dance between evolving trade dynamics and infrastructural changes by focusing on these local actors.

In particular, the river trade between South Yunnan and the northern frontier of Thailand has transformed the economic dynamics of Chiang Saen, leading many to engage in daily apple trading during the 1990s. However, as national ports aimed to systematize border trade, smaller traders encountered hurdles. Initiatives to formalize trading operations pushed them into channels with heightened state surveillance, as infrastructural changes took center stage.

This paper, therefore, examines cross-border and transborder trade practices between the south of China and the Mekong border towns in Northern Thailand through the concept of "logistical power". The concept was developed by historical sociologist Chandra Mukerji and recently expanded by anthropologist Xiang Biao— as "logistical power in social life"—the state's ability to manipulate, transform, enhance, and hinder the circulation of human and non-human goods, things, and information through several forms of standardizing infrastructures ranging from bureaucratic documents and customs rules to more tangible elements like transportation networks, border facilities, and technological systems that facilitate or restrict physical movement of goods (Joyce & Mukerji, 2017; Mukerji, 2010; Olesko, 2020; Xiang, 2022).

In the thriving landscape of Mekong River trade, China's surging market and rapid economic growth have become dominant influences. The growth is bolstered by frameworks such as the ASEAN-China Free Trade Area (ACFTA), which was implemented in 2005 and has since undergone subsequent expansions and upgrades. In 2020 alone, the ACFTA facilitated over USD 731 billion in trade, largely by progressively reducing tariffs (Ayman, 2021). As the Mekong River trade continues its upward trend, these evolving trade agreements and regulations serve to streamline cross-border interactions among neighboring countries. Within this dynamic backdrop, the concept of logistical power becomes pivotal. It offers an invaluable perspective for examining the state's dual role in regulating and influencing the currents of this complex trade network, which has seen significant growth over the past two decades.

Xiang (2022) argues that the state holds two sources of logistical powers: First, logistical provision refers to state investment in developing logistical infrastructure, and second, logistical intervention refers to the state dominating the means of mobility ranging from customs control, national currency, and various personal documents. Building on this framework, China has actively promoted regional economic integration in the past two decades and increased connectivity between Yunnan's border regions and its Mekong neighbors. Initiated in 2010, the bridgehead policy has strategically repositioned Yunnan as a pivotal conduit in China's plan, enhancing transnational ties with its Mekong neighbors in Southeast and South Asia.

In addition, the Greater Mekong Subregion (GMS), an initiative led by the Asian Development Bank (ADB), encompasses countries connected by the Mekong River. A fundamental pillar of the GMS strategy is infrastructure development, which aims to foster economic growth, reduce transportation time, shorten travel distances, mitigate the risks associated with dangerous river and mountain routes, and promote a liberal international market. Given this transformation, since the 2000s, the Golden Triangle, encompassing areas of Northern Thailand like Chiang Saen, has transitioned from its notorious past linked to opium trade on the state's periphery, to a promising hub for investment and river trade development.

In parallel, these free trade connecting routes were well equipped with monitoring tools such as border control points, customs checkpoints, immigration border control, and security forces, which are manifestations of state dominance over mobility. These monitoring tools were implemented to control the flow of goods and people across the routes to ensure that the dominant states' interests were met. Border trade in the Mekong towns Chiang Saen and Chiang Khong of Northern Thailand serves as a case to illustrate how states exercise logistical power.

Nevertheless, infrastructure rarely works the way it was initially designed; instead, infrastructure works in unintended ways and entails unforeseeable outcomes (Kanoi et al., 2022, p. 2; Niewöhner, 2015, p. 8). In this paper, the deviated route concept suggests more than just a physical detour. While it specifically denotes the passage in transborder trade through several small ports along the Mekong River from Northern Thailand to Southern China and beyond, it also encapsulates the nuanced strategies and practices local actors adopt. This symbolizes their agency and adaptability amidst overarching trade regulations and mechanisms associated with logistical power. I argue that traders and logistic companies favor the deviated route over official international ports. This preference stems from their ability to optimize cross-border

trade profits by moving goods through less regulated passages and benefit from customs duties that are either reduced or entirely waived.

However, state power has gradually penetrated cross-border trade by increasing the ability of management forms of transportation and filtering people who could get involved in the trading system while keeping all mobilities under state surveillance. As a result, bridges and ports controlled by states selectively facilitate certain groups of people while others are excluded. In particular, during the global pandemic, these infrastructures immediately hindered small-scale trading within the flow of the Mekong logistic system, filtering out goods and things that were less economically important from the circulation of cross-border mobility.

Employing an ethnographic approach, I spent over 10 months in 2019-2020 embedded in the Thai border towns of Chiang Khong and Chiang Saen. During this period, I conducted interviews, observed trade activities, and documented the lived experiences of individuals directly impacted by these changes. I explored the unintended consequences of infrastructures through accounts of traders and trading activities across the Mekong border. Further, I examined what ports and bridges meant for different groups of people and how infrastructure reconfigured social relations before and during the COVID-19 pandemic. Furthermore, secondary data were collected from various sources, including local newspapers, customs offices' websites, journals, and relevant regional research reports, to enrich the analysis and provide a comprehensive understanding of the local trade lifeworld.

In this paper, I first provide the background of the borderland infrastructures in Thai border towns named Chiang Saen and Chiang Khong, focusing on the transport infrastructures, an international port, and a cross-river bridge. I then delve into the trading activities over the past two decades, profiling the key players and capturing their perspectives on the evolving state-influenced landscape. A key component of this exploration is understanding the agencies of local traders, boat operators, and their informal trade networks. These individuals, among others, navigate border trade practices and dealings, ensuring the flow of commodities across the border even in the face of logistical challenges. Finally, I present accounts of small traders sidelined during the pandemic due to stringent controls at the cross-border bridge, highlighting how infrastructure can serve as a selective tool, including certain groups while excluding others.

CROSS-BORDER TRADE STUDIES

Studies on cross-border trade have explored the complex interplay between socio-economic conditions and local actors that shape the dynamics of these trading activities (Ngo & Hung, 2019; Rippa, 2019, 2020; Rippa & Yang, 2017; Rowedder, 2022; Saxer, 2016; Walker, 1999). In the Greater Mekong Subregion, borders transcend mere geographical boundaries, evolving into vibrant conduits for people, goods, and investments. Lin and Grundy-Warr (2012, p. 958) emphasize this dynamism, noting the Thai-Lao Friendship Bridge No. 4 between Chiang Khong and Huay Xai as emblematic of the region's broader relational geographies, especially with China's significant influence. This perspective aligns with this paper's focus, shedding light on the intricate interplay of state logistical power through trade dynamics, and local

agency in Mekong's trade landscape. Infrastructure, such as cross-border bridges, not only facilitates trade and human mobility but also serves as an effective instrument for the state to regulate, monitor, and exert its logistical power.

In examining the Mekong trading route, the concept of "pathways" also becomes pivotal. As delineated by Saxer (2016), this concept depicts the dynamic and resilient trading lifeworld in the Himalayas, the high mountains of Asia, emphasizing encounters along fluid border spaces. This approach underscores the idea that pathways are better represented as bundles of trading lines rather than distinct areas. Adopting this notion helps in comparing the complex interconnections and exchange systems of other borders with the Mekong trading route.

In addition, scholars have shown that border trade networks are complex, often involving multiple stakeholders and political connections. For instance, Hung and Ngo (2020) highlight the importance of "informal connectivity" and resilience within trade networks as traders frequently create and maintain relationships with local officials to ensure seamless transnational crossings. This intricate web of relationships is further elucidated by Rippa's (2020) study in Tashkurgan, China. Here, he sheds light on how infrastructure development not only impacts cross-border livelihoods but is also emblematic of deeper political processes aimed at rendering China's borderlands and their inhabitants more governable. Particularly noteworthy is Rippa's introduction of the "proximity" concept—a framework that aptly captures the delicate balance among borderland infrastructure, local mobility, regulatory practices, and trader strategies. This perspective is especially crucial when considering the overarching influence China wields on cross-border trade dynamics (Rippa, 2020, pp. 54–56).

Building on these ideas makes apparent that conventional dichotomies, such as formal versus informal trade or state versus non-state actors, might not adequately encapsulate the complexity of trade networks along the Mekong pathway. Drawing on the insights from Hung and Ngo (2020), my analysis delves deeper into the intricacies of Mekong informal trading networks. Particularly, Hung and Ngo (2020) emphasize the significance of informal connectivity and organized informality in *Shadow Exchanges along the New Silk Roads*. Their work sheds light on the profound intricacy of these networks, detailing how traders are part of sophisticated, resilient systems. These systems frequently intersect in both formal and informal sectors, span cross-border regions, and skillfully navigate regulatory challenges. In these networks, traders, border officials, and local authorities often collaborate, underscoring the blurred lines between state and non-state actors, ensuring smoother transnational crossings.

In the Mekong borderlands, these infrastructures are not always entirely dominated by powerful state forces. I conceptualize the *deviated route* as a local response to the state administration's efforts to dominate transborder trade. Walker's (1999) work offers historical context for cross-border trade development and introduces the concept of "collaborative borders", which unveils the complex and subtle cooperation between local initiatives and state authority (Walker, 1999, pp. 111–112). Consequently, informal networks, traders, and other actors actively influence regulations associated with cross-border trade and transportation regimes.

This viewpoint underscores the historically grounded and somewhat ambiguous distinction between state actors and local actors in regulating border trade. Exploring the dynamics of cross-border trade, I also draw upon Rowedder's (2022)

concept of "smallness," which emanates from his study on small-scale traders in Northern Laos. His lens challenges conventional classifications, revealing that in the realm of cross-border trade the boundaries between state and small traders—large-scale and small-scale, as well as formal and informal—are not clearly delineated. Customs, immigration, and border patrol officers, for instance, showcase a symbiotic relationship with traders, blurring the lines between large-scale and small-scale operations (Rowedder, 2022, p. 31). Such findings resonate with the intricate trading environments I have observed, where actor roles and relationships are multifaceted, constantly evolving, and defy easy categorization.

Expanding upon these viewpoints, this paper demonstrates that multiple actors engaged in both formal and informal Mekong border trade possess the resources and expertise to overcome state customs barriers and optimize the exploitation of regulatory loopholes. These actors adeptly navigate diverse regulations and shape transportation conditions to facilitate the efficient movement of goods across borders. In this analysis, the 'state' extends beyond a mere distant governing entity. I investigate it as an intricate nexus of power and governance, actively manifested through infrastructural projects, policies, and trade frameworks in the Thai border towns and beyond. This perspective aims to unravel the state's multifaceted interventions in local trade landscapes, emphasizing its dynamic interplay with local actors, and challenging traditional binaries between state and non-state activities.

In the subsequent section, I delve into the borderland infrastructures, illustrating how the state asserts its power, reshaping the pre-existing local trade lifeworld. The state's exertion of power is through both tangible infrastructure and strategic policies. Collectively, these measures emphasize the state's power in shaping regional connectivity and the dynamics of the borderland.

LOCAL LIFEWORLD OF TRADE IN THE MEKONG BORDERLANDS

Historically, Mekong residents engaged in cross-border river and overland trading with the Ho, Yunnanese from South China, using horse caravans to transport diverse goods, including iron pots, silks, and tea, through Northern Laos to Thailand, often in exchange for opium (Halpern, 1961, p. 27; Reinach, 1901). The caravans traded with several ethnic groups such as the Khmu, the Hmong, the Yao, the Karen, the Lao, and the Tai people (Halpern 1961, p. 28).

While barges and pirogues linked Mekong's remote villages, larger barges faced navigation challenges during dry seasons (Berman, 1998, p. 9; Halpern, 1961, p. 33). Villagers typically used motor pirogues for travel, transport, and fishing. Meanwhile, wooden barges facilitated commercial river traffic, with cargo vessels from Chiang Khong heading to Northern Laos or from Chiang Saen towards Yunnan. While Mekong River rapids hindered large boats, skilled riders could navigate smaller pirogues through these treacherous areas.

After the Cold War-era border closures due to political tensions, cross-border trade with China resumed in the 1990s, paving the way for regional development through economic liberalization (Walker, 2000, p. 126). A number of transport infrastructure projects were proposed to the GMS countries supported by the ADB; millions of dollars in loans and private funds were granted to GMS projects: in particular

the development of transport, energy, trade, and tourism (Berman, 1998, p. 8). In addition, the People's Republic of China (PRC) has repositioned Yunnan from the southwestern periphery of the state to a "bridgehead" connecting China to Southeast Asia (Summers, 2013, p. 1). In October 1994, Myanmar, Laos, Thailand, and China signed an agreement to open the Lancang River for navigation, fostering new ports and enhanced regional connectivity (Lazarus et al., 2006, p. 22).

The North-South Economic Corridor is pivotal for enhancing land-based connectivity in the Greater Mekong Subregion. The International Highway R3A, connecting Bangkok to Kunming via Laos and inaugurated in December 2008, boosts land trade, while initiatives like the upper-Mekong Navigation Channel Improvement amplify river trade and strengthen regional transportation ties.

Building on the theme of regional connectivity, Zhou (2013) highlights how Tengchong County in Southwest Yunnan reinvented itself as a crucial global trade nexus. By leveraging its trading history, the local government promoted and repositioned Tengchong as the bridgehead between China and Southeast Asia. The state plays a significant role in collaborating with private entrepreneurs to promote the Burmese amber trade in Tengchong. The local government's tolerance of illicit amber trading is demonstrated in Rippa and Yang (2017), as the Myanmar market heavily depends on Chinese demand (Rippa & Yang, 2017).

Similar to Thai border towns like Chiang Khong and Chiang Saen, after an 'experimental' shipment of apples from Jinghong to Chiang Saen had been implemented in 1995, the volume of imports from China rose dramatically from 500 tons in 1991 to 40,000 tons in 1995 (Berman, 1998, p. 10). Shipments along the Mekong River route have significantly increased, leading to proposals for improvements in navigation by blasting rapids and shoals for more extensive vessel transportation. The upgraded route is also linked to upgraded ports and road networks in downstream countries, including Thailand and Myanmar. Thai-Myanmar Friendship Bridges No. 1 and No. 2 were built in 1997 and 2006, respectively. Additionally, the Chiang Saen Port No. 1 was built in 2003 by the Thai government, followed by the Chiang Saen Port No. 2 in 2012. A year later, the land route was connected via the Thai-Lao Friendship Bridge No. 4 in Chiang Khong town. Over the past 20 years, Southern China and neighboring countries such as Laos, Myanmar, and Thailand have constantly strengthened their connectivity through transport infrastructure development.

Along the Laos and Thailand borders, special economic zones emerged. In 2007, the Lao government leased about 10,000 hectares in the Tonpheung district to the King Roman Group, a Chinese enterprise. This zone in Northwestern Laos now houses a casino, entertainment complex, and a modern Chinatown with amenities like a hospital and school (Rippa, 2019, p. 253). Similarly, Thailand established its special economic zone in 2016 in Chiang Rai, delineating Chiang Khong for logistics, Chiang Saen as a port, and Mae Sai as a trade hub.

The following section delves deeper into the Chinese apple trade that flourished in the Thai border town of Chiang Saen during the 1990s. It highlights the shifts and experiences of local communities affected by transportation infrastructure projects, such as ports and bridges. This examination thereby sheds light on the intricacies of these dynamic interactions and highlights the influence of logistical power.

THE HEYDAY OF THE CHINESE APPLE TRADE AT CHIANG SAEN DOCK

When I asked people in Chiang Saen town about Chinese trade, they often started the conversation by telling me their memories of the Chinese apple trade at the Chiang Saen dock. The narrative goes back to the early 1990s when they directly interacted with Chinese merchants and saw Chinese vessels coming into their hometown. Similar to the written interviews recorded in several Thai research reports on local economic development in Chiang Saen, their accounts have much in common with the lively atmosphere of the apple trade and the vibrant riverbank fruit markets. An account of a retired district administrator narrating his reminiscences about Chinese apples caught my interest (Kotawinn, 2006, p. 40; Wichai et al., 2006). He was once invited to a welcome dinner hosted by Chinese delegates. Local merchants, government officials, and Rotary[2] members were invited. As a special gift, the host provided Chinese apples for all guests. The unique combination of green and yellow attracted everyone's attention, and they took those apples home to show their friends and family (ibid., p. 40).

The village chief of Sob Ruak, the largest Tai Yai community in Chiang Saen town, shared a similar experience. In the early 2000s, before Chinese cargo ships boomed in Chiang Saen, traders from Thailand and Laos profited by importing Chinese fruit and commodities. The chief had been in the border trade business for many years and claimed to be the first to import apples from China to Chiang Saen. He used to run the trade with his Tai Lue friend in Xishuangbanna, China, and opened a warehouse in 1993. After the trans-border trade boomed here, he sold everything to his friend and returned to Chiang Saen to continue his business (Pichit, personal communication, 17 June 2020).

In 1994, the Chinese apple trade saw substantial growth and lasted several years. During this time, transportation was limited to small and medium-sized cargo boats carrying 4,000 to 5,000 cartons of apples. Men in Chiang Saen town found work as porters, loading apples from the boats onto the dock and earning daily wages of THB 400 to 500 (around USD 15). Many Chiang Saen residents became Chinese apple and pear traders, buying apples from Chinese merchants in the morning and selling them for a profit in the evening. A successful business could be run with just a table, chair, beach umbrella, calculator, and cash (Kotawinn, 2006, p. 41).

Small traders in Chiang Saen formed groups of two to three people and purchased all the Chinese apples on the vessel. They negotiated prices on the boat, which changed daily based on supply. After agreeing on a price, the Thai trader paid the Chinese merchant in Thai baht and hired Thai porters to transfer the apples from the boat to the dock at the cost of THB 2-3 per box (Kotawinn, 2006). Customs officials collected the duty fee on the spot from the Thai traders. Soon after, other Thai buyers purchased the apples for retail in other markets across Thailand. They negotiated prices with the Thai traders and hired porters to load the apples into their vehicles, either using trollers or their own pick-up trucks. The Chiang Saen dock transformed from a peaceful border dock to a bustling trade market. Apple traders and related

2 Rotary Clubs in Thailand are part of a global network of community-based service organizations committed to humanitarian services, ethical standards, and promoting goodwill.

businesses often described the time as "sanook", meaning fun; the dock was alive with neon lights and people bustling about all night.

Nonetheless, the thriving apple trade started facing fluctuations in the late 1990s. In the subsequent paragraph, we explore how the infrastructures play a role in generating volatility within the town.

THE DEVIATED ROUTE: LOCAL RESPONSES TO TRADE CHALLENGES

Since 1998, the trading competition has sharpened. There were more supplies of apples and peaches imported from China. The Thai traders could not profit by selling all in one day; they needed to put leftover apples in the warehouse. The selling time extended from a day to a week, and many imported apples and peaches gradually rotted. This forced the traders to sell without profit. The daily cash-running business changed to long-term credits payment or installments.

According to an overview of local business in Chiang Saen, many Thai retailers no longer came to pick up goods in person; they preferred to communicate via telephone (Wichai et al., 2006). Small apple traders began facing cash shortages and business losses due to bad debt. Only a prominent business trader had the capacity to purchase goods from the large vessels and sustain the trading operations at Chiang Saen. These prominent traders garnered more trust from Chinese merchants, which allowed them to access longer-term credit compared to smaller traders. Therefore, many smaller traders have been forced out of the game; they subsequently transitioned into local market merchants or searched for other careers. The apple trader gradually shifted from wholesale to retail sales along the riverbank. Besides apples, items in their shops included Chinese snacks, beans, dried plums, and dried seaweeds. Still, the number of customers was declining day by day.

It can be said that the booming apple trade was relevant to the Mekong navigation project that started in the 1990s. The Mekong countries, including Laos, Myanmar, and Thailand have made an agreement for commercial navigation on the Mekong-Lancang River. China led the project to demolish rocks blocking shipping routes from Simao, China, to Luang Prabang, Laos. In 2001, the project blasted islets in Laos and Myanmar, facilitating large cargo boats (weighing 500 tons) departing from Xishuangbanna in Southwestern China, passing Laos and Myanmar, and then arriving at the Chiang Saen border town within one to two days. As a result, the large-scale river trade from China via Myanmar and Laos was far greater than the trading route between Thailand and Laos that used to depart from Chiang Khong to Luang Prabang (England, 2006). Also, the ASEAN-China Free Trade Agreement has played an essential role in facilitating apples and several kinds of Chinese vegetables into Thailand.

Due to the implementation of the Free Trade Agreement, the previous unregulated apple trading system has completely changed. The fruit trade between Thailand and China is currently regulated by the customs regime. The source of fruits must be declared, and the receiver must be reported clearly. Consequently, the proliferating number of cargo vessels coming down from China led to the construction of the first Chiang Saen port on the Mekong River. Situated in the old town area, this port began operations on 1 October, 2003. Consequently, small traders found themselves

excluded from the border trade system, while local porters faced reduced earnings due to the growing presence of Myanmar porters who provided a more competitive labor market. This heightened competition resulted in lower wages for Thai porters. Following the opening of Chiang Saen Port No. 1, Myanmar workers became the majority at the port.

The Chiang Saen port, which is located on the Mekong River, serves as an example of the state's infrastructure power, or the ability to penetrate civil society and cross-border trade activities through logistics policies (Mann, 1984, p. 113). This is achieved through various means, such as the collection of taxes, control of vessel mobility, and regulation of goods circulation. In this sense, the port and bridge can be seen as tools the state uses to monitor and regulate the movement of goods and cross-border trading activities by providing infrastructure and enforcing regulations. Thus, the intensification of logistical power has reinforced infrastructure power by making the circulation of goods more transparent, locatable, and traceable. By closely monitoring the flow of goods, the state can more efficiently regulate trade activities, often leading to increased taxation, tariffs, and regulations. This ultimately enhances the state's ability to exert control and despotic power (Xiang, 2022).

As China developed its borderland infrastructure, Mekong transborder large-scale traders have adapted to the restructured customs zones to participate in international trade. Along the Mekong River trade route, prominent ports include Jinghong, Menghan, Simao, and Guanlei, all situated within China. Myanmar and Laos also benefit from increased river trade; their important ports include Wan Seng and Wan Pong within Myanmar and Xiengkok Port in Laos. After the first Chiang Saen port started operation in Northern Thailand in 2003, the Thai government claimed it was necessary to expand the transborder river trade capacity. This is due to the high number of ships crowded into the port and the number of trucks congested on the street. They then built the Chiang Saen Port No. 2, which was about 10 km away from the old one. The first port later closed after all relevant offices moved to the new port.

The second port opened in 2012, and was about 40 times larger than the first. It is situated on the Mae Nam Kok estuary (Kok River) of the Mekong River, is farther east, and vessels need to travel longer to reach it. I was told that at the feasibility assessment stage, the Maritime Department of Thailand had suggested having the port built on the Kok River (Philai, personal communication, 25 July 2020, Chiang Saen Port No. 2). The main reason is that the area is within Thailand's territory rather than the international Mekong River. This would provide full authorization for Thai officials. In addition, the Thai government believed that the second Chiang Saen International Port would become an effective port for international trade between Thailand and China. As such, the Thai government invested in highway projects connecting the port to the airport in Chiang Rai and to a seaport in Bangkok.

The river trade route from the Thai border to China mostly passes through Laos or Myanmar. However, not far from Chiang Saen, there is a small port named the Soah Loi ferry checkpoint or Sob Luay in Thai; the port was mostly mentioned whenever I interviewed any informant about cross-border trade. Sob Luay port is in the Wa Self-Administered Division within Myanmar's Eastern Shan State Special Region 4; the port is a significant transit point for Thai cargo ships from Chiang Saen heading to China. It is about 200 km from Chiang Saen port.

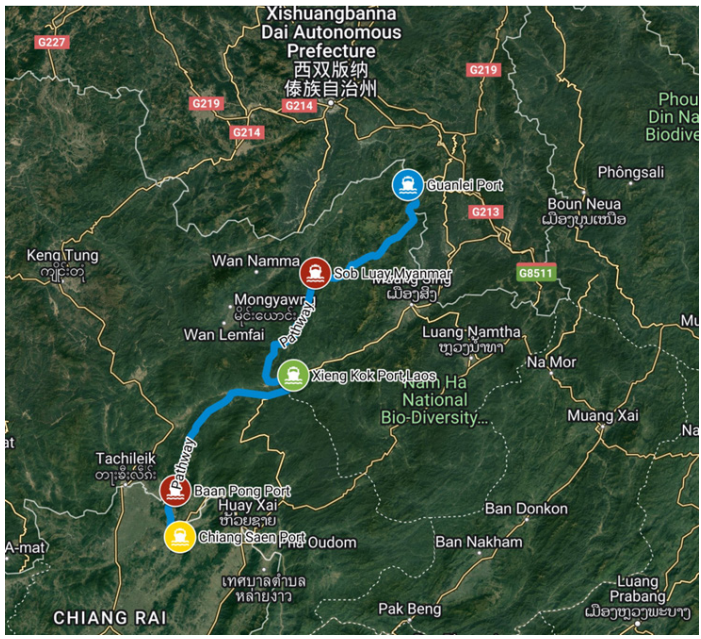

Figure 1. Map illustrating the trade route from Chiang Saen, Thailand, to Guanlei port, China, along the Mekong (Base-map source: Google 2022)

Sob Luay port attracted traders because of the cheaper transportation costs due to an agreement on waived borderland customs between Myanmar and China. At Sob Luay port, goods are unloaded and transported by truck into Yunnan through the "240-hill" border checkpoint between Myanmar and China before being distributed to several destinations within China. Yet, the Mekong border trade agreement regards it as an unregulated pathway. The Sob Luay port has not yet been officially recognized as an international port for commercial trade between Thailand, Myanmar, Laos, and China. Thus, it is difficult to estimate the volume of commercial goods along the route, and it is challenging to implement customs regulations due to its location.

This deviated routing has been used to avoid customs duties. For example, the practice involves shipping goods to Thailand and transporting them to Myanmar to avert tariffs on goods shipped directly to China. Other common practices include transborder shipments, where goods are sent to a third country, where they are then consolidated with other products and shipped to their final destination. This practice is often used to bypass trade barriers and take advantage of lower tariffs in the third country. Traders often employ tactics such as under-invoicing, where they declare goods at values lower than their actual worth to minimize taxes and customs duties. Additionally, misdeclaration of the type, quantity, or value of the goods is also part of many other methods. These practices suggest that smuggling activities can occur at various points along the Mekong River. This happens not only at ports but also in other areas, such as remote areas with fewer customs and immigration control, which makes it more challenging for the government to detect and prevent. In addition, border warehouses play a crucial role in storing and consolidating goods before

they are transported across the border, or temporarily holding them before they are transported into the inner areas of the country. It is also possible to repackage and rebrand goods in warehouses before re-shipping them to their final destinations, concealing their true origins.

In the trading landscape of Chiang Saen, the interplay between Saxer's (2016, p. 105) 'pathways' and the intricacies of 'shadow exchanges' (Hung & Ngo, 2020) reveals a complex socio-spatial tapestry characteristic of the Thai-Lao-Myanmar Mekong borderland. Through this lens, the deviated route becomes more than a mere trade corridor, but a nexus of infrastructure, river dynamics, regulations, entities, and formal and informal trading networks. As skilled traders and brokers navigate these realms using 'shadow exchanges', they adeptly work within the precarity defined by space, time, and agency (Ngo & Hung, 2020, p. 25). This confluence of formal and informal actors forms a rich web of exchange, socio-economic ties, and adaptability, capturing the essence of life along the Mekong's deviated routes.

However, as the Chinese government starts to intensify its control over the area, the deviant route experiences fluctuations. The subsequent section explores how the transportation routes and facilities impact trade activities.

TRANSNATIONAL TRADE IN FLUX: FROM APPLES TO CHICKEN FEET

I was told that the new port experienced a steady influx of trade and consistent profitability in its first five years (Philai, personal communication, 25 July 2020, Chiang Saen Port No. 2). The highest number of cargo boats entering the port reached a hundred daily. After that, however, the number decreased yearly; the lowest number was three cargo boats per day in June 2020. Since the Thai-Lao Friendship Bridge No. 4 opened in 2013, traders have preferred to transport fresh fruits over land since they were delivered faster and kept in better quality because of less manpower required for loading. The freight truck generally takes less than a day to reach China's border, while it would take almost two days or more via ships.

Although fresh fruit freight numbers were down, other goods made up for the loss. The commercial items changed yearly, such as frozen chicken feet, chicken offal, whole grain, sugar, and rubber. In particular, the port facilitates exports from Thailand and transit shipments from other parts of the globe. However, Chiang Saen port was hit hard by the closures of Sob Luay port and Guanlei port in 2016. It was officially reported that the Guanlei port was under renovation. However, Philai, a port employee, told me a rumor about an international meeting on regional Mekong trade. All relevant Thai government officials attended this meeting along with Chinese officials. Thai units proudly presented the monthly data of entering and exiting cargo boats headed to China. When Chinese officials saw the figures, they were all surprised. There were far more cargo vessels passing through Chiang Saen port than they had in hand for the cargo vessels entering China! Since then, their records have been inspected, and relevant Chinese officers have been examined extensively (Philai, personal communication, 25 July 2020, Chiang Saen Port No. 2).

In addition, Myanmar's and China's customs policies are essential to determining commercial goods' type and volume. The closure of Sob Luay port in July 2016 significantly affected the Mekong River trade. Local Thai newspapers published many

articles showing photos of hundreds of Chinese and Laos cargo boats parked along the Mekong riverbank, waiting for the revival of cross-border trade. I noticed it seems quite common for the public to know how traders often take advantage of custom duties waived by exporting goods to China via the Sob Luay port; even the local Thai newspaper used this headline in July, 2017: "China has placed tight restrictions on Thai commodities wearing Myanmar sarongs entering China–Chiang Rai border trade has shrunk to three billion baht in the first five months of the year." [3]

It was reported that the major export products included fuel, livestock, mangosteen, rice, fresh longan, cement, beverages, and agricultural products. Thai goods were exported to China via the Laos or Myanmar trade zones, with frozen chicken feet products being very profitable export items. However, after China placed a tight restriction on imported frozen products that must transit through Guanlei port, it immediately hindered the flow of the Mekong border trade. Since 2016, Sob Luay port and Guanlei port operations have been inconsistent because of political instability in Myanmar and strict import regulations in China. Nevertheless, the Thai Ministry of Commerce claims that the Sob Luay port is in the process of becoming an international commercial port.

Data from Chiang Saen Port No. 2 between 2011 and 2022 provides a clearer picture of the state's exertion of logistical power. The ship volume surge from 2013 to 2015 following the port's inauguration suggests an optimistic trade outlook. However, events like Sob Luay's 2016 closure and China's heightened vessel scrutiny from 2017 show the state's influential role in shaping logistical flows. Despite free trade agreements with China, the actual trade dynamics highlight China's dominion over Mekong's trade pace.

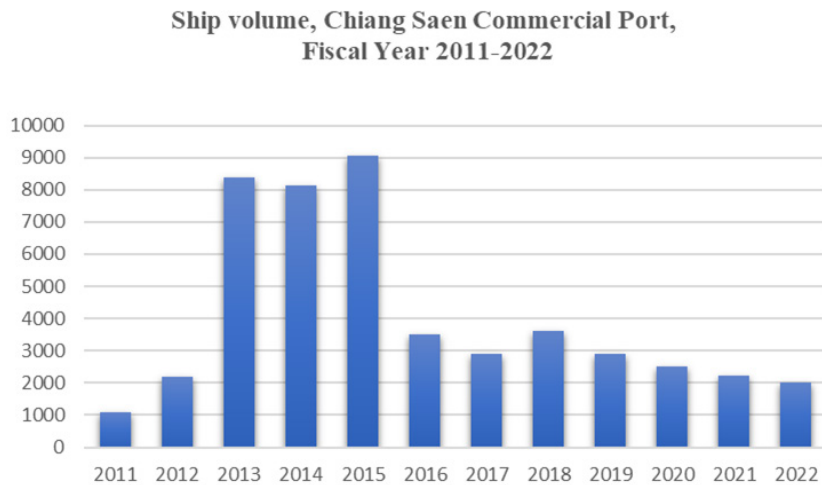

Figure 2. A Chart Showing Ship Volume at Chiang Saen Port. (Port Authority of Thailand, Fiscal Year 2011-2022).[4]

3 Translated from *Thansettakij* [Economic Base Newspaper], Year 37, No. 3,278, 13-15 July 2017. https://www.thansettakij.com/business/177726

4 The Thai fiscal year starts in October.

The Mekong cargo boat could transport 100 tons on average in the dry season, but it could reach 300 tons per vessel in the wet season. In general, the size of Lao and Myanmar cargo boats ranged from 50 to 200 tons gross, while Chinese cargo barges ranged from 200 to 500 tons gross. Chinese cargo barges mainly transport dry goods such as whole grains, sugar, and plastic pellets. Several traders share freight spaces on the Chinese vessel to optimize trading profit and save transportation costs.

As the state intensifies its control over customs, duties, and borders, it not only influences what is traded but also determines who engages in trading and through which infrastructural pathways. These stricter regulatory measures reshape the trade dynamics, pushing traders to adapt and find new strategies to overcome these challenges. Thus, many Thai shipping company owners prefer to register their boats in Laos, Myanmar, or China with help from their business partners or trusted local nominees. This registration strategy is believed to serve two purposes: It offers the advantage of reduced customs duties and, additionally, may enhance security given that the predominant stretch of the Mekong River shipping route runs through Laotian and Chinese territories.

Supporting these observations are shipping statistics representing the number of vessels passing through the Chiang Saen port. In 2012, Chinese vessel transits stood at approximately 229, but this dwindled to 90 by 2017 and further to just 19 by 2018. On the other hand, Laotian vessels maintained a steady presence, with an average of about 3,000 transits annually. Meanwhile, Myanmar vessel transits exhibited an increasing trend: From 123 in 2013, it surged to 313 in 2017, and further to 446 in 2019.[5] Such data underscore the adaptability of traders to state regulations and highlight the resilience and informal networks inherent to Mekong trade.

However, as the COVID-19 pandemic gained momentum in early 2020, border regions worldwide faced unprecedented challenges in trade and transportation, including the Mekong trade. In the following section, I delve into the fluctuations in transportation and the effects of border closures during the pandemic.

THE PANDEMIC HIT BORDER TRADE HARD

The classification of boundary checkpoints in Thailand plays a pivotal role in regulating cross-border movements and trade. According to the Thailand Immigration Act, these checkpoints are categorized into Permanent Crossing Points, Temporary Crossing Points, and Border Trade Checkpoints (Ministry of Interior, 2023). To curb the spread of COVID-19, the Royal Thai government announced the closure of all land border checkpoints throughout the country on 20 March, 2020, allowing only one permanent border checkpoint between each country to remain open in each province. In Chiang Rai, out of 17 checkpoints, only two remained open: The Thai-Lao Friendship Bridge No. 4 at Chiang Khong-Huay Xai and the Thai-Myanmar Friendship Bridge No. 2 at Mae Sai-Tachileik. These two permanent checkpoints were open for cross-border cargo trade only. However, a week later, the Chiang Rai

5 Data for 2017-2019 were collected during the author's fieldwork at Chiang Saen port. Data for 2012 were adapted from *The use of Chiang Saen Commercial Port services* (Number of boat trips that use the cargo loading service in 2012) by Marine Department Statistics, 2012. Retrieved from https://md.go.th/wp-content/uploads/2021/08/สถิติและผลการดำเนินงานท่าเรือพาณิชย์เชียงแสน-1เม.ย-31-ธ.ค.-55.pdf.

provincial government announced reopening four checkpoints along the Mekong River to facilitate cross-border trade. The allowed checkpoints included the Chiang Saen International Port No. 2, the Ha Chiang Port (which is run by a private company), the Chiang Saen Livestock Port, and the Chiang Saen pier at the old town. However, they were only open for the export of essential daily commodities.

In Chiang Khong, the import and export of commercial goods were only permitted to be transported through the Thai-Lao Friendship Bridge No. 4 by freight truck. However, I was told that the process had become more complicated due to the public health measures in place to combat COVID-19 (a member of the Chiang Khong Chamber of Commerce, personal communication, 10 December 2021). For instance, only one person was allowed on a tractor-trailer. The Lao authorities had also changed the regulations for freight trucks, requiring a Thai driver to drive the truck across the bridge and then leave the trailer at the Lao checkpoint, where a Lao driver would take over and drive it towards the Chinese border in Boten. The Thai driver was then required to drive the tractor back to Thailand within a day. The restrictions on drivers have significantly increased transportation costs for Thai exporters.

Hiring new Lao transportation companies to drive towards the Chinese border doubled the price. In addition, it increased the risk of accidents due to drivers' poor driving skills and lack of experience on the R3A international highway. A Chiang Rai Chamber of Commerce member told me that many accidents have occurred, causing significant damage to exported goods, mainly fresh fruits like durian and longan, which have placed a heavy burden on Thai export companies. He emphasized that a high level of proficiency is required for driving in the mountainous areas towards China's border (personal communication, 10 December 2021, Chiang Khong).

Furthermore, previous cross-border agreements were suspended during the pandemic. Lao traders also suffered from increased customs duties during this time. Having insufficient purchase orders made it difficult for small local suppliers to export by freight truck. Large suppliers could deliver goods in large quantities once, whereas small suppliers had to wait for sufficient purchase orders or search for available freight space to share. The border closure has been a death knell for small shops. The strict regulations implemented by Thai officials have shut down their operations, as only truck deliveries via the bridge are allowed. Many small shops opt to continue doing business by asking for their goods to be shared on a freight truck. However, when large shops have already received their purchase orders and filled their trucks, small shops are left without an opportunity to share space.

A BRIDGE: A BARRIER FOR SMALL BUSINESS

Before the pandemic, the Mekong border was bustling with daily trade activity. Small Lao traders crossed the border to buy inexpensive goods, small Thai family-run shops provided daily necessities, and boat operators transported goods and local passengers. Larger-scale trade was mainly delivered to China, while small-scale businesses operated across the border between Thailand, Laos, and Myanmar. Typically, small-scale exporting across the border was exempted from strict customs control. The exported commodities valued under THB 50,000 (approximately USD 1,400) are less

regulated; the small cross-border boat or small cargo boat is the primary means of transport for small-scale trade.

However, during the pandemic, small Thai suppliers faced difficulties running their businesses as their regular orders came from small Laos traders. Waranya has operated a wholesale grocery shop for ten years at the border trade checkpoint in Chiang Khong and struggled throughout the Thai-Lao border closure. She was unable to deliver goods via freight truck and attempted to negotiate with officials to use small Lao boats instead (personal communication, 10 June 2020, Chiang Khong). However, this approach was unsuccessful as the officers insisted that the Thai-Lao Friendship Bridge No. 4 was still open to trade:

> They say the bridge is just over there, but for small shops with small purchase orders, it's impossible to deliver our goods by freight truck. The large suppliers have orders for things like 100 cartons of detergent powder and 100 cartons of orange juice bottles, but for us, our orders are just one carton of juice and a dozen bars of soap. How can we possibly compete with that and get our three dozen boxes of detergent across the border? (Waranya, personal communication, 10 June 2020, Chiang Khong)

In times of crisis, the Thai-Lao Friendship Bridge No. 4 in Chiang Khong became a focal point for selective access. Officials used the bridge's location as a justification to deny Waranya's request, as only certain groups were permitted land freight transportation across it. During the pandemic, the bridge's regulations strictly allowed only freight trucks, excluding other vehicles and pedestrians. This selective facilitation had ramifications beyond just small suppliers. Jobs within the trading system, such as boat operators, Tuk Tuk drivers, porters, and small Lao traders, faced significant disruptions.

Similarly, in Chiang Saen, border trade was only permitted through the International Chiang Saen Port. Lao cargo boats are forced to dock along the riverbank as the Lao government prohibits all river-crossing activities. As a result, Thai boat operators can only deliver goods to the King Roman Casino international pier. However, every day small Lao boats continue to smuggle goods from the Thai riverbank across the border to Laos, as the Thai government allows the delivery of essential goods for locals. Despite the continued operation of the Chiang Saen International Port, cargo boats rarely passed through the port due to the border closure in China.

The flow of border trade was maintained through selected borderland infrastructure such as the Thai-Lao Friendship Bridge and the international port. Small-scale traders struggled to maintain their businesses, resulting in many people losing their means of livelihood. The bridge only facilitates freight transportation, while cross-border boat operations were utterly ignored. The crisis has exposed how the bridge shapes border trade relationships. Small traders typically rely on boat operators for commodity transportation, while larger traders mainly use the cross-border bridge to export to China. In Chiang Khong, only the flow of trade through the bridge was selected during the border closure, not the flow via boat operators.

CONCLUSION

As a result of the rapid growth of river trading from South Yunnan to the northern border of Thailand, many residents of Chiang Saen became daily apple traders and workers. National ports, however, have reduced small traders' business channels as they try to organize and regulate border trade. Due to this, border trade activities were forced to enter the formal channel and were exposed to state monitoring via the river port and the cross-border bridge. As a result, in the past 20 years, the boom and bust of border towns have been entangled with infrastructure networks and their unpredictable outcomes.

The infrastructure networks ran parallel, informally, and legally regarding the Chiang Saen and Chiang Khong border trade. As part of the Mekong border trade promotion, the marginal border town was repackaged as a special economic zone, investing considerable sums in transportation infrastructure to claim a connection with China. Customs officials, local private chambers of commerce, and the Thai port authority frequently claim that the value of border trade contributes substantially to the country's export figure. The cross-border bridge and international river port provide an advantage for economic development in general, but it does not ensure equal access for all. It only allows specific users whose equipment meets fixed technical standards and conditions to connect with the borderland infrastructure. Additionally, they must comply with any regulations, which may vary between the states. By doing so, users are exposed to regulators and granted permission to be monitored and controlled without a choice.

However, the deviating route along the Mekong borderland reveals that various actors possess a certain capacity and expertise to manage the movement of goods and resources. Despite the presence of state-provided infrastructure, traders, and other actors actively seek ways to optimize their profits by navigating and circumventing regulations in unstable political areas. Their capabilities and expertise in managing the movement of goods and resources allow them to surmount complex regulations and customs procedures. This provides them with an advantage over state customs regulations when it comes to moving goods across borders.

As highlighted by Hung and Ngo's (2020) exploration of formal versus informal trade dynamics, transborder trade in the Mekong does not fit neatly into categories of legality or illegality. These gray areas challenge traditional distinctions and emphasize the intricate nature of border trade dynamics. The export of legal goods outside the authorized channel allows traders to benefit from lower transportation costs and reduced customs duties. The Sob Luay port operates in the Wa autonomous zone, facilitating the flow of commodities and making Thailand–China trading possible via the unregulated passage. The informal trade pathway unofficially filled China's high demand for livestock and other products (Smith et al., 2018). Freight shipping was another option for exporters when the truck freight transportation cost was too high. For proficient traders, the 'unprofitable port' and 'unofficial port' have become part of the efficient transport route to bypass state control.

During the COVID-19 pandemic, logistical power became more evident and difficult to resist and avoid. The states of China, Laos, and Thailand are strengthening their logistical power by sealing and closing their borders. For the wholesalers and

large-scale traders, the Chiang Khong Bridge and Chiang Saen Port became an alternative passageway for their trading business. Still, the most influential conditions affecting circulation were Chinese import-export regulation and the purchasing demand of Chinese customers. From my observation, smaller-scale traders face considerable challenges, verging on exclusion in the border trading market. The Chiang Khong Bridge completely overrides the cross-border boat operator systems. The pandemic control strategy allowed the state to intervene in border trade and penetrate people's social lives at an unprecedented scale, marking a significant break from the past (Xiang, 2022, p. 3). During the crisis times, this heightened control greatly impacted society, affecting daily life and the global supply chain.

In summary, the findings of this study challenge the prevailing narrative of seamless connectivity through regional infrastructure projects. They uncover a complex interplay between formal state channels and the adaptive networks of borderland traders, often overlooked in mainstream narratives. This research shows how rigid infrastructure and regulatory frameworks often fail to accommodate the dynamic nature of transnational trade, underscoring the indispensable role of informal networks and small traders in sustaining the flow of goods and facilitating border trade between Northern Thailand and Southern China. The study brings to light the limitations of large-scale infrastructure projects in enhancing the quality of life for local traders, suggesting that such infrastructures can paradoxically alter livelihoods, introduce new regulatory bodies, and disrupt or even override pre-existing local trading systems. This transformation not only changes trade dynamics but also shifts the distribution of benefits, often at the expense of smaller traders. Thus, these findings underscore the necessity for a more inclusive approach to infrastructure development in border areas, ensuring that the benefits are equitably shared and that the voices and experiences of those living at the forefront of these changes are not only heard but actively integrated into the planning and execution of regional projects.

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The Politicization of Mobility Infrastructures in Vietnam — The Hanoi Metro Project at the Nexus of Urban Development, Fragmented Mobilities, and National Security

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This paper critically discusses the Hanoi Metro and its role in contemporary urban development processes in Hanoi. It aims to disentangle the complex interplay between the state's urban development goals, local mobility patterns, and Sino-Vietnamese relations that influence discourses surrounding the Hanoi Metro. This paper argues that the Hanoi Metro project demonstrates that mobility infrastructures serve as an arena for state-society negotiations in Vietnamese cities. Rooted in the state's vision of modernity, the metro is promoted as offering an alternative to individual motorized transport, improving urban traffic and mobility for all residents. However, controversies regarding corruption, safety, and Chinese involvement in the financing and construction of Line 2A have negatively affected public perception of the project during its construction period. The potential impact of the Hanoi Metro on urban mobility in a setting dominated by motorbikes is discussed using the mobilities paradigm, with a focus on local mobility practices and experiences. The findings are linked to broader discussions on Chinese investment and historically-rooted notions of modernity and civilization in the context of the long-term development goals of municipal authorities and rising anti-Chinese sentiments in Vietnamese society.

Keywords: Hanoi Metro; Line 2A; Mobility Justice; Urban Mobility

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INTRODUCTION

After nearly a decade of construction, Line 2A of the Hanoi Metro, from Cat Linh to Ha Dong, began commercial operation in Vietnam's capital city Hanoi in November 2021. The Hanoi Metro is the first rapid transit system in the country and is called Đường sắt đô thị Hà Nội (Hanoi Urban Railway) in Vietnamese. It is promoted as offering an alternative to individual motorized transport, thereby improving mobility and reducing congestion and pollution

(Dat Nguyen, 2021a). However, construction has been slow and public perception has been critical, especially concerning Chinese involvement in financing and constructing Line 2A (Tatarski, 2017). Due to this Chinese investment, the Hanoi Metro project is considered by some to be part of the Chinese Belt and Road Initiative (BRI) (Balcita, 2019; Le Hong Hiep, 2018; Niu Yilin, 2021), a global infrastructure development scheme aimed at fostering connectivity that has been met with ambivalence by the Vietnamese government (Le Hong Hiep, 2018). In the context of rising anti-Chinese sentiments in Vietnamese society, Chinese investment in Vietnam is a sensitive topic for the Vietnamese government, which has to carefully balance its own development agenda with public interest (Morris-Jung, 2015; Morris-Jung & Pham, 2017). Besides the issue of Chinese financial investment, controversies regarding corruption, safety, and workers' security accompanied the construction of Line 2A (Vietnamnet, 2015).

This paper critically discusses the Hanoi Metro project and its role in contemporary urban development processes in Hanoi. It puts forth two main arguments. First, the Hanoi Metro project is embedded in a specific vision of modernity of Vietnamese municipal authorities that is rooted in historically developed notions of civilization. It serves as a symbol of power and is an example of the top-down approach to urban planning, rather than actually addressing shortcomings in Hanoi's urban transport system. Second, the already completed Line 2A is contested through everyday practices and serves as an example for urban residents to address broader issues, such as Chinese investments in Vietnam, through public discourse. The Hanoi Metro project can therefore be seen as an example of how urban infrastructures are politicized and can serve as an arena for state-society negotiations in Vietnamese cities.

Methodology

The findings in this paper are based on a literature review, insights from personal observations and conversations, and a review of newspaper articles. Data collection began in 2019 before the opening of Line 2A, with a focus on newspaper articles and academic literature. After the lifting of travel restrictions to Vietnam in 2022, a period of participatory observation was conducted in August of 2023 to observe how and by whom Line 2A is used. The articles selected from the various state-run Vietnamese newspapers serve two functions: first, to give insight into officially sanctioned narratives regarding the Hanoi Metro and urban interventions in general, and second, as a source of numeric data, such as the height of investment costs. This information is contextualized and complemented by referencing foreign newspapers such as *The Diplomat* (Fawthrop, 2018), as well as academic literature on topics such as state-society relations in Vietnam (Koh, 2006), Sino-Vietnamese relations (Morris-Jung & Pham, 2017), urban mobility practices (Jamme, 2019), and discourses on urban modernity and civilization (Harms, 2014). The theoretical discussions are supplemented and illustrated by photographs taken in August 2023 and insights gained during informal conversations with around 10 passengers of Line 2A. Passengers were approached in an informal manner and asked about their experience traveling on Line 2A and their general opinion regarding the state of Hanoi's urban traffic. Insight gained in these conversations served the author to

contextualize observations made during several trips on Line 2A. The negative perception by the public of the Hanoi Metro during its construction period found in the literature review was not reiterated during conversations in August 2023; however, more comprehensive ethnographic engagement regarding Line 2A metro passengers is needed.

The first section of the paper establishes the theoretical framework, linking transport infrastructure to mobility. It introduces the *mobilities* paradigm and the concept of *mobility justice* (Sheller, 2018a, 2018b). The second section of the paper gives an overview of Hanoi's urban transport system and Vietnamese mobility practices, with a specific focus on the link between motorbike mobility and notions of modernity. The third section of the paper introduces the Hanoi Metro and Line 2A as a case study. It first gives an overview over the planning and construction process, situating the project within contemporary urban development processes. Second, it illustrates discourses surrounding the metro and current mobility practices of Line 2A passengers. The fourth section of the paper discusses how notions of modernity in urban planning are linked to historical discourses on 'civilization' shaped by Sino-Vietnamese relations. In the final discussion, the different sections are brought together to discuss the role of the Hanoi Metro in state-society negotiations in Vietnamese cities and its potential impact on urban mobility.

THEORETICAL FRAMEWORK

Urban Transport Infrastructure

A large body of research exists on urban transportation systems and how they facilitate the physical movement of people through urban space. For example, Harvey understands urban movement in the context of Lefebvre's concept of space production (Lefebvre 1991; McGee, 2002, p. 638, cited after Harvey, 1989). From this perspective, road and street networks are part of what Lefebvre calls the material dimension of space production, enabling the flow of goods and people (Harvey, 1989). However, research on urban transportation is not limited to an analysis of physical infrastructure but questions how transportation influences the relationship between material space and society (Yago, 1983, p. 171). For example, McGee (2002, p. 637f) considers transport infrastructure essential to the modernization of the nation-state, which he mentions specifically for the mega-urban regions of Southeast Asia. He views the building of roads as a spatial practice because it shifts the relationship between two spatial points – for example, between urban and national space (McGee, 2002, p. 650). The development of transportation networks reduces travel time, which positively affects the accessibility of urban space. For instance, it enables the upper strata of society to live on the outskirts of the city and still comfortably access the urban core (McGee, 2002, p. 648). He calls this process the reduction of the *friction of distance* (McGee 2002, p. 638). In his discussion on HCMCs outskirts and the development of the Trans-Asia Highway, Harms (2011) emphasizes the ability to move in and out of the city is a resource for those on the margins and says, "The power of the road . . . emerges from the way in which people use it to transcend time and space" (p. 183).

The Mobilities Concept

Viewing urban transport systems from a mobility perspective means going beyond transport infrastructure to include local mobility patterns, experiences of movement, and practices (Cresswell, 2010, p. 556). As people also represent knowledge, ideas, and aspirations, their mobility shapes urban spaces and influences the planning of urban transport systems. Beyond the physical movement of people, things, and ideas, mobility also refers to the representations of movement, which concerns how it is interpreted and given symbolic meaning (Adey, 2010). Finally, mobility refers to practices of movement, that is, how movement is experienced in daily life. Cresswell (2010) focuses on these politics surrounding mobility, arguing that mobility "lies at the center of constellations of power, the creation of identities and the microgeographies of everyday life" (p. 551). In 2006, several authors propagated a *new mobilities paradigm* or *mobility turn* (Hannam et al., 2006; Sheller & Urry, 2006), which offers new perspectives on the topic of movement that can be summarized as follows: 1) a new focus on social practices and local perspectives including an individual's experience of movement, 2) analyzing discourses that surround mobility that give insight into how framing shapes mobility policies, and 3) an ethical lens that questions power constellations and how these lead to unequal mobilities (Sheller, 2018b, p. 20).

Cresswell notes that the body of literature on the *new mobilities paradigm* emerged in a Western context and that Asian mobility practices have not been given enough attention yet (Cresswell, 2016, p. 1082), with mobility research in a non-Western context needing to consider local "modes of moving" (Cresswell, 2016, p. 1083). Gillen (2015, p. 1) echoes Cresswell's sentiment and applied his ideas to motorbike mobilities in Vietnam. He argues for theorizing from the global South and considering "the spatial specificity of the means and use of transport" (Gillen 2015, p. 1 cited after Cresswell, 2014, p. 714). Jamme (2019, p. 2770) suggests observing social interactions and spatial arrangements on the micro-level of urban streets to conclude social transformations on the macro-level of urban society. She argues that mobility practices on the street level shape "everyday social interactions and long-term social integration, or lack thereof" (Jamme, 2019, p. 2770). In order to refer to this combined system of material infrastructure and immaterial practices, in this paper the term *urban mobility system* is used.

The Concept of Mobility Justice

In cases where urban mobility systems are not equally accessible to all residents, they produce or exacerbate societal inequalities and render specific segments of society immobile, both physically and socially. Accessibility in transportation refers, first, to the design of the transport system regarding the needs of people with physical limitations, including disabilities or illnesses. Second, accessibility refers to the experience of movement, meaning the level of comfort and ease in reaching one's destination (Sheller, 2018a, p. 159). From a *mobilities* perspective, lack of access combined with an unsafe or risky mobility system produces patterns of *uneven mobility* (Sheller, 2018b, p. 1), which primarily impact lower socio-economic groups.

Mobility justice (Sheller, 2018a, 2018b) in turn describes an urban mobility system that is based on equal accessibility, safety, and an equal level of service, which links back to the importance of the experience of movement. Enhanced mobility in urban space significantly improves access to labor opportunities (Appadurai, 1986). This access hinges on an individual's capability to use some form of urban transport, which in turn presupposes financial means to either afford a private motorized vehicle or pay for bus fare. Municipal authorities have to assess the different needs of the population and pay particular attention to those members of society that are already marginalized. One important principle of *mobility justice* is the "rule of mutuality" (Sheller, 2018a, p. 159), which means that the mobility of one segment of society should not infringe on the mobility of other segments. This includes street usage, which should be designed with equal space for all different modes of transportation. Sheller explicitly criticizes the role of private automobility, which is often given advantages over other modes of transport (Sheller, 2018a, p. 159).

HANOI'S URBAN MOBILITY SYSTEM

Hanoi's Mobility Image

Vietnam's capital city Hanoi is situated in the Red River Delta in the northern part of the country. The city covers a total area of 3,324 square kilometers and has a population of 7.7 million people. The public transport system in Hanoi is still underdeveloped and has limited coverage. In 2021, public transport, including buses, taxis, and cyclos[1], met only 9-15% of the mobility demand (Huu & Ngoc, 2021, p. 6). In 2016, Hanoi launched its first bus rapid-transit (BRT) route. (NhanDan, 2016). However, the BRT in Hanoi was met with criticism by the Vietnamese public and the media because of its limited capacity (Zung Nguyen, 2017). In 2020, the Hanoi People's Committee issued a plan to expand the city's mass transit network (Anh Kiet, 2020).

Motorcycles[2] are the dominant mode of transport, and their numbers are still increasing. Most urban residents prefer to travel by motorbike for several reasons: motorbikes are well suited for short-distance travel, and narrow streets and alleys, and occupy little road space. Furthermore, purchasing and operating a motorcycle is relatively inexpensive, mainly due to the low cost of fuel in Vietnam, considering the average income of Vietnamese in urban areas (Gillen, 2015, p. 2). The average income of Hanoi citizens in 2022 was 6.4 million Vietnamese dong (VND) (EUR 242 as of November 2023). Used motorbikes can be purchased from around VND 5 million. In the year 2011, a total of 3.9 million motorcycles were seen on the streets of Hanoi, a number that has risen to 5.7 million in 2019. The number of cars is increasing at an even higher rate, with a total of 281,507 cars in Hanoi in 2011 and more than double of that in 2019 (750,000 cars) (Pham, 2017).

The high reliance on motorized personal mobility, especially motorbikes (United Nations, 2018, p. 18) partly explains congestion, traffic accidents, and pollution,

1 A three-wheel bicycle taxi used in Vietnam

2 Most people in Vietnam drive what in English is referred to as a *scooter*. The Vietnamese language does not differentiate between the words motorbike, motorcycle, scooter, and moped. They are all known as *xe máy* ("motorized vehicle") (Pragasm, n.d.; Truitt, 2008).

Figure 1. (left) A view of a street junction in Hanoi from Line 2A (author, August 2023)
Figure 2. (right) A view of car traffic on a city highway in Hanoi from Line 2A (author, August 2023)

which are significant problems in Hanoi (see Figure 1). The widespread presence of motorbikes produces what Jamme (2019, p. 2769) refers to as the city's *transportation signature* or *mobility image*. Concerning Vietnam's traffic patterns, Gillen describes this mobility image as characterized by both intensity and disorder, especially when compared to the Global North (Gillen, 2015, p. 3).

Beyond everyday traffic, motorbike mobility has also shaped the urban landscape and social interactions. Ramps built into sidewalks or in house entrances are designed explicitly for motorbikes (Crook, 2014, p. 5). This practice reflects the fluid connection and overlapping of private and public spheres between the motorbike and the home. Beyond the production of meaning and the influence on the spatial environment, motorbikes influence mobility practices and street activities. In her case study of interactions between motorcycle drivers and street vendors in HCMC, Jamme (2019) demonstrates "the consubstantial relationship between transportation flows and social interactions"(p. 2786). She describes the flow of motorcycles through urban space as "sticky", because the vehicles are "integrated in the built environment", taking up space and using it, for example, when the drivers stop at any given place to take part in an activity such as buying food from a street vendor (Jamme, 2019, p. 2786). The interplay between sticky flows and the built environment creates a mechanism that Jamme (2019) calls "productive friction" (p. 2770), which creates economic opportunities for street vendors, and access to services for drivers. In this way, the informal economy is deeply intertwined with motorbike mobility in a symbiotic relationship (Crook, 2014, p. 9).

Motorbike Mobilities

Motorbikes play an essential role in both historical and contemporary Vietnamese society. Several researchers have analyzed motorbike mobilities in Vietnam (Freire, 2009; Gillen, 2015; Hansen, 2017, 2014; Jamme, 2019; Truitt, 2008; Turner, 2020). Freire (2009) calls the motorbike a "symbol of new emerging values" (p. 83), which includes materialistic values as well as a desire, especially for urban youths, for independence from old traditions (Freire, 2009, p. 72). As Hansen (2017) puts it, the motorbike allows city-dwellers to participate in "practices associated with the post-doi moi Vietnamese society" (p. 391). According to Truitt (2008), Vietnamese people associate the motorbike with both consumerism and urban life in general. However, Freire also considers the motorbike an object of social differentiation (Freire, 2009, p. 70) and an instrument of social control (Freire, 2009, p. 84). Gillen (2015, p. 3) argues that the Vietnamese view the motorbike as an extension of the individual, representing both status in society and aesthetic taste. In that sense, he captures both the symbolic value of the motorbike for the Vietnamese as well as its role in social differentiation.

Arnold & DeWald (2011) trace the emergence of two-wheeled, individual mobility in Vietnam back to colonial times when French bicycle manufacturers marketed their products to Vietnamese consumers. Over time, bicycles became more affordable and localized, with local manufacturers and repair shops (Arnold & DeWald, 2011, p. 979). This development shows that the notion of modernity in Vietnam is historically connected to individual mobility and consumerism. The perception of the bicycle as a "symbol of consumerist modernity" (Arnold & DeWald, 2011, p. 978) is replicated in the 1990s with the perception of the motorcycle and nowadays with the automobile. The bicycle has generated a new form of mobility, the "vehicular commute" (Crook, 2014, p. 9), and has influenced the shape of cities, allowing a more considerable distance between the workplace and the home, which encouraged the development of peri-urbanization (Arnold & DeWald, 2011, p. 988). The bicycle allowed people to "transport themselves, on their own time, using their own manpower" (Crook, 2014, p. 9).

As Gillen (2015) points out, moving by motorbike in Vietnam "comes with its own forms of knowledge, sets of representation and embodied experience" (p. 2). According to Freire (2009), the motorbike symbolizes "a shift from a culture of discipline towards a culture of pleasure" (p. 73). In Vietnamese society, "going out" (VN: *đi chơi*) is associated with movement and interacting with people outside of the domestic space (Nguyen, 2020, p. 15). Hence, mobility is associated with positive notions of freedom, leisure, and social interaction. Freire (2009) has found this to be true also for the time spent on a motorbike itself. Vietnamese people do not view motorbikes just as a vehicle to transport people and goods to a destination. They see the act of driving as a leisure activity. Hence, especially in the evenings and on weekends, many urban residents drive around aimlessly to enjoy conversations and sightseeing (Freire, 2009, p. 81).

Shifting Perceptions of Motorbikes

The perception of motorbikes has started to shift with the younger generation who were born after the economic rise that characterized the 1990s in Vietnam. While urban youths have adopted aspirations of modernity and individual consumerism

(Le, 2009, p. 43), these notions are not as deeply connected to the motorbike as they were for the older generations (Crook, 2014, p. 22). To the younger generation, a motorcycle is connected to notions of personal freedom. They perceive motorbikes as private places allowing for intimacy (Freire, 2009, p. 74). This intimacy includes cuddling and kissing on motorbikes parked on sidewalks, along lakeshores, and in dark corners of urban parks. Especially, urban youths lack privacy at home due to a lack of space and conservative parents surveilling their behavior. Hence, couples cuddling on motorbikes is a common sight in public spaces in Hanoi during the evening hours.

Public transport is viewed by many youths as a solution to transport problems and offers certain advantages over motorbikes (Crook, 2014, p. 24; Lai Tan, 2019). Buses are affordable and protect passengers from pollution, heat, and rain. Buses are also perceived to be safer than motorbikes (Crook, 2014, p. 24) and offer a level of flexibility given that drivers often allow people to travel with many goods, especially on bus lines from rural areas. There is always one staff member on the bus to inspect tickets. On a crowded bus, the ticket inspector assigns seats, reprimands loud passengers, and shifts luggage to accommodate a large number of goods for travelers' convenience. Conduct on buses is mostly civil, which includes passengers offering their seats to the elderly, children, and pregnant women. However, senior citizens have criticized increasingly disrespectful behavior by younger bus passengers (Lai Tan, 2019). Furthermore, the level of service regarding punctuality, reliability, and safety on Vietnam's buses is low. Due to congestion, buses arrive at irregular time intervals. Buses are often crowded, drivers exhibit unsafe driving behavior, and buses are often dusty. Furthermore, as observed during several bus rides in Hanoi during the summer, bus drivers often turn up the air conditioning, making seats right under the ventilation slots very cold. These factors negatively impact the mobility experience for passengers.

In recent years, there has also been an increased awareness among the urban population regarding health risks related to urban mobility. Air pollution is particularly significant in Hanoi, which regularly records Air Quality Index (AQI) levels that are considered hazardous to human health (Phan Anh, 2020). The effects are worse for those who are stuck during rush hour traffic with only face masks protecting them from the smog (Zung Nguyen, 2017). Besides air pollution, noise pollution from the heavy traffic and the continuous honking is a problem, which can affect sleep, blood pressure, and also lead to long-term hearing loss (Vi Vu, 2017).

THE HANOI METRO – A MODERNIZATION AND CIVILIZATION PROJECT

Planning Process

The Hanoi Metro is a rapid transit system that includes both elevated and underground tracks and has been under construction since 2010. After its completion, the entire Hanoi Metro will consist of ten routes covering 318 kilometers with a passenger capacity of 200,000 passengers per day (Dat Nguyen, 2021b). As of September 2023, only one line, Line 2A, was operating.

The Hanoi Metro project can be seen as an example of the Vietnamese government's general top-down approach to planning. Gibert & Segard (2015) argue that urban planning in Vietnamese cities takes part in "the recent evolution of the political

regime towards what can be called a *negotiated authoritarianism*" (p. 1), because the government has to consider public responses in the short term and legitimacy issues in the long term. Planning involves different institutions and experts; however, it seldomly includes perspectives of local residents. While statistical data regarding transport demand and travel patterns influence traffic policy, there is no forum for local residents to voice their various needs. The stakeholders involved in urban planning and policy making are part of a knowledgeable group of experts or of a political powerful urban elite. They can partake in policy debates because they are already in a privileged position and possess the tools to make their opinions heard (Mela & Toldo, 2019, p. 78).

In Vietnam, urban residents renegotiate government policies on the local level in the *mediation space* (Koh, 2006). This term explains the negotiations taking place between residents and local-level officials. These officials often adapt government policies to the needs of residents based on personal relations and negotiations. However, this negotiation space is not institutionalized and not equally accessible to all residents. For example, migrants traveling to the city from rural areas often have no personal connections to local officials and hence limited bargaining power since *mediation space* depends on the social relationship's reciprocity. One of the examples of the *mediation space* discussed by Koh (2006) is the use of Hanoi's pavements. While official regulations reserve these spaces for pedestrians, in reality they are used by residents as parking spaces, for household activities (like dishwashing), or as seating areas for restaurant owners. Negotiations with local officials, often including the payment of a small fee, allows for a continuation of these activities.

Urban planning in Vietnam is also part of what Joss et al. (2019) call a *global discourse network*, given that narratives in urban planning are often borrowed from other contexts. Since many urban projects are financed by foreign investors and master plans for urban development are designed by foreign architects, foreign ideas influence urban planning in Vietnam. Increasingly, foreign investment comes from Asian investors, mainly Japan, South Korea, and China. Megacities such as Seoul, Tokyo, Shanghai, and Singapore are used as reference points for urban development in Vietnam and perceived as ideal visions of modernity (McCann, 2011; Söderström & Geertman, 2013).

An urban rail transit system was first proposed in the year 1998 in the "Hanoi Capital Construction Master Plan to 2030", which was conceptualized by both Vietnamese authorities and foreign design companies. The vision formulated in this plan was to make Hanoi one of the "most livable, sustainable, and attractive world capital cities by 2050" (Perkins Eastman, n.d.). The long-term ambition of the Vietnamese government is to create modern megacities (Gibert & Segard, 2015; NhanDan, 2018; Perkins Eastman, n.d.; Söderström & Geertman, 2013;), while, in recent years, the government started to promote sustainable urban development and include environmental issues in their official discourses and agendas. Ultimately, officials aim to reduce what they perceive as urban chaos (Harms, 2014). In this context, the government aims to tackle several urban challenges related to transport, such as congestion, traffic accidents, and pollution.

In Vietnam, there is a high risk of traffic accidents, especially for pedestrians, who made up 39% of the estimated 24,970 road fatalities in 2016 (Global Road Safety Facility, n.d.). While road fatalities were reduced significantly with the introduction

of new safety laws, the number of accidents is still high. Motorbike accidents account for 70% of the total number of accidents (United Nations, 2018, p. 24). Driving abilities of many Vietnamese are lacking, which is due to lax controls, high consumption of alcohol, and inadequate driving tests (VietNamNews, 2018). Lawmakers in Vietnam have begun to address these safety issues in urban traffic; for example, in 2007, lawmakers made helmets mandatory for motorbike drivers (United Nations, 2018, p. 20). While helmet wearing has since gone up to 90%, a study in 2020 found that the percentage of helmets that do not meet national safety standards is equally high, namely 90% of tested helmets (Snell, 2020). In 2011, the government implemented a law on traffic safety, which included high punishments for driving under the influence of alcohol (United Nations, 2018, p. 21).

Because Vietnam does not have the means to fund large infrastructure projects without foreign investment, financing plays a significant role in decisions regarding development contracts. In the case of the Hanoi Metro, this has led to controversies regarding safety, quality, and foreign influence, with the case of Line 2A being fueled by the general skepticism regarding Chinese investment in Vietnam (Tatarski, 2017). Rumors of corruption by officials during the construction period further negatively influenced the public's view on the Hanoi Metro project (Vietnamnet, 2015). Contractors involved in the construction of the Hanoi Metro at times also expressed their discontent with proceedings. Hyundai E&C-Ghella (HGU), the main contractor for Hanoi's second metro line, had to stop construction because of incomplete site clearance. In October 2021, HGU therefore demanded a payment of USD 114.7 million as compensation for losses caused by several delays. Another case of compensatory payment relates to the elevated section of the Hanoi Metro. The main contractor, Dealim Korea Co., Ltd., requested an additional payment of USD 19 million in July

Figure 3. (left) View of the Ha Dong station from a pedestrian bridge (author, August 2023)
Figure 4. (right) View of Cat Linh station from the street (author, August 2023)

2020 to compensate for a two-year extension of the construction process due to late site clearance (Vo Hai, 2021).

Line 2A

The first metro line that was operational is the Line 2A Cat Linh to Ha Dong, which was built with Chinese development assistance of around USD 868 million (Dat Nguyen, 2021b). The line is an elevated track covering 13 kilometers and with a total of twelve stations.

The completed stations are massive and highly-visible structures, each with a unique design (see Figure 3 and 4). They are built right next to busy streets and are thus easily reached by motorbike or taxi, albeit with limited parking spaces available, especially for cars. Pedestrian overpasses are available for crossing the streets and Cat Linh station is equipped with a small restaurant.

The initial investment capital was VND 8.7 billion (around USD 553 million), with a credit loan by the Chinese government of around USD 169 million (Hoa Binh, 2020). On 10 October 2011, the construction on Line 2A from Cat Linh to Ha Dong was opened in a ceremony held by the Vietnamese Ministry of Transport and the Hanoi Municipal government, and attended by members of the Chinese Embassy in Vietnam, the Vietnamese Minister of Transport, and the General Manager of China Railway Sixth Bureau Group Co., Zhao Zhanhu. The "China Railway Sixth Group" has experience building subways and transit systems in China and was the main contractor responsible for the construction of Line 2A (Dat Nguyen, 2021b). On the Vietnamese side, initially, the Ministry of Transport was assigned to be the main investor and implementer of Line 2A. However, responsibility for the project was then handed over until July 2014 to the Vietnam Railways Department (Cục Đường sắt Việt Nam), which lacked professional experience and human resources (Hoa Binh, 2020).

According to the original plans, operation was supposed to begin on 30 June 2015. In July 2015, however, less than 50% of the stations were completed. Additionally, legal

Figure 5. (left) A view of completed tracks from the train (author, August 2023)
Figure 6. (center) Houses and a canal visible from inside Cat Linh station (author, August 2023)
Figure 7. (right) Stairs for pedestrians to reach one of the stations of Line 2A (author, August 2023)

problems regarding an addition loan of USD 250 million from Eximbank of China stalled the project in 2017 (Hoa Binh, 2020) and funding and land acquisition issues pushed completion back to 2018. While construction of the line was completed by September 2018, several stations, electrical wiring, and ticketing systems were still under construction, and safety tests had not been finished (Dat Nguyen, 2021b). By April 2019, the opening of Line 2A was postponed eight times. Meanwhile, the project's investment costs increased from the initial VND 8.7 billion to VND 18 billion. The initial design drawings, on which budget estimates were based, did not include railway bridge piers and other details of the main structure. Also, initial plans did not account for adjustments that needed to be made to treat areas of weak soil, and operation costs were not included in the analysis of the project's economic efficiency. Trial runs finally began in October 2019 with a final safety check in December 2020 (Dat Nguyen, 2021b).

Commercial operation of the Cat Linh to Ha Dong metro line (Line 2A) in Hanoi started on the morning of 6 November 2021. During the first six months of operation, there was a train leaving every 10 minutes and the trains ran between 5.30 am to 8.00 pm every day. In May 2022, service times were extended to 10.30 pm and the frequency was increased to a train every six minutes during rush hour. A ticket for the metro costs VND 8,000-15,000 (USD 0.35-0.662), which is comparable to bus ticket prices. Monthly tickets are also available for VND 100,000-200,000 (USD 4-8) (Dat Nguyen, 2021b).

As observed in August 2023, Line 2A is used by Hanoi residents of all ages. Trains become more crowded towards the outskirts of the city and during rush hour after 5.00 PM. The stations are equipped with elevators and escalators and, similarly to high-end shopping malls in Vietnam, they are very clean (see Figure 8 and 9).

Signage has been installed both in Vietnamese and English, including passenger rules, such as not being allowed to smoke on the train (see Figure 10). Instructions are also given to guide new passengers through the process of buying a ticket and how to enter the platform (see Figure 11).

The platforms further provide seating areas (see Figure 9). Several staff members wait on the platforms to assist and guide passengers entering and exiting the trains,

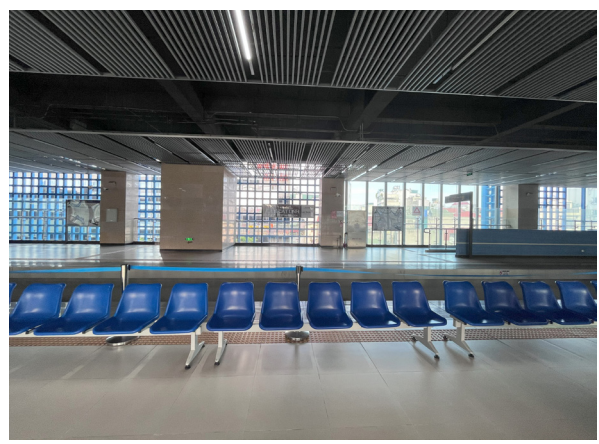

Figure 8. (left) Elevator inside of Cat Linh station (author, August 2023)
Figure 9. (right) Chairs on the platform at Cat Linh station (author, August 2023)

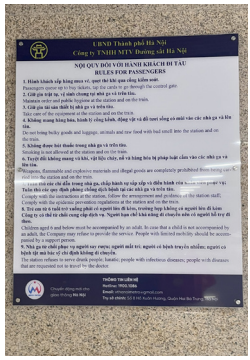

Figure 10. (left) Rules for passengers in Vietnamese and English at Cat Linh station (author, August 2023)
Figure 11. (center) Entry point to the platform with instructions on how to use the ticket (author, August 2023)
Figure 12. (right) Sign with rules to be observed on the train inside a cart of Line 2A (author, August 2023)

and posters on the train remind passengers to "keep silent and clean" (see Figure 12). While this is observed by most passengers, mainly those traveling for work, groups of pupils often ignore the rules and eat snacks or watch videos on their phones on loudspeakers. While most passengers stated that they were commuting to or from their workplace, a family with young children was visiting family members and was using Line 2A for the first time. They expressed that they did not find it as convenient as traveling by car but shared that they wanted their children to be able to enjoy the view over the city. This shows that Line 2A does not just serve commuters but attracts other segments of society that have access to other modes of transportation.

Most passengers, however, appeared to be experienced travelers, barely noticing the view or paying attention to the announcements, but rather staring at their phones or resting (see Figure 13 and 14).

Figure 13. (left) Passengers on Line 2A. (author, August 2023)
Figure 14. (right) Passengers on Line 2A (author, August 2023)

THE HANOI METRO IN THE CONTEXT OF SINO-VIETNAMESE RELATIONS

The Civilization Discourse

The declared development goal of Hanoi municipal authorities is to create a "green, cultured, civilized, modern city" (*đô thị xanh, văn hiến, văn minh, hiện đại*) (Dien dan doanh nghiep, 2021). The Vietnamese discourse on 'civilization' has its roots in the historical narrative used by the Chinese imperial court to describe their relations to their tributaries, including the Vietnamese Nguyen dynasty (Yu, 2009). During this time, the Chinese court viewed the Vietnamese as barbarians and in need of learning proper behavior and bureaucracy. However, during the reign of the Qing dynasty in China, the Vietnamese emperors considered themselves to be more civilized than the Manchu emperors because they followed proper Confucian conduct (Yu, 2009). This differentiation between those that are considered to be modern, educated, and in the center and those that were seen as backwards and uncultured was continued in colonial times through the French *mission civilisatrice* (Taylor, 2000), where Vietnam was depicted as a primitive society. To counter this depiction, in postcolonial times, writings and historiography emphasized achievements of Vietnamese civilization (Pelley, 2002, 1998). This history of involuntary deference to foreign powers and recurring aggression by China towards Vietnam, for example in the Sino-Vietnamese War of 1979 (Nguyen, 2017), or since 2014 in the South China Sea (Do, 2021), affects Vietnamese policymaking until today.

Communicative framing with the notion of 'civilization' is used in various settings relating to contemporary Vietnamese society. One example is the case of the COVID-19 pandemic, where societal support of the government's COVID response was framed in similar terms. 'Civilized' behavior during the pandemic consisted, for example, of neighborhood support networks and community donations (Hànộimới, 2020; Lê & Nguyễn, 2020). This dichotomy between the 'civilized' center and the 'uncivilized' periphery extends to the portrayal of rural migrants as uncivilized and uncultured (Carruthers & Dang Dinh Trung, 2018).

The civilization discourse also plays an important role in Vietnamese transport planning. For example, in 2008, the municipal government of Hanoi implemented a policy prohibiting street vendors from selling goods in several streets of the city center (Eidse, 2018, p. 41). The argument was that keeping the vendors off the streets would improve traffic flow (Eidse et al., 2017). In these cases, the informal sector was problematized as impeding the development of Hanoi into a civilized world city (Kurfürst, 2012, p. 95). In 2019, the ride-hailing company *Grab* joined the "civilized ride campaign" (Hoài Nhơn, 2019), which promotes traffic safety**.** It can be argued that the adoption of the civilization discourse by Vietnamese policy makers serves as a tool for mobilization, which links both civilization and mobilization to the Vietnamese history of repeated invasions, promising a global future with continued economic development. Thereby, this discourse serves both as a tool of control, because it encompasses a specific set of tolerated behaviors, as well as a way to strengthen government legitimacy, by playing on currents in Vietnamese society, such as anti-Chinese sentiments (Vu, 2014).

Vietnamese Perspectives on the BRI and Chinese Investment

The Hanoi Metro does not officially fall under the BRI (Ghiasy et al., 2018, p. 16), but is still considered as part of the initiative by both Vietnam and China. While this classification strengthens Sino-Vietnamese relations, it also links controversies surrounding the Metro's construction to the BRI, which might negatively affect the perception of Chinese investment in the future (Ghiasy et al., 2018, p. 16). Debates on Chinese investment in Vietnam are linked to broader discussions on (urban) development and national security. In his analysis of Asian responses to China's BRI, Gerald Chan (2018, p. 20) categorizes Vietnam as a "cautiously supportive" country, together with Myanmar and the Philippines. Ghiasy et al. (2018) consider Vietnam's view of the BRI as characterized by "distrust and skepticism" (p. 13), explaining this skepticism with the help of the difficult historical relations between the two countries and concerns over China's increasing economic dominance in the region, which, in the context of China's activities in the South China Sea, is linked to security concerns (Ghiasy et al., 2018, p. 16).

Nevertheless, Vietnam has joined the Asian Infrastructure Investment Bank (AIIB), which was initiated by China. This indicates that the Vietnamese government is aware that there is a need for infrastructure development in the country as well as foreign investment to realize this development (Chan, 2018, p. 8). Similar to other countries in the region, Vietnam aims to diversify the investment from foreign powers to limit its dependence on China. Given that the largest competitor for infrastructure investment in the region is Japan, the urban metro in Vietnam's most populated city and economic center, Ho Chi Minh City (HCMC), is currently being built by Japanese companies. Even though the construction of the HCMC Metro also experienced some issues regarding corruption (Gia Minh, 2021, 2020; Thanh Nhien News, 2013), the project is viewed more favorably by the public than the one in Hanoi (Tatarski, 2017).

DISCUSSION

The Hanoi Metro as Arena for State-Society Negotiations

Urban space in Vietnam is clearly an arena of state-society negotiations (Koh, 2006), with urban development as a tool for the Vietnamese government to assert control over urban space. Urban planning in Vietnam follows a clear-cut vision of modernization: Large infrastructure projects and wide streets with an unimpeded traffic flow of automobiles symbolize the *utopia* of a civilized city, where citizens follow specific conduct, adhere to traffic laws and move about in an orderly fashion (Harms, 2014; see also Figure 2). Urban spaces in Vietnam, however, are shaped by specific mobilities and practices that are locally rooted. This paper demonstrates that the Vietnamese state aims to create a city representative of a civilized society by introducing modern infrastructures that, as in the case of the Hanoi Metro, promote a different mode of moving that is deemed less chaotic. In practice, this means excluding people that the authorities view as disturbing the order and creating chaos. The ban of street vendors and cyclo drivers from the Old Quarter in Hanoi (Phan Anh, 2019; Purvis, 2000; VietNamNews, 2009) exemplifies this. The ambivalence in urban mobility planning in

Vietnam questions whether the government's vision of a modern city includes all segments of society. Linking back to the notion of *mobility justice,* current urban planning processes do not consider all modes of transport equally. In the past, when the state failed to consider local needs in the construction of urban infrastructure, this has led to various types of conflict and citizenship negotiations (Le & Nicolaisen, 2021).

The Vietnamese government aims for highly visible infrastructures such as bridges, skyscrapers, and sky-trains because it views them as signs of urban and economic development and symbols of modernity and economic prosperity. The same can be said about the Hanoi Metro project. These projects help the government to demonstrate its power and strengthen political legitimacy, an idea that is essential in the Vietnamese context, where local-level negotiations (*mediation space* as in Koh, 2006) and cooperation (*cooperative citizenship* as in Le & Nicolaisen, 2021)) build the foundation of state-society relations. Transport policies are part of larger urban development strategies and long-term goals. How they are conceived and implemented gives insight into processes of decision making and knowledge production. Urban planning is future oriented and gives insight into past visions of the ideal city. Constructing large infrastructure projects can take several months to several decades. Thus, they symbolize the visions of modernity held at the time of the conception of the respective project. The Vietnamese government looks increasingly at the East regarding urban development models (Söderström & Geertman, 2013), which leads to new dependencies, and planning designs that are not necessarily adapted to local practices and needs.

Currently, the Hanoi Metro is still limited in its scope. Only one line is running as of September 2023 and there is no comprehensive plan regarding first- and last-mile connections. With the increasing car ownership in recent years and a rising urban population, the metro system offers no long-term relief and the benefit of the metro system for the entire Vietnamese society at this time is questionable. It can be argued that the Hanoi Metro serves as a symbol of state power and the government's vision of a modern city. Once the entire Hanoi Metro project is finished, it does offer a certain potential to shift power structures in urban society because it allows more people to access public transport without some of the risks involved with public buses and urban traffic. However, failure to deliver the project on time, and safety issues during construction have negatively impacted the public's perspective of the government's capability to improve urban traffic and create a modern city.

The COVID-19 pandemic has not only made visible some of the points discussed above but also exacerbated them. Since the beginning of the COVID-19 pandemic, health concerns regarding public transport existed among authorities and the public. As a consequence, in March 2020, Vietnamese Prime Minister Nguyen Xuan Phuc ordered the suspension of public transport services (Reuters, 2020). People also refrained from traveling by bus, especially to other provinces, out of fear of infection (Tat Dinh et al., 2021). As recently as August 2023, some passengers on Line 2A donned masks when sitting in close proximity to other people (see Figure 13). This development has shown how public transport as a public good can be curtailed, rendering people without private modes of transport immobile. These developments put into question the long-term commitment by municipal authorities to provide equal mobility to all residents. The recurring criticism regarding transport projects and the handling of urban traffic suggest a general decline in trust towards the government's

ability to tackle congestion and other urban challenges (Zung Nguyen, 2017). This may lead to an increase in the politicization of Vietnam's urban residents and future power struggles regarding urban development projects.

However, similar to the idea of the *mediation space*, Hanoi residents make use of Line 2A in a way that is adapted to their respective needs. This includes high school students who ignore regulations regarding food and noise on the train as well as families that use the metro as an outing rather than a regular commute. Passengers also find their own solutions to the last-mile connection problems: for example, one passenger brought a foldable bicycle on the train, as observed during August 2023.

Solving Traffic Issues or 'Civilizing' Urban Society?

Public transport in Hanoi so far only covers a small percentage of the urban mobility demand. Furthermore, current options, like the public bus, are unreliable and inconvenient. They are often crowded and not easily accessible for people with physical disabilities. This contributes to *uneven mobility* because it poses a barrier to labor opportunities for those living in rural areas or possessing little financial means. Lack of financial means limits the choice of transportation mode for a specific segment of society. High costs and lack of urban transport infrastructure, such as street space and parking spots, make automobiles inaccessible for most city dwellers (Huu & Ngoc, 2021, p. 2).

Motorbikes are relatively affordable, especially due to upkeep and low fuel prices in Vietnam, for low-income groups. They also offer more flexibility than public transport and automobiles. Because people can use motorbikes to access narrow alleyways, relatives and passengers can be picked up and dropped off at home, which increases mobility for those who cannot walk to a bus stop or drive themselves, for example, due to physical impairments. However, those that can afford to travel by motorbike are at risk of getting wet or dirty, especially during the rainy season. While public transport is affordable, it has poor last-mile connectivity, which means that people still need to find ways to get to the station from their homes. To conclude, certain barriers to mobility are built into modern mobility systems in Vietnam. These barriers are predominantly the result of policymaking. They mediate access to specific modes of transportation or impact the attainment of resources for a specific segment of society.

While the Hanoi Metro theoretically offers an alternative mode of transport for those who cannot afford individual mobility or do not want to use public buses, there are significant limitations in terms of coverage and last-mile connections. Hence, people still have to rely on other forms of mobility to reach their respective destinations. While taxis, both private and public, are available, municipal authorities are already pushing two-wheelers to the margins by increasingly favoring cars in their policy making. Traditional modes of transport, that is, the bicycle and cyclo, have been used less since motorbikes became affordable during the 1990s. While the bicycle is making a comeback in recent years as a middle-class transport option for recreational purposes, the current traffic situation, the ever-expanding city, and high levels of air pollution do not make the bicycle a viable alternative as a mode of mass transportation. Cyclos are almost exclusively used for tourists in limited areas in the city center (Phan Anh, 2019; Purvis, 2000).

The Hanoi Metro project is not inclusive because it only serves a limited amount of people and negatively affects the mobility of others. During the construction of the different metro tracks and stations, streets are blocked, which increases traffic jams for road users. Current transport policies are geared towards promoting the Hanoi Metro as a sustainable transport option while at the same time adapting street networks for automobile users, making motorbikes less attractive to use. The Hanoi Metro is linked to notions of modernity for urban youths who use their time on the train to listen to music and chat with friends, as observed during a trip on Line 2A in August of 2023. Older residents struggle with navigating the metro, with one veteran missing his stop because he did not have enough time to get up from his seat, check the station name, and ask for help before the doors closed again. The Hanoi Metro does not allow passengers to eat or drink on the trains and does not offer space for luggage. While this promotes a specific vision of 'civilized' behavior, it does not serve all groups of society, such as rural migrants that could benefit from using the metro for the long distance from the outskirts into the city center.

Since there is only one line in operation, it is too early to make a final assessment regarding the potential of the Hanoi Metro to have an impact on urban mobility in Vietnam. On a positive note, the need for last-mile connections opens up a market for taxi drivers, especially motorbike taxi drivers. In the first two weeks of operation, the metro was free for all passengers. This allowed urban residents to experience this mode of transport and gain knowledge about its use, making more informed decisions regarding their transport options.

CONCLUSION

The Hanoi Metro project demonstrates that urban transport planning in Vietnam is shaped by concepts developed and implemented in a top-down approach, often with the support of foreign development agencies and architects. In some cases, top-down policies are re-negotiated on the local level or circumvented to better fit residents' needs. Seldomly, these negotiations turn into larger protests when they mobilize a large amount of people. Urban residents struggle for access to resources in their local contexts and aim to improve their own mobility rather than directly confront the state or contradict the governments vision of the modern city. The recent developments in urban mobility planning in Vietnam represent more extensive processes in Vietnamese state-society relations regarding societal fragmentation and citizenship negotiation. Public resistance and controversies accompanying official urban transport initiatives suggest that these initiatives do not meet public demands.

In the case of the Hanoi Metro, controversies regarding corruption, safety, and workers' security and Chinese involvement in financing has negatively impacted public perception of the project. Although contractors from other countries, such as Japan and France, have also been involved in the project (Tatarski, 2017), existing anti-Chinese sentiments in Vietnamese society make the Vietnamese public especially sensitive when it comes to any Chinese investment in the country. In the long term, the Vietnamese state must carefully balance its ambitious development goals with its need for public cooperation. The limited effect of the Hanoi Metro on reducing congestion due to its slow construction process and the increasing weariness of the public towards

China undermine the potential and success of future BRI projects in Vietnam. Previous public outrage in 2018, when protests erupted against a law on special economic zones (Fawthrop, 2018), demonstrate that the Vietnamese government has to tread carefully when it comes to Chinese financing and ensure positive public perception of infrastructure projects, such as the Hanoi Metro, built with Chinese involvement. The government has to carefully balance the need for foreign investment to reach its goal of modernization with national security concerns and the need for public cooperation.

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Chinese Investor Networks and the Politics of Infrastructure Projects in the Eastern Economic Corridor in Thailand

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This research examines Chinese investment and the impact of infrastructure projects on the Eastern Economic Corridor project (EEC), a special economic zone linking Thailand with Cambodia, Laos, Myanmar, Vietnam, and China, which aligns with the Belt and Road Initiative (BRI). Drawing on Actor Network Theory (ANT), this study analyzes emerging Chinese investor networks and the resulting negotiations between various actors such as the Thai state, Chinese and Thai investors, and local farmers. Many Chinese investors have moved their production bases to avoid the tax barriers raised by the United States or Europe, as well as to expand their markets in Southeast Asia. The Thai state offers tax benefits to foreign investors, allowing them to import raw materials and machinery from China, making their production costs lower than those of Thai investors. The findings reveal that the neoliberal state facilitates foreign investors through deregulation: enacting city planning laws that permit the establishment of industrial estates in agricultural zones, thus dispossessing farmers of their land. These factories can release toxic waste, thus impacting the local environment and livelihoods of nearby farmers. Thai businesspeople are often unable to compete with Chinese investors to match their bids. In order to maintain their positions in these economic networks, they build affective relations with Chinese investors. In addition, these affective relations attract resistance and indignation from locals dispossessed of land and resources.

Keywords: Actor Network Theory; Chinese Investors; Eastern Economic Corridor; Infrastructure; Thailand

INTRODUCTION

This research examines infrastructure development projects in the Eastern Economic Corridor (EEC) in Thailand. It analyzes Chinese investor networks and the role of the Thai state in facilitating foreign investment. The Thai state's deregulation and privatization of infrastructure construction has allowed foreign investors to profit from construction projects, the tax system, and land

distribution schemes. This research also explores affective relations among local people, state agencies, and Chinese investors. Such affective relations serve to reinforce and strengthen business networks, as well as attracting resistance to EEC development projects.

The Thai government established the Eastern Economic Corridor (EEC) development project in three provinces: Chonburi, Rayong, and Chachoengsao. It plans to situate EEC special economic zones as a linkage point for Mainland Southeast Asia (Cambodia, Laos, Myanmar, Vietnam, and Thailand), which aligns with the Belt and Road Initiative (BRI). Mainland Southeast Asia is linked by the East-West Corridor and the North-West Corridor, which are the main economic routes in the Greater Mekong Subregion (GMS). This connectivity makes Thailand a key logistical hub in the GMS. The EEC provides key seaports to facilitate the distribution of products from Southern China, Laos, and Cambodia. 100% of export products from Laos and 80% from Cambodia pass through EEC ports to other regions (Matichon Online, 2018, August 26). The EEC project is expected to stimulate growth in the economic zones along the route through these three countries.

In 2017, the military government utilized Article 44 and enacted order 2/2017 to establish the Eastern Economic Corridor development project. A committee, with the Prime Minister as chairperson, has the authority to frame policies and approve various development plans, including supervision to push forward the EEC project. The military government passed several laws, including the "Eastern Special Development Zone Act", to centralize the power regarding decision-making, approvals, permits, and rights or concessions for investors. The newly established *Policy Committee* and *Secretary General* hold this power. It is 'a state within a state' system in the EEC area (ILaw, 2019, August 11).

The EEC development project supports targeted industries, including modern automobiles, intelligent electronics, biotechnology, industrial robots, aviation, digital industry, biofuels, and biochemicals (Eastern Economic Corridor Office, 2018). The EEC project is also concerned with building infrastructure and logistical networks. However, Thailand's lack of technological innovation and financial support makes these industrial upgrades challenging. As a result, the Thai state encourages Chinese investors to invest in targeted industries and infrastructure projects in the EEC. While Chinese corporations, entrepreneurs, and workers seek new opportunities from the "going out" policy, there have been issues of underconsumption, overcapacity, competition in export markets, and scarcity of resources (Lee, 2017, p.1). China's new labor law limits employer flexibility and increases production costs in China (Franceschini & Loubere, 2022, p. 13).

Several private companies and state-owned enterprises from China have relocated their production bases to the EEC. Overseas production and exports from other countries to Europe and North America help Chinese companies to avoid trade barriers that arise when exporting from China. China sees special economic zones as a way to transfer China's economic success to developing countries, and as beneficial to the host country (Bräutigam & Tang, 2011, p. 71). China's investment in the EEC is worth USD 5.9 bn (Eastern Economic Corridor Office, 2023), which includes the automobile industry (USD 2.8 bn), intelligent electronics, and renewable energy sectors (Bangkok Business News, 2023, July 18).

In late 2020, the Great Wall Motor Company (GWM) from China bought General Motors' factories and relocated their production base for distribution in the ASEAN region (Ruamsuwan, 2021, June 10). At least 10 Chinese EV manufacturers have established themselves in the EEC, and Thailand aims to become a major center for electric vehicle manufacture in Asia (Daily News, 2023, July 6). Chinese EV manufacturers plan to establish subsidiary factories in Thailand for products such as lithium-ion batteries and electronic components for electric cars (Salika, 2023, April 21).

In addition, Chinese waste recycling factories are moving to Thailand because of China's 2018 prohibition on the import of recycled plastic waste. The Chinese state is attempting to reduce air pollution and lessen its impact on the local environment. Therefore, seven million tons of the world's recycled plastic waste are now being redirected to Southeast Asian countries (Matichon Weekly, 2019, April 29). Recycling factories are moving out of China to countries where fewer regulations are enforced. The operation of recycling waste and battery factories raises environmental anxieties among local populations in the EEC.

By facilitating the establishment of special economic zones in their countries, ASEAN governments seek to attract foreign investment, increase exports, boost job opportunities and skills development of workers, and promote technological transfers (Aggarwal, 2007; Farole & Akinci, 2011; Wang, 2013). With "going global" policies, China supports trade, investment, and technology transfers to developing countries by encouraging Chinese state-owned enterprises and private entrepreneurs to make investments outside China. China's overseas investments, including geopolitical and economic expansion in Southeast Asia, both facilitate resource extraction and create opportunities for local communities (Rowedder & Tappe, 2022; Sidaway et al., 2020). China has fostered, in Southeast Asia, the image of a big brother who supports the ASEAN region (Sung, 2019). At the same time, China secures access to the resources of developing countries, e.g. land (Dwyer, 2020), water (Soukhaphon et al., 2021), minerals (Tappe, 2022), rubber, and fruit (Lyttleton & Li, 2017; Rowedder, 2022) through infrastructure development.

LITERATURE REVIEW AND CONCEPTUAL FOUNDATIONS

In the *Specter of Global China*, Ching Kwan Lee (2017) uses the concept of varieties of capital to categorize SOEs and private enterprises. She demonstrates that Chinese state capital in Zambia accumulates both profit and other utilities, such as employment creation and enhancing the country's reputation, while private investors focus only on the single objective of profit maximization. However, corporate actors around the world, not only Chinese, are willing to adapt and work with local institutions where the rule of law is strong. In contrast, corporations tend to take advantage of countries where institutions are weak, and laws are rarely enforced (Franceschini & Loubere, 2022).

Previous studies demonstrate that China's development project creates a form of South-South cooperation and a form of exploitation and racialization (Lin et al., 2021, p. 265). Chinese workers in Special Economic Zones in Laos and Cambodia receive higher wages than their non-Chinese counterparts (Laungaramsri, 2015; Nyire, 2012, p. 554), and these differential treatments and benefits undermine worker

solidarity (Franceschini, 2020, p. 527). However, in the case of Chinese-owned construction sites in Sihanoukville, both Chinese and Cambodian workers were victims of subcontractors because of contractual traps and wage arrears (Franceschini & Loubere, 2022, p. 45).

In Cambodia, Chinese SOEs' investment in infrastructure is often promoted by ruling elites as a contribution to the socio-economic development of the host country. Local large corporations have more opportunities to enter into joint ventures with Chinese companies (Chheang, 2022, p. 203), which is also demonstrated in the case of Thailand. The China Railway Construction Company (SOE) cooperated with the Charoen Pokphand Group (CP), a large Thai conglomerate, to construct a high-speed rail link between Suvarnabhumi, Don Mueang, and U-Tapao airports (Forbes Thailand, 2020, May 14). Guangxi Construction Engineering Group (SOE) collaborated with CP Land to develop the Thai-Chinese Industrial Estate Project, or CPGC, to accommodate Chinese investors in the EEC (Than-Settakij, 2020, February 6). Meanwhile, local small and medium-sized businesses have fewer opportunities because of their small capital and inability to compete with conglomerates to work with Chinese firms.

In recent decades, Southeast Asian states have encouraged foreign enterprises to invest in infrastructure in special economic zones. Even though development projects boost international trade, national economies, and economic opportunities, at the same time they have negative consequences. In the case of Sihanoukville, the influx of Chinese investment led to a rise in the crime rate, environmental degradation, and social and cultural tensions (Chheang, 2022). In addition, the political process of infrastructure development projects mobilizes affect, desire, pride, and frustration (Larkin, 2013); sometimes, roads remain unfinished because of corruption (Harvey & Knox, 2015, p. 134). Several studies demonstrate affective relations and political imagination from infrastructure development (Boeck, 2011; Harvey & Knox, 2012; Knox, 2017). Affective relations also create economic opportunities for Chinese investors. The case of rubber investment in Laos shows that Chinese investors use cultural and linguistic affinities to cultivate affective networks with Lao Akha villagers. Social interaction secures profits and further initiates flexibility in land and labor transactions (Lyttleton & Li, 2017).

The studies on special economic zones tend to emphasize the political and economic dimensions of the power of the state (Bräutigam & Tang, 2014; Moberg, 2015; Wang, 2013). Special economic zone projects emerge from political rationality regulated by the state, rather than from citizen demands. The neoliberal state facilitates the flow of capital through privatization, financialization, crisis management, and state redistribution. Wealth and resources are often shifted to the powerful through a process described as accumulation by dispossession (Harvey, 2005, p. 160). The state capitalizes underdeveloped land or privatizes land, and farmers are displaced (Chettri & Eilenberg, 2021; Levien, 2011; 2018). Few studies focus on the formation of infrastructure projects that involve a multitude of stakeholders and their dynamic relationships. The complex relationships among human actors and non-human actors that strengthen and maintain networks are neglected.

This research examines the Eastern Economic Corridor (EEC) development project in Thailand as infrastructure comprising heterogeneous networks of human and non-human actors (Latour, 2007; Law, 1992). Actor Network Theory (ANT)

is employed as a methodological and analytical tool to identify the various actors involved, such as the Thai state, Chinese and Thai investors, and local farmers. Non-human actors, namely cultural elements and affective relations, play a crucial role in Chinese capital networks. ANT describes a dynamic process in which all actors are interwoven, assembled in social groups that are mediated for their mutual benefit. A translation process is used as an analytical tool to assess the associations, displacement, and negotiations that establish relations between actors and entities. The translation of actors is achieved through Callon's four moments: *problematization, interessement, enrolment,* and *mobilization* (Callon, 1984, p. 203). However, special economic zones could not be operated without the power of the state, which establishes networks of infrastructure, such as roads and energy supply (Moberg, 2015, p. 172), and encourages foreign investment. Therefore, a political economy approach is integrated to explain the power of the state in the privatization of infrastructure construction, the tax system, and land distribution for the EEC's establishment.

This study exemplifies the synthesis of a political economy and ANT approach to examine Chinese capital networks in the EEC. ANT translation provides methodological tools to follow the focal actors, and to explore the negotiation processes within networks. The political economy approach examines the role of state and policy implications that facilitate foreign investment. This research also explores the potential role of affective relations as a non-human actor that does not only strengthen the network, but also initiates the resistance to Chinese capital networks.

RESEARCH METHODS

Qualitative data were collected via in-depth interviews, focus group interviews, and participant observation. Actor Network Theory provides the methodological tools to follow the actors (Law, 1990) in Chinese capital networks. I interviewed members of the Chambers of Commerce, Chinese investors, and local NGOs at the beginning, and then moved on to other actors, namely, Thai business owners, real-estate developers, and local communities and farmers in Chonburi, Rayong, and Chachoengsao. It is necessary to trace the interactions between human actors and non-human actors, which are cultural elements, and affective relations, and to explore lines of association that allow networks to function (Ruming, 2009, p. 454).

I developed a semi-structured interview guide through the objectives of the study, including the role of the state, the deregulation of laws, an EEC map, land use changes, the negative impacts of the EEC, and affective relations among actors. The open-ended questions in the guidelines are flexible enough to be adjusted during and after interviews to accommodate the current situation. Interviews lasted from 45 to 60 minutes for in-depth interviews and from one to two hours for focus groups, depending on the information furnished by the respondents. Most of the interviews were conducted in Thai, while a few interviews with Chinese investors were done in Chinese via a translator. The interviews continued until the data were saturated and reflected interesting findings. Finally, I conducted 20 in-depth interviews and 12 focus group interviews with key respondents.

The data were analyzed using content analysis with a systematic coding system (Elo & Kyngäs, 2008). An initial coding set was developed from the interview guide; all

relevant codes were sorted into categories and then grouped into themes, respectively. The four moments of the ANT's translation process: problematization, interessement, enrolment, and mobilization, are the main themes of analysis. Secondary data from documents, official websites and social media were also reviewed and included in the coding scheme.

The remainder of this paper consists of three parts. First, I explain the role of the Thai state in its privatization of infrastructure projects and revision of its laws to facilitate foreign investment in the EEC area. Second, I describe Chinese investor networks in order to understand their establishment through a translation process. The third part portrays affective networks between locals, Chinese investors and the state. Affect serves to create opportunities for local businesspeople as well as to prompt resistance to development projects in the EEC.

PRIVATIZATION OF INFRASTRUCTURE PROJECTS AND DEREGULATION OF LAWS

The EEC project entails the construction of infrastructure and a logistics network to make connections within countries and regions. The infrastructure includes land, water, and air transportation, which comprises high-speed trains, double-track railways, three-lane motorways, Map-Ta-Phut Port Phase three, Laem Chabang Port, Sattahip Commercial Port, and U-Tapao International Airport to facilitate travel and product transportation and services. Investment for the first five years (2017–2021) is a joint venture agreement between the public and private sectors with a budget of USD 42 bn for pilot projects in three provinces. In addition, the government has invested more than USD 14 bn to support the industrial sector and develop tourism, with another USD 5.5 bn focusing on the development of four new cities: namely, Chachoengsao, Pattaya, U-Tapao, and Rayong (Eastern Economic Corridor Office, 2018).

For infrastructure investment, especially transportation routes in the EEC, the Thai state allowed the private sector to participate in joint ventures with state enterprises as Public Private Partners (PPPs). The private sector takes responsibility for infrastructure construction; after a project is completed, a concession will be granted to the private sector. The government therefore pushes these projects along the PPP EEC Track to reduce the workflow of the tender process. These new regulations speed up working processes from 40 months to 10 months (EEC Office, 2019). Major projects in the EEC accelerated by the government are the U-Tapao International Airport Development Project, the Sattahip Commercial Port Development Project, the high-speed train from Bangkok to Rayong, the Laem Chabang Port Development Project, and the Map Ta Phut Port Development Project.

Large infrastructure development projects in the EEC are joint-venture agreements between Thai and Chinese SOEs. For example, the high-speed train mega-project involves cooperation between the State Railway of Thailand (SRT), the Charoen Pokphand Holding company, Italian-Thai construction companies, the Chor Karnchang company, and the China Railway Construction Company (CRCC), which is the world's largest high-speed train company (SOE) (Forbes Thailand, 2020, May 14). The Port Authority of Thailand (PAT) selected several private investors: the Gulf Energy Development Company, the PTT Tank Terminal Company, and the China Harbor Engineering Company, a subsidiary of an SOE, to construct Laem Chabang port.

EEC planning operates under the Eastern Special Development Zone Act, 2018. The Eastern Economic Corridor Office of Thailand together with the Department of Public Works and Town & Country Planning have revised the maps. Land use revisions changed agricultural land designations into industrial areas. The goal is to support land use development for the next 20 years, covering an area of 1,326,600 hectares in three provinces (Prachachat Thurakit, 2020, August 7). Although the EEC town plan has clearly defined types of land use, the new mapping allows some types of factories, which were previously banned, to be established on agricultural land. These factories include waste treatment factories and waste landfill and recycling plants, which release toxic chemicals into the environment and affect the health of local people in the community. Moreover, the Department of Industrial Works cannot thoroughly regulate and control these recycling factories. Local people in Rayong province observed that the factory owner had strong connections with the authorities (interview, local community member, 10 December 2020).

The military government has reduced regulations and revised city planning laws in the EEC area. It aims to facilitate the establishment of industrial plants, including waste disposal plants, incinerators, landfill and recycling businesses. The numbers of these factories have been increasing in the EEC and neighboring provinces, from 148 factories in 2018 (Matichon Weekly, 2021, January 6) to 725 factories in 2020 (EnLaw, 2021, October 8), after China banned the import of recycled plastic waste in 2018. The Thai state allowed high volumes of plastic waste, up to 552,912 tons (Seub Nagasathien Foundation, 2023, February 28), to be imported to respond to the demands of Chinese investors in 2018 (Thai PBS, 2020, August 11). Waste disposal businesses are being established, and electronic waste and plastic scrap are regularly smuggled into Thailand (Manager Online, 2021, September 11).

CHINESE INVESTOR NETWORKS

Chinese companies do not only invest in infrastructure projects in the EEC, they also relocate their car production bases to Thailand. The main objectives include avoiding tax barriers in the USA, reducing production costs such as labor and raw materials, and opening new markets in Southeast Asia. Chinese investors create networks among themselves and with powerful Thai corporations to extend their businesses from electric vehicles to lithium-ion batteries, tire manufacture, real estate businesses, and fruit exports.

The Great Wall Motor Company (GWM), a private Chinese company, bought a General Motors (GM) factory in 2020 and changed the production base of GM and Chevrolet cars to GWM for distribution in the ASEAN region (Ruamsuwan, 2021, June 10). Chang-An Automobile and GAC AION, New Energy Automobile Company (SOE), are now approaching the Thai authorities to invest in an EV manufacturing and battery factory in the EEC (Manager Online, 2023, April 9).

The Charoen Pokphand Group (CP) started its automobile business in 2013 through a joint venture with Shanghai Automotive Industry Corporation Ltd (SAIC), a Chinese SOE, forming SAIC-CP for production and distribution under the MG brand. In 2019, CP Group entered a joint venture with Foton Motor Group, a subsidiary of the state-owned enterprise Beijing Automotive Group (BAIC), to establish a

manufacturing and distribution company related to automotive technology, including marketing and management. It aims to enter the top three market in Thailand (Positioning, 2019, May 7).

Chinese investors have moved their electric vehicle production bases to Thailand, and they are expanding markets in Thailand and the ASEAN region. Domestic auto parts manufacturers should also benefit from electric vehicle production. However, major car manufacturers import auto parts from China or buy spare parts from Chinese factories. When a car manufacturing company has set up a factory, the supplier factories that produce various auto parts such as glass, wiring, seat belts, steering wheels, and water pumps for the parent factory will move from China. These supplier factories will be relocated in the same area as the parent factory to save on transportation costs (interview, an officer of the Board of Investment of Thailand, 7 April 2021).

Electric vehicle production needs support from a battery factory, so it also moves its production base to the EEC. Global Power Synergy Company, Pure Energy Company and Rojana Industrial Park in cooperation with EVLOMO from the USA established a lithium-ion battery factory in the EEC area. The Pure Energy Company formed a joint venture with Amita Technologies from Taiwan, in which Amita has a 70% shareholding (Than-Settakij, 2021, May 7). This group established a battery factory on the Blue Tech City Industrial Estate, Chachoengsao Province. Blue Tech City Industry requires a change of land use from an agricultural area to an industrial area. The Pure Energy Company built a battery factory in this settlement. Therefore, this creates conflict with the community over land use issues and raises concerns over environmental impacts.

Large tire manufacturing companies from China have moved to the EEC, including Linglong, Zhongce, General Rubber, Prinz Chengshan, Huayi group, and Sentury Tires. Chinese companies in the EEC now comprise the largest number of tire manufacturers in the region. They do not only produce tires for the domestic market, 90 percent of their production is exported to Europe and America. Tire companies have relocated their production bases to avoid tax barriers in the USA. Another reason is raw materials, as Thailand is a source of natural rubber production (interview, an officer of the Board of Investment of Thailand [BOI], 7 April 2021). An interesting point is that the demand for natural rubber in the country is higher because of the relocation of tire companies. But the price of rubber in the country is very low. In 2019, the government released a "One Kilometer, One Village" policy to use rubber as a material to build roads to raise the rubber price. The project expects to use 1.4 million tons of natural rubber to build roads in 75,032 villages in 77 provinces. But in the same year that the Permanent Secretary of the Ministry of Interior investigated and suspended this project, he said that it ran the risk of corruption (Manager Online, 2022, May 26).

Huayi Group, a Chinese SOE, produces tires for trucks. It was established on Lakchai Muang Yang Industrial Estate in Rayong province. Huayi Group cooperates with a Thai businessman of Chinese Hokkien descent, Mr. Lakchai Kittipol, owner of Lakchai Rubber and the Thai Hua Rubber Company. These rubber companies are large agents that control the latex and rubber market and sell rubber to Huayi Group and Sentury. Lakchai encourages Chinese companies to make investments in Lakchai Industrial Estate, so that he can quickly expand the industrial estate area to

accommodate Chinese and Japanese manufacturers. He aims to increase domestic rubber production to one million tons in 2024 (Bangkok Business News, 2019, April 24).

Interessment from Moving to the EEC

Chinese investors face problems with their businesses in China as they encounter trade wars with the USA and Europe. Business competition in China and the going out policy have encouraged Chinese investors to relocate their production bases overseas. Moving to the EEC in Thailand is an indispensable point that Chinese investors must pass to satisfy their interests. They form networks among themselves to set up clusters of businesses, e.g., for electric vehicles. Chinese capital networks receive benefits in the form of tax exemptions, cheap raw materials, cheap labor, and expanding into new markets in Southeast Asia.

When Chinese automobile assembly plants move to the EEC, this kind of investment does not support small or medium-scale Thai businesses. Chinese companies import steel and auto parts such as axles, clutches, and bearings from China, and then assemble cars in Thailand. The cost of imports is lower than domestic spare parts because of tax exemptions. China's production costs are also lower because there is industrial mass production in China, using cheap raw materials. In contrast, there are no large auto parts producers in Thailand. Small-scale factories cannot compete with Chinese companies because the cost of production is higher. Chinese factories take less time to assemble cars and their selling prices are lower than those of Thai factories. Chinese capital also has advantages in terms of upstream and downstream control (interview, a group of Thai businesspeople from Chonburi, 7 December 2020).

With large-scale production in Thailand, Chinese companies send products back to China and distribute them to other countries in Southeast Asia, such as Cambodia, Myanmar, Laos, and Vietnam. Moving the production base to Thailand lowers transportation costs, and as automobile and spare parts production increases Chinese investors benefit because of the advantage of a strong supply chain, so they choose Thailand as their distribution base. Chinese brands' "made in China" is transformed into "made in Thailand", through which they can avoid tax barriers when importing their products into the USA and Europe. Even though the GDP growth of Cambodia, Laos, Myanmar, and Vietnam (CLMV) in 2019 stood at 5–7%—which was higher than Thailand's GDP growth of 2.4% (SCB Economic Intelligence Center, 2022)—Chinese investors are interested in investing in the EEC area because it provides good infrastructure, and the logistics system is convenient for transporting goods.

Enrollment: SMEs and the Real Estate Sector

As the EEC mainly focuses on large-scale foreign investors, the Thai government attracts multinational companies that invest in industries related to innovation and advanced technologies, such as aviation and electric vehicles. To receive tax support and promotion from the Thai government, the size of investment must be at least USD 1.4 million. A factory must be established in a specific area, such as an industrial estate. In this case, Thai investors complain that the investment of Thai companies in the EEC is hardly supported by the state, especially for small- and medium-sized

enterprises (SMEs) such as hotels, construction companies, and plastics factories. Small-scale investors cannot access tax exemptions or import benefits. Government policy only invites large-scale foreign investors, that cooperate with large corporations in Thailand such as the CP Group and Chor Karnchang company (interview, a group of Thai businesspeople from Chonburi, 7 December 2020).

Small- and medium-scale Thai companies in the EEC that cannot access the tender process of infrastructure development projects seek to form networks with Chinese investors. At the same time, Chinese investors also find Thai partners for joint venture agreements in order to facilitate their business operations. Sino-Thai businesspeople mention that large Chinese construction companies need Thai partners that can oversee the rental of a warehouse, coordination with the Board of Investment (BOI), construction permit issuance, documenting contracts, trading for export, marketing and accounting, and a law office. Chinese companies tend to recruit Sino-Thai businessmen because they are of Chinese descent, speak Chinese, and can engage with Chinese culture (interview, a group of businesspeople from Rayong, 2 April 2021). At the same time, Sino-Thais are willing to create affective relations for future transactions.

Most Chinese construction companies import machines, steel, and equipment from China because it is cheaper and tax free. Cheaper construction materials such as concrete products, cement, bricks, stone, and sand can be provided by Thai companies. Chinese companies prefer to cooperate with domestic construction companies owned by those of Chinese descent who can supply large volumes of materials at the lowest prices (interview with sales manager of a construction company in Rayong, 2 April 2021).

Chinese investors who invest in the EEC area are not only large industrial groups situated in industrial estate areas. They extend their networks to include other businesses, such as Chinese restaurants, and dormitories for technicians and workers from China. Chinese investors are interested in real estate in Pattaya, Chonburi, and Rayong Province. The expansion of Chinese business into real estate sectors is occurring in Chiang Mai: they create joint ventures with Thai citizens, selling condominiums or houses to Chinese customers (Siriphon, 2019, p. 277–278; Siriphon & Li 2022, p.8). One Thai respondent, who has been working in the real estate business for more than 20 years, mentioned that it is easy for Chinese investors to obtain visas and move to Thailand. They can hold real estate as complete ownership, which is different from buying real estate in China. Ownership is made through a payment to acquire leasehold rights within a specific time frame. The tenant has no ownership of the property. It is a lease from the Chinese government for a period of 70 years. Thailand's Condominium Act allows foreigners to own 49% of a residential area. The Chinese have the right to own property, and they can buy and sell ownership and bequeath it to their descendants. Chinese citizens therefore prefer to buy condominiums in Thailand. However, foreigners cannot buy land or houses, but they can hold property through a registered company in Thailand if the nominee or shareholder is a Thai citizen (interview, a real estate broker, 27 June 2021).

After moving to the EEC, Chinese investors who are developers of residential projects in China seek joint investments with Thai partners in order to purchase land. Thai investors become nominees, while Chinese investors work on management. In

some projects, Chinese investors do not buy the land themselves, but use a joint venture agreement with Thai landowners who swap their land for shares. Then, land ownership is transferred under the name of the company. Chinese investors make investments in construction works, setting up showrooms and marketing plans. When a project is finished, the land value is increased. Thai investors also profit from that increased value (interview, a real estate broker, 27 June 2021).

In addition to real estate investment for profitable sales, Chinese investors who own factories in industrial estates also buy property to accommodate employees. Some Chinese investors cooperate with Thai partners, who have previously made investments together, to run hotel businesses. For example, a Chinese investor, who established a tire factory 10 years ago on Lakchai Rubber Estate, bought a resort near Mae-Phim cape to accommodate Chinese workers. He has a joint venture agreement with Thai Hua rubber companies, and he was encouraged to invest in extending an industrial estate project. Later, this group expanded their investment to a five-star hotel development (interview, businesspeople from Rayong, 24 June 2021).

Chinese capital networks enroll Thai investors who are of Chinese descent to be business partners. With joint venture agreements, Chinese investors can extend their business into real estate development and the agricultural sector, while Thai partners become actors who facilitate business operations. However, those Thai investors accept their roles to profit from Chinese capital networks, and they attempt to negotiate by trading land or raw materials, and enlarge the scale of their investment. Crucial elements for the enrollment process are Chinese language skills, and cultural affinities toward networking and negotiating link all the actors together. Sino-Thai investors demonstrate aspects of affective relations and cultural engagement to strengthen their relationships.

Mobilization in the Agricultural Sector and the Financial System

Chinese capital networks have extended their business into the agricultural sector, especially Thai fruit. Durian is popular among the Chinese. It is exported to China through fruit packing houses. Durian prices have been increasing in recent years. In 2021, the value of durian exports from Chanthaburi province to China exceeded USD 1.1 bn (Thairath Online, 2021, June 2). A fruit packing company buys durian from farmers and then exports it to China. A logistics system for fruit transportation has been developed using large refrigerated vehicles that go directly to China. Chinese investors have been investing in this business for around 10 years; there are many hundreds of packing houses in just one district of Chanthaburi province. This investment has been supported by Thai partners who deal with contracts and domestic payments, but the packing house is Chinese-owned and even uses a Chinese name (interview, a group of Thai farmers in Chanthaburi, 22 June 2021).

Currently, durian is popular among farmers. Durian farming areas are 2–3 times larger than in the past: one durian tree earns about USD 1,400–1,700 per annum. Therefore, farmers prefer to cut down rubber trees and plant durian instead, because of the low price of rubber. The Chinese invest in durian orchards and hire Thai gardeners who take care of the durian trees. Some durian orchards are large-scale, covering more than 160 hectares. Chinese investors can distribute durian through their connections

in China. In contrast, Thai people cannot export by themselves because they lack connections in China (interview with Thai businesspeople, 23 June 2021).

Farmers are concerned that the export market will be uncertain in the future because the Chinese invest in exporting fruit by themselves. Chinese investors therefore control all prices and export markets. Chinese logistic companies started to import cheaper Vietnamese durian, as the cross-border railway facilitates fruit trade between the two countries (PPTV, 2023, May 31). Thai businesspeople who export fruit lack comparable capital and markets, even though Thai farmers have knowledge and expertise in durian cultivation. Thus, Chinese investors hire Thai experts to take care of durian orchards. Some Thai farmers feel anxious about their future when their knowledge about durian cultivation is transferred to Chinese people so that they can cultivate tasty durian in China. Other farmers consider their durian to be of the best quality, and fear that its price will decline when products are oversupplied to the market (interview with a group of Thai farmers in Rayong, 24 June 2021). The Straits Times (2019, September 7) reported that a Chinese private company was attempting to grow durian in Hainan province, but cultivators were challenged in locating suitable farming areas and encountered difficult weather conditions for the crop. Chinese companies then sought to lease large plots of land near Vientiane, Laos, to establish durian plantations with the aim of exporting the fruit to China (Zang, 2021, March 18).

I have demonstrated that marketing in China is controlled by the Chinese. Real estate projects in Thailand also work in a parallel way. Residential development projects, joint ventures with Chinese investors, do not make a profit for the Thai banking system. Most Chinese investors bring money from China to invest in Thailand, but marketing and sales activities happen in China. Buyers in China sign a contract and pay in China. When a project is nearly completed, a Chinese salesperson informs the customer, who then signs a contract and is offered a free package tour to Thailand to see the actual property. Each package tour is arranged for 100 or 200 customers and is operated and facilitated by Chinese companies. The office in Thailand is just an operational unit working on Environment Impact Assessment (EIA) and construction approval. Most financial transactions are in China. Cash flow and the mortgage system therefore do not operate in Thailand (interview, a real estate broker, 27 June 2021).

Chinese investors are dominant actors in capital networks, and they identify themselves as representatives of Thai counterparts. The benefit to Thai investors depends on Chinese businesspeople. Thai investors become passive actors who are mobilized by Chinese investors. It is difficult for Thai investors to compete with the Chinese or leave the network because they cannot find a market in China. Therefore, Chinese networks will still endure as long as all actors benefit.

AFFECTIVE RELATIONS FROM EEC INFRASTRUCTURES

EEC infrastructures reduce spatial barriers, enhance flows of capital, and distribute products to the market. Chinese capital builds an economic network through the connectivity of infrastructures. However, infrastructures have negative consequences that mediate and transform people's lives. The result of EEC mapping demonstrates affective relations between local people and industrial zone development.

For example, the establishment of a new recycling factory in the local community provoked villagers' resistance in the area because of their concerns about the environmental impact. On 24 January 2021, around 300 villagers in Bor Thong District, Chonburi Province, gathered to resist a plastics recycling factory. Villagers protested 14 times because they wanted to protect the agricultural area and the environment (Siamrath Online, 2021, January 24). This factory has applied for permission to run a business, but approval for a factory license is still pending (interview, a group of Bor Thong villagers, 3 April 2021).

The impact of the new EEC mapping released in 2019 has led to change in land use, regardless of the reality of areas such as the Bang Prakong River coastal area, Khao Din Subdistrict, Chachoengsao Province. This area is designated as industrial development land, even though it is situated in the largest area of mangrove forest, which is ecologically very rich. Another area is the border area between Chachoengsao and Chonburi provinces, which is fertile agricultural land and constitutes an important aquaculture area of the country. According to new EEC mapping, it is designated as land for special target industries in a special economic zone, and land prices have dramatically increased since then. Problems arise when a landowner sells land to the Blue Tech Industrial Estate project in Khao Din Subdistrict. In my interviews, farmers narrate that they used to rent land for agriculture and aquaculture, but they cannot continue farming because the lease was terminated. Therefore, 20 families of tenants gathered to prosecute the landowners. According to land rent law, a landowner who wishes to sell land must inform the tenant, who may wish to purchase the land. In this case, landowners secretly sell their land without notifying their tenants; therefore, the tenants ask for compensation (interview, a group of Khao Din villagers, 5 December 2020).

Another case of land expropriation is the Inland Container Depot (ICD) project or Dry Port in Nong Teen Nok Subdistrict, Ban Pho District, Chachoengsao Province. This project was initiated by the Eastern Economic Corridor Committee in 2019; the land in question consisted of 288 hectares that was originally agricultural land. After the enforcement of EEC mapping, it became a light green area, which is still agricultural land but can now accommodate some types of industrial activity. At present, Nong Teen Nok villagers have rejected the expropriation of this land for container terminal construction, which would expand from Laem Chabang, Map Taphut, and Sattahip Port (Manager Online, 2019, January 29). The project would block the waterway, causing flooding and affecting the livelihoods of villagers. Most of the farmers are tenants; few landowners actually participated in the public hearing process. If the ICD project is implemented, farmers would be dispossessed of their land and resources (interview, a group of Nong Teen Nok villager, 5 December 2020).

DISCUSSION

The Eastern Economic Corridor (EEC) was established by the Thai state as a linkage point to connect Cambodia, Laos, Myanmar, Vietnam, and Thailand (CLMVT) to the BRI. The BRI aims to facilitate transportation linkages, politics, trade and monetary flows across the region (Summers, 2016). This study demonstrates that the political power and influence of the Thai state underpins the infrastructure of the EEC project

to facilitate networks of Chinese investors. The military state privatizes infrastructures, revises mapping, and offers tax exemptions to foreign investors. This study reveals that the EEC project supports transportation linkages, trade and monetary flows for Chinese SOEs, and large-scale Thai corporations. The EEC project neither increases exports, nor enhances currency circulation, nor reduces production costs for medium and small-scale Thai investors.

EEC infrastructures create new regional connectivity and facilitate Chinese capitalist expansion. Chinese investors form business networks among themselves, then shift production bases to the EEC. Sino-Thai investors possessing land or cheap material resources are enrolled into these networks. Therefore, trade and monetary flows are between the Chinese, while Sino-Thais become nominees and gain less benefit from Chinese economic networks. Chinese investment has extensively expanded from manufacturing into the real estate and agricultural sectors, leading to land grabs or land appropriations. The case of the Northern Economic Corridor in Laos (Dwyer, 2020) and the BRI project in Kazakhstan (Sternberg et.al., 2017) also show the problems of land dispossession by Chinese entrepreneurs.

This study builds on previous studies (Boeck, 2011; Harvey & Knox, 2012; Larkin, 2013) analyzing the affective mobilization of local communities arising from the negative consequences of new infrastructures. New EEC mapping permits the establishment of industrial estates, including battery and recycling factories in agricultural zones by Chinese private companies. The dispossession of land and the environmental impacts of these factories provoke contestations from local communities.

In this study, Actor Network Theory (ANT) offers not only insights into analytical aspects but also methodological tools to follow various actors in Chinese capital networks. Translation processes reveal the negotiations among all actors. Cultural affinities and affective relations comprise the devices that strengthen and maintain networks. Therefore, only Sino-Thai investors are selected and enrolled into these networks. ANT analyzes how these networks are formed and maintained, but it neglects the power of the state that facilitates Chinese investor networks. Therefore, a political economy approach is employed to investigate government intervention in business networks, offering tax benefits and revising laws to facilitate Chinese investments.

CONCLUSION

Chinese investors have established networks among themselves and relocated their production bases to the EEC and Thailand. The case of large-scale vehicle factories shows that Chinese manufacturers buy auto parts from Chinese networks settled in the same area. Therefore, Thai auto parts companies do not benefit from the automobile industry, which the Thai state professes to support.

The Thai state offers a business climate and tax benefits to attract Chinese investors. Chinese manufacturers can import raw materials and machines from China, so that they can benefit from lower production costs compared to their Thai counterparts. Therefore, Thai companies cannot compete on price with the Chinese. Chinese investment in the EEC does not promote good economic outcomes for Thai industry. They make joint venture agreements with Thai investors only in those cases where they cannot operate businesses by themselves, such as buying land or cheap raw materials.

Cultural affinities are very important for the enrollment process and maintaining economic networks. Chinese investors enroll Sino-Thai partners who can speak Chinese and understand Chinese culture to join trade networks. Chinese investor networks also employ cultural ties to expand their networks into several business sectors, including real estate and agriculture. This study demonstrates that all actors in the network always negotiate for their own benefit, especially Thai investors who have less power. Thai investors attempt to enroll into these networks, even though they become mere nominees.

The neoliberal Thai state does not only privatize infrastructure development projects, it also deregulates city planning laws that change land use categories to expand industrial areas for foreign investors. Plastics recycling factories, inland container depots, and industrial estate projects are permitted to be established in communities, and they result in land grabs and environmental problems. Local communities have called for revising the EEC map through public participation.

The Department of Industrial Works and Pollution Control Department should inspect recycling factories, enforce environmental laws, and promote a surveillance network for disposing of hazardous wastes. In addition, the Ministry of Commerce should control the prices of domestic raw materials, such as rubber prices, and promote export markets for fruit such as durian, for Thai investors. The Office of the Board of Investment (BOI) and the Ministry of Commerce should revise the rules for tax exemptions on the import and export of certain types of goods, and encourage foreign companies to use domestic products.

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Belt and Road Initiative in Northern Myanmar: The Local World of China's Global Investments

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Macro-level discourses on the Belt and Road Initiative (BRI) firmly establish China as the sole agent in driving infrastructure development. This article contends that often obscured from view by the discourses on China's dominance are the host country authorities' exercising of agency in infrastructure development under their own jurisdiction. The paper focuses on the actions of the local host country authorities in developing an infrastructure megaproject as a part of the BRI in northern Myanmar's Kachin State. Currently under suspension, the Myitkyina Economic Development Zone (MEDZ, also known as Namjin Industrial Zone) would make an ambitious spatial intervention with wider implications and risks. The paper scrutinizes the 'strategies' by the local authorities in 2019-2020 in their attempts to move the project forward covertly. These include exploiting the project's designation as an economic developing zone to conceal its scale and the inclusion of a major urban development, lack of transparency, and alleged abuse of power.

Keywords: Belt and Road Initiative; Chinese Investments; Cross-Border Economic Zone; Kachin; Myanmar

INTRODUCTION

China's Belt and Road Initiative (BRI) has effectively opened the door for the Chinese state and businesses to enter a multitude of countries across the world. The dominating macro analyses of the BRI generally present the Chinese actors as the only – or as the only active – party engaged in the overseas projects, often seeing the host countries as passive recipients of the investments. The local worlds of China's global investments, however, are much more complicated. All BRI proposals require agreement on the dimensions and details of the project including its conditions, location, land dispensation, and acceptance by the local authorities and the public, to name a few apparent arenas of local engagement. The Chinese developers must comply, even if just nominally, with the host country's regulations and bureaucracy and their environmental and risk assessment

prerequisites. First and foremost, Chinese developers must engage, both collectively and individually, with the host country's political actors and decision-makers, who are embroiled in local politics and multiple stakeholder interests. Critical scholarship on China's involvement in Africa, for example, calls to view the local authorities as "crucial voices and challengers" (Carrai et al., 2020, p. 8).

This article draws attention to the role of the host country authorities as cardinal agents at the planning stage of a transnational BRI project. It holds that the host authorities' bargaining power ensues by default from the moment the Chinese lay open their plans, particularly if driven by grand geopolitical or geoeconomic ambitions. A mix of geopolitical context, local political culture, and the host authorities' negotiation capacity shape the outcome of the project planning. Importantly, the local decision-makers' disposition to advance national, local, or personal interests becomes crucial for the project's fate.

This article studies the anatomy of planning the Myitkyina Economic Development Zone (MEDZ, also known as Namjin Industrial Zone), an official BRI infrastructure project in Kachin State in northern Myanmar that was set to become one of the country's largest with an estimated cost for its first phase earmarked as USD 300 million (Baoshan Municipal Government, 2018). Its Memorandum of Understanding (MoU) signed in 2018, however, was suspended in 2020 without any further elaborations. This article demonstrates that it was the particular actions of the authorities in Kachin State in 2019-2020 that – resonating with Myanmar's lingering past patterns and practices of governance – were geared towards hastily launching the megaproject, also leading to its consequent suspension. It is argued that the local Kachin State authorities, while having ample geopolitical agency to push for a publicly more acceptable agreement with the Chinese developers, instead tried to move the project forward covertly. This article identifies three such 'strategies' by the local authorities – hiding behind the project's designation as an economic developing zone to conceal its scale and inclusion of a major urban development, operating without transparency, and allegedly abusing power.

This article first demonstrates that the geopolitical context across Yunnan, Kachin State, and Northeast India affords the host authorities notable extra agency and power to negotiate a more accountable solution. It continues by introducing the MEDZ as a typical Chinese economic zone model project in more detail. It then explores the lack of knowledge and transparency and alleged abuse of power experienced by a cross-section of actors in local communities in Myitkyina and at the planned project site. For information on strategies and visions related to the MEDZ infrastructure development, the article relies on the translation of the original Mandarin-Burmese bilingual blueprint for the project issued by the developer, Yunnan Tengchong Hengrong Investment and Development Company (YTHIDC). The blueprint obtained from fieldwork informants is not a public document, but a copy was kept by the author. On the whole, this article benefits from the author's long-term ethnography-based research in Kachin State at both sides of the China-Myanmar borderlands conducted over the course of hundreds of interview sessions since 2000, thus employing a timespan of 20 years to identify changes in Myitkyina's urban development. Material on the MEDZ-related developments was collected through in-depth interviews in Myitkyina in March 2019 conducted by the author

with a multitude of actors representing a cross-section of local communities. They include two farmers who accused the Kachin State government of grabbing their land for the project, a lawyer defending the farmers, four Kachin businessmen engaged in the cross-border trade and with potential interest in the MEDZ if it moved forward, several Kachin political elites, local civil society and media representatives, two Kachin State MPs, and a Kachin State minister. The interviews were conducted in English, Burmese or Jingphaw, with a translation provided for the latter two languages by a bi-lingual Kachin interpreter whose expertise, local knowledge, and collaboration greatly contributed to this research. None of the interviews were recorded in order to provide the interviewees assurance of safety, confidentiality, or ease to talk freely, while detailed notes and verbatim quotes were taken with their permission. Only broadly described profiles, such as professions or affiliations, are used in reference to the interviewees to guarantee their anonymity. The interview responses have been cross-checked with different actors, and the internal workings of the Chinese investment company threshed out with a Tengchong (Yunnan, China) resident with relevant information. The limitation of the article remains that the particular government authorities operating without transparency and accused of power abuse by the farmers have not been interviewed.

GEOPOLITICS AND THE ISSUE OF AGENCY

Myanmar is one of the fourteen countries that border on China and thus serve as outlets for its Belt and Road Initiative (BRI). Uniquely, Myanmar is one of the two countries that give China access to the Indian Ocean and that, together with the influence over the Bay of Bengal region, are crucial for China's energy security and pursuing its maritime Silk Road. Gaining the economic and political upper hand in Myanmar further enables China to dominate the regional space against its geopolitical rival India. Under the auspices of the BRI, Myanmar is the second single country after Pakistan with which China has embarked on a joint economic corridor, manifesting Myanmar's wider strategic importance in Beijing's plans (Yun, 2019). This gives Myanmar's local and central authorities a considerable level of agency, viewed here as their relative power to decide or modify China's proposals for investments regardless of its might and history of influence in Myanmar.

In all cases, it is Kachin State bordering on China's Yunnan province that has an undeniably strategic position. Its capital, Myitkyina, – and the location of the planned megaproject – is just about 100 km away from the Chinese border (and from the official border crossing at Kambaiti-Houqiao/Tengchong). Moreover, Myitkyina is just 361 km away from India – along the historic Stilwell Road that connected India and China during World War II. Also known as the Ledo Road, as it started in Ledo, Assam State, in Northeast India, it was built by the Chinese, Indian, and American forces as a supply route for the Chinese troops fighting the Japanese army in Yunnan. It crossed into then-British Burma at the Pangsau Pass and branched into the southern and northern routes near Myitkyina – both connecting to the Old Burma Road before Kunming. The road fell into disuse after the war, and it is China that most actively has been trying to rebuild and revive its decrepit and at times impassable tracks for international and regional connectivities. Sections of the road in Yunnan

have already been turned into modern highways, while the road from the Houqiao border crossing up to Myitkyina has also been upgraded by the Chinese. Lending further negotiating power to the Kachin State decision-makers is the determination of the authorities and businessmen in Baoshan/Tengchong in Yunnan, China, to pursue the MEDZ as the key for their wider geo-economic vision that includes the Stilwell Road connection to India.

This wider vision has emerged from both discursive and strategical reconfigurations of Yunnan's geopolitical position within China – from that of a historical imperial periphery to a future-looking "bridge" to Southeast Asia and beyond. This has driven Yunnan's border prefectures to compete for the "bridgehead" position (Rippa, 2017; Zhou, 2013), further equipped with the "anticipatory geographies . . . framed in the language of global connectivity and inclusive development" (Rippa, 2022, p. 17). In this contest, Ruili has gained the advantage as the primary gateway to Myanmar; however, the authorities in Baoshan/Tengchong that share 151 km of border with Myanmar's Kachin State to the north of Ruili are providing serious competition. They point out that the northern route of the historical Stilwell Road – crossing into China at Kambaiti/Houqiao and then passing through Tengchong – is 163 km shorter than the southern route passing Ruili (Zhou, 2013). For a decade already, they have been making all efforts to redirect traffic to this route and establish further connectivities, including to Northeast India. It is this race for the upper hand in geo-economic opportunities, banking on the revival of the Stilwell Road, where the MEDZ, a huge logistic and economic development zone at the Stilwell Road's junction in Myitkyina, has a key role.

The Chinese authorities in Baoshan/Tengchong have taken practical steps towards reaching these geoeconomic goals since the early 2000s by creating important road connections, pushing for the Houqiao border crossing's status as a national-level border port (granted in 2004), and opening an airport in Tengchong in 2009. Subsequently, the Baoshan authorities created the Tengchong Border Economic Cooperation Zone (TBECZ) in 2015, merging and renaming earlier administrative districts under a new administrative body, the Tengchong Border Economic Cooperation Zone – Committee (TBECZ-C), to become a part of Baoshan's "one line, two zones" platform for *external* development (Baoshan News Network, 2019, emphasis added). The "line" refers to a transregional thoroughfare from Baoshan to Mandalay while one of the two zones is the TBECZ combined with the MEDZ.[1] The TBECZ-C operates on the same level as the Tengchong city government, with officials at different posts in the latter also posted to staff TBECZ-C (interview, Tengchong resident, 21 August 2021) – while both are administratively under the Baoshan city-prefecture. In 2019, the *Baoshan News Network* (2019) declared that the city-prefecture would "take the lead in the construction of radiation center facing South Asia and Southeast Asia in Yunnan".

On the Myanmar side, the authorities concerned are the Union Government of Myanmar and the local Kachin State government. Myanmar's former civilian central government had on the broader level displayed a considerable amount of negotiating

1 The other zone is the Baoshan Industrial and Trade Zone combined with Mandalay Muuda Economic and Trade Cooperation Zone.

expertise and capacity by joining the BRI bandwagon *only* in 2017. With most countries in Southeast Asia welcoming the BRI since it was launched in 2013 and Pakistan establishing the joint economic corridor with China in 2015, Myanmar, merely by signing the MoU for the BRI in 2017, was a relative latecomer. In fear of a debt trap but also aware of the public sentiment, the then-Aung San Suu Kyi-led government only signed the MoU after China agreed to proposed conditions that also included the right to involve other international tenders for megaprojects. A further demonstration of the agency of the former civilian government is the small number of projects it agreed upon – only nine early harvest projects out of the 38 that China proposed had gotten the green light before the 2021 military coup (Lwin, 2019c; Naing, 2020), with the MEDZ among them (Lwin, 2020).[2]

Spectacularly displaying Myanmarese authorities' agency in deciding over the Chinese large-scale infrastructure development was the 2011 suspension of a huge dam construction by the then-President Thein Sein in a precedent widely remembered by all parties. The Myitsone Dam construction launched by a Chinese state-owned company only about 40 km from the proposed MEDZ site led to a locally started anti-dam movement that developed into a powerful, nation-wide mobilization against the dam (Kiik, 2020). It left China stunned, finger-pointing and then launching a massive influence operation targeting legislators, political activists, military, local scholars, journalists, religious leaders, and others (Currie, 2021). Restarting the construction of the Myitsone Dam has reportedly been raised by China in every senior-level meeting, including when President Xi met with Aung San Suu Kyi in Naypyidaw during his only trip outside China in 2020 – however, Myanmar's response was just "politely feint" (Currie, 2021). A year after the signing of the MEDZ MoU in 2019, thousands of people protested or petitioned against the revival of the Myitsone Dam.

In short, regardless of China's hegemonic power position and history of long-term political and economic influence in Myanmar, its civilian authorities and people have demonstrated capability to put forward demands to China. As the MEDZ is a key part of the ambitions by authorities and businesses operating in Chinese areas adjacent to Kachin State to acquire a stake in the regional geoeconomy, the host actors have a favorable position for negotiations.

The following section first lays out the proposal for developing the MEDZ issued by the company that was specifically established by the Tengchong/Baoshan authorities and businessmen for this project, and then analyses its implications for the Kachin State capital area.

PLANNING FOR THE MYITKYINA ECONOMIC DEVELOPMENT ZONE (MEDZ)

What is MEDZ and why?

The Myitkyina Economic Development Zone (MEDZ) is an infrastructure development proposed by the Yunnan Tengchong Hengrong Investment and Development Company (YTHIDC) established by the Tengchong Border Economic Cooperation

2 For comparison, under the China-Pakistan-Economic Corridor (CPEC), signed in April 2015, 51 agreements and 22 early harvest projects were already completed and operational in May 2019 (Yun, 2019).

Zone – Committee (TBECZ-C) specifically for the project. By design, YTHIDC thus is a company administered by government officials and businessmen. It has two CEOs, one of them being Duan Zhikui, known by locals in the Yunnan border areas as the 'richest man in Tengchong,' who both own private companies of their own.[3] The YTHIDC team signing the MoU for MEDZ in Myitkyina in 2018 included the Mayor of Baoshan and Duan Zhikui as one of its CEOs.

The MEDZ official proposal presents it as a logistics center, distributing goods that cater to the needs of economic interactions between China, Myanmar, and India, and as a hub for railway, road, air, and water transport. The Blueprint prepared by the YTHIDC (2017) and used as a primary source for this article lays out ambitious plans for supporting this transport infrastructure, including details for developing the designated 4700-acre area adjacent to Myitkyina.

The transport infrastructure plans include a new international airport in Myitkyina to service Boeing 737s and larger airplanes, a new railway station, and a river transport route leading from Bhamo port to Yangon. Construction of roads is planned over several stages. The first stage sees establishing local connections from the MEDZ to Myitkyina, to the highway leading to China and to the Bhamo port. The second phase sees the establishment of expressways to Lower Myanmar (Bhamo, Mandalay, Naypyidaw, and Yangon). The third stage involves the construction of a highway connecting to Ledo in Northeast India.

The 4700-acre area to be developed is conceptualized as "a joint industrial and cultural area" conjoining Myitkyina (YTHIDC, 2017, p. 19). Agricultural production and processing facilities but also various infrastructure providing public, business and other services, educational and research centers, cultural and entertainment establishments, and health and sports facilities, are envisioned to together "create a whole and enhance the attractiveness and potential of the industry" (YTHIDC, 2017, p. 22). The Blueprint clearly talks about creating "*urban* space" and facilities that signify and enhance "*urban* culture" (YTHIDC, 2017, p. 60, emphasis added). The new hospitals, educational structures, and other functional service facilities are planned to serve not only the resident population of the zone but also the population in the neighborhood: that is, Myitkyina. There will be primary and middle schools, clinics, hospitals, a community house, petrol stations, businesses and banks, postal services, supermarkets and other shops, playgrounds, fire department, administrative buildings, and large high-rise residential areas. It will have up to 14-storey-high buildings in the central areas and 7-8-storey buildings in the surrounding districts, while facilities located further from the center are planned up to seven storeys high. The residential district in the maquette photographed for the blueprint has high rises separated by greenery, parks and sports facilities, and the school is a huge, four-storey complex with a stadium and modern classrooms designed to accommodate 50 students. Written into the plan are goals of creating a healthy and diverse residential and manufacturing environment, where a public

3 Duan Zhikui is a business tycoon from Tengchong with a history of engagement in the opportunistic and profitable borderland economy. He started as a teacher in the Kachin-Yunnan border areas, but accumulated wealth through mining, real estate, and various other borderland endeavors. He now has businesses in Myitkyina, Houqiao border trade zone but also in South Myanmar's planned Kyaukphyu SEZ (personal communication, Tengchong resident, 12 May 2019).

green belt is combined with built *downtown* areas (YTHIDC, 2017, p. 64, emphasis added).[4]

It is important to note that the planned development is huge even by Chinese standards – most special zone types in China usually range between 2,6 and 11,7 square kilometres on average (Herlevi, 2017, p. 25), while the 4,700 acres of the MEDZ convert into 19 square kilometers.

Implications and Risks

The Chinese authorities' envisioned MEDZ – its planned functions, conceptualization, and scale – is bound to have three kinds of wider implications. First, there are standard problematic issues related to any megaproject development such as land acquisition, finance, environmental impact assessment, and socio-political effects (Sandhi Governance Institute, 2019). Secondly, precarious from the local perspective, is the 'added value' of high-rise residential districts and downtown urban areas as a part of the unique Chinese approach to such 'zone' development. Labels such as economic zone or logistics center conceal the actual content of China's zone models, not well known to the ordinary public. Thirdly, the hasty acceptance and total lack of public consultations or even awareness – the complete lack of transparency – would likely have complex implications.

The standard problematic issues are even more problematic under precarious regimes, where these may not get the acceptable treatment and solutions. Myanmar in 2019 continued to struggle with the legacy of the longest military rule in the world (1962-2011), characterized by the political system of impunity and coercion, corruption and crony capitalism, combined with military's entrenched control over the legislative and executive powers in the government. The half-civilian rule between 2011 and 2021 21 had been trying to clip all this – that ultimately led to the latest military takeover on 1 February 2021. Only one report by a Yangon-based social research organization, the Sandhi Governance Institute (2019), assessed the potential risks of the project and related these to the socio-political conditions of the time. However, the report remained rather an analysis of general economic, political, and financial risks due to the limited information available. It pointed to the unknown corporate governance structure of the Kachin state-owned entity (the Myitkyina Economic Development Zone Committee, or MEDZC), established to coordinate with the Chinese developer, to the conflict of interest written into the MoU, and to the absence of information on the public-private partnership's financing structure or rates of return (Sandhi Governance Institute, 2019). It also pointed to the potential of a conflict over land procurement and wider socio-political perils such as the likely intensification of the opportunist political economy that might exploit the green light given to the project; related cross-border flows of goods and people; further marginalization of the ongoing armed political resistance by the Kachin Independence Organization (KIO); and the overall resentment towards Chinese investments arising from earlier exploitation of natural resources and the ongoing predatory agribusiness investments. The Sandhi

4 In both Mandarin and Burmese versions of the blueprint, the quoted terms on pages 60 and 64 can be translated as 'urban model/space,' 'city/urban culture' and 'downtown/central areas.'

Governance Institute, however, incorrectly assumed that the YTHIDC was a private business established by a well-known Yunnanese businessman (Duan Zhikui), and thus speculated that, by lacking a history of public records, it would have problems in securing loans.

Indeed, there is a *diversity* of Chinese developers constructing the BRI projects in general, complicating any macro-level presumptions and risk assessment, as their structures, internal workings, and access to finances may vary considerably. In theory, most broadly, these part between China's state-owned enterprises (SOEs) administered by the State-Owned Assets Supervision and Administration Commission of the State Council and the individual commercial groups. The Yunnan Tengchong Hengrong Investment and Development Company (YTHIDC), established by the Tengchong Border Economic Cooperation Zone – Committee (TBECZ-C) specifically for doing MEDZ (and some other small business and development in TBECZ-C administered area), is a local government-level SOE. Duan Zhikui's own company Baoshan Hengyi Business Group 'cooperates' with YTHIDC – that is why Duan Zhikui is one of the CEOs in YTHIDC (and mistaken by the Sandhi Governance Institute as the owner of YTHIDC). Businesspeople like Duan Zhikui – with several smaller companies and deeply entrenched political connections and skills – are useful for the administrative body such as the TBECZ-C to cooperate with (interview, Tengchong resident, 29 October 2021). Most importantly, TBECZ-C has access to state-owned bank money (for example, Bank of Development that only does business with governments). In fact, as an SOE and strongly backed by the local government for carrying out its key long-term development visions, YTHIDC has access to the necessary funding.

A highly serious consequence from the MEDZ is related to applying the Chinese economic development zone (EDZ) model without precedent and relevant awareness in the host country. It is clear from the vision described in detail in the project's blueprint that the proposed development leads to a form that is much more than an economic zone in its literary meaning – it is a large, multi-purpose industrial-agricultural-urban space. This is not unexpected from China's perspective. Various EDZs, although viewed under the BRI as any other infrastructure development, in practice constitute more 'holistic' spatial approaches to economic development.

While economic development zones (EDZs) have a centuries-long history as commercial zones designed to encourage entrepôt trade in citywide zones on international trade routes (World Bank & International Finance Corporation, 2009), in China, the creation of EDZs has been a gradual policy since the late 1970s and early 1980s. After initial experimentation, 'the zone' in China has diversified into many different types and modes, depending on the objective. The zones are always geographically delimited areas that have a single management or administration; these offer benefits to businesses or investors located within the zone, and attract businesses from foreign countries, often aiming to attract foreign direct investment (FDI) and increase exports (Wang, 2013). The zones can constitute cities but most often these are city districts, while, importantly, Xie, Swerts & Pumain (2018) argue that zones are tools for urban development in China.

Bach (2019), furthermore, argues that the China-adopted EDZ model has over time developed into a specific urban form(ula). This new urban form, originating in an economic zone infrastructure development, has shifted "from the 'hard'

infrastructure of ports and pipes, roads and factories, and electronic 'backbones' to 'softer' infrastructures of housing, entertainment, education, and 'creative' spaces to nurture and attract the right 'talent'". Bach (2019) asserts that this is China's urban form of "late modernity, one where socio-technical infrastructures graft onto, transplant, and extend existing ideas about cities as catalysts". The MEDZ being also visioned as a mega logistics center with rail, air, and overland connections to China, India, and Bangladesh – as a dry, inland port – invites a further discussion of how much this corresponds to the port-park-city (PPC) model, also associated with a form of China's EDZ pioneered in Shenzhen. PPC is a 'full-stream-of-logistics-production-and-urban services' model with a port in the front, an industrial zone in the middle, and a city at the back – and it is "a readymade template" being exported worldwide by all Chinese SOEs active in overseas port development (Liu et. al, 2020, p. 6).

Emplacing such a Chinese EDZ/PPC model to conjoin the low-rise sleepy provincial capital and market town of Myitkyina with a small-scale industry of mostly local nature is likely to produce major schisms not only in urban scale and form but also in the socio-cultural fabric. Myitkyina has not seen any significant urban development during the last 20 years of Myanmar's rapid transformations. Since the mid-2010s, only some cosmetic public works have been conducted, such as, for example, upgrading roads, installing traffic lights, and initiating landscaping. The tallest building in Myitkyina – the lone "tower" that every local knows – is the 10-storey Myitsone Hotel built in 2016. In Kachin State's socio-cultural context of multi-layered intra-ethnic, ethnopolitical and anti-Chinese tensions, Myitkyina has served as a sort of cosmopolitan urban center, where urbanites operate together, even if residing in distinct ethnic neighborhoods. It boasts Christian churches of multiple denominations, mosques, and Hindu, Buddhist, and Chinese temples, while motley (often ethnic-based) entrenched professional and trading networks, but also grassroots and political activist networks, invisibly traverse the urban space. All Myitkyina inhabitants meet and mix at marketplaces, banks, government schools or the Myitkyina University, popular tea and coffee shops, and at the ethnic Kachin, Chinese, Shan, Burmese, Korean or Thai restaurants dotting the town overlooked by tall Kachin *manau* posts. Historically, a region dominated by the Kachin – while hardly so anymore – most of its residents gather to see the spectacle when the Kachin embrace their traditional dress and pick up the steps at the festival ground to dance the deeply symbolic *manau* dance to beat drums and songs. If the MEDZ materialized, the sheer size of the spatial intervention on one hand, and the type of embedded Chinese late modernity on the other, are bound to have deep and irreversable impacts on Myitkyina's city space, its fragile socio-cultural context and demographics. The function of the logistics center would further entangle the local spaces in transcontinental networks through new flows, routes, and configurations, while the zonal logic will potentially disembed the site from the local surroundings.

Importantly, the MEDZ was being planned in a context of general public anger and anti-Chinese sentiment – in Myanmar more generally and in Kachin State specifically – and thus of potentially explosive citizen awareness and resistance to Chinese megaprojects.[5] The analysis that follows will demonstrate that instead of negotiat-

5 Most of China's major investment projects in Myanmar have faced public resentment from the communities that face land grabbing, environmental problems, an influx of Chinese immigrants, and a low share of revenues. While the Myitsone Dam project was exceptional in that it was unilaterally suspended

ing with the Chinese developers to reach a more publicly acceptable solution – that would have involved a more inclusive planning process in Kachin State – the local authorities used covert actions that were conjoinedly expected to facilitate the hasty launch of the project. These include exploiting the designation of the project as an economic zone and the lack of awareness of what the Chinese EDZ contains, the near complete lack of transparency to simply cut the public off from any information on the project, and alleged abuse of power by exploiting the Vacant, Fallow and Virgin (VFV) Land Law amendment to secure land.

ZOOMING IN: KACHIN STATE AUTHORITIES' ACTIONS

Exploiting the Project's Designation

The designation of the MEDZ as an economic development zone (or the Namjin Industrial Zone) employs the vocabulary of China's zone model of development. It benefits from the ambiguity stemming from the very broad conceptualization of economic development zones (EDZ) in China and in the world. In China, specifically, EDZ is an umbrella term for at least 14 types of zones, each with different policies and sometimes supervised by distinct administration (Wang, 2013, pp. 16-22). Thus, the designation does not give any hints on the project's major goals, preferential policies, administration structures or expected performance.

Even less does the designation reveal that, alongside the industrial-agricultural processing, a large aspect of the development involves creating an urban space of downtown and residential areas, parks, schools, hospitals, and other services to compound that of Myitkyina. To anybody unfamiliar with China's zone model of development, a designation of an infrastructure project as an *economic development zone* (or as industrial zone) creates the expectation of industrial-agricultural processing with factories, storehouse, and the directly related servicing infrastructure. This is exactly how the media has interpreted and thus reported on the MEDZ – that it is planned as an agricultural processing zone with some light industry of nearly 500 factories and 5,000 buildings – and nothing else (for examples of such media reports, see Kachin News Group, 2019; Lwin, 2019b; Sandhi Governance Institute, 2019; Tar & Aung, 2020). The Myanmar public, well-educated on the risks of dams, mines, or monocrop development, having mobilized on multiple occasions, however, has not had much experience with China's EDZ/PPC models, as most were still under construction until the turmoil in 2021.

Thus, the designation of an economic development zone has clearly misled the public, including the investigative journalists and think tank researchers, by

in 2011 by Myanmar, other megaprojects such as the Sino-Myanmar pipelines, Letpadaung copper mine, the Kyaukphyu port and the Special Economic Zone are in operation or moving ahead. At the time when the Kachin State authorities were making efforts to conceal the plans for MEDZ, in April 2019, thousands of people protested or petitioned against the revival of the Myitsone Dam, sparked by Aung San Suu Kyi's invitation to take a "wider perspective" on the dam (Lwin, 2019a). Augmenting the anti-Chinese feelings in Northern Myanmar at the time was also the rapid expansion of Chinese-financed banana plantations, widely known for forcibly displacing Kachin farmers from their land to become poorly-paid wage laborers, and dumping toxic pesticides banned in China, thus threatening health and environment (Hayward et al., 2020; Naing, 2021; Sarma et al., 2023; Soe & Dunant, 2019).

downplaying the project's planned scale to a great extent and denoting only to its functions of economic production, processing and logistics, while omitting what might be its most visible and socially consequential – and controversial – outcome, the planned urban facet and the importation of Chinese urban modernity. There was thus no public awareness that an infrastructure called an "economic development zone" and presented as a BRI infrastructure project, will have a modern Chinese city in the package by default, and the authorities did not articulate anything to explicate the plans behind the designation. Importantly, this leads to the next aspect of the scheme by the local authorities.

Practicing a Lack of Transparency

Ten months after the signing of the MoU, at the time of this fieldwork, very few people knew about the project. The farmers whose land the planned project would include, "got a sense of something going on" when seeing strangers from China inspecting their land, while their application for the VFV land use registration had unexpectedly been suspended (interview, two farmers, 12 March 2019). The concerned farmers had raised the issue at the government's regular public consultation on 26 August 2018.

> Upon this, U Wai Lin [Planning and Finance Minister – K.D.] said the following: This project will not start this time. If it starts, we will let you know. This means that the government promised to inform if the project is going to be implemented. In reality, the Chinese and state officials are together measuring the area, there are instruments left in the area. But the government has not yet informed us. (interview, two farmers, 12 March 2019)

The land was being measured by the Chinese technicians protected by the Myanmar police. The representatives of Kachin business and political elites also knew that something was planned, but their knowledge of details was meager. A Kachin owner of a local construction company with a potential business interest had similarly attended the public hearing and separately narrated that the Minister had said that "nothing was confirmed" (interview, 13 March 2019). The businessman gave a longer comment as follows:

> The government is not really open about how it conducts the project. It is secretive about the project and about what the final deal will be. Lots of people are not happy about this. They feel the government is not transparent. People are questioning how this affects them. The government only acknowledges it indirectly, as if it were a side plan … However, the blueprint exists. (interview, 13 March 2019)

The Kachin elites, including an MP, also appeared to not fully grasp the size of the planned MEDZ and dismissed the plan as just on paper: "Kachin State government can and must control – because Namjin is not big – not a mega-project. It is a medium project run by state government." (interview, Kachin State MP, 16 March 2019)

"The government has said that this is 'just' a MoU, that it is nothing . . . The government says that it will let MPs and the public know when the time comes", another Kachin State MP accounted, saying that the ongoing fighting had to be stopped and the internally displaced people (IDP) situation addressed before taking on such projects (interview, 12 March 2019).

A representative from the local media, *Myitkyina News Journal*, a year after the MoU's signing, felt that there was nothing to report: "We can talk to villagers who very much want to publicize what is happening, but the government officials are not giving any information. Thus [we are] waiting." (interview, 13 March 2019)

In the context of general resentment in Kachin State towards the Chinese businesses and the lively activist reporting on jade and amber mining, or the media coverage of the predatory Chinese banana plantation business, no complaints had been publicly articulated about the planned huge infrastructure intervention still a year after the signing of the MoU. The public and the grassroots communties just did not know. It appears that the silence was broken by the Chinese ambassador to Myanmar who visited the site in the end of 2018 and made a public statement, picked up by *The Irrawaddy* journalist who subsequently visited the site and published an investigative article on 9 April 2019 (Lwin, 2019b).

This enormous infrastructure project was never listed in the Myanmar Project Bank launched in 2018 by the NLD government as a publicly accessible online portal to facilitate screening of government projects in various forms of partnerships with the private sector to assess their key risk criteria.[6] The Sandhi Governance Institute (2019, p. 18) points out that there is a clause in the MEDZ's MoU stating that all terms and conditions of the project would be kept confidential during negotiations, and that such a clause violates the NLD government's transparency drive. During 2015-2021, while the NLD-led parliament had passed several anti-corruption and transparency directives, such reforms often remained against the vested interests of many local state authorities. As is clear from the quotes by the various locals and citizen representatives of Myitkyina, in Kachin State, patrimonialism on the government level continued unhindered and rendered the public sphere a subordinate place whose basic demands were seen more as a chore for the power elites who showcased their benevolence and attentiveness to public concerns more so discursively and much less in practice.

"Kachin State government is scared of protest", the lawyer defending the farmers in their struggle for their land stated as his reason for such lack of transparency (interview, 10 March 2019). We will now turn to the farmers who accused the Kachin State authorities of seizing their land and abusing power.

Alleged Abuse of Power

Essential for the MEDZ is the availability of the land but also its location. The site selected for the MEDZ was reportedly the Chinese company's second choice, as the Kachin State government had rejected the initial site nearer to the Stilwell Road over conerns of land ownership transferral and possibly high compensation fees (interview,

6 The Project Bank before the coup in 2021 listed 129 infrastructure projects, while only seven had higher budgets than the MEDZ.

lawyer, 10 March 2019). The final selection includes the land in joint ownership of 97 farmers on the government-designated Vacant, Fallow and Virgin (VFV) land, attesting to the government's deliberation that this is an easier option for land allotment.

As part of the reforms in Myanmar in 2011-2021, a development framework was adopted that promised to take a people-centered approach, address poverty and improve human development; however, this also included several "quick wins" that proved more consequential than some of the benign intentions (McCarthy, 2016; see also Mark, 2016). Among these, the Vacant, Fallow and Virgin Land Management Law (VFV Law) legally allows the government to reallocate lands designated as vacant, fallow or virgin to domestic and foreign investors. Activist groups have described these laws variously as providing "a legal mechanism for the Myanmar Government to confiscate land in rural areas across the country, constituting a massive statutory land grab" (Htoo & Scott, 2019, p. 33); as a legal method of furthering farmer disenfranchisement (Woods, 2014); or "effectively strengthen[ing] the powers of the political and economic elite" (Displacement Solutions, 2019, p. 16). In 2018, amendments to the VFV Law were adopted that required rapid registration of previously unregistered VFV land – the failure to do so resulting in criminalization of those occupying and utilizing VFV lands without registration. The amendment forces those who live on and use the land to make a choice between registering for a 30-year VFV land use permit or giving up all further rights to the land and being considered trespassers (OECD, 2020, p. 242). All analysts agree that attracting foreign investors, including for investment in land and agriculture, has been the driving force behind the described key land regulations. While the amendments also streamlined the earlier bureaucracy, making it easier for businesses to obtain land use rights, these "open the window for companies and powerful individuals to apply for VFV land, taking over from poorly informed and marginalised communities who fail to register in time" (Chau & Daudier, 2019).

Most of the land designated for the MEDZ belong to five local businesspeople with proper documents (i.e., registration with the Union Government); however, a portion of the VFV land has been cultivated by a group of 97 small farmers of various ethnicities growing grapefruit and mango, teak or various other trees for timber, or different seasonal Kachin herbs. This land, 650 acres, had been registered with the Kachin State government under the name of a Kachin man, N'Hkum Hkam, who was the leader of the Traditional Herbal Medicine Group until he passed away in 2019.

March 2019 was the deadline for applying for the land use registration by those cultivating the VFV land. The farmers' group had applied for the land use registration (Form Seven) in time and were anticipating it soon. After a delay, seven of their representatives were invited to the Kachin State government office, unexpectedly accused of being "intruders" on the land that they had been farming, and threatened by "a two-year prison sentence or five million lakh fine if we continue using our land. That was a shock! Opposite is true" (interview, two farmers, 12 March 2019). The reason reportedly stated by the official was that they did not have the Form Seven. The farmers allege that at some point during the MEDZ planning stage the government stopped processing their Form Seven application until the deadline passed, and by this move rendered the farmers "out of the legal boundary" and their land "illegal" (interview, two farmers, 12 March 2019). Wider analysis of the law enforcement points out that

there are many reasons why some farmers fail to register for VFV use. These include the law's definition of "vacant land" that clashes with current ethnic practices, lack of awareness of the requirements, ambiguity of what is considered VFV land in official records, or displacement and inability to return in time to complete the necessary paperwork (OECD, 2020, p. 279). However, in this case, the farmers' knowledge and proper adherence to the requirements and procedures did not guarantee them the land use registration.

The farmers had turned to a lawyer, who at the time of fieldwork was preparing for a settlement outside court, trying to get the government to give the farmers a proper compensation or redraw the boundaries of the MEDZ so that the smallholders' land would be excluded. The lawyer opted for a solution outside the court, because "there is no hope in other ways as the government does not follow its own procedure" (interview, lawyer, 10 March 2019). The case highlighted in the article demonstrates that the local authorities skillfully operated the system of governance in Myanmar that in 2019 was still characterized by close, mutually advantageous relationships between the military, some politicians and business elites, and a fitting legal system to protect their interests. Regardless of the NLD government's drive for transparency and good practices, the legal norms and institutions could be bypassed by Myanmar's like-minded political and business elites with an advantage in the structural architecture of power relations.

Overall, Myanmar was making steady improvements since 2011 across most governance indicators (Bak, 2019). However, as these 'improvements' need to be measured against an earlier context, much of the bureaucratic corruption, pressure by the armed forces and the police to conform to their demands, cronyism, clientelism, and 'nascent oligarchy' with personal relationships and patron-client networks as the chief forms of market governance remained rampant. Halfway into Aung San Suu Kyi's government tenure, the deeply rooted architecture of power relations persisted, with legal norms and institutions (including courts and anti-corruption commissions) continuing to be co-opted by the executive, and the rule of law being either functionally absent, used to justify autocratic tendencies, or both (Batesmith & Stevens, 2018, 2). Mark and Zhang (2017) point to the Myanmar government's low regulation capacity, stemming from the existing, ambiguous laws and overlapping authorities, and particularly the authorities' inability or unwillingness to avoid informal channels – often exploited by the Chinese investors to secure better deals. Finally, Mark and Zhang (2017) note that the most complex challenge to improve this situation was pushing aside those among the elites who benefitted from the status quo and thus resisted or openly blocked any attempts to wider reforms. In 2020, however, the MEDZ proposal was suspended, with a similar politics of secrecy by the same authorities enveloping this decision – highlighting in a different way the agency of the host country authorities.

CONCLUSION

Macro-level discursive assertions on the Belt and Road Initiative (BRI) generally present China as the unequivocal and uniform agent in the Initiative's global infrastructure development, and the host countries, particularly in the developing world,

as passive recipients or even victims. The article challenges such blanket understanding by demonstrating that the projects' eventuality is decided in the host countries to a great extent. It contends that a Chinese partner approaching the host authorities about an infrastructure project by default lends agency to the hosts, while China's particular geopolitical or economic considerations give the local authorities extra negotiating power.

This article has shown that a thick analysis and detailed scrutiny of the BRI project at the crucial planning stage helps to understand the cardinal role and dispositions of the authorities in the host country who decide over the Chinese investment proposals. This serves to better understand the expansion of China's infrastructure development globally.

The Myitkyina Economic Development Zone (MEDZ) is a large-scale spatial intervention, with huge geo-political and local implications even if all plans laid out in its blueprint would not materialize. The blueprint prepared by a local Chinese state-owned company proposes the development of a logistics center for Chinese goods, a new airport, railways, roads, riverports, a new hospital, schools, and other aspects of an 'improved' urban environment in a sleepy provincial capital 100 km from China and 350 km from India. While the determination of China's border prefecture authorities to gain a competitive hold in the regional geo-economy lend the Myanmar government and public plentiful agency, the local authorities in 2019 and 2020 tried to move the project forward hastily and covertly. Indeed, halfway into the tenure of Aung San Suu Kyi's government, the state's developmentalist approach as well as its various authorities' ability and will to collaborate in the wider drive for transparency, acceptable legal norms, and rules-based conduct varied significantly between Myanmar's states and institutions. In Kachin State, deeply rooted patterns of elite impunity and paternalist treatment of the public continued to frame the practices of governance. Instances of this as experienced by disposed farmers, local businesspeople and the media, along with the regulatory framework of the developmentalist state, are detailed in this article. The Kachin State authorities, aware of the capability of the public to challenge Chinese investments, effectively turned to particular actions in order to launch the project. Specifically, the authorities hid behind the project's obscure designation as an economic development zone, completely concealing its large scale and plans for urban development as a part of such a zone model. They avoided any transparency and, furthermore, allegedly abused power to secure the land. The objective was to avoid public resistance, as at the time of the MEDZ planning, Myanmar's population constituted an effective political, participatory, and well-networked citizenry highly concerned and vocal about the social, economic, and political futures of their country. These actions were 'successful' in that there were no protests against the MEDZ – ten months after the signing of the project MoU, there was no knowledge of the scale and details of the project beyond the immediate stakeholders and tenants of the designated land.

As the project was suspended without explanation, we can surmise that other (central) government authorities might have intervened at some stage of its early planning, whether advocating proper institutional framework and practices, or suspending the project for another reason. In any case, the 2021 coup reversed all conditions for negotiated planning, and the prospect for a relaunch of the MEDZ

is real if the incumbent government and the Chinese proponents estimate that the ongoing citizen armed resistance and civil disobedience are minor risks for the project implementation.

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DISCLOSURE

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Entangled Enclaves: Dams, Volatile Rivers, and Chinese Infrastructural Engagement in Cambodia

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This article seeks to advance understanding of the changing interconnections between rivers, infrastructure, and power relations as well as how these are increasingly shaped by a globalizing China and climate change. To do so, it analyzes damming practices in Cambodia and their evolution under a post-neoliberal, concessionary governing mode that materializes in enclaves of corporate authority under Chinese state-owned enterprises. Drawing from the literature on the political life of Chinese overseas infrastructure projects, this article develops the idea of ambiguously entangled enclaves. The focus is on the four most recent large-scale dams in Cambodia and the kinds of dis/connections, altered hydrosocial relations, and power dynamics they generate. The article highlights patterns of dis/entanglement that illuminate the role of Chinese infrastructural engagement in shaping new political-ecological relations and socio-spatial formations in Cambodia and beyond. It also adds insights into the multidimensional geography of enclavism in the Mekong Region.

Keywords: Cambodia; Dis/entanglement; Global China; Hydropower Dams; Infrastructure; Mekong

INTRODUCTION

As large dams are amongst the most massive infrastructure projects worldwide (Nüsser & Baghel, 2017), alterations in how they are developed epitomize broader changes in the geographies of global development (Sneddon, 2015). By the 2000s, the infrastructural promises of large dams, such as modernization, and mastery of nature, seemed exhausted. Recently, however, large-scale damming has accelerated, not least due to China's recent outbound infrastructural policies, spearheaded by projects such as hydropower plants (Mohan & Tan-Mullins, 2019; Urban et al., 2018). The Mekong Basin and broader Mekong Region in Southeast Asia are currently hosting one of the most intensive hydropower developments in the world. The focus here is on Cambodia, but the discussion relates its dynamics to the broader Mekong dam rush to grasp how Chinese

actors and their infrastructural engagements are shaping this rush, and with what effects.

Like most types of infrastructure, dams are paradoxical in the sense that they produce connections and disconnections, mitigate and create risks, and benefit some while harming others (Howe et al., 2016), usually in highly unequal ways (Scudder, 2019). Of specific interest in this study are the features of overseas Chinese dam projects, how they emerge, and how they may or may not be distinctive. Drawing from the infrastructure assemblage approach (Harvey et al., 2017), this contribution examines a wide set of contributing actors and their complex relational power dynamics (Oakes, 2021; Rogelja, 2020). It develops the concept of entangled enclaves to capture how the Chinese dams share features of disconnection and connection with the surrounding society and environment. The aim is to shed new light on the role and ambiguous qualities of China-made infrastructure in the shaping of political-ecological relations and socio-spatial formations in Cambodia and beyond. At the same time, this article bridges discussions on Mekong dams (Baird & Quastel, 2015; Blake & Barney, 2018; Geheb & Suhardiman, 2019; Mahanty et al., 2023; Middleton, 2022) with studies on the enclaved Mekong geographies (Laungaramsri, 2019; Nyíri, 2012; Rippa, 2019; Tan, 2017).

There are currently five large-scale dams (over 50 MW) in Cambodia, all of which are funded by Chinese banks and built and operated by Chinese state-owned enterprises (SOEs). This article draws on different periods of fieldwork that I conducted on these projects. The focus is on the four most recent dams: Lower Sesan 2 (LS2), which is built on a Mekong tributary in the northeast of Cambodia, and Atay, Tatay, and Russei Chrum, which are built on rivers outside of the Mekong Basin in the Cardamom Mountains southwest of Cambodia. Research materials include relevant project and policy documents, environmental impact assessments of the dams, media sources, and the official speeches inaugurating the projects, combined with an analysis of semi-structured key informant interviews and focus group discussions.[1]

Research on the Cardamom dams in Koh Kong province was mainly carried out in 2013 and 2014, with some follow-up interviews in 2019. The interviews in two dam-affected downstream communes along Koh Pao and Tatai Rivers (n = 38) included focus group discussions with villagers and semi-structured interviews with village chiefs and local ex-workers in dam construction. Other key informants (n = 23) included officials from the Ministry of Environment and provincial Department of Labour, NGO staff and activists engaged in conservation and human rights, journalists, and representatives of donor and international organizations. Field research on the effects of LS2 in Stung Treng province took place in October 2022 and included individual, in-depth semi-structured interviews with residents and community fisheries representatives from five downstream, dam-affected communes (n = 16) as well as key informant interviews (n = 18) with provincial officials, NGO representatives, journalists, local and international experts, and consultants. The analysis is also informed by field visits and interviews in 2011 and 2013 on the Kamchay dam (Kampot province), which is the first large dam in the country.

1 Preserving anonymity of all interviewees and avoiding third party identification is critical because of the sensitivity of the topic. Hence, the details given on the informants are kept to a minimum.

I begin with a conceptual discussion of dams as multivalent infrastructures of resource and space making with differing patterns of dis/entanglement, and then situate Cambodia in the current dam rush. This is followed by an analysis of the enclave features of the Chinese-funded and -operated dams in the country. In other words, I examine how they are *dis*entangled from local society, particularly in terms of regulatory exemptions and insulation from state oversight. I then present the converse—the entanglements of the dams: first, in terms of their overflowing negative effects, complicated by the powers of the climate-changed rivers and the regulatory insularity of the enclaves, and secondly, with Cambodian political and economic elites and the broader constellation of Sino-Khmer bilateral affairs. I conclude by summarizing the common features of the entangled dam enclaves, their patterns of disentanglement, and how these patterns are shaped by the interplay of the constituent elements of the dam assemblages: the different Chinese actors, the host country authorities, the legacies from previous, dam-related, regulatory reform, dam materialities, and volatile rivers.

DAMS AS INFRASTRUCTURAL ASSEMBLAGES OF DIS/ENTANGLEMENT

The concept of infrastructural assemblages, developed in recent social infrastructure studies (Anderson et al., 2012; Appel et al., 2018; Barry, 2020; Harvey et al., 2017), assists in analyzing the characteristics and effects of infrastructure that emerge from interactions between competing human interests and governing rationales and more-than-human forces and materialities. Approaching dams as assemblages foregrounds the relational processes and effects of infrastructure and takes into account a wide set of contributing actors without conflating their intentions or viewing the Chinese projects, for example, simply as vehicles for furthering China's influence and power. Instead, the approach illuminates the complexity of Chinese actors and rationales (Klinger & Muldavin, 2019), the various aspirations and logics of host country actors (Goodfellow & Huang, 2021; Mohan, 2020), how the projects build on previous infrastructural agendas (DiCarlo, 2021), and how their effects are shaped by the nonhuman capacities (Rogelja, 2020) of dam materialities and fluvial forces altered and made more volatile by climate change.

Dams as Obdurate, yet Multivalent Infrastructures of Resource-Making

Hydropower dams potentially enable river resourcification, rendering them investable and exploitable, governable, and controllable (Käkönen, 2020). The potential is, therefore, multivalent, entailing the production of both electricity and manageable river flows to be optimized for various, yet limited, uses (Sneddon, 2015; Wyrwoll & Grafton, 2021). However, the extent to which these two purposes can be aligned depends on the composition of the broader dam assemblage and the modes of operation at stake. Yet, even in multipurpose operations, the enabling functions of hydropower dams inhibit various other river uses; infrastructural violence (Rodgers & O'Neill, 2012) is largely built into the dam materialities and causes major harm to adjacent and downstream communities regardless of the actors involved in the damming.

Once built, the dams lock in certain (often unjust, reductive, extractive, and dispossessive) hydrosocial relations while foreclosing on others (often more variegated, engendering, and decentralized) for long periods of time, if not irreversibly (Blake & Barney, 2018; Linton & Budds, 2014; Scudder, 2019). As spatially concentrated, sturdy constructions, dams re-scale power relations by creating nodes for centralized decision making. In the Mekong Region, dams have been widely reported to diminish livelihood opportunities for those affected, along with their decision-making powers over river uses and their abilities to influence how dams are built and operated (e.g. Baird et al., 2015; Middleton, 2022; Suhardiman & Geheb, 2022; Ponce, 2022). Despite the similar effects of the large Mekong dams (Geheb & Suhardiman, 2019), the constitutive coalitions of actors and their interplay do shape the dam effects, making the implications of the forceful entry of Chinese actors into the international hydropower sector highly relevant to understanding current developments. In particular, the harm-related relations of responsibility and forms of response vary according to the types of involved parties in the dam assemblage (Käkönen & Nygren, 2023).

A key, non-human force that dams entangle with is river flow. The 'volatile rivers' concept aims to capture the new unpredictability and unruliness of fluvial forces (Krause & Harris, 2021) largely produced by climate change and environmental engineering, and the increasing conditioning of the Mekong flow regimes of the dammed rivers by electricity markets in far-away urban centers (Baird & Quastel, 2015). The reworked ebbs and floods of the Mekong and its dammed mainstream and tributaries have resulted in more rapid and out-of-monsoon-season fluctuations, drastic changes in previous seasonal riverine affordances, and potential augmentation of climate change-induced unpredictability. Importantly, as rivers become increasingly volatile, tensions between the production of hydroelectricity and manageable river flows multiply. The more the governing mode of the dam is set to maximize hydroelectricity production, the more ill-suited it is to respond to the new volatilities, and the likelier that it will augment them by, for example, resorting to emergency releases during the exceptionally heavy periods of rain that are becoming more frequent (Käkönen & Nygren, 2023).

Infrastructural Space-Making: China and Enclaved (Mekong) Geographies

The constituent parties to dam assemblages also affect the dis/connective capacities of the dam infrastructures, as well as their heterogeneous spatialities, which include both bounded and more diffuse territorial formations. The 'entangled enclaves' concept, akin to Mohan's (2020) notion of 'networked territories', draws attention to these complex enclaved Mekong geographies (Laungaramsri, 2019; Nyíri, 2012; Rowedder, 2020; Tan, 2017) and the modes of dis/entanglement that are common in Chinese overseas infrastructure projects (Rogelja, 2020). Resonating with discussions highlighting the various points at which the spaces constituted by globalizing networks and fixed forms of (state) territories may intersect (Jessop et al., 2008; Sassen, 2006), the concept also contributes to claims that global flows actually depend on infrastructural constructs that take territorialized enclave forms (Ferguson, 2006; Opitz & Tellman, 2012). The dam enclaves discussed here do not only form global territories; their entanglements also tie them into local state formation processes

in ways that resonate with Ong's (2006) concept of graduated sovereignty. In the Mekong Region, particularly in Laos, it has been noted that while enclaves such as Special Economic Zones (SEZs) fragment territorial state space, they also offer avenues for extending or exerting state powers (Nyíri, 2012; Tan, 2017).

While key China scholars (Cartier, 2017; Oakes, 2019) have challenged Ong's arguments regarding the SEZs in China—demonstrating that rather than graduated sovereignty, they are closer to state territorialization—Chinese overseas infrastructural projects seem to be ambiguous in that they are embedded simultaneously in multiple political and economic logics (Mohan, 2020; Rogelja, 2020). The concept of entangled enclaves tries to capture this multidimensionality. By drawing on the assemblage approach, meanwhile focusing on both disentanglements and entanglements, I also go beyond conceptualizing Chinese overseas investments principally as exceptional enclaves by highlighting their connections with webs of global development and capitalism and with the host state's governing rationales and pursuits.

To some extent, the dams in this study could be interpreted as extractive corporate enclaves of conventional zonal capitalism (Ferguson, 2006; Appel, 2012). Indeed, key features of their disentanglements stem from the neoliberal Build-Operate-Transfer (BOT) template for building and governing dams introduced by the World Bank and the Asian Development Bank (ADB), which pre-dates the entry of Chinese actors into Cambodia's hydropower sector. This echoes how the Belt and Road Initiative (BRI) in the Mekong region builds on plans and routes that the ADB's Greater Mekong Subregion program has already laid down (Dwyer, 2020; Raymond, 2021). Some of the enclave features, however, do relate to the disentangled mode of entry that is common to Chinese SOEs (Rogelja, 2020), intensified by the willingness of Cambodian state authorities to insulate dam corporates from state oversight.

The entanglements and effects overflowing the dam enclave boundaries are also shaped by the complex interplay of all the constituent parts of dam assemblages, although some relate to the pragmatic and accommodating approach that is common to Chinese SOEs. Appel (2012; 2019) has eloquently described how Western/international corporates strive to maintain a sharp distinction between the enclave and the host government or society more broadly, which parallels that between those who are compliant with global standards and those who are not. The enclaving practices that Appel discusses relate to the "discursive and procedural regimes of the global" that assist in bracketing existing entanglements and in abdicating responsibility for the effects that overflow the enclave boundaries (Appel, 2012, p. 451). Similarly, ADB and World Bank-type actors in the Mekong Region distance themselves from situated modes of governing with their own sustainability standards and safeguard policies. In his study on the Theun Hinboun hydropower project in Laos, Whitington (2019) has referred to the emergence of 'sustainability enclaves' that form exceptional spaces of rule by surpassing the surrounding regulatory norms. In the case of the Nam Theun 2 dam in Laos, the World Bank also tried, and failed, to extend the higher standards beyond the project boundaries (Singh, 2018; Middleton, 2022). The Chinese financiers and corporates, in contrast, seem less concerned about distancing themselves from surrounding governing practices by adhering to global standards and less occupied with cloaking the entanglements they have with host-country political and economic elites (Byler, 2020; Mohan & Tan-Mullins, 2019; Woods, 2017), most likely

because they remain less pressurized by international campaigns and thus less preoccupied with reputational risks than, for example, the World Bank (Urban et al., 2018).

In terms of dam-related harm mitigation and sustainability standards, while Chinese hydropower SOEs increasingly subscribe to international standards of environmental and social safeguards to improve their reputation (Kirchherr et al., 2017), this is not yet consistent; the main position they still assume is to follow host-country laws and law enforcement practices (Hensengerth, 2017; Siciliano et al., 2019). Moreover, the Chinese financiers and developers advertise their approach as 'no strings attached' in terms of World Bank-type conditional legislative and governance reforms (while taking advantage of pro-corporate reforms pushed through by their Western counterparts). This makes them more accommodating to the needs and priorities of host-country elites, which in the Cambodian context include, for example, patronage-based resource deals (Beban, 2021; Nyíri, 2017). The latter have been key in Cambodian post-war state formation processes (Le Billon, 2002; Hughes & Un, 2011) and continue to play a central role in the power consolidation efforts of the current regime (Milne, 2015; Work et al., 2022). As a result, the Chinese are far from a 'last resort' lender or builder in Cambodia. Indeed, the entanglements the Chinese infrastructure projects enable or generate are preferred to the 'strings' that World Bank-type funders attach to their support (Chheang, 2022; Motta & Matthews, 2018).

My key argument here is that entangled enclaves are not the result of any singular logic but the product of multiple interacting actors with distinct rationales. This is also why the socio-spatialities of the projects are multidimensional or polymorphic, manifesting global territoriality with enclave features that fragment Cambodian state space and facilitate China-geared global circuits of capital while, at the same time, the enclaves are entangled in ways that strengthen Cambodian state powers.

SITUATING CHINA AND CAMBODIA IN THE CURRENT (MEKONG) DAM RUSH

In the 1990s, dam development was challenged by environmental-social movements mobilizing anti-dam campaigns that put displacements and ravaged riverine ecologies and livelihoods in the spotlight (McCully, 2001; Khagram, 2004). As a result, international funding for dams stalled as major backers such as the World Bank withdrew from many projects (Richter et al., 2010; Zarfl et al., 2015). Recently, new hydropower projects have proliferated (Zarfl et al., 2015). The Mekong Basin makes up one of the most intensive scenes of the new wave of damming, with around 200 large dams in different stages of development (Figure 1). Of the total hydropower potential of the Mekong Basin, estimated at around 60,000 MW (Räsänen et al., 2018), around 23,000 MW is in the upper section in China, while most of the remaining capacity is situated in the rugged territory of Laos. Cambodian hydropower potential in the basin amounts to up to 9,000 MW (ADB, 2018), of which 400 MW is now built through the LS2 tributary dam. Most of the Cambodian hydropower potential outside of the basin has already been built (1,380 MW) with the Kamchay, Tatay, Atay, and Russei Chrum dams (see Figure 1). Most at stake with the recent and on-going Mekong dam rush are the world's richest inland fisheries, particularly important for Cambodia, and most productive rice-growing areas in the Mekong Delta of Vietnam (Geheb & Suhardiman, 2019; Middleton, 2022).

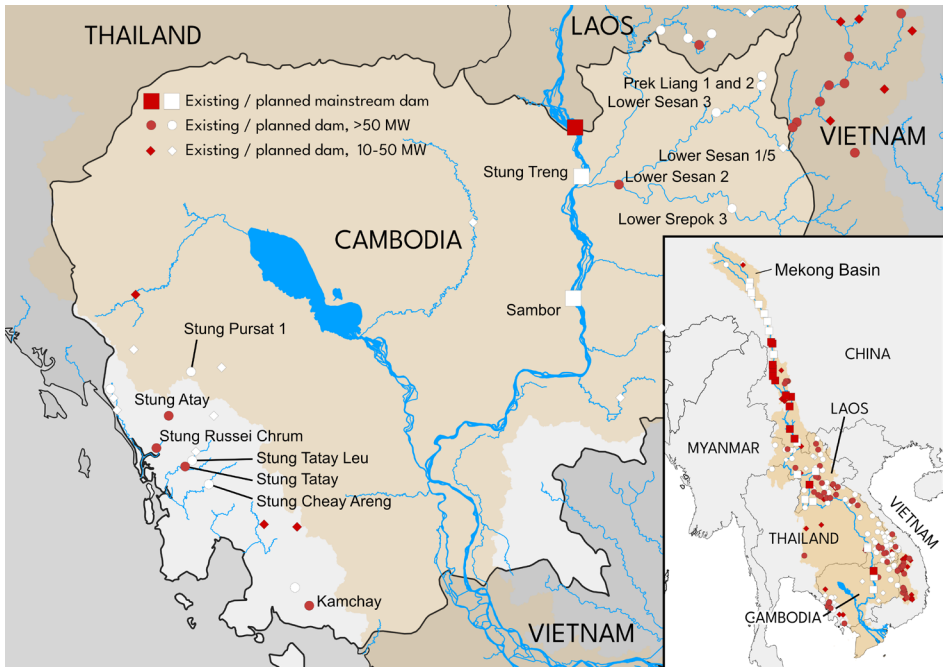

Figure 1. Existing and planned large dams in Cambodia and the Mekong Basin (By Marko Kallio. Source: MRFI, 2021)]

China, which dammed its rivers at the highest rate globally during the 1970s and 1980s (WCD, 2000), has evolved into a global powerhouse for hydropower development. In fact, hydropower is one of the key sectors in which the 'rise of China' has materialized in the Mekong Region as well as globally. Dams have formed a central part of China's 'Going Out' strategy and its subsequent adoption of the transnational infrastructure initiative, the BRI. Chinese state-owned banks and SOEs have become the largest financiers and builders of dams, particularly in contexts where damming is still dependent on external infrastructural capacities (Kong, 2021).

The damming of the Mekong began in Yunnan province as part of the Chinese government's 'Going West' policy to connect and develop its western regions, considered overlooked and in need of integration (Yeh & Wharton, 2016), although the main beneficiaries of hydropower are the eastern regions. In the Mekong Basin, the morphing of 'Going West' into 'Going Out' and then the BRI has materialized in dam projects in Laos and Cambodia. In Laos, the dam rush was triggered by the ADB-supported Theun Hinboun (Blake & Barney, 2018; Whitington, 2019) and the World Bank-supported Nam Theun 2 (Johns, 2015) projects followed by several projects with dominance of Thai developers. While dam developers are indeed diverse, Chinese investors and developers have steadily played a more prominent role in the sector (Matthews & Motta, 2015; Tan, 2015). In Cambodia, which has emerged as China's closest ally in Southeast Asia (Nyíri & Tan, 2017), all the large dams have been, thus far, financed, constructed, and operated by Chinese SOEs.

While many of the Chinese Mekong dam projects are labeled as part of the BRI, this obscures their much longer and more complex infrastructural genealogy. The first plans for dams in the Lower Mekong were developed under the auspices of the Mekong Committee (established in 1957), with the guidance of American experts, as part of a Cold War anti-communist mission that entwined geopolitics with technopolitics (Hirsch, 2016; Sneddon, 2015). These schemes were, however, eventually deemed unfeasible for various reasons, including financial barriers and escalating conflict evolving into warfare. A significant new push for the dams followed in the 1990s as the World Bank and the ADB attempted to steer the re-embedding of Laos and Cambodia in regional and global circuits of capital with investor-friendly, neoliberal juridico-institutional reforms (Glassman, 2010).

This resulted in the formulation of new property arrangements aimed at transforming the construction and operation of dam infrastructure into lucrative investment assets attractive for foreign, private-sector investors. This meant implementing BOT contracts that guaranteed the concessionaire profitable years between the loan payback period and handing the dam over to the state to deal with the maintenance costs of decaying infrastructure (Bakker, 1999; Walker & Smith, 1995). BOT contracts also guarantee a high degree of autonomy in altering riverine flows to create a regime that is optimal for maximized electricity sales, and frequently include clauses to pre-empt riverine uses that may threaten the profitability of dam operations. While the enclave model is often depicted as something that characterizes the infrastructural engagements of globalizing China, in the case of hydropower, it is not the enclave model itself that is particularly 'Chinese'. In Laos and Cambodia, all the post-1990s, second-wave large dams are BOT projects, with dam controllers that maximize electricity sales (Merme et al., 2014; Middleton et al., 2015). Because of the high degree of autonomy granted to the heterogeneous concessionaire consortiums, dam assemblages are variously dis/entangled and exhibit differing patterns of harm mitigation, and treatment of affected people (Käkönen, 2020).

When considering historical changes in these dam assemblages, it is tempting to interpret them through the lens of geopolitics. The first wave of global damming, entwined with US Cold War geopolitics, has evolved into damming as an instrument of Beijing's geopolitical designs. This has triggered China-US rivalries and US efforts to balance China's increasing influence, reflected in the new Mekong partnerships that foster renewable energy alternatives to hydropower development. The overseas expansion of Chinese hydropower developers, however, is less about geostrategic planning than outbound infrastructural fixing of domestic problems, entailing geoeconomic logic that subsumes a range of activities: seeking new markets for Chinese engineering firms–especially in sectors like hydropower that are domestically oversaturated with surplus expertise (Urban et al., 2018); securing the value of domestic currency by creating outlets for China's accumulating foreign exchange reserves (Motta & Matthews, 2015); and ensuring flows of critical resources by exchanging dam infrastructure for resource access (Mohan & Tan-Mullins, 2019). Thus, the 'Going Out' of Chinese hydropower developers cannot be attributed to a single cause. Monolithic claims that China's geopolitical priorities drive their overseas infrastructure projects are simplistic (DiCarlo, 2021; Oakes, 2021), although Chinese overseas infrastructural engagements do seem to blur public/private boundaries and entwine

geoeconomic and geopolitical reasoning in distinctive ways (Siciliano et al., 2019; Mohan, 2020) that shape their patterns of dis/entanglement. Importantly, however, these patterns are also shaped by other actors, rationales, and forces—human and non-human.

THE ENCLAVE FEATURES OF THE CHINESE DAMS IN CAMBODIA

What is common to all five operating large dams in Cambodia are certain enclave features. The dams form spaces of governing that exempt them from surrounding jurisdiction and state oversight. They also entail certain elements of economic enclavism. These partly relate to their 'Chineseness' but also adhere to the BOT template that predates the entry of Chinese actors into the Cambodian hydropower sector. They are also the effect of project facilitation by the Cambodian state authorities that takes the form of insulating Chinese companies from host state regulatory frameworks to add economic viability to 'not-so-profitable' projects. The hydropower dams (backed by coal plants that are also China-funded and built) have long been part of a strategy to address problems of expensive electricity and low domestic generation capacity (Royal Government of Cambodia [RGC], 2010), and have been promoted by certain key ministries such as the Ministry of Mines and Energy, and the Prime Minister.

In Cambodia, the World Bank-influenced Electricity Law (2001)[2] laid the foundations for BOT hydropower projects, with the overall aim of creating favorable conditions for the private sector to lead development in the power sector (Middleton et al., 2015). The World Bank also advised on how to amend BOT contracts to add attractivity—by offering tax holidays, for example—yet banks have not been intensively involved in intervening in legislative reforms related to safeguard mechanisms and sustainability standards (as in Laos). The Environmental Impact Assessment (EIA) regulations, guided and funded by the ADB at the end of the 1990s, constitute the most important reform that is not about regulations *for* investments but regulation *of* them (Hensengerth, 2017).

Despite the neoliberal reforms, the profitability prospects of dams remained insufficient (Middleton, 2008) and it has been more challenging to attract private-sector investors in Cambodia than in Laos. This is because most potential sites have a relatively low dry-season production capacity, which significantly reduces their economic viability, but also relates to controversy avoidance. Most off-the-Mekong sites are situated within important protected areas, making Japanese and Western-based investors and companies wary. This seems to have been the case with Canadian investors and developers who withdrew from the Kamchay dam (Hensengerth, 2017) and Japanese investors who pulled out from the Atay dam (Lyttleton & Nyíri, 2011). The Mekong tributary and mainstream dams, in turn, come with high socio-ecological impact, especially in terms of fisheries (Baird, 2016; Hensengerth, 2017). The ADB turned away from LS2, for example, because the social and environmental effects were expected to be very serious while the economic benefits were deemed marginal (Baird, 2016).

2 The law was amended but not significantly altered in 2007 and 2015.

Instead of attracting foreign private investors and developers for whom the neoliberal reforms were designed, the dams constructed thus far have all been taken up by Chinese SOEs, which are less constrained by global standards. Furthermore, while the Chinese state-owned hydropower companies mostly operate with similar commercial considerations as those in the private sector, the state backing they receive allows them to carry out less profitable projects. This is especially so if the broader packages of aid, investments, trade, resource access, and geostrategic deals yield opportunities that China's government considers geoeconomically and/or geopolitically important (Motta & Matthews, 2018; Siciliano et al., 2019). As Lee (2014) has argued, in the case of Chinese state capital what is being accumulated does not consist solely of profits but also of (geo)political influence and access to resources. Hence, she terms this the logic of encompassing accumulation. While not solely profit-driven, Chinese overseas SOEs are incentivized to optimize the economic viability of their contracts (Lee, 2014). In this respect, the authoritarian powers of the Cambodian ruling regime have provided the concessionaires with disentanglements that augment exploitative opportunities and profit margins by guaranteeing insulation from state oversight. The Cambodian hydropower projects could thus be considered post-neoliberal, albeit not in the sense of an alternative or radical shift away from neoliberalism, as in some debates related to Latin America (Ruckert et al., 2017), but instead in the sense of a partial shift or continuation that nevertheless entails departures from the core elements that the prefix 'post' marks and calls attention to (Davies & Gane, 2021). While the governing mode of the Chinese dams in Cambodia takes root in neoliberal logics, some of the key tenets of the logics such as private profit maximization have significantly altered, while at the same time the dams are also shaped by authoritarian governance.

From off-the-Mekong to on-the-Mekong Dams

Cambodia's first large-scale dam, Kamchay (2012), was a similar frontier opener for Cambodia as the Nam Theun 2 in Laos. Concessioned in 2005 for 44 years to a Chinese SOE, Sinohydro, it was one of the first overseas BOT hydropower projects globally undertaken solely by a Chinese SOE. It thus presented a formative experience for the Chinese overseas hydropower industry, which had earlier tended to undertake engineering, procurement, and construction (EPC) contracts in which ownership is handed to host authorities immediately after construction is completed (Urban et al., 2018; Mohan & Tan-Mullins, 2019). Kamchay was funded by the China Exim Bank as part of an aid package that consisted of loans and grants tied to the contracting of a Chinese SOE as the dam concessionaire, and separate funds for a Cambodian naval patrol craft and a new Council of Ministers building in Phnom Penh (Dreher et al., 2017). Atay, Tatay, and Russei Chrum, located in the Cardamom Mountains in Southwest Cambodia (see Figure 1 and Table 1), soon followed, developed similarly to the Kamchay and likewise situated within protected forest areas or negatively affecting them. Their remoteness, on the other hand, has meant that they have required very few forced displacements. The only off-the-Mekong dam that would have caused significant displacements (1,500 indigenous people), the Areng dam, has been stalled by local resistance and unprecedented mobilizations supported by civil society groups (Milne, 2021).

The on-the-Mekong dams[3] have much greater dispossessive effects in terms of displacements and downstream livelihood losses. Thus far, only one of them has been built, the LS2, which is the most recent of the Cambodian dams and was built on a Mekong tributary. It is labeled as a flagship project of the BRI with a subsidiary of China Huaneng as the main shareholder (51%) and a significant share of financing from the Industrial and Commercial Bank of China. Initially, however, it was to be built by a Vietnamese subsidiary of the state-owned company, Vietnam Electricity, that eventually had insufficient finances to do so, while still retaining a 10% share of the project. China Huaneng has called the LS2 as a "display window project" for the BRI (Human Rights Watch, 2021, p. 2) despite it has been assessed as the most detrimental single Mekong tributary project with respect to downstream fisheries losses (Ziv et al., 2012; Baird, 2016). Several other projects on Mekong tributaries in the northeastern region are also being considered, while the most disruptive of the remaining potential dams, the Mekong mainstream dams Stung Treng and Sambor, are currently suspended. There are, however, signs and concerns that Stung Treng could nevertheless be moving forward (Flynn & Pry, 2022; Fawthorp, 2022) amid strong speculation that the Cambodian Royal Group as well as Chinese counterparts are involved.

Project name	**Status**	**Power generation capacity** (MW)	**Construction started**	**Inaugu-ration**	**Main concessionaire(s)** (parent companies of the subsidiaries)	**BOT** (years)
Off-the-Mekong projects						
Kamchay	**operating**	**193**	2007	**2011**	Sinohydro	44
Stung Atay	**operating**	**120**	2008	**2014**	Datang	35
Stung Russei Chrum	**operating**	**338**	2010	2014	Huadian	35
Stung Tatay	**operating**	**249**	2011	2015	China Heavy National Machinery (93%)	42
Stung Cheay Areng	*shelved (in 2017)*	*108*			*Sinohydro*	
Stung Tatay Leu	*under construction*	*150*	*2021*		*China Heavy National Machinery*	*39*
On-the-Mekong projects (tributary and mainstream projects)						
Lower Sesan 2	**operating**	**400**	2013	2018	China Huaneng Group (51%), the Royal Group (39%) and Vietnam Electricity (EVN) (10%)	45
Stung Pursat 1	*under construction*	*80*	*2022*	*(planned for 2026)*	*SPHP (South Korean-owned)*	*39*
Stung Treng (mainstream)	suspended	*980*			*(MoU with China Southern Power Grid Company)*	
Sambor (mainstream)	suspended	*465 (-2600)*				
+ at least 4 (>50 MW) on the Mekong tributary dams planned in the Northeast, and 3 (>50 MW) off-the-Mekong projects						

Table 1. List of large dams (over 50 MW) in Cambodia with key facts. (Sources: EAC 2022, MFRI 2021, ODC 2019, and media sources)

3 The term 'on-the-Mekong dams' refers to dams that are built within the Mekong Basin either on the mainstream or on the Mekong tributaries.

Economic Enclavism and Exceptional Spaces of Governing

While hydropower dams that produce electricity for domestic consumption are obviously closely linked to the domestic economy, they also have certain features of economic enclavism. A specifically Chinese feature is the loan condition that a Chinese SOE must build and operate the dams, which guarantees that "most of the money never leaves China" (Mohan & Tan-Mullins, 2019, p. 1374), a disentanglement facilitated by the Cambodian state authorities with exemptions from public tendering and opaque decision-making processes. Further bypassing the domestic economy, the dams also employ Chinese equipment, expertise, managers, and skilled labor, and even a high proportion of manual labor during the construction phase. The long-term BOT contracts, the use of Chinese managers, and the fact that in Cambodia, unlike in Laos, state-owned domestic companies do not take shares in hydropower projects, leave limited possibilities for the 'transfer' of expertise capacities. Although LS2 is more domestically entangled because unlike the previous dams, it entails a domestic shareholder, the Royal Group, which, however, appears to have assumed responsibility for financing the dam rather than being directly involved in its construction (Flynn, 2022). In more local terms, the promised employment has remained very limited as, at least in the case of the Cardamom dams, most Cambodian workers were eventually drawn from other parts of the country (Käkönen & Thuon, 2019). Indeed, the most obvious connection the dams have with Cambodian society is the electricity they produce. Their combined capacity now reaches 1300 MW, representing approximately half of the total installed capacity in the country from all energy sources (Electricity Authority of Cambodia [EAC], 2022; International Hydropower Association, 2019), although it largely flows to Phnom Penh and other major urban and industrial centers such as Sihanoukville, that also host increasing numbers of Chinese businesses. In the case of the Cardamom projects, the hydroelectricity produced has completely bypassed adjacent areas, at least temporarily, as promises of electrification, made to render negative effects more acceptable, have been considerably delayed.

Further enclave features relate to the exceptionality of the dams as spaces of governing, which results from state-assisted state avoidance. The government's attempts to facilitate frictionless access to the country's rivers have meant regulatory exemptions and lax oversight in terms of the labor and EIA laws. This has allowed nominal harm mitigation and minimization of profit-inhibitive construction costs. Moreover, the highest state authorities have granted the concessionaires exemptions from the Protected Area Law by securing access to rivers within protected areas. Furthermore, in response to requests from its Chinese counterpart, the government pushed rather unusual legislative guarantees through the National Assembly to secure the agreed electricity purchasing for the concessionary periods, regardless of whether Cambodia's state power company, Electricite du Cambodge, is disposed to buy it (Hensengerth, 2015; O'Neill, 2018). These conditions also provide long-term disentanglement from the host state should a less generous government take power in the future.

The BOT contracts also grant hydropower corporates wide discretion in terms of deciding how to operate the reservoir and the dam gates. This disentangles the dams from both regional inter-governmental and domestic basin planning and management but, once again, has little to do with the 'Chineseness' of the concessionaires,

apart from the lengthy duration of the BOT contracts in Cambodia, which seems to be part of Cambodian government efforts to balance out the lower economic prospects.

De facto corporate authority in hydropower enclaves is most intensive during the construction phase when it is exercised over the living and labor conditions of workers confined to the construction site for the duration of their work contracts. While part of a labor regime that has been interpreted as incorporating the legacies of the socialist work unit model (Nyíri, 2013; Lee, 2014), the harsh conditions in the confined site that have marked the construction of the Chinese dams in Cambodia seem more than just 'strict control'. In the case of Cardamom dams, numerous accidents occurred, resulting in injuries and the loss of at least fifteen lives.[4] These conditions, however, are generated by the contained enclave features combined with an absence of state oversight and labor union protection rather than a general characteristic of Chinese overseas hydropower projects. Features of extraterritorial authority became particularly apparent after an incident in which Chinese work supervisors were accused of using violent punishment methods on Cambodian workers in the construction site of the Tatay project. Ex-workers and staff from local NGOs reported that suspected Chinese offenders were apparently sent back to China rather than coming under Cambodian jurisdiction (interviews, February and March 2014). Local authorities and NGOs also expressed strong frustration because of denied access to inspect this and other cases of worker maltreatment (interviews, February and March 2014). The situation changed when the dams become operational, with only around 100–200 workers remaining at each plant: most of these higher-skilled (Chinese) workers' working and living conditions seem to be relatively well-organized.

Among the most pronounced forms of disconnectedness are the minimal mechanisms for public information disclosure, meaning that adjacent localities have little information on dam operations; when a partial collapse occurred at Atay, for example, no details were reported to the local authorities (International Rivers, 2015). Even normal public disclosure mechanisms are absent, although operations like Russei Chrum and Tatay may rapidly cause major water-level fluctuations (International Rivers, 2015), and locals are concerned about safety and afraid of accidents. As a villager downstream from Tatay commented:

> There has been no communication . . . maybe they have had a consultation with the big men, but they have not approached us. We lack information about the dam. And we worry if we need to be evacuated and how that is done if something happens with the dam. (interview, March 2013)

BLEEDING DAMS: OVERFLOWS AND DISRUPTED HYDROSOCIAL RELATIONS

Similarities in disentanglements of the dams result in similar forms of entanglement, as their negative overflows are connected to regulatory flexibilities and thus generated by regulatory disentanglements (Appel, 2012; Rogelja, 2020). While many of the harms are materially built into the dams, they could be better mitigated if

4 Several examples of injuries came up in interviews with ex-workers and local NGO staff (March 2014). The amount of lethal accidents is compiled from different local media sources between 2011 and 2012.

the government demanded it or the companies adhered to higher international standards. Because the hydropower corporates have been afforded wide discretion over regulating the fluvial flows, they exercise control well beyond project boundaries, conditioning hydrosocial relations downstream and disallowing many previously important ways of using the rivers.

Limited EIAs and Devalued Effects of Negative Overflows

Impact assessments supposedly constitute the key device in informed consultations and decision-making by producing and presenting the anticipated zones of impact, defining what is at stake and who is to be included in, or excluded from, consultations, thus prefiguring who is eligible for compensation and how (Lamb, 2014). The first large dam, Kamchay, established a precedent for insufficient Environmental Impact Assessments (EIAs), with construction illegally starting before the EIA was approved. The Cardamom dams followed with the EIAs of Atay and Tatay finalized only after work had started, and none of the EIAs made publicly accessible. Moreover, impacts were assessed in only the most immediate areas and included only the most direct losses in terms of biodiversity, and even these inadequately (Käkönen & Thuon, 2019). Losses to downstream fisheries were excluded or seriously downplayed, along with damage to the coastal mangrove swamps, which are vital to climate resilience in an area considered one of Cambodia's most vulnerable to climate change. The residents excluded from the impact zones were also excluded from consultations, while those invited to participate were provided with limited portrayals of impacts combined with unkept promises of compensation, while critical questions were pre-empted by intimidating practices. As a result, most negative effects were downplayed and left uncompensated.

Even in the latest project, the LS2, which is much more damaging than its predecessors, the EIA and consultations have been significantly incomplete, with practices that seriously downplay and devalue losses (Human Rights Watch, 2021). While framed as a 'display window project' of the BRI, the Human Rights Watch (2021) has instead labeled it a 'disaster' because of insufficiently compensated displacement of nearly 5,000 mostly indigenous and ethnic minorities for whom the experiences of trauma and loss have been deeply injuring (Mahanty et al., 2023), and the extensive livelihood losses for riparian communities (Baird & Green, 2019).

In all cases, highly flexible oversight from state authorities (the disentanglement) has not only facilitated the unlimited out-bleeding of externalities but also guaranteed that Chinese companies are not held sufficiently accountable, or in the case of the Cardamom dams, not held accountable at all, for compensating for these impacts.

Entanglements with Volatile Rivers and Patronage Relations

Despite documentation of the extensive and serious impacts of LS2 (Baird & Green, 2019; Human Rights Watch, 2021; Mahanty et al., 2023), certain overflow-related dynamics have been under-examined. These include entanglements with increasingly volatile, climate-changed river flows and the effects of changing drought and flood patterns on dam operations. It has already been observed that LS2 produces much less electricity than originally projected because of more intensive drought

periods than anticipated, meanwhile augmenting newly erratic flooding patterns in unexpected ways.

Downstream residents complained bitterly in interviews about the sudden flow fluctuations and changing flood patterns. As one resident along the Sesan tributary observed, "The water level is not rising normally as it used to. Instead, now the flow of the river is sudden, at times there is no water, and when they open the [gate of the] dam, the flow comes suddenly and rapidly" (interview, October 2022). A representative of the community fisheries group in the same commune stated:

> Fishing is so much more difficult nowadays. We can not fish the same fish anymore, and overall the fisheries have declined. And the river is not what it used to be. The water level fluctuates so quickly. Often in the morning it is down and in the evening it goes up. And the current is much faster. We have lost boats because of it. And sometimes we leave our nets to water and when we come back they hang in the air because the water has gone down so quickly. (interview, October 2022)

Among those interviewed were some living downstream from the confluence of the Sesan tributary and the Mekong mainstream who experience the effects of both LS2 and the upstream tributary and mainstream dams in Laos and China. These informants also strongly lamented the harms caused by the reduced difference between the dry and wet season. One commented:

> As we know from our ancestors, by June the river would rise and fill up to the river bank. But now, even by September, the river would not rise to fill up to the river bank like before. But when the river flow finally rises up, during the rainy season, it does so abruptly, and it destroys our crops. (interview, October 2022)

Another informant even stated that "the river has changed so much, we don't even have a dry season anymore" (interview, October 2022). All residents downstream of the Sesan and Mekong confluence complained that the reduced flood-pulse impedes seasonal fish migrations to flooded forests and floodplains, while the increased dry-season flows injure flooded forests that are vital for fisheries.

The paradox is that while the dams reduce seasonal flow variation and do away with important flood-related riverine affordances, they also cause harmful, abrupt floods. The exceptionally long, strong rainfalls at the end of the wet season are increasing due to climate change, resulting in overtly full reservoirs, that in the case of LS2 floods upstream communities, and emergency releases of dammed water harming downstream communities. The more profit-oriented the dam operation mode, the more likely that emergency releases will be required. The operators of LS2, for example, maximize dry season hydroelectricity production, jeopardized by decreasing dry season flows to the reservoir, by filling it to maximum capacity during the wet season. As the dam operators are allowed to optimize profits but not flood mitigation, the dam exacerbates exceptional floods.

The sudden flow increases caused by LS2 have created major problems for the riparian communities, including harvest losses, although most interviewees were hesitant

to talk about these harms in concrete terms because they feared negative reactions from the local authorities. While information disclosure about water releases has improved, discontent remains, with one interviewee commenting, "Yes, now they give us announcements more often about opening the gate. But even if they announce this, I ask—where can I move my house?" (interview, Oct 2022). The compensations for the losses caused by sudden water releases seemed to be rather guided by local authorities than by the dam company. They also appeared to be somewhat arbitrary. Based on more or less indirect hints of the informants, it seems that they have been made conditional on avoidance of public complaints and demonstrated loyalty to the ruling party. Responses to increased river volatilities thus seem to be entangled with neopatrimonial relations and the aims of the ruling party to secure support.

ENTANGLED POLITICAL AND ECONOMIC ELITES

Apart from the adverse externalities that overflow and harm riverine communities, there are other ways in which the projects exceed their confinement. The entanglements discussed here are partially unique to the Chinese projects but, again, instead of being of 'Chinese design' they are perhaps more about active attempts by the Cambodian elite to gear the projects towards serving their ends. Such entanglements are important for understanding how corporate enclaves do not only undermine state powers but may also get tied into their strengthening.

Discursive Entanglements and Inaugural Speeches

The powers of the corporate dam concessionaires have in many ways been strengthened by, and at the expense of, Cambodian state powers. Because most infrastructural work has been out-contracted, concessionary damming does not offer direct avenues for developing state infrastructural powers or hydraulic capacities like model cases of state-led "hydraulic missions" (Scott, 1998; Molle et al., 2009). Even some of the hydroelectricity transmission lines have been concessioned out to Chinese SOEs. This means that, in addition to the concessioned dams, a significant share of vital Cambodian energy infrastructure is now in the hands of Chinese state-private entities. The additional regulatory exemptions in turn limit the avenues for strengthening administrative state powers. Although large in scale, the dams do not provide the means to demonstrate the strengths of the state in terms of mastery of nature (Harris, 2012; Mitchell, 2002) in any straightforward way. Consequently, the highest state authorities have, however, developed discursive strategies that aim to entangle the out-concessioned hydraulic infrastructures with ruling regime achievements and present them as showpieces of national pride.

The inaugural speeches of major infrastructure works are public rituals replete with symbolism, which entail efforts to streamline the complex web of relations that have brought the infrastructure into being by highlighting specific efforts and activating the relational potential of the infrastructure in selective ways (Harvey, 2018). They are often delivered by central state figures to demonstrate their own association with the project and index state commitment. In Cambodia, the previous Prime Minister Hun Sen himself has made all the inaugural speeches for the dams as well

as those in ground-breaking and similar ceremonies. In them, he has portrayed the projects not only as joint accomplishments but as achievements requiring the decisive efforts of the ruling regime, especially his own.

With the first dams he emphasized the cruciality of his personal role in mobilizing the necessary resources via visits to 'the Chinese leaders', and his party's provision of the crucial investment precondition of stability in remote and previously 'unruly' corners, such as the Cardamom Mountains: "If Cambodia lacks peace and stability, would anyone in his/her right mind think that China would pour out money and invest in Cambodia?" (Cambodia New Vision [CNV], 2010). In the LS2 inaugural speech, he also underlined his own role in ensuring "good compensation for people" (CNV, 2018). All the speeches discursively entangle the projects closely with the potency of the ruling party, the Cambodian People's Party (CPP), with Hun Sen himself as the principal patron. The complex assemblages of relations are framed to direct attention away from the facts that the state has outsourced critical infrastructure to Chinese corporations for longer than is common for BOT dams, and that the projects are constructed and operated with as little state involvement as possible. Similarly, dams and other major infrastructure projects that are mostly of Chinese construction figure centrally in all ruling party posters across the country, as if gifted by the CPP.

Hun Sen's speech-making strongly signals that the projects and their claimed benefits—"the whole country needs electricity" (CNV, 2017)—should be regarded first and foremost at the national scale, assigning local concerns a secondary role (cf. Harvey, 2018). The repeated references to cordial relations with China accompanied by numerous handshake pictures to symbolize the potent bilateral relations highlight the international relevance of the projects and activate the relationality of the dam infrastructures in selective ways. The praise for the Chinese actors is directed towards the guidance of the central state of the People's Republic of China (PRC) rather than the banks and corporates:

> Once again, I would like to convey thanks and appreciation for the People's Republic of China for urging and facilitating their investors to come take projects in Cambodia. The PRC not only urge them to come in words but also allow fund[s] for them too. This is a marvelous style of the Chinese. If the Chinese government supports the project you proposed, they would urge their investors to come with their banks' financial support too. (CNV, 2011)

The speeches and the accompanying images in the press releases project both the Cambodian and Chinese states as homogeneous and unified agents that can execute infrastructural plans and projects effectively, supplying the Cambodian and Chinese state authorities (as well as the BRI) with an aura of coherent potency. The main effect of the speeches, however, is to tie the out-contracted projects to the narrative of a ruling regime strong enough to get the Chinese to build development projects that others would not; yet they also reflect a strong domestic willingness to promote projects with questionable economic viability.

The state's role in getting the projects built and operating smoothly is also reflected in how affected people perceived them: the Cardamom dams were at times discussed as 'Chinese dams' but the 'Chinese' label was less used in the case of LS2,

possibly because its more extensive (while insufficient) resettlement and compensation schemes have been intensively mediated by the state authorities. Moreover, the state authorities have strongly and publicly pushed the project through amidst setbacks such as the withdrawals of the ADB and Vietnam Electricity.

Entanglements with Logging Tycoons

Despite the disentanglements that result in features of economic enclavism, and the relative insignificance of the revenue streams offered by the out-contracted and tax-exempted dams in official fiscal terms, indirect avenues for domestic wealth and power accumulation are supplied by spill-over effects. One source is the informal payment system for securing contracts. While there is no clear evidence of this, reports from different parts of the world suggest that 5-20% of the contract value is commonly added (Rogelja, 2020). A less speculative overflow relates to the significant opportunities for timber extraction provided by dam projects. The roads that accompany dams, together with reservoir-related salvage logging, have triggered timber extraction in vast, previously inaccessible areas from which rents are captured through elite patronage relations and channeled into consolidating the powers of the ruling party.

Two Cambodian-run companies with close ties to the country's ruling elite were authorized to carry out the reservoir clearance for the Cardamom dams: MDS for Atay, and Timbergreen for Tatay and Russei Chrum. Salvage logging contracts granted an appearance of legality even for selective logging of high-value timber carried out well beyond the reservoir boundaries and inside protected forests (Käkönen & Thuon, 2019; Milne, 2015). The LS2 dam company has been even more directly entangled with similar 'timber laundering' because the clearance contract was granted to a company called Ang & Associates Lawyer Co., Ltd., which is a subsidiary of the Royal Group, the Cambodian partner in the dam consortium (Environmental Investigation Agency [EIA], 2018; Mahanty, 2021). Signs of timber laundering have also been witnessed near the new Cardamom dam, Tatay Leu, which is now under construction; here, the logging contract remains murky, with the suspicion that the dam company, a subsidiary of the Chinese China Heavy National Machinery (CHNM), might even be undertaking the logging itself (Flynn, 2023).

In return for logging contracts amended by rule bending, lax oversight, and intervention inefficiencies by state authorities over reported illegalities (Global Witness, 2015; EIA, 2018), logging tycoons have been reported to pay part of the logging rents to an unofficial state budget controlled by the ruling party, which uses these funds for rural infrastructure projects, schools, pagodas, administrative facilities, and even army battalions (Global Witness, 2015; Milne, 2015; Verver & Dahles, 2015). Dam-related logging affairs are thus entangled with both elite and state patronage, and even with the assembling of the state's sovereign powers.

This is not something with which the Chinese concessionaires are directly involved (except possibly in the Tatai Leu case), but the pragmatic, accommodating approach they have developed towards situated patronage-based politics (Nyíri, 2017; Verver, 2019; Young, 2020) could be interpreted as, if not facilitative, then at least non-inhibitive for these kinds of practices. What such illegal and semi-legal logging most importantly demonstrate is how the ruling party authorities and business

tycoons in Cambodia are able and ready to make use of concessionary hydropower projects for their own purposes.

Entanglements with the Larger Complex of Bilateral (Infrastructural) Affairs

While Chinese dams in Cambodia are disentangled from multipurpose basin management schemes such as those fostered by the Mekong River Commission, they share this characteristic with other concessionary projects in the region. Similarly, all such projects are rather *uni*purposely formulated to maximize hydroelectricity sales at the expense of broader river management considerations. However, certain forms of entanglement that make them part of more *multi*purpose affairs set Chinese SOE activity apart.

Despite China's official no-strings-attached rhetoric, often praised by Prime Minister Hun Sen, and in addition to the very direct loan conditionality of using Chinese contractors, there are other, more diffuse ties and debts of obligation attached to projects such as the hydropower dams. While the corporate dam enclaves themselves are neither geopolitically strategic, nor examples of overseas territorialization by the Chinese state, they do entangle with the broader complex of bilateral affairs that indirectly ties them to China's geoeconomic/geopolitical pursuits, which explains their attraction for various Chinese actors.

In geoeconomic terms, large-scale projects that are in strong host-state demand and with questionable economic viability are expected to perform as frontier openers for other types of Chinese investors, services, and goods, thus advancing more fluid globalizing circuits for Chinese capital and expertise, and establishing a more China-centered trading regime (Lyttleton & Nyíri, 2011; Verver, 2019). Geopolitically, while the dams themselves territorialize Chinese corporate rather than state powers, the broader constellation of bilateral affairs carries geopolitical motivations reflecting China's attempts to establish (geo)political ascendancy in Southeast Asia. Cambodia has been providing support in ASEAN and UN contexts for China's territorial claims over Taiwan and in the South China Sea (O'Neill, 2018; Urban et al., 2019). China has also allegedly gained territorial footholds by positioning naval and air bases along the Cambodian coast within strategic military reach of the South China Sea and South Asia, possibly to enable securitization of critical transport routes (Dahles & Pheakday, 2017; Yamada, 2019). Furthermore, while most Chinese dams in Cambodia are off-the-Mekong, they entangle with Mekong transboundary hydropolitical relations because, along with other major infrastructure investments and generous aid, they may have pre-empted Cambodia's criticism of China's upstream dams (Dahles & Pheakday, 2017), which dramatically affect Cambodia's riverine people.

While these multidimensional, bilateral relations constrain diplomatic positions and entail zones of surrendered Cambodian state authority such as dam enclaves, Special Economic Zones, and possibly military bases, they also yield opportunities through which the current regime may strengthen its powers (Loughlin & Grimsditch, 2021). Thus, although the broader complex seems asymmetrically geared to benefit the Chinese, it does accommodate the interests of the political and economic elite in various ways. In the continuing absence of a functional tax system, Cambodia remains dependent on external grants and loans and China has been increasingly

generous in this respect (Ear, 2013; Sato et al., 2011; Yamada, 2019), even supplying military assistance (Dahles & Pheakday, 2017). Ultimately, the leaders of the ruling party prefer the Chinese 'strings' to Western conditionalities, as they better accommodate Cambodian domestic pursuits (Sullivan, 2015; Mohan & Tan-Mullins, 2019) and are not accompanied by pressure to alter or conceal authoritarian and neopatrimonial modes of governing. Chinese infrastructural engagement in Cambodia does not involve external fiscal oversight and, even when neoliberal governing techniques such as BOT contracts are adopted, they can be applied without the exigencies of rule-of-law and 'good governance' reforms. Importantly, increased Chinese assistance and investments offer new opportunities and resources for state patronage in both elite and mass patronage forms (Nyíri, 2017; Verver, 2019; Young, 2020), which continue to be important in the efforts of the ruling regime to consolidate its power.

CONCLUSION

The article has analyzed the damming of rivers in Cambodia and showed how it has evolved through a post-neoliberal concessionary governing mode that materializes in SOE enclaves, characterized by heightened corporate authority as well as overflows and connections that exceed project confinement. These entanglements are partly generated by the regulatory insulation provided by Cambodian authorities that facilitate highly intensive forms of extraction and include undercompensated and devalued negative effects. In other words, disentanglements create entanglements (Appel 2012). While the Chinese dam projects in Cambodia have a distinctively disentangled mode of entry and are enclaved and networked in similar ways, the dynamics of dis/entanglement are not specifically of 'Chinese design'. They are, rather, the result of the concessionary BOT template of building dams, which pre-dates the entry of Chinese actors into Cambodia's hydropower sector, and the additional regulatory exemptions provided by the Cambodian state authorities due to the political will to facilitate not very economically viable projects. The entanglements – both overflows and involvement with local political and economic elites – are mostly produced by the interplay of the dam assemblage parties of which the Cambodian authorities play an important role. It must also be noted that the approach of Chinese banks and SOEs, which is more pragmatic and accommodating to situated modes of governing and patronage-based relations than the approaches of their Western/global counterparts, is relevant in this interplay.

While disentanglement features undermine state regulatory authority over the dammed rivers and inhibit the formation of hydraulic state capacities, many of the observed entanglements strengthen other aspects of state power. Cambodian political and economic elites have been able to gear the projects to support their own ends, which gives a certain substance to the official Chinese win-win rhetoric, although its claims are hollow for displaced communities, dispossessed fishers, and farmers with flood-damaged harvests. Yet, again, the dispossessive effects of the dis/entangled dam infrastructures should not be regarded as 'a Chinese way of doing things' for a number of reasons: firstly, the effects tend to be in-built to dam materialities regardless of the types of developers; secondly, they partly stem from the BOT model of dam operations, which is not of Chinese origin; thirdly, they also result from the state avoidance facilitated by the Cambodian state authorities; and fourthly, the forces

of climate-changed rivers augment some of the overflowing harms that BOT dams, geared for profit-maximization, intensify rather than mitigate. However, it would be incorrect to suggest that Chinese financiers and SOEs are not complicit in these harms. They certainly share responsibility and, to some extent, they are also more able to respond than many of the other constituent parties in the dam assemblage. Their logic of encompassing accumulation also invites speculation about whether they could be persuaded to operate the dams in less profit-oriented and more multipurpose ways if there were enough public pressure, especially from the state authorities. This is particularly pertinent given that a key effect of the logic of Chinese companies, which are not entirely profit oriented, is that even the more marginally viable projects are getting built. Therefore, the entry of Chinese actors has boosted the Mekong dam rush in ways that have drastic cumulative effects.

Overall, the study demonstrates that entangled enclaves do not derive from any singular logic but are the work of multiple interacting actors with rationales ranging from neoliberal investor-friendliness (the ADB and World Bank-guided BOT), through the Chinese SOE logic of encompassing accumulation and the geoeconomic and geopolitical rationales of Chinese state actors, to the authoritarian and neopatrimonial governing modes of Cambodian elites. The concept of entangled enclaves and analysis of the dynamics of dis/entanglement allows better understanding of the multidimensional socio-spatial formations that result from this interplay. On the one hand, the dam projects form territorially fixed, bounded spaces of governing, while, on the other, they are globally networked and constitutive of spatially diffuse circuits of capital and power. And, while disentanglements from the surrounding society strengthen corporate powers and facilitate frictionless flows of (Chinese state) capital, their entanglements nest them in state space and tie them to situated processes of state formation and efforts by Chinese state actors to extend their global influence. In more concrete terms, the analysis contributes to reaching an understanding of the ways that concessionary infrastructure projects may simultaneously undermine and strengthen state power, and, despite their enclavism, form part of broader multidimensional bilateral relations. This also contributes new insights to the multidimensional geography of enclavism in mainland Southeast Asia more broadly.

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DISCLOSURE

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Infrastructure Power, Circulation and Suspension

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This brief commentary begins with the premise that infrastructures are not neutral technical platforms upon which more interesting social activities (such as various kinds of mobility) occur. Instead, infrastructures are more productively understood as bundles of socio-technical relations, and these relations shape in often unintended ways the social, political, economic, and environmental effects of infrastructural configurations. *Infrastructural power*, then, is understood as a relational form of power emergent within infrastructural configurations themselves, rather than simply as pre-existing state power channeled through infrastructures. This approach suggests that mobility is more than just a social construction or an outcome of state policy, but is generated through infrastructural power. Drawing on research on new town development in China, I argue that new patterns of mobility – what I call 'suspended circulation' – emerge as effects of the spatial configurations created by infrastructures that have preceded urbanization in these places. These new patterns of mobility involve the continuous circulation of precarious labor throughout ever-expanding spaces of urban development. While this aligns in many ways with the modernist and developmentalist projects of the state, it also indexes a form of material power over which the state has limited control.

Keywords: Circulation; Infrastructure Power; Mobility; Suspension; Urbanization

Infrastructure is, by definition, a mobility platform. As Brian Larkin (2013) has put it, infrastructure is matter that enables the movement of other matter. In his extended etymology of the term, Ashley Carse (2017) tells us that in the early 20th century infrastructure referred to the organizational work required before railroad tracks could be laid. Mobility is, in many ways, the whole point of infrastructure: getting something from here to there. In the infrastructures that I have explored in my own research in China – mostly new roads and highways, high-speed rail lines, as well as new digital infrastructures – the intent of their construction has been to establish new scales of mobility (such as facilitating faster commutes, expanding labor markets, and enabling e-commerce in far-flung hinterlands). This has been viewed as necessary for the large-scale urban

regions being built throughout China to function as economically integrated spaces. Again, mobility is the point of all this massive investment.

But infrastructure is not a neutral, technical platform upon which more interesting social activity (like mobility) occurs; it is a socio-technical assemblage of human and non-human things. As Carse's etymology suggests, infrastructure is a system of organization, a relation among things. Organizations have certain dispositions, or propensities, to do things that may or may not align with the declared purpose of the organization. The dispositions of infrastructures derive from the spatial relations of their various components. As Keller Easterling (2014) puts it, "physical objects in spatial arrangements, however static, also possess an agency that resides in relative position. Disposition is immanent, not in the moving parts, but in the relationships between the components" (p. 72). This suggests a question: to what extent do the dispositions of infrastructures built to enhance mobility complicate or work against their primary intent? To what extent do relational dispositions create *uneven* patterns of mobility? Or new blockages? To what extent are older patterns of mobility *rendered immobile*, even as new patterns of mobility emerge?

In some ways, it is no surprise that, for instance, a new multilane limited-access highway would enhance mobility for some while limiting it for others. This has been demonstrated empirically in China (for example, Zhu & Hu, 2019). And I have noticed many instances of this in my own fieldwork, where new highways have sliced through farmland, separating villagers from their fields, obliterating their older access roads. While these questions help us link the relational power of infrastructural formations to certain social effects, I am interested in pushing beyond the effects of infrastructural dispositions to consider the ways these relate to state power. Infrastructural power is often *captured* by the state (especially in China), but also *exceeds* the state, given its emergence within the organizational relations of infrastructures themselves. This means that infrastructural formations cannot always be relied upon to produce their intended effects for the state.

The massive infrastructure investments undergirding rapid urbanization and economic development in China are not merely the outcome of the state's fundamental belief that infrastructure investment needs to run ahead of demand (Li et al., 2017). Infrastructure is itself a field of power through which the state wields authority and asserts domination over society. State power in China is, at least in part, constituted through infrastructure. As Lampton et al. (2020) have argued, Beijing believes that "infrastructure provides the pathways along which power in its coercive, economic, persuasive, and ideational forms moves. Infrastructure is the grid through which all forms of power move. Infrastructure lies at the core of China's future power and welfare" (p. 57). But if we are to take seriously the argument that infrastructural power emerges from its relational and dispositional characteristics, then whatever "Beijing believes" is secondary to what infrastructure *actually does*.

In these terms, infrastructural power might be thought of as a materialist reframing of what Foucault (2004) calls biopower. If biopower involves tactics and mechanisms of power that focus on life, infrastructural power involves the technologies that shape access to basic goods and services, to systems of provision and mobility. Here we might return to a broader definition of infrastructure, again provided by Larkin (2008): "the totality of both technical and cultural systems that

create institutionalized structures whereby goods of all sorts circulate, connecting and binding people into collectivities" (p. 6). This definition has the benefit of not reducing infrastructures to strictly technical systems, as it includes cultural practices, institutional structures, and the fact that social formations are an outcome of these. This is both a *processual* and *relational* definition. Drawing on this, we could say that infrastructural power determines who and what is authorized to move, whose lives and what materials are valued. By capturing this kind of power, infrastructure states like China build themselves into the lives of citizens in fundamental ways, shaping access to the city, to transport, to public goods, to work (Byler, 2020).

In his analysis of the historical shift from despotic to infrastructural states, Michael Mann (2003) suggests that infrastructural power is the state's capacity to penetrate (rather than oppress) civil society and autonomous social life, that is, to 'territorialize' social life. The state, he argues, does this via transport and communication infrastructures, standards and regulations, provision of education, and so on. The extent of the state's control of the infrastructures of social life is the extent of its infrastructural power. Keller Easterling's (2014) version of infrastructural power is quite different from Mann's, since – as already mentioned – it derives from the distributed agency (the dispositions) of infrastructural configurations. Easterling thus counterposes the dispositional logics of infrastructures, particularly in the spatial formations of special economic zones, with the logics of statecraft and finds in them a form of "extrastatecraft".

Mann's version of infrastructural power actually tracks better with most critical analyses of Chinese statecraft than Easterling's, which neglects the administrative and territorial power that the Chinese state holds over infrastructure space. But both approaches share an understanding of infrastructural power as distributed, as emerging not from the state *per se* but rather from the social relations that revolve around infrastructure development and provision. Both, in other words, offer a fundamentally *relational* understanding of infrastructural power, of power emerging in the socio-technical relations that constitute infrastructural systems and organizations. This means that infrastructural power does not itself emerge from the state but rather that state power is co-constituted through infrastructural configurations.

The question then becomes: to what extent has the state been able to capture infrastructural power and direct it to its own benefit? And, to what extent, and in what instances, has the state been *unable* to control infrastructural power? These questions have significant bearing on how we think about infrastructural power and mobility because they require that we separate analytically the state from the infrastructures themselves.

In my own work on infrastructural urbanism in China, I have been fascinated by the ways new patterns of urbanization associated with the infrastructures of special economic zone development have raised questions about whether we can really think about urbanization as a linear process of transition from 'rural' to 'urban', with something recognizable as 'the city' occupying the endpoint of this transition. In China's National New Areas, such as Gui'an, where I was conducting ethnographic fieldwork before the pandemic, a 'city-to-come' was promised by the infrastructural grid of roads and communications that was laid out on an otherwise largely rural landscape. This city-to-come, residents were told, would be sustainable and smart; it would be a model

for other cities; it would cure the ills of China's 'urban sickness'; it would occupy the end-point of a transition from rural to urban, from poverty to wealth, from backwardness to civilization. Here, one might think, was the infrastructural power of the state, expressed in its sheer audacity to build an entirely new city from scratch.

But if we consider the dispositions of the infrastructures that preceded this city-to-come, we are confronted with a space where processes of change are driven not by the state *per se* but by the spatial configurations created by those infrastructures themselves. Here is where we find infrastructural power at work. In this particular case, I found that a logic of (what I call) *suspended circulation* held sway, where the survival of the previously rural residents of the city-to-come depended on unsettled innovation, transience, and provisionally making do in a space that seemed to function more like a platform. Gui'an's 'purpose', in other words, might be rethought less in terms of the policy prescriptions that were laid out for it as an experimental demonstration site for digitally mediated poverty relief, ecological sustainability, and smart city development. Instead, its purpose – for the people who live there and carry out their livelihoods there – was *circulation*. And the dominant experience for these people has become one of *suspension*, a state of temporal indeterminacy, but also a state of remaining *in solution*, not settling.

Gui'an is now a kind of operational landscape where precarious labor is maintained through an infrastructure that facilitates the informalization and platformization of that labor; Gui'an has turned into a kind of mobility platform. While the city-to-come envisioned a new kind of place to dwell, the infrastructural power of the space produced, instead, a space of perpetual motion. What was imagined – in the renderings and planning statements – was a city where enhanced mobility (broad multi-lane avenues, state-of-the-art expressways) would attract middle-class tech workers looking to escape the dreary confines of Shanghai, Shenzhen, or Beijing. What the infrastructures actually did, instead, was induce mobility for a newly uprooted precariat of former villagers. That the infrastructures did this should not be surprising. To study a city, Ritajyoti Bandyopadyay (2022) reminds us, is to study the social production of motion. We might amend this to say cities are socio-technical assemblages of mobility (Amin and Thrift, 2017). But Bandyopadyay's argument is also instructive for his consideration of motion as an *involuntary* aspect of urban society and economy because it is compelled by the movement of capital. In this situation, blockage of mobility – or refusal to move – becomes an act of disruption and resistance to class power.

Foucault (2004, p. 30) understood modern governance, in part, as a question of the *circulation* – rather than the territorialization – of power. Modern governance emerged, he suggested, in urban infrastructure projects that sought to maximize circulation for the purposes of improved hygiene, more efficient trade both within the town and between the town and the broader economy, and new forms of surveillance that were necessary to maintain control over the increasing numbers of bodies in circulation. As a configuration of infrastructures, Gui'an has a propensity to facilitate circulation; mobility has, in turn, become the *necessary* means with which to make the New Area beneficial to one's life. The roads are *inviting*; people *want* to be on the move; they do not want to settle in the housing developments that have been built to replace all the demolished villages.

As a mobility platform, Gui'an reminds us that infrastructures of circulation are necessary for platforms to work. Circulation is necessary for what Tadiar (2016) calls the 'vital infrastructure' of surplus-value extraction. Just as the circulation of capital is necessary for extracting value, so is the circulation of bodies a necessary infrastructure for value extraction. For Tadiar, expressways are the infrastructure that turns a city into a zone for the global urban economy; they facilitate the core work that defines the city – that is, circulation. "Expressways are the technological-infrastructural means of sublation of the (once rural) provinces into a world-wide 'trans-territorial city', or, uber-metropolis" (Tadiar, 2016, p. 61). For Tadiar, vital infrastructures facilitate the circulation of disposable bodies.

The blockage of mobility might be viewed in some places as an effort to counteract the propensity of infrastructure power toward perpetual motion (Clover, 2016). But in China people have overwhelmingly sought to do whatever they can to access the mobility promised by new infrastructural formations. Here, immobility is feared as a kind of imprisonment, a denial of the opportunities that China's growing economy promises as long as one is willing to hit the road and chase them. And yet, even in mobility, there is a kind of suspension of that promise. As Xiang Biao (2021) has written, 'suspension' – or 悬浮 in Chinese – is a keyword of contemporary life in China, but one that signals a popular unwillingness to contest the infrastructural power within which people live. "In suspension," Xiang (2021) notes, "people move frequently and work tirelessly in order to benefit from the present as much as possible, and escape from it as quickly as they can. It follows the motto: 'Make as much [money] as you can now, then move on quickly'. Little energy is invested in systemic changes here and now, as people keep moving without an end in sight. The condition is structurally compelled but also self-inflicted. It partly explains why we see tremendous entrepreneurial energy in daily life in China but few bottom-up initiatives for social and political change" (p. 234).

There are two distinct but overlapping meanings of the English word suspension. One is the idea of something hanging, stuck perhaps, or *temporarily immobile*. This is the city-to-come that remains just out of reach, waiting to happen. Henri Lefebvre (1995) once compared the modernist new towns of post-war France to a cake waiting to be made, waiting for its ingredients, waiting in suspension. But the other meaning derives from mobility rather than blockage. This is the idea of particles in solution: a state of being dispersed in fluid, *suspension in circulation*.

Both of these meanings of suspension are felt in the indeterminacy of Gui'an as a promised city-to-come. Both offer compelling metaphors for living in the infrastructure space of contemporary China. But the second meaning captures better the actual lives of formerly rural people who have been compelled to become mobile because their livelihoods now depend on it. Infrastructures induce mobility; they unsettle settlement (largely through demolition); they create suspended circulation; that is their disposition.

To conclude, there are two aspects of the relationship between mobility and infrastructure running through this brief commentary. The first is relatively simple: mobility is more than just a social construction (cf. Urry, 2000; Sheller & Urry, 2006) or an outcome of state policy; it is more fundamentally a socio-technical effect of infrastructure. This aspect, we might say, derives from paying more attention to the ways the social is co-constituted by non-human materialities (Coole & Frost, 2010).

The second is more complicated: mobility is an effect of *infrastructural power* and, as such, emerges from the spatial relations of infrastructural formations. Infrastructure power is often captured by the state and often aligns with the state's priorities. But it also exceeds the state and produces social and political effects that may not always align with those priorities. In Gui'an, I have argued here, this has happened in that the state's infrastructural urbanism has produced more of a circulation machine for sustaining precarious labor than the city that was promised.

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Infrastructural Fragility, Infra-Politics and *Jianghu*

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This commentary responds to Tim Oakes' analysis of infrastructural power by examining the inherent fragility of mobility infrastructures and their political ramifications. It emphasizes the human element in creating and maintaining these infrastructures, highlighting the intricate interplay of political will, bureaucratic planning, technological know-how, and specialized skills needed for their implementation. The paper contends that the COVID-19 pandemic has starkly demonstrated the vulnerability of mobility infrastructures to rapid collapse. It further explores the concept of infra-politics, referring to subtle acts of resistance within these networks, which significantly disrupt their efficient operation. The Chinese concept of *jianghu*, representing a metaphorical space of alterity, is introduced to propose that infra-politics might evolve into alternative relational forms, challenging and potentially subverting the dominance of centralized networks.

Keywords: China; Human Impact; Infra-Politics; Infrastructural Fragility; Jianghu Alterities

INTRODUCTION

My short response to Tim Oakes' excellent discussion of infrastructural power as excessive of state power and able to generate its own (unpredictable) realities brings people and their ability to shape social and political realities back into the equation. I do this partly because a focus on infrastructures, their power, and techno-social relations they give rise to sometimes risks conjuring a 'brave new world' of all-powerful object-subjects. I find such a world not only dystopian, but also politically disabling. Its 'truth' would render the sharpest tools of anthropology, social analysis, and ideological critique meaningless. My response is thus to highlight the intrinsic, but often forgotten fragility of mobility infrastructures. These infrastructures are fragile not just because networks of roads, pipelines, and railways decay, need maintenance, lose in function, or remain unfinished (e.g., Carse & Kneas, 2019). They are intrinsically fragile because their 'agentive power' depends on the orchestration of very complex forms of human cooperation in infrastructural projects stretching vast distances in time and

space. Such cooperation can never be realized by power alone, but also depends on an – equally fragile – political or ideological consensus. Furthermore, mobilities and infrastructural labour do not only realize infrastructures, but they also provide ample opportunities for an *infra-political* resistance to domination (Scott, 1990). Infra-politics, according to James Scott's definition, consists of acts of micro-subversion that remain hidden from open view, but that may come to prepare the ground for highly visible, organized and open forms of resistance when infrastructural 'friction' (Tsing, 2005) renders ordinary lives impossible to live. Finally, infra-politics create their own shadowy commons of disgruntled workers, political refugees, disaffected bureaucrats, vagrants, and drop-out artists of all sorts. I shall call these *jianghu*, using the classic Chinese term for water-like alterities emerging in the cracks and on the fringes of terrain.

MOBILITY INFRASTRUCTURES ARE PRODUCTS OF ORCHESTRATED HUMAN LABOR

Infrastructure studies, not surprisingly, often highlight the centrality of infrastructures to the making of globalized worlds, whether as material things, socio-technical assemblages, or just as promised futures. However, mobility infrastructures – networks of roads, trains, canals, and pipelines, or similar – themselves depend on highly complex and thus inherently fragile orchestrations of political vision, scientific knowledge, bureaucratic administration, technological skills, and dispersed labor. At the same time, to paraphrase David Graeber (2013), pursuing and realizing value(s) is what "brings universes into being" (p. 219). The infrastructural revolution sustaining China's 'rise', and its recent extension into the Belt and Road Initiative (BRI), presents a good example for these dynamics. Initiated by Deng Xiaoping's era of 'Reform and Opening Up' (*gaige kaifang*), it created – according to plan – new connectivities first in the coastal provinces of South and East China, where it produced rapid economic growth and new mobilities, to eventually transform China into a highly mobile, urban society with an expanding middle class. Yet even this 'revolution' began in the countryside, where reform politics first re-mobilized the rural family-household (*jia*) as the country's basic economic unit. In the new environment, a family's ability to transform labor into value(s) depended on its ability to 'jump into the sea' (*xia hai*) of market relations, and soon on the mobility of a younger generation selling their labor on urban construction sites or to new factories. Importantly, it was not only long-repressed desires for mobility and prosperity that propelled peasant households to jump into the sea of an emergent capitalist economy 'with Chinese characteristics'. It was also the efficacy of the (post-)Maoist 'politics machine' with its capacity to mobilize, orchestrate and direct *infrastructural labor* in the name of a new 'national good' that crucially supported Reform China's infrastructural revolution.

The new 'Reform and Opening up' redefined the national good as a triad of economic development, political stability, and citizen 'quality' (*suzhi*). It transferred authoritarian power, under Mao based on direct face-to-face power of cadres over an immobile society divided into different units of collective production, gradually onto new infrastructures of mobility, political control, production, and financialization. This allowed China to grow into a 'society of strangers' since the 1990s. Yet this shift, in the early years of post-Maoism studies often called a 'retreat of the state',

also generated increasing, and increasingly medialized, public protests over rampant corruption, illegal land expropriations and arrests, public anxieties over a proliferation of fraud, greed, and immorality, while enforced resettlements and new forms of exploitation shattered personal hopes of prosperity and fulfilment. In 2010, a highly medialized string of suicides by young workers at Foxconn factories – a leading manufacturer of high-end electronics such as Apple's iPhones, with several mega-factories in China – made urban audiences aware worldwide of the violence that globalized infrastructures exert on Chinese working class lives.

Xi Jinping's rise to power in 2012 concluded three decades of 'Reform and Opening Up' that defined the post-Maoist era. His bid for new national strength and global power became clear early with his proclamation of the BRI as China's 'win-win' alternative to US-led international development. This promoted Chinese infrastructural expertise, products, money, and manpower as central to the realization of mobility networks between China, Eurasia, and the global South, and within these regions, on a massive scale. In addition, domestic investments into 'smart' infrastructures of mobility increased both the efficacy of grand planning and the possibility of near-totalitarian control in a hypermobile society. 'The Chinese Dream', Xi's comprehensive political vision for national renewal, harmonic development, and advanced civilization (a vision promoted for regional adoption in the global South alongside the BRI), calls on local governments, companies, and citizens to engage in infrastructural labor in support of these national goals. Whereas Mao's revolutionary grip on society depended on mobilizing Chinese citizens to engage in socialist labor and class struggle, also by way of enforcing near total immobility through the *hukou* (household registration system), the new infrastructures have turned the political terrain into a space of planned circulation that generates labor, economic value, and – with the help of modern surveillance techniques – mobility data for political mining.

INFRASTRUCTURAL COLLAPSE AND INFRA-POLITICS

In *Oriental Despotism* (1957), Karl Wittfogel famously argued that in ancient 'oriental' societies, large-scale irrigation often resulted in centralized, autocratic forms of domination. He specifically linked China's complex irrigation systems for rice cultivation to its history of centralized imperial rule, highlighting environmental and technological impacts on societal development. Wittfogel's theory received much scholarly criticism – for being a product of Cold War anticommunism or Western Orientalism, for being historically inaccurate, and, as I remember from the early years of 'Reform and Opening Up', also for being proved wrong by history. Xi Jinping's new absolutism, China's massive investments in the domestic, its regional and transregional infrastructures of connectivity and hypermobility, its political clout and influence in Asia, and its rise as a global 'authoritarian alternative' has re-kindled interest in Wittfogel's theory. For different reasons, academics interested in water infrastructures and hydro-socialities, and those working on infrastructures as techno-social systems, have also found reason to engage with Wittfogel's work (Ley & Krause, 2019).

But in 2023, China's infrastructural investedness, and the political imaginary of unlimited potential and total control that it projects, also appears as a political liability. The COVID-19 pandemic, now traced back to a crowded wet market in Wuhan,

saw Chinese hypermobility go from boom to bust in only a couple of months. The scandal produced by initial efforts to sanction whistle-blowers, repress information and harass citizens circulating investigative videos on social media, the draconic lockdowns, testing schemes and 'immobility regimes' enforced on China's more than 1.5 billion citizens, the grounded airplanes, closed factories, interrupted commodity chains, closed borders, and, finally, the popular and generally peaceful 'white paper' protests[1] that, like water breaking through a dam, forced Xi to abruptly abandon his strategy for total virus control all suggest how little it might take for mobility infrastructures to collapse. And there is more. Droves of well-educated young people, for example, facing the prospect of obtaining meaningless jobs with extreme workloads, already before the pandemic chose to opt out by way of *tangping* (literally "lying flat"), a new term that implies a conscious exit of the 'rat race'[2] in order to lead a life and follow one's own interests. During the pandemic, the trend of lying flat then morphed into a wave of *runxue*, running away from China for good. *Tangping* and *runxue* are just two of recent internet buzz words that popularized infra-political tactics among the young generation – the tip of an iceberg of less prominent infra-politics that do not go viral but nevertheless constantly create disruptions in the smooth connectivity of infrastructural mobility networks. Infra-political tactics, in addition, might coalesce into forms of relationality that follow different rhythms, create differently shaped social and political spaces, and project a communal perspective against a central perspective. In Imperial China, Neo-Confucian elites often chided all kinds of folk practices, but especially those pertaining to ritual or religious life, as subversive of the proper order. This was because rural 'folks' twisted elite rituals to serve their own needs, and instead of investing in self-cultivation and textual study, folk rituals sought to harness a deity's or natural formation's magical power (*ling*) for local ends. Local infrastructures, which linked village communities into larger temples, irrigation systems, or marketing networks, and that served regional transport, trade, and kinship mobilities, met and merged with the infrastructures of the imperial state and its bureaucracy at the lowest administrative seat, but never fully transformed into them. Sometimes, of course, local roads also crossed into uncharted territory, as a result of people seeking prosperity, security or simple survival by settling on or beyond China's imperial frontier, while coastal people sought riches by engaging in private maritime trade across the South China Sea. Many of these activities were deemed illegal or even criminal at the time. In contemporary China, where mobility infrastructures are products of centralized planning – fugitive, escapist, and self-directed – infrastructural work has by definition an infra-political or *jianghu* dimension.

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1 The White Paper Protests, or A4 Revolution, started in China in November 2022 against the zero-COVID policy. Protesters used blank white paper as a symbol against government censorship, expressing their grievances and demanding political reform and free speech.

2 In Chinese, *neijuan* ('involution') is a popular new term for extreme competition and overwork, particularly in use among the younger generation. It embodies the pressures of a hyper-competitive environment, especially the relentless pursuit of success, with efforts not always yielding significant rewards or progress (see Wang & Wang, 2021).

JIANGHU RELATIONALITIES

> Akiko looked up Jianghu on her phone while riding the train home that night. Originally Jianghu referred to traveling folk who used the waterways beyond China's major cities. They were a society beyond society, made up of artisans, bandits, magicians, and martial artists. She quite liked the word and found that a search for Jianghu online revealed Chinese martial arts TV shows where women can fly, and gritty arthouse films about accidentally falling into the criminal underworld. She learned a new Chinese saying, "cast into the Jianghu, one must make compromises," and read an article by a professor about how the Jianghu proves that some words cannot be translated. She started collecting images of the Jianghu on her phone, and posted a few of her favorites to her friends on WeChat, jokingly asking "Is this Jianghu? Is this Jianghu?". (Coates, 2020)

Jianghu, which literally translates as "rivers and lakes", is, as the quote above demonstrates, not a thing, an activity, or a kind of person. With a lineage of over 2,000 years (the Daoist philosopher-poet Zhuangzi is supposedly the original source), it rather encapsulates a particular relationality to the world that escapes order, structure, or representation. *Jianghu* is best understood as any historical order's alterity, a reason why it can signify a particular attitude and agency, and also all kinds of rebellious and mysterious underworlds – of fugitives, rebels, vagrants, prostitutes, fortune-tellers, criminals and even *wuxia* fighters. *Jianghu* is lived and practiced ambivalence, always escaping political or legal efforts of categorization, regulation, and control. The nearest academic equivalent I found is Harney's and Moten's (2013) term "undercommons", developed in their book of the same name. Undercommons refer to a metaphorical space where marginalized individuals and communities engage in forms of social, political, and intellectual resistance. Here, 'fugitive planning' allows alternative forms of knowledge, social relations, and solidarity to be developed outside the purview of mainstream structures (or indeed, infrastructures). As Tim Oakes points out, infrastructural power is captured by the state, but it also always exceeds state power. I suggest that *jianghu* relationalities and infra-politics may proliferate in this excess. To paraphrase Alexei Yurchak's (2013) ironic book title on the collapse of the USSR, infrastructural power may seem forever, until it is no more.

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Book Review: Tappe, O., & Rowedder, S. (Eds.). (2022). Extracting Development: Contested Resource Frontiers in Mainland Southeast Asia.

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Socio-economic development in the countries of mainland Southeast Asia, like in the region as a whole, is very much shaped by state-sponsored resource extraction. The volume *Extracting Development: Contested Resource Frontiers in Mainland Southeast Asia*, edited by Oliver Tappe and Simon Rowedder and published by renowned ISEAS Publishing, addresses this topic from the perspective of the concept of the frontier. Such a perspective is suggested not least by the academic discourse itself, which – especially in its political-ecological orientation – operates with this and related concepts (e.g., enclosure, land grabbing, or 'primitive accumulation') to analyze and compare socio-economic and ecological conditions in Southeast Asia and beyond (e.g., Baird, 2011; Barney, 2009; Hall, 2013).

The fact that the Lao People's Democratic Republic figures prominently in the volume is not only because the editors are proven Lao Studies experts. Rather, as Tappe and Rowedder point out in the introduction, Laos can be considered a prime example of the frontier logic that is primarily defined by the appropriation of resources as cheap input for commodity production (Moore, 2015). This becomes evident in the semi-official guideline of the Laotian government: 'to turn land into capital' (*han thi din pen theun*) (Dwyer, 2007; Kenney-Lazar, 2021).[1] Central to this policy is a logic of appropriating land for the purpose of the 'cheap' extraction of cash crops, mineral resources, or hydropower. This is accompanied by a fundamental change in social structures (increasing inequality) and ecological conditions (degradation).

1 Hence, a recent call for political ecology to focus on issues of capitalist value was brought forward by, among others, Lao Studies scholar Miles Kenney-Lazar (Kay & Kenney-Lazar, 2017). The authors in turn draw on Robertson and Wainwright (2013).

While the concept of the frontier builds a bridge to questions of capitalist valorization, and thus to Marxian theory of value (see below), the editors emphasize in the introduction the heuristic value of the concept. Consequently, concepts of frontierization (the social co-production of frontiers) (Acciaioli & Sabharwal, 2016; Haug et al., 2020), resourcification (those processes that define something as valuable resource in the first place) (Hultman et al., 2021), and frontier assemblages (the dynamic overlapping of local frontier configurations) (Cons & Eilenberg, 2019), as well as the interplay of institutional and cultural factors, loom large in the volume's investigations, thus contributing to conceptual differentiation. Thankfully (since not necessarily common in comparable publications), these concepts run as a red thread throughout the ten case studies, paired with the – conceptually as well as empirically fundamental – question of how local actors themselves actively contribute to the production and reproduction of such spaces of rapid socio-ecological change. With this comparatively close interplay between empirical work and theory, this volume makes an important contribution.

The individual chapters are consistently rich in empirical detail and systematically illuminate the problem of the resource frontier in mainland Southeast Asia. Among the most notable chapters from the reviewer's point of view is the 'hydro-social' analysis by Surimas and Middleton of the Mekong River in Northern Thailand, illuminating the ontological dimensions of the frontier: Practices, narratives, and knowledges of various actors are seen as forces shaping the Mekong as a frontier. The perspectives of both riverside communities and civil society, as well as the intergovernmental Mekong River Commission and Lancang-Mekong Cooperation, are related: While water is recognized as both a resource and a cultural value among the former, the latter conceive of water in terms of ecological modernization, as a purely economic resource to be used efficiently. Also, Rowedder's contribution on fruit cultivation and trade is instructive, as the author vividly demonstrates how the frontier logic is enacted and reproduced in everyday practice, for example, when Lao middlemen mediate between Thai farmers and Chinese buyers based on national stereotypes.

Furthermore, Cole's concise political-ecological analysis of maize cultivation in Northeastern Laos tackles the complex interplay of political objectives (anti-opium policy, sedentarization, etc.), structural changes in agricultural production (high maize demand in Vietnam), and various actors in Laos and Vietnam in the rapid conversion to maize in the Lao-Vietnamese border area. Vietnamese traders emerge as important frontier-building actors here, as they bridge the 'last miles' in the network and open additional production sites. Crucial also is Tappe's illumination of a rarely treated and under-researched phenomenon: artisanal tin mining conducted within the framework of local subsistence strategies, both in ethnographic detail as well as historical depth, going back to the beginnings of the colonial era. One conclusion here is that local actors reproduce the frontier by moving back and forth between the level of private household and industrial labor along a continuum of informality.

But also the remaining chapters make for valuable and informative reads thanks to their empirical grounding. Fujita provides in-depth insights into the transformation of livelihoods and the ecosystem among "middle-income peasants" (see also Dayley & Sattayanurak, 2016) in the wake of the expansion of commercial rubber

cultivation in Thailand's Northeast. Focusing on Laos' national master plan for land allocation, Suhardiman and Kramp tackle "the interplay between the state's territorialization approach [...] and the reshaping of frontier dynamics which (un)make the Lao uplands" (p. 130). Ponce further considers the ambivalent, sociologically revealing relation between 'being modern' and 'being comfortable' in resettlement villages of Northwestern Laos in the context of a Chinese hydropower project. Cheang provides a succinct account of the nature and effects of Chinese investment in Cambodia, taking the port city of Sihanoukville as an insightful case study. Htun then presents a similar account of Chinese investment in Myanmar, including vignettes on various pertinent projects. Finally, Tappe's tin extraction theme is taken up again by Mierzejewski's discussion of China-Myanmar frontier governance as seen from a proclaimed 'bridgehead' of China's Belt and Road Initiative, the Province of Yunnan.

While the contributions focus on a wide variety of frontiers (fruit, rubber, corn, hydropower, tin, land, etc.) at different levels, overarching themes run throughout the volume, such as the regional dominance of Chinese political economy, cross-border processes of trade and governance, and the complexity of concrete empirical configurations and negotiations. In terms of a critical assessment, only two aspects should be briefly pointed out here that concern not only this volume but empirical work on frontiers in general. Firstly, while various resources are subject to in-depth investigations, aspects such as nature conservation or tourism – while so central to socio-ecological, cultural, and political-economic transformation – are absent, although quite similar socio-economic mechanisms are at work (e.g., 'expropriation' or tourism's own distinct frontier logic). The second weak spot is directly related to one of the volume's central strengths, which is its conceptual added value: The centrality of the frontier concept notwithstanding, its peculiar theoretical thrust – especially its relation to capitalist value in general (and thus necessarily to the global level) – remains underdeveloped, as the question of how the respective resources are turned into cheap inputs to maintain capital accumulation is hardly explicitly addressed. While the case studies do show the active involvement of local actors in frontier economies, they remain silent about how exactly these actions contribute to the *cheapening* of resource extraction – that is, in which sense these contexts actually represent frontiers, which ultimately would require the authors to tease out their position in the overall, global M-C-M' movement of capital (Marx, 1976).[2] This is an ambitious task no doubt, but one set by the thrust of the frontier concept itself. One could thus ask more concretely: How do local actors actively participate in the cheapening of (access to) natural resources and human labor? Or more generally: How do certain institutions, practices, and ideas relate to global circuits of capital, that is, valorization? In this way, the explanatory potential of the frontier concept would become even more fruitful for empirical analysis, and vice versa. Further work thus remains to be done here. Overall, the present volume represents an important contribution and signpost in this regard, which is of interest to Southeast Asian Studies scholars as well as students of political ecology from various disciplines and with diverse regional foci.

2 For examples of how this can be done, see the historical studies of the initiator of the 'world-ecology' conversation, Jason W. Moore (e.g., Moore 2010a, 2010b, 2012).

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