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Understanding the Surge of Deforestation during the COVID-19 Lockdown: Local Perception of Illegal Timber Trade in Karen (Kayin) State, Myanmar

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by Riyad Febrian Anwar



Abstract

Around 2020 and 2021, a popular claim emerged suggesting COVID-19 lockdowns implemented by countries around the world have meaningfully slowed global climate change. Such claim advanced behind published reports highlighting the decline in greenhouse emissions from their respective territories. Against this recurring narrative, this article weighs on the contrasting account of the role of the COVID-19 lockdown in mitigating the acceleration of climate change. It looks into Myanmar, one of the Southeast Asian countries consistently experiencing deforestation surge across its territories despite enacting lockdown measures. To understand the opposing experience of Myanmar, this article conducted moderately structured interviews among locals living in Kawkaik township, a region in the Karen State, Myanmar, with a relatively high presence of forest areas. In collecting stories from the locals, this paper discovers three recurring narratives: 1) economic distress has become a strong motivator for the locals to be involved in illegal timber harvesting across the region; 2) forest oversights were considerably weaker in this period due to indiscriminate movement restrictions and reduced governmental support to facilitate forest monitoring activities; 3) lockdown is an enabler of an already flawed forest monitoring system in Karen State.

Keywords: deforestation, illegal logging, lockdown, Karen State



About the Author

Riyad Febrian Anwar is a part-time international law lecturer and research consultant specializing in socio-legal protection of displaced communities in Southeast Asia. Riyad has worked across Myanmar and Indonesia, managing projects, reviewing research ethics, and conducting community-based participatory research in conflict sensitive settings. In his previous position as Research Manager at the Knowledge-Hub Myanmar, his works prominently addressed the everyday violence and nonviolent protection of marginalized ethnic communities in Myanmar.



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Near the end of 2020 and amidst the coronavirus pandemic, multiple accounts hint at the noticeable mass decline of greenhouse emissions worldwide. It is reported that global emissions declined by approximately 2.4 billion tones in 2020 (Friedlingstein et al. 2020, 3286). Such decline was the “steepest emission decrease ever seen in the past century” (“Covid Lockdown” 2020). Echoing this assertion, the European Environment Agency also reported that the member states of the European Union have managed to reduce around 11.6% of the region’s emissions collectively (Mandl et al. 2022, vii). Some European countries have further associated this cutback with an indirect effect of their strict lockdown measures. For instance, cities in northern Italy, where lockdown measures restricted most civilians from leaving their homes, have reported decreased concentrations of greenhouse gases in their lower atmosphere (Mooney et al. 2020); this trend was also reported in the largest cities in France (“The Lockdown and Air Quality” 2020) and Germany (Appunn and Wettengel 2021). Among these reports, industrial slowdowns and mass reduction in public human activities are the critical factors behind the success of halting the global rise of temperature.

In contrast to the experience shared by the European countries, some prominently featured countries with tropical climate and vast rainforest areas, such as Indonesia, Vietnam, Colombia, and Brazil, have reported an uptick in their annual greenhouse gas emissions. These contrasting outcomes persist despite having similarly introduced nationwide lockdowns. In 2020, Brazil reported emitting 2.16 billion tons of carbon dioxides—1.97 billion higher than its 2019 emittance of greenhouse gases (Daly 2020; Boadle 2021). Meanwhile, in Southeast Asia, the satellite images of two cities, Ho Chi Minh, Vietnam, and Yangon, Myanmar, have revealed a yearly increase of roughly 1 percent and 3 percent, respectively, in nitrogen dioxide concentrations in the

atmosphere (Kanniah et al. 2020, 9). In this context, the concentrated nitrogen dioxide in the air will subsequently be processed into tropospheric ozone, accumulating global emissions in both cities. Rampant deforestation and agricultural fires were considered leading contributors to their accelerated emission portfolio (Butler 2020). These contradicting accounts eventually open greater discussion on the effects of lockdowns beyond the cities or densely populated areas.

The Lockdown and the Reduction in Global Greenhouse Emissions

Lockdown can be understood as the implementation of public community restrictions on travel and social interaction, as well as denying access to public spaces. It differs from the other two public health measures—quarantine and self-isolation—in that it imposes large-scale restrictions indiscriminately, regardless of whether the individuals have been exposed to the disease (Heffernan 2021). The grand claim that lockdown may address concerns over the rapid increase of greenhouse emissions has been extensively discussed. For starters, lockdown impacts on reducing emissions from carbon dioxide are well-documented, especially in 2020 (Copernicus 2020; World Meteorological Organization 2020). Such observations range from lockdowns' role in causing widespread vehicle shutdown to the shrinking usage of fossil fuels by industries and power plants (Bar et al. 2021, 9; Pazmiño et al. 2021, 18313).

Some, however, have put disclaimers on the above claim, suggesting that the decline in the overall quantity of emissions tells an incomplete story about the environmental quality of a city and its surrounding areas during the period of lockdown. For instance, the quantity of anthropogenic emissions, or the emissions associated with the combustion of fossil fuels or land use changes, are often referred to as the basis for indicating the lockdown effects on a country's atmosphere. But by following these metrics alone, the 2021 global emission reports often overlook externalities distinct to each country, such as seasonal differences that may also affect the quality of air during lockdown (Jakob et al. 2022, 3; Hashim et al. 2021, 2). Others would question the lockdown's capability to continuously reduce carbon emissions, predicting that the emissions in European urban districts would rebound once the restrictions were eased (Nicoli et al. 2022, 10; Bhanumati et al. 2022). Furthermore, these reports tend to be urban-centric, observing emissions in cities or highly populated areas where the government exerts more control of its lockdown measures (Ajilore 2020).

Then there are studies that observe the effect of lockdown outside the urban setting. These studies find that lockdown enforcements in certain countries have failed to prevent and, if anything, have further contributed to the surge of illegal timber trade in rural forest areas (Brown 2020; Farand 2020). Accordingly, illegal logging carried out

by organized crime groups thrives as the forests receive less monitoring support from the government (Fair 2020; Laudari et al. 2021, 10). In India, for example, the inability to secure initial employment or maintain a stable income during the closure period has attracted local opportunists living near the forests to illegal timber harvesting (Parvaiz 2020). Similarly, lockdowns and industrial shutdowns in Nepal have resulted in a scarcity of timber and fuelwood materials, causing a dramatic surge in timber prices (Laudari et al. 2021, 10). Note that others have also reported the success of closures in reducing public activity in remote areas by delegating their management directly to local communities (Kerbage et al. 2021, 6).

Domestic Management of the COVID-19 Lockdown

It is important to note that the COVID-19 lockdowns, while being implemented globally, may not be uniform in their domestic enforcement. Each country relies on different government authorities to implement different supportive policies in support of the lockdown. For instance, the institution in charge is often cited as a political factor behind lockdown compliance—from the degree of military oversight involved to the public trust in the institution in question (Gibson-Fall 2021; Shodunke 2022; Murphy et al. 2020). Sustainable lockdown must also incorporate policy to support individual grievances caused by an economic slowdown. It arguably reduces future non-compliance and prevents social unrest (Wood et al. 2022, 3–5). While none of these studies describe how lockdown management would reduce the national carbon emissions or, the number of illegal logging activities, they do acknowledge several factors to consider when evaluating the effectiveness of a country's lockdown in limiting public activities, whether in urban or rural areas.

Myanmar Implementation of the COVID-19 Lockdown

Finally, Myanmar presents a novel experience in lockdown management. Parts of its lockdown period were during a hostile political transition when the military staged a coup on the presiding civilian government in February 2021. The recent event caused an institutional shift in lockdown control from early to late 2020, extending into 2021 to 2022. The country saw its first COVID-19 lockdown when the civilian government introduced a partial lockdown in April 2020 to support the previously enacted ban on mass gatherings and travel ban (Center for Policy Impact in Global Health 2020, 9).

Following the coup, the military, represented by the State Administration Council (SAC), has taken national leadership of the entire COVID-19 response, including the enforcement of lockdown measures (Gibson-Fall 2021, 164). The post-coup lockdown led to the collapse of the public health infrastructure, as some of medical professionals

joined the civil disobedience movement to protest the coup, subsequently becoming target of violent counterinsurgency actions by the military government (Green 2022, 3; Davies 2021). Diminished public trust in the central government also provided an opportunity for Ethnic Armed Organizations (EAO), namely Kachin Independence Organization and Karen National Union (KNU), to implement their own COVID-19 responses, such as screening and lockdown measures within the territory they exert de facto control of (“Karen Health” 2021).

Research Scopes and Limitations

This research seeks to provide a case study for Myanmar, one of the countries showcasing an increase in deforestation during the implementation of the nationwide lockdown. It specifically observes how lockdown, large-scale physical distancing measures, and movement restrictions to slow the transmission of COVID-19 between people has affected the existence of illegal logging and any environmentally destructive activities in rural areas (Eklund et al. 2022; World Health Organization 2020). Illegal logging is highlighted due to its linkage with deforestation, which inadvertently accumulates the country’s airborne concentration of nitrogen dioxides (Kanniah et al. 2020). With most illegal logging activities taking place in rural forest areas, rather than observing the former capital city of Yangon, the study diverts its attention to Karen State, one of the Myanmar States with the highest forest reserves. There is no officially endorsed estimate of forest coverage for Karen State. However, it is suggested that since 2011, the region has contributed over 15 percent of the overall forest losses in Myanmar (Hodgdon 2020).

This research is primarily an ethnographic project focused on interviewing local perceptions of lockdown enforcement and illegal logging that allegedly occurred during one of the lockdowns in Karen State, Myanmar. An initial normative overview of Karen State will be provided before discussing local perceptions, which facilitates a better contextualization of participants’ experiences. To gather insights into the local perception, seven open-ended questions concerning deforestation and lockdown were posed to the participants ($n = 15$). These questions are organized into four themes: 1) participants’ general awareness of forest sites in their vicinity, 2) the transformative impact of COVID-19 lockdown for participants, 3) participant-specific awareness of illegal logging activities, 4) participant understanding of power dynamics in forest protection.

To address security concerns and to protect participants, data collection was conducted as discretely as possible by using phone interviews. Likewise, the precarious situation regarding security made participant recruitment difficult. As a result, the sample population was obtained through a snowball process, in which a small group of

trusted locals were first interviewed and then asked to nominate additional locals who would be willing to answer the list of questions prepared. All interviews were conducted in Burmese by a native Burmese researcher. Some of the interviews were recorded if participants consented to the recording; this excludes the informed consent that must be obtained before conducting an interview. These methodological choices allowed us to interview at least 15 Karen locals by phone from February to March 2023.

The author acknowledges that the biggest constraint of this research is the limited number of respondents in the sampling population. Interviews were conducted primarily by a non-Burmese researcher and a Burmese volunteer with no affiliation to either the state military or the local ethnic armed organization. This positioning has been beneficial in maintaining unbiased interpretation of the collected information. However, it has also made it considerably more challenging to address the safety concerns raised by the prospective respondents. While the snowball sampling method has facilitated engagement with multiple prospective respondents, it has had little effect on building their trust in the data collection process. Given the rather small scale of participants, the findings from this research should not be seen as representative of the overall views of the local Karen population. Instead, the research should be viewed as starting point—an exploratory endeavor aimed to uncover potential issues in Karen's Forest management during COVID-19 lockdowns. Future research involving a larger pool of participants would be ideal for expanding or challenging the narratives explored in this study.

Desk Research: A Case Study of Karen State, Myanmar

Karen State, locally referred to as Kawhtoolei (which translates to “land without darkness”) is one of the Burmese States located in the Southeastern side of Myanmar. Due to its geographic location, the region is the border state between Myanmar and Thailand. According to Myanmar Ministry of Information, the region holds a great deal of forest lands divided between 404,158 acres of Reserved Forest where no private harvesting rights are permitted and 581,804 acres of Protected Public Forest to which the central government may authorize limited harvesting rights (“Myanmar Establishes” 2022; Bunditderdsakul 2019, 147). Limited rights imply subsistence usages where locals are permitted to cut down timbers or to designate rotating farms to support the sustenance for local families (Bunditderdsakul 2019, 147). Furthermore, some of the region's large forest areas, such as Kaeng Krachan National Park and Salween National Park, are designated as protected areas. These lands received special protection due to the known presence of endangered species and their diverse ecosystems (Khine 2021).

However, the above so-called forest classification is endorsed exclusively by the central government. In some parts of the region controlled by Karen National Union

(hereafter KNU), the classification holds minor to no legal effect. The KNU, as a *de facto* local authority, had on separate occasions introduced its own rules and classification on land and forest uses. Under the Kawthoolei Land Policy of 2015, forest lands in Karen are differentiated into four groups: reserved forest, unreserved forest, wildlife-protected areas, and national park areas. Although such groupings are conceptually akin to the central government classification, the two authorities name their forest lands differently. The KNU's management of forest resources is distinct compared to the Forest Ministry. It is characteristically lenient in allowing private harvest for the subsistence uses but has put strict control on the type of timber the locals could extract in the forest. For instance, section 3.8.0. of the Land Policy highlights that any attempt to harvest valuable wood, such as teaks, should be registered and receive prior approval by the KNU authorities.

The overall forest lands in Karen State are monitored by mixed authorities of the Myanmar Forestry Department (hereafter MFD), who operates under the Ministry of Environmental Conservation and Forestry, the state-owned timber company Myanma Timber Enterprise (hereafter MTE), and the Karen's Forest Department (hereafter KFD) of the KNU. This mixture reflects the years of violent political struggle in the region. Historically, the central government and KNU have self-proclaimed their regulatory control through a political and military presence in the region. There is currently no formal cooperation between MFD, MTE, and KFD to coordinate forest conservation in the area. However, it is reported that the two institutions, MFD and KFD, have collaborated informally through sharing staff or rangers to supervise publicly protected forests (Gray 2019).

When the first coronavirus infection was confirmed on March 23, 2020, neither the government nor KNU had taken action to enforce any COVID-19 lockdown policies. Rather, the national military had been engaged in a series of military offensives against the KNU and other EAOs for months. It was not until May 9, 2020, that the military declared a nationwide ceasefire for all EAOs. This momentum provided a temporary peace period and helped the EAOs like KNU to focus on COVID-19 responses to its controlled territories (International Crisis Group 2020, 3). However, the attempt to curb the overall citizen mobility in Karen State had been partly compromised by then. The preceding armed clashes between the adversaries had resulted in at least 300 civilians being internally displaced ("While the World" 2020).

To fill the gap of limited national COVID-19 responses implemented by the government in Karen State, the KNU had initiated some movement restriction measures ranging from intra-state travel bans via checkpoints to setting up 49 screening points for COVID-19 that spread across seven local districts ("Karen Health" 2021; Karen Peace

Network 2021). But concerns over cross-border infection remains unabated with both authorities having failed to restrict the movement of displaced populations during the first wave of the coronavirus pandemic in 2020. By the time the health screenings were implemented by the KNU, these individuals had isolated themselves in the forest areas surrounding the Thai-Myanmar border (Kobayashi et al. 2021).

Akin to the region's current state of forest management, the treatment and monitoring of COVID-19 infection in Karen state has been compartmentalized by the controlling authorities. Central government managed its public COVID-19 treatment exclusively in their controlled areas and was further accused of prioritizing vaccine rollout to the military relatives and Junta-sympathizers—those who support the February 2021 coup and actively endorse the military's presence in Karen State (Kyed 2021). Meanwhile, civilians living in KNU-controlled areas have expressed distrust of seeking vaccination in the local clinics and hospitals controlled by the government, fearing themselves to be targeted by the military counterinsurgency operation (Khai 2023, 5).

Tracking cross-border movement and activities remains difficult despite the recent armed truce agreed to by both authorities. The military, for instance, has destroyed the COVID-19 screening posts placed by KNU in Thaton, Hpa-pun, and Nyaunglebin, areas the military claimed to be government-controlled (Karen Peace Network 2021). While full effectiveness of border screening to prevent the entry of coronavirus has been called into question (Bays et al. 2021), local community aid workers have perceived the presence of KNU screening posts as a great situational tool to support existing lockdown and to limit the expansion of SARS-CoV-2 infection into the forest and mountainous areas—the remote areas with little to no access of COVID-19 testing (Eubank 2020). Presented with this conflict-centric COVID-19 management, there is a sense of urgency to explore how local population views the implementation of COVID-19 movement restriction in Karen state and how it comparatively fares with global lockdown trends.

Findings:

Situational Awareness of Karen's Forest Areas

In four interview responses, participants recall the importance of forest conservation to community well-being, from preventing future natural disasters (Interview 3) to providing the nearest accessible food supplies and water resources (Interviews 5, 6, and 7). One respondent distinctly describes how the lack of forest in his current area has led to inhospitable living conditions:

Currently, I am living in the central dry zone, where there is less vegetation cover than in other regions of Myanmar. I guess where there is

no forest cover, the area is in the place of desertification process. Due to the loss of forest cover, the climate conditions are extreme. Only about 40 inches of precipitation can get annually and affecting the agricultural production . . . (Interview 1)

In terms of the presence of protected forest areas in their vicinity, six participants claimed that they are generally aware of many protected forest areas within Karen. However, their ability to identify specific forest sites nearby yielded mixed results. Six participants were able to confirm the nearest forest areas in their residence as protected (Interviews 1, 2, 3, 5, 7, and 8), and two of them were able to recognize certain areas as currently proposed to receive protection status (Interviews 3 and 5). Yet only two participants could accurately name and locate the nearest protected forest areas in their vicinity (Interviews 1 and 8). One participant was unable to identify any protected forest in the area and attributed this gap to a lack of education. Ultimately, none of the participants could attest whether the protected status has been granted by the KFD or the MFD.

Following up on the previous identification question, a more reflective question about why participants believed these forests were protected or currently proposed for protection was asked. At least five responses suggest a common narrative that protection is necessary to provide control on unwanted land uses (Interviews 2, 3, 5, 7, and 8). One response elaborated on this by explaining that protection is aimed at illegal logging on valuable tree species like mangroves (*Rhizophora*) and oriental mangroves (*Bruguiera*) (Interview 3). Another participant recounted that the forest area where he currently lives, the Popa National Park, was placed under protection specifically to protect the endangered population of Popa langur who live in that area (Interview 1). In contrast, one participant considers forest protection as equally intended to protect Indigenous peoples living in the area. This participant shared that the importance of forest protection has been passed down in his family's oral tradition: "Our grandparents always told us the story of their lives, how they spent their time in the forest and their nature when we were young . . . they said that stewardship is needed for the forests to be protected" (Interview 13).

Transformative Effect of the COVID-19 Lockdown

When asked about how the pandemic transformed the lives of our respondents, 14 participants acknowledged that it negatively affected their lives in certain capacities. Economic distress is a common experience described by the interviewees. An NGO worker living in Kawkareik town recalls how the quarantine rules have increased the number of unemployed households in the neighborhood (Interview 5). A farmer who used to live in Kawkareik described the overall "reduction in his income" due to the

lockdown order (Interview 6). One participant claimed that he was forced to sell his family's jewelry to make up for his financial hardship. Other further recounts his suicidal thoughts when the economic slowdown in his area had cost him his job (Interview 14).

At least five of the participants identified themselves as having a professional background in forest monitoring, four being formerly employed and one currently employed as forest rangers. The four former forest rangers (Interviews 1, 3, 5, and 10) claimed that COVID-19 lockdowns had a far-reaching impact on working conditions in the forest monitoring sector. Speaking of their personal working experience, all rangers agree that the capacity of rangers to supervise was noticeably weaker during the lockdown. A former ranger from MFD suggested that it was difficult to monitor any designated protected forest area located outside of the city or villages due to movement restrictions (Interview 1). Another ranger who was also previously employed by the MFD noticed that there were less rangers who were actively stationed to monitor the forest during the lockdown period (Interview 10).

A former ranger from KFD suggested that while the numbers of active rangers remain limited, the workloads to monitor forest areas were dramatically increased in that time as more locals have shifted into timber harvesting businesses to sustain themselves (Interview 5). Another timber ranger, who previously worked under MTE, did agree on the weakening of forest monitoring during lockdown but was indifferent to the claim of rising illegal logging during the lockdown period. He instead blamed the weak enforcement of existing forest protection rules by the forest ranger as an enabler of the continuous illegal logging in Karen State (Interview 3). This assertion is echoed by another ranger participant, who stated that "SAC governmental agencies responsible for natural resources conservation are more likely to corrupt than protecting forests" (Interview 1).

Identification of Illegal Logging Activities

In this section, the questions focused on recollecting participants' memories of the past illegal logging activities conducted throughout the lockdown period of 2019 to 2022. Their identification process could be based on what they have witnessed directly, or merely heard through hearsay or from observing local news outlets. Regarding identification, eight participants were convinced that unauthorized timber harvesting has taken place in Karen State somewhere during the lockdown period. Do keep in mind that these eight responses are anecdotal, with most of the participants unable to recall specific times and places where illegal logging has occurred. They are either made aware of this by hearsay (Interviews 5, 6, 8, and 9) or by watching the local news (Interview 15).

When asked to guess who might be responsible, both government authorities and the local businessmen/entrepreneurs stood out as the most cited enabler of illegal logging in the region (11 out of 15 responses). These participants blamed rampant corruption among the government, or in this context, SAC apparatuses, who endorsed lucrative deals offered by the local illegal timber producers (Interviews 1, 2, 3, 5, and 10). Others also consider the involvement of EAOs and “local authorities” (Interviews 1, 4, 5, and 15). These participants, however, declined to confirm if the EAO or local authority they referred is the KNU or other local EAOs operating in the area.

Dynamics of Forest Protection

The tensions between the SAC and the KNU on forest protection in the region and their impact on the population were also discussed. Three of the interviewees expressed their views that the conflict between the two competing authorities has been destructive to forest conservation. Three participants believe that this conflict has weakened the law enforcement in their respective areas (Interview 4, 8, 10). One offers a more specified claim that the constant armed exchange has made KFD become cautious in monitoring its forest area (Interview 4). Others are unable to provide an opinion on this because with conflict going on, they were either confined in their home or had to relocate from their hometown, hence making them unaware of the extent to which both parties have been involved in illegal logging activities.

Conclusion

Although relatively exploratory research, this study has highlighted different facets of the discourse on the role of public lockdowns in accelerating deforestation in Karen State. The COVID-19 lockdown in Karen State illustrates the tumultuous experience of enforcing public lockdowns in rural areas and its potential implication for illegal logging activities. Based on our observation of local perceptions, the interviewees felt that the lockdown enforcement was flawed on multiple fronts. First, it lacked supporting policy to address public grievances, such as the loss of jobs and income of locals living in Karen State. This distress motivates non-compliance to the lockdown due to economic distress. This is the most common reason stated by the participants on why the locals became frustrated and decided to get involved in unlawful timber trades. This finding is theoretically aligned with Wood et al. (2022) and others’ work on the importance of grievance mechanisms to suppress unrest and public disobedience.

Secondly, forest monitoring agencies, whether MFD, KFD, or MTE timber rangers, have found their efforts on forest monitoring to be considerably undermined by inadequate support from both authorities during the COVID-19 lockdown. One of the

rangers interviewed reported that he was unable to access the forest due to movement restrictions imposed by the lockdown. With the lockdown and health screening only imposed within Karen's populated areas and then the weakening of forest oversights, our participants are aware of the likelihood of a high level of uncontrolled timber harvesting in their vicinities.

Finally, summarizing the responses to the questions on illegal logging, a consistent pattern emerges. This narrative states that interdiction is just one factor among many ensuring a thriving local economy in the illegal timber trade. Participants recall that even before the outbreak of COVID-19 into a global pandemic, corruption related to illegal timber harvesting was rampant in Karen State. Central and local government officials have for a long time discreetly coordinated support to local traders and loggers in expanding their illegal operations. As one former ranger has pointed out, some government employees have taken advantage of the outbreak of COVID-19 to further empower its corruption networks. Therefore, even without lockdown restrictions and interdiction, illegal logging remains a systematic problem that is locally attributed to power dynamics and asymmetries in Karen State.

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