## Academic Report For TCD Research Grant 2020

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Topic: Research-Policy-Practice Gaps In The Promotion of Reduced-Impact Logging In

Indonesia: Construction of a Theory-of-Change For One Forestry Concession

Despite the pandemic since March 2020, PhD life must go on, including data collection for my preliminary research project. Preventing lockdown situation during the first period of COVID-19, I then traveled back to my home country, Indonesia, at the end of March 2020 to meet my family, while at the same time continued my field observation in the forests. I visited two natural forest concessions, PT. Gunung Gajah Abadi (GGA) in East Kalimantan and PT. Wijaya Sentosa (WSE) in West Papua, for about two weeks each. Then, I returned back to Gainesville in the beginning of January 2021.

I slightly adjusted my research project to focus on health and safety issues for forest workers, which is still part of my main research about reduced-impact logging. From the two companies, I interviewed several forest workers (Figure 1), specifically fellers, to understand their motivations and impediments to use of personal protective equipment (PPE) during their work, for instance safety boots, safety trousers, close-fitting clothing, gloves, safety helmet, goggles, visor or mesh, and ear protection. I used a questionnaire during interview, and recorded audio for each observed worker. I interviewed a total of eight fellers, five from GGA and three from WSE; I also observed their work from cutting the trees to where logs storage in the log yard. I could observe few workers during the visit because some of them were not available due to illness, employment in other forest concessions, or already finished tree harvesting period at the time. Video recording were also available for each observed feller to record their work and create a tutorial or learning video later.

From two visits I learned that both forest companies have certain operational procedures about how fellers work are expected to use PPE based on risk assessment. However, several workers refused to wear certain suggested PPE (Figure 2) for several reasons. Internal and external factors related to workers or company may affect the willingness of forest workers to use PPE. For instance, although GGA provides safety boots to each worker, none were used because they are too slippery. In WSE, in contrast, all workers used appropriate safety boots provided by the company, although they prefer previous safety boots' type compared to the new ones, again citing the slippery issue. Second, fellers in GGA refused to wear ear plugs because they could not hear when cutting trees and risk their safety. In contrast, all workers in WSE wore earplugs during work to protect them from the high noise of the chainsaw. Third, safety trousers and goggles/face shields seemed to be difficult to implement in both forest concessions due to weight, sweating, or comfortable issues.

The awareness of using PPE to fellers were also affected by the company. For instance, GGA provided no incentives for fellers to use PPE or not during work whereas WSE awarded workers who have good performance at the end of the year or assessed verbal or written warning for non-compliance to PPE procedure implementation. Second, regular briefing and meeting were effectively enforced in WSE to workers, while no similar strategy exists in GGA to motivate workers to use PPE. Third, both block inspectors and supervisors in GGA fully monitored their workers to compliance use of safety tools, whereas similar positions in WSE did not conduct the same responsibility due to lack of leadership or busy with another activity (e.g., managing private palm oil plantation).

Challenges doing the research project were many, especially during the pandemic. It was really difficult to schedule field visits because almost Indonesian forest concessions avoid any external guest (e.g., researcher) to visit their area to prevent any spread of the virus. PCR test with negative result shall be done for travelling before and after field visits, and maintain health protocol everywhere. Additionally, more administration issues about invitation letters from the forest concessions and coordination with forest concessions were necessary before visiting those companies. Overall, all those challenges exercised myself to be wiser and being more patient person to face all uncertainties in the future especially during the pandemic.





Figure 1. Interview with fellers (GGA-left; WSE-right).



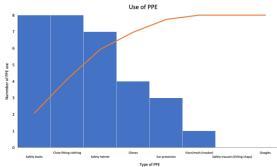




Figure 2. Expected use of PPE compared to reality in the field by fellers (GGA-left; statistic-center; WSE-right).

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