



## Impact assessment of COVID-19 and PMO15 on labour in the plantation-wood processing sector in Lao PDR with policy recommendations

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### Abstract

The primary objective of this research was to 1) explore the impacts of COVID-19 on availability of, and demand for, labor in the plantation-wood processing sector in Lao PDR; 2) the Government and industry response measures to COVID-19; and 3) the impacts of 2016 Prime Ministers' Order (No. 15/PM, PMO15) aimed at addressing illegal logging and controlling log exports were also considered, as representative of a similar 'shock' to the sector. The research, undertaken in Vientiane Capital City, adopted a mainly qualitative methodology utilizing literature reviews and semi-structured interviews to gather data from the government, industry and workers. Micro, small and medium sized companies and their employees were surveyed. The research found that Lao wood manufacturers were affected by the shutdowns in response to COVID-19 and there were follow-on effects up and down value chains. The experiences of Laos were found to be similar to those experienced in wood producing countries globally. Supply issues and access to markets were key factors impacting the ability of factories to continue to operate and retain workers. Government protection measures were effective but challenging to implement, and access to support was difficult. Impacts on male and female differed. Awareness of, and access to, mandatory social security insurance by workers was very low. Other forms of social 'safety-net' were more apparent and important, including company-based programs, charity, and family/self-help. Improved dissemination of information about the need for, and benefits of, social security should occur to mitigate future shocks. The high dependence on foreign workers to fill skilled jobs in the sector remains an issue. Coupled with reforms in response to PMO15, to improve factory and product standards and ongoing export restrictions, there is a need further build Lao skills and capacity. Current efforts to up-skill Lao workers for employment in emerging wood product industries must be maintained, and improved recognition of Lao-acquired competencies is needed. Market needs analysis including the development of product dossiers is required together with the building of relevant technical expertise. Without this the Lao wood processing sector will be remain vulnerable to future shocks.

**Keywords:** *Covid-19, Impact, Gender, Wood processing sector, Prime Minister Order No.15*

### 1. Introduction

This project explored the combined and converging impacts of COVID-19 and export-oriented policies (PMO15) on labour in the Lao plantation-wood processing sector, with an emphasis on female labour.

Developing a sustainable plantation growing-wood processing sector is a theme in Laos' 9<sup>th</sup>

National Socio-Economic Development Plan and Forestry Strategy 2020, and the Australian Centre for International Agricultural Research (ACIAR) has aligned past and ongoing forestry investments with these (FST/2016/151, FST/2010/012, FST/2005/100 and others). Several other donor-funded projects have also been researching plantation-wood processing value chains and policies.

The plantation-wood processing sector in Laos has been called ‘small but vibrant’ (ITC 2021). It is diverse, combining foreign and Lao small- and large-scale plantation growing with an increasingly export-oriented processing sector. Recent policy and regulatory reforms, particularly Prime Minister’s Order No. 15 Strengthening Strictness of Timber Harvest Management and Inspection, Timber Transport and Business, introduced in 2016, (“PMO15”) and other introduced since then, resulted in a restructuring of the sector, with the closure of many small and informal enterprises, but also enabled new investment in some large enterprises that are anticipated to stimulate broader activity.

Labour in the wood processing sector is a mixture of Lao and foreign employees and contracted and uncontracted labourers, with foreign workers often taking on more highly skilled roles. Most workers in wood processing are male but many small and medium enterprises and the plantations they depend on are owned and managed by women or in family partnerships, and female workers are often preferred for more intricate manufacturing tasks (Smith et al 2018; Ling et al 2021a).

Lao PDR experienced two waves of COVID-19, the first starting in March 2020 and the second in April 2021. As elsewhere, in the Government mandated measures to reduce exposure and spread. In response, most wood processing companies and their foreign customers shut-down or suspended operations (ITC 2020). Some Lao companies closed due to reduced availability of foreign workers (who returned home), and the perceived lower competency of available Lao labour has reportedly inhibited companies’ ability to meet high processing standards imposed since PMO15. For some companies, reduced availability of inputs, or access to them, has impacted their production capacity, and international border restrictions, together with decreased customer demand has impacted their market penetration. Research by the ITC (2020) soon after the ‘first wave’ of COVID-19 in 2020, found some firms were selling assets, drawing down personal savings or borrowing to pay businesses costs and sustain their operations. While the Government introduced specific fiscal measures aimed at supporting Small and Medium Enterprises (SMEs) and employees, such as low-interest loans, tax exemptions and employee allowances, operations nevertheless slowed or stopped, thereby reducing their labour needs. The impacts of these on labourers, and the effectiveness of the measures introduced, have not been examined;

this is important in understanding the resilience of the plantation-wood processing sector to ‘shocks’ such as strong policy changes or events such as COVID-19.

The objectives were 1) explore the impacts of COVID-19 on availability of, and demand for, labour in the plantation-wood processing sector in Lao PDR; 2) the Government and industry response measures to COVID-19; and 3) the impacts of 2016 Prime Ministers’ Order (No. 15/PM, PMO15) aimed at addressing illegal logging and controlling log exports were also considered, as representative of a similar ‘shock’ to the sector.

## **2. Methods**

This research was undertaken in Vientiane Capital of Lao People’s Democratic Republic (Lao PDR). A project ‘inception’ meeting (virtual) was held on 28 May 2021 between the project team and the Department of Industry and Handicraft (DoIH) under Ministry of Industry and Commerce (MOIC), which was the department with responsibility for the wood processing and manufacturing sector at that time.

Structured interviews onsite and observation were undertaken with 15 wood processing enterprises located in Vientiane Capital and their employees. Opportunities to travel to interview outside of Vientiane were limited due to COVID-19. Companies were identified from a list provided by MoIC-DoIH, and 5 were selected from each enterprise class - micro, small, and medium enterprises (mSME) (GoL, 2017). Interviews were undertaken on-site between 31<sup>st</sup> August and 20<sup>th</sup> September 2021. This produced a mixture of qualitative information and quantitative data by interviewing and site observation, enabling some comparison across responses. Interviews were undertaken with 55 employees at the wood processing factories: 41 men and 14 women.

Semi-structured interviews of six key government and non-government organisations identified during the inception meeting were undertaken using guiding questions tailored to the individual organisation’s particular areas of interest/expertise. These included: the Vientiane Capital branch of the Lao Women Union (LWA), Lao National Chamber of Commerce and Industry (LNCCI), Lao Furniture Association (LFA), Vientiane Capital branch of the Lao Trade Union (LTU), Lao Wood Processing Association (LWPA). We also interviewed with Department of Skills Development and Employment of the Ministry of Labour and Social Welfare (MLSW) (this

organization provided a written response to the questions).

### 3. Results

We interviewed five Medium, five small, and five micro companies, which had been in operation for 8 to 47 years (Figure 1). The companies produced a range of wood products such as doors, door frames, laminated board, chairs, tables, beds, windows, window frames, wardrobes, floorings, ceiling, parquets, and sawn boards. The species used in processing are plantation-grown teak and *Eucalyptus*. The teak logs mostly come from the smallholders of Borikhamxay Province, Vientiane Province, Luang Prabang Province, and Sayaburi Province, and *Eucalyptus* is sourced from Vientiane Province.

The companies employ mainly Laos laborers from outside Vientiane Capital; from Vientiane Province, Saravan Province, Savannakhet Province, Xiengkhouang Province and Sayaburi Province. Most wood processors employed male and female workers with the proportion of females increasing with enterprise size, at 27% in small enterprises and up to 45% of the workforce in medium enterprises (Figure 2). Micro -enterprises did not report any female employees, but 3 were female-owned or co-owned. Men and women were found to be employed in different roles in wood processing facilities with men engaged in high-paid jobs (Figure 3).

#### *Impacts on Companies*

Government mandated shutdowns in March 2020 and April 2021 resulted in compulsory closures of wood processing enterprises; the LFA observed only around 30% were operating, and LNCCI observed that 46% of the manufacturing sector had closed (LNCCI, 2020 in Lao language). While all of the companies we interviewed were partially and fully operational at the time, all had experienced an impact from COVID-19 and we asked them to rate that impact. Figure 4, shows how they rated the severity of the impact of COVID-19 on their business.

The majority (11 of 15 companies) were facing raw material stock shortages and issues accessing markets; logistics was a key issue.

Companies indicated that even though the Government had provided support through three months of tax exemptions in 2020 and 2021, they found accessing this to be quite difficult. Thus, most of the companies' expenditure was based on their own funds.

Two companies out of 15 were facing a risk that their business would permanently cease operations while others were seeking a way to operate

within a new normal, by, for example searching for new markets via online trading platforms.

Some public sector respondents felt that the impacts of the pandemic were felt differently by factories of different sizes, and between Lao and foreign owned companies, while others felt that all were equally affected. Both the LNCCI and LWPA felt that, from a market access point of view, all factories were affected, and for the LNCCI border restriction to export markets was the most significant impact of COVID-19. Lack of labour supply due lockdowns affected production (PMCO, 2021).

For the LFA specifically, the shutdown had affected their own ability to organize trade fairs and organize training workshops, especially for those companies located in red zones, with the tightest restrictions.

Generally, companies were still required to pay salaries and for facility utilities, such as sanitation, water and electricity, and without any sales revenue this was a significant financial burden for them; the LFA felt this burden was felt most by larger enterprises.

#### *Impacts on workers*

The Government of Laos imposed several lockdown periods (PMCO, 2021) and all interview respondents noted the impact of these on labour availability and employment.

The LWPA observed that the closure of medium sized enterprises, which make up the highest proportion of business in the sector and employ the most workers, had a significant impact on labour, and those dependent on foreign labour faced additional challenges because their workers left Laos, and were unable to return to Laos with restrictions. This was also reflected on by the LNCCI which stated

*“Many foreign workers returned home countries and cannot come back to Laos due to the lockdown.”*

The closures resulted in unemployment, as enterprises without worker-dormitories were unable to keep and pay those labourers that lived outside these facilities. This resulted in lower household income for those families.

Interviews with labourers supported observations of the LFA, LWPA and LNCCI about the impacts on businesses. For example, most (64%) employees had not experienced a significant decline in their salary although for some (24%) there had been a decrease and a minority had not been paid at all (Figure 5). Fifty-five percent of respondents stated that they had received assistance from their employer

which included being paid half their salary during the lockdown periods, and in some cases receiving loans. Some laborers who live and work onsite received free meals. Employees described the companies disseminating masks, alcohol gel, water, cooking oil and cooking sauces.

The LWPA and LNCCI observed that the factory closures had more impact on male employees than on female labourers who more often lived in company dormitories and whose tasks were 'lighter'; some of these were able to continue in employment. The LFA observed the reverse; that female labourers would be more significantly impacted. The Lao Trade Union proposed that female workers were likely to be more susceptible to catching COVID-19 because their work tasks (such as wood finishing) were often undertaken in groups. They also suggested that those involved in selling products would be more at risk through exposure from customers to. Where employees were required to quarantine in factory dormitories, factory owners were responsible for their basic needs.

While most of the workers in the factories we interviewed were Lao, a report on the effect of COVID-19 on migrant and domestic labour in 2020 found that the total number of people unemployed (at that time) was 62,999, of which foreign migrant workers accounted for 50,472 and 10,028 were domestic workers. Of the total 32,148 (51%) were female workers, and this proportion was consistent whether migrant or domestic.

Given the impact in migrant workers the LNCCI recommended (in October 2021) that Government should introduce sector-appropriate standards of operation (SOPs), allow the processing sector to re-open their businesses in Vientiane Capital; and those factories located on red zones (the zones where infected cases of COVID-19 is high) should be allowed to re-open but requiring labourers to have had full vaccination, and with restriction measures in place. They also recommended that the Government should accelerate the provision of vaccines across the country to reach at least of 90% of the Lao population as fast as possible (LNCCI, 2021).

The LNCCI raised mental health issues, such as depression due to unemployment, as an important impact of the COVID-19 and the response measures. This was also raised by the LWU which identified lack of income, uncertainty about the future and having to adapt to lifestyle changes such as new ways of learning (virtually) for children as contributing

factors, with the latter, also potentially impacting the quality of education.

The LWU proposed that the impacts of COVID-19 would vary depending on the type of factory or sector, as they have different dependency on men and women, raising the example of garment sector which employs mainly female workers. They suggested that during lockdowns, women and their partners have had to help each other to handle their 'new normal' lifestyles; looking after children at home while working online, and also turning to home gardening, and raising chickens to minimize their expenditure. These impacts were also felt within the government and industry organisations we interviewed; for example the LTU commented on the need and ability to adapt to new working conditions by working virtually, and noted that internet access and speed was an issue in making this effective.

#### ***COVID-19 response measures***

The Government of Laos utilized numerous avenues to disseminate information about COVID-19 protection measures for civilians such as using face mask, washing hands, using alcohol gels and social distancing, including via television, posters attached in public areas and also through the multimedia platforms like Government webpages, Facebook, WhatsApp and YouTube.

Most of the public and private organizations arranged vaccination programs and working schedules for staff to enable social distancing and reduce the spread of the virus. As the pandemic progressed wood enterprises successfully adopted government imposed protective measures in the workplace - such as the wearing of face-masks and providing hand sanitiser. However, the LNCCI, which played a role by providing advice to enterprises through WhatsApp and COVID-19 monitoring committees, observed that some of the written details of measures were a bit overwhelming. This was supported by comments from companies.

The LTU also played a role in posting and sharing government measures on COVID-19, which were taken up by factories, and were considered by the LTU to be moderately effective. Additionally, the LTU provided training workshops for female workers to understand the risk of human trafficking during COVID-19 pandemic.

The LFA and LWU identified tax and interest rate reductions as important COVID-19 response measures and considered both to have been moderately effective, however some companies found these difficult to access. The LWU also

identified the National Agenda introduced in 2021 on addressing the financial crisis, simplified investment procedures and media campaigns accessible via mobile phones as effective measures, with the latter enabling easy access to information, especially about vaccines.

Other ‘community-initiated’ responses included encouraging organizations and individuals to provide charity (e.g. food or money) to support those people most seriously impacted. The LWU provided an example of the preparation of 2000 food bags for people in need.

We asked employees what they thought their employers could do to better support them in response to COVID-19. Their suggestions included:

- increasing salaries, because the cost of goods was increasing (another general impact of COVID-19)
- maintaining employment, as finding a new job would be very difficult
- paying salaries on time
- providing employment security
- providing other support such as food.
- provide health care security to laborers

On this latter point, and despite most workers being company employees for whom social security is mandatory, 83% stated that they did not, or did not know, if they had social security/insurance.

We also asked what (else) the Government of could do to help in response to COVID-19 or another crisis. Responses included:

- Reducing the price of electricity and water for households
- Controlling the price of goods in the market
- Not ordering factories to stop production.

### ***Long-term impacts of COVID19***

The LTU expressed concern that extended shutdowns would result in the permanent closure of some enterprises, increasing unemployment and reducing household incomes. It also raised concerns about the impacts on Government tax revenues. Only 30% of employees we interviewed did not feel at risk of becoming permanently unemployed due to the pandemic, however around 70% were unsure or felt that this was a possibility. The LWU noted that discussions are ongoing with LTU, Department of Labour, MOIC and LNCCI on ways to assist women in seeking new or re-employment. There are concerns about the number of people who will be able to return to work in factories.

### ***Impacts of PMO15***

We asked the LWPA, LFA, LNCCI and companies about the impacts of PMO15 on the sector. PMO15 was introduced in 2016 with measures restricting product exports and requiring reforms in the processing sector, resulting in the closure of numerous companies (Smith et al. 2018; Smith 2021). Following PMO15 (PM, 2016), MOIC developed a list of permitted export wood products. However, clear procedures for meeting the standard and for inspection were lacking. The list was subsequently revised and a new procedure issued for plantation wood products. More recently the decision has been reached on the export of some products from natural timber (MOIC, 2022)

The LNCCI stated that the enforcement of PMO15 had a caused a shock to many factories and raised the issue of the impact on markets, and of compliance with new exporting standards. The LFA noted that some enterprises were unable to meet contracted export obligations, some markets disappeared and meeting new export market requirements was difficult. They stated that new government product standards were not consistent with market standards, and others indicated a need for better instruction on procedures to enable enterprises to comply with the new standards.

This was supported by responses from the wood processing companies which stated that due to PMO15 they had limited the access to raw materials, particularly from natural forests. New processing and product standards required time and additional resources to fulfill orders. As a result, several companies were shut down, while others were still trying to meet the new rules. Most of the companies understood that this policy was aimed at improving the wood processing sector and sustainable forest management, however, in a business sense, it brought negative impacts.

In 2020 it was reported (MOIC, 2020) that the number of Lao wood processing companies had decreased to 1,048 from 2,102, and value-chain research undertaken by FST/2016/151 found both that domestic processors had reoriented towards export markets and foreign investors in wood processing had, as intended by PMO15, moved or increased their operations in Laos, with positive impacts on local labour opportunities, including for women (Smith et al 2018). With border closures in response to COVID-19 inhibiting exports however some of these gains may have been lost.

### ***The future of the sector***

The most significant issues impacting the future of the wood processing sector were identified as:

- Shortages of industrial raw materials (timber); which it was thought could be addressed by the government providing land for growing trees and stimulating investment, including by local people.
- Lack of markets
- New factory processing standards, and lack of capacity to meet these
- Training for and implementing new regulation for input-output control and monitoring in factories
- Sector contraction as more companies close in response to COVID-19
- Continue cooperation with the European Union for a Voluntary Partnership Agreement on Forest Law Enforcement, Governance and Trade
- Certified sources of timber through the third party certification schemes

#### **4. Discussions**

##### ***Responses***

All interviewed companies reported having implemented some measures to cope with COVID-19 and we can assume that as all manufacturers were still operational, they had been able to respond in some way to PMO15 as well. Immediate COVID-19 response measures included temporarily ceasing operations or reducing employment (see Ling et al. 2021a) and/or wages. Also, as reported by others, some businesses tapped into their personal savings to stay afloat. There was some recognition of government initiatives, such as tax exemptions, but little commentary of their utility. Accessibility of these was raised as an issue; this is consistent with ITC (2020).

##### ***Wood supply and other inputs***

All wood factories we interviewed were impacted by reduced access to their production inputs. For processors this was raw timber and for manufacturers, wood and other components. Reduced logistic services and border closures were the main causes. The shutdown of outlets and factories created supply chain disruptions – affecting exports through a reduced demand for inputs and vice versa. What we don't know, is what the impact of COVID-19 has been on wood producers, particularly smallholder tree farmers.

##### ***Labour supply and technical capacity***

As in every sector in Laos, the workers in the wood processing sector were affected by COVID-19 both in terms of job supply and ability to work. Temporary 3-month shutdowns meant that some workers were laid off losing their income stream entirely, or work hours were reduced. This in turn affected total household incomes. The shortage of migrant workers from neighbouring countries, who often fill skilled technical positions in Laos but returned home and were subsequently 'locked-out', was felt by those companies that were unable to continue to operate. Lao workers either do not have the skills required or they are less recognised and paid less. This highlights the need to build skills amongst current and future potential Lao employees for the sector and pay them accordingly.

Providing dormitory accommodation for employees was also advantageous for those companies that were able to stay open. Workers were 'protected' from exposure to COVID-19, which in turn reduced the risk of closure due to factory outbreaks for the company. Absenteeism due to infection or caring for family, an effect reported by ITC (2020), was also potentially reduced. Some companies bore the cost of providing additional support, such as food, to their workers but benefitted through employee retention.

Whether COVID-19 and PMO15 had differential impacts on men and women remains unclear. Ling et al. (2021) and Smith et al. (2018) both reported positive outcomes for female employees and labourers associated with teak value chains in Northern Laos after PMO15 and the Government of Laos found little difference on the impact of COVID-19 on male and female workers generally. Some respondents in our research thought that women might be better off than men in terms of job retention, while others through the risk of exposure for women was higher.

Another unknown is the impact of COVID-19 on the very large number of informal enterprises and workers in the wood processing sector. The World Bank (2019) estimated informal participation to be as high as 99%, and despite reforms like those made in response to PMO15, most enterprises in the wood processing sector are also informal. This reduces their ability to find out about and access official government support. Providing important intermediary services within wood value chains, whether and how these actors recover from the COVID-19 and what the impacts will be if they do not is an area in need of further research.

### ***Social security and measures***

Despite it being mandatory for employees, awareness of and access to social security and insurance was low. Other forms of social ‘safety-net’ were more apparent, including company-based programs, charity, and family/self-help. Returning to the farm or starting some home-based production, such as home gardens and small-livestock rearing to reduce expenditure on goods, a strategy adopted by more than 50% of households (WHO 2020) the cost of which was increasing also as a result of COVID-19 was apparent. Returning to subsistence was reported by Ling et al. (2021) amongst wood sector workers in Pak Lay, Sayabouri, and generally (Rebhein 2022).

### ***Factory and products standards***

Ongoing reforms aimed at improving factory and wood products standards remain an issue in the sector. While acknowledging and understanding the intent of these, the cost of compliance remains a significant business impost. Companies were clear that additional instruction is needed to help them comply, and training for themselves and government authorities administering and monitoring compliance is also needed. Consistency with international standards remains an issue and there is an imperative that the wood sector in Laos has capabilities that reduce dependence on external providers. For instance, complying FSC or PEFC standards.

### ***Markets & marketing channels***

All companies reported impacts on income due to contacting markets. Both domestic and export markets were affected with customers temporarily closing their businesses which is consistent with other reports. In 2020 ITC reported that more than half of the firms (57%) reported lower domestic sales and an equal share indicated experiencing difficulties to export. For some Lao companies this resulted in an increase in stock and for others, a shortage. The export-orientation of current policies, including PMO15, may expose the Lao wood processing sector to future similar shocks.

## **5. Conclusion**

With the convergence of COVID-19 and the ongoing work to implement PMO15 there are several important elements to be considered for the Lao wood processing sector. Our research supports that of others, that Lao wood manufacturers were affected by the temporary shutdowns ordered in response to COVID-19 and there were follow-on effects up and down value chains. Several of the effects were similar to and potentially exacerbated by those experienced

with and after PMO15, while others potentially reversed positive outcomes associated with PMO15. Converging shocks can have ramifications that are difficult to predict or address. Despite it being mandatory for employees, awareness of and access to social security and insurance was found to be very low. Other forms of social ‘safety-net’ were more apparent and important, including company-based programs, charity, and family/self-help. Improved dissemination of information about the need for and benefits of social security should occur.

Long term ongoing reforms aimed at improving factory and wood products standards remain an issue in the sector. The high dependence on foreign workers to fill skilled jobs is an issue. This, and the export-orientation of current policies, including PMO15, may continue to expose the Lao wood processing sector to future similar shocks. To address this, current efforts to up-skill Lao workers based on market needs for employment in emerging wood product industries must be maintained, and improved recognition of Lao-acquired competencies is needed. Market needs analysis including the development of product dossiers for destination markets is required together with the building of relevant technical expertise. Short term recovery on COVID-19 impacts should continue providing vaccinations and promoting the right sanitation to avoid COVID-19 spreading out. In addition, the government of Laos should identify suitable measures for improving enterprises.

Supply issues and access to markets were key factors that impacted the ability of factories to continue to operate and retain workers. This study did not investigate these, and the impact of COVID-19 on wood producers, particularly smallholder tree farmers is unknown. Another unknown is the impact of COVID-19 on the very large number of informal enterprises and workers in the wood processing sector, many of whom were unable to access company or government support. These actors are important in well-functioning value chains, and it remains to be seen whether and how these actors recover from COVID-19 and what the impacts will be if they do not.

## **6. Conflict of Interest**

We certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

## **7. Acknowledgments**

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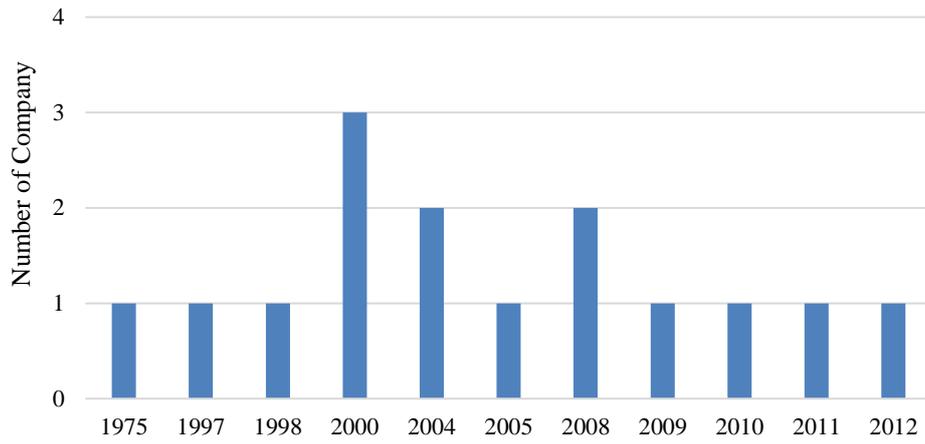


Figure 1. Years of companies' operations

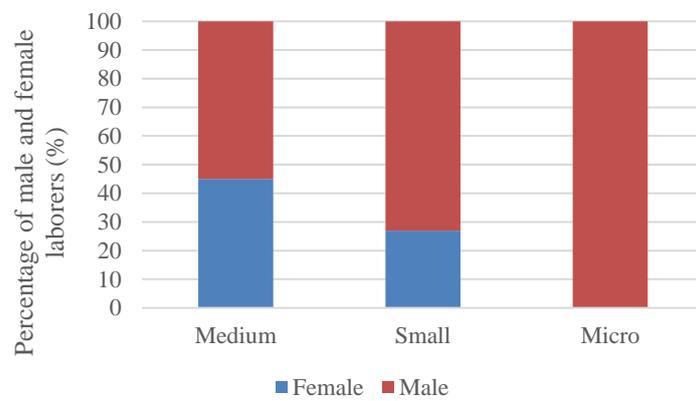


Figure 2: The percentage of male and female laborers in companies, by enterprise size

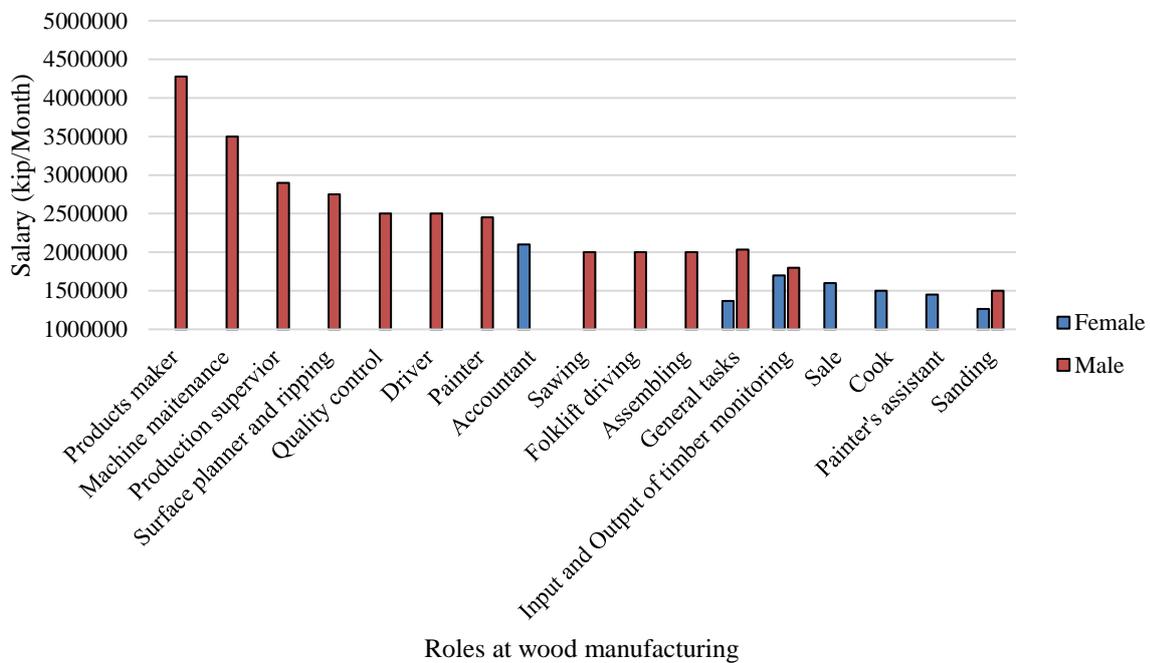


Figure 3: Role and salaries of men and women in wood processing

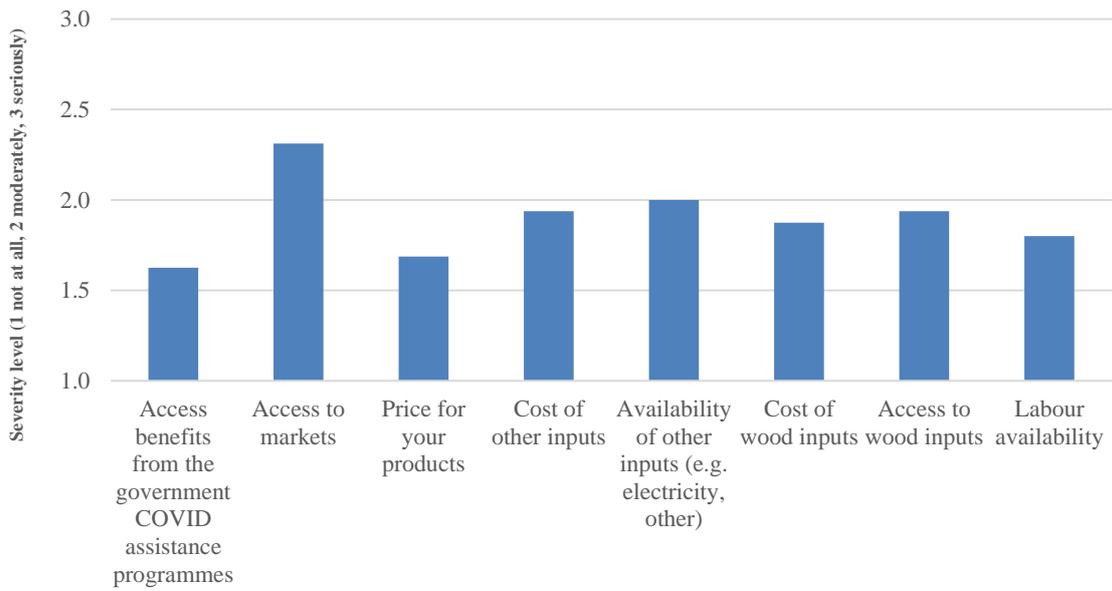


Figure 4: The severity level of COVID-19 impacts on wood processing companies

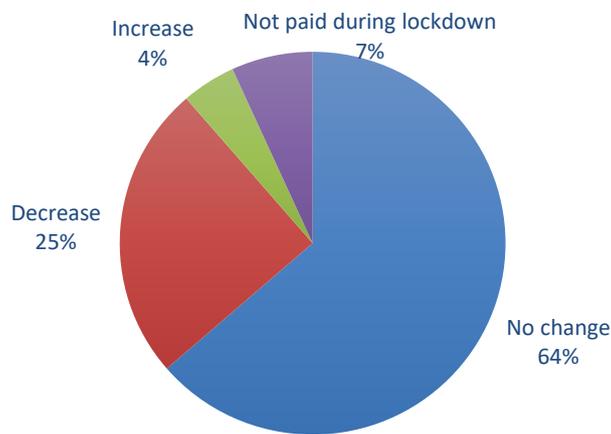


Figure 5: COVID-19 outbreak effect on the employee's salary

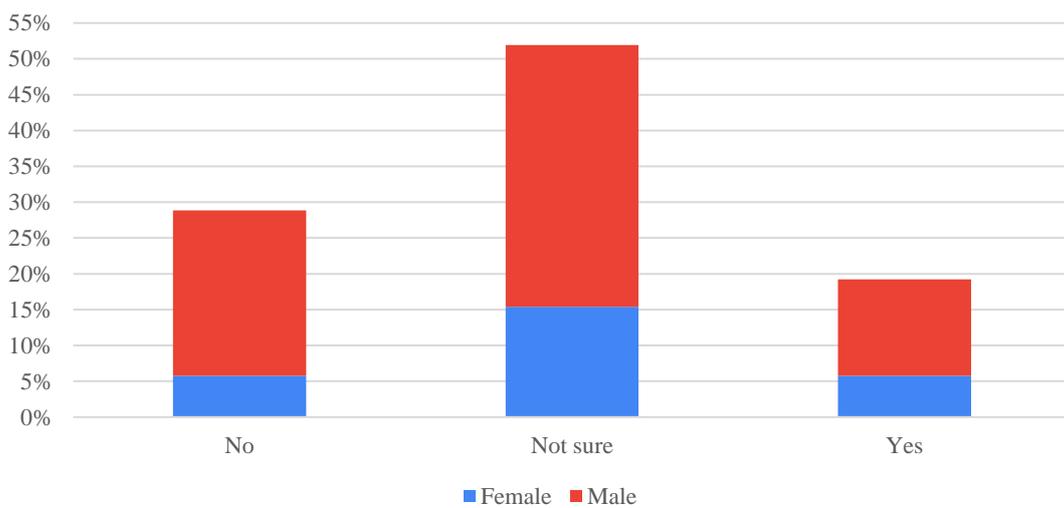


Figure 6: Risk of becoming permanently unemployed because of COVID-19