


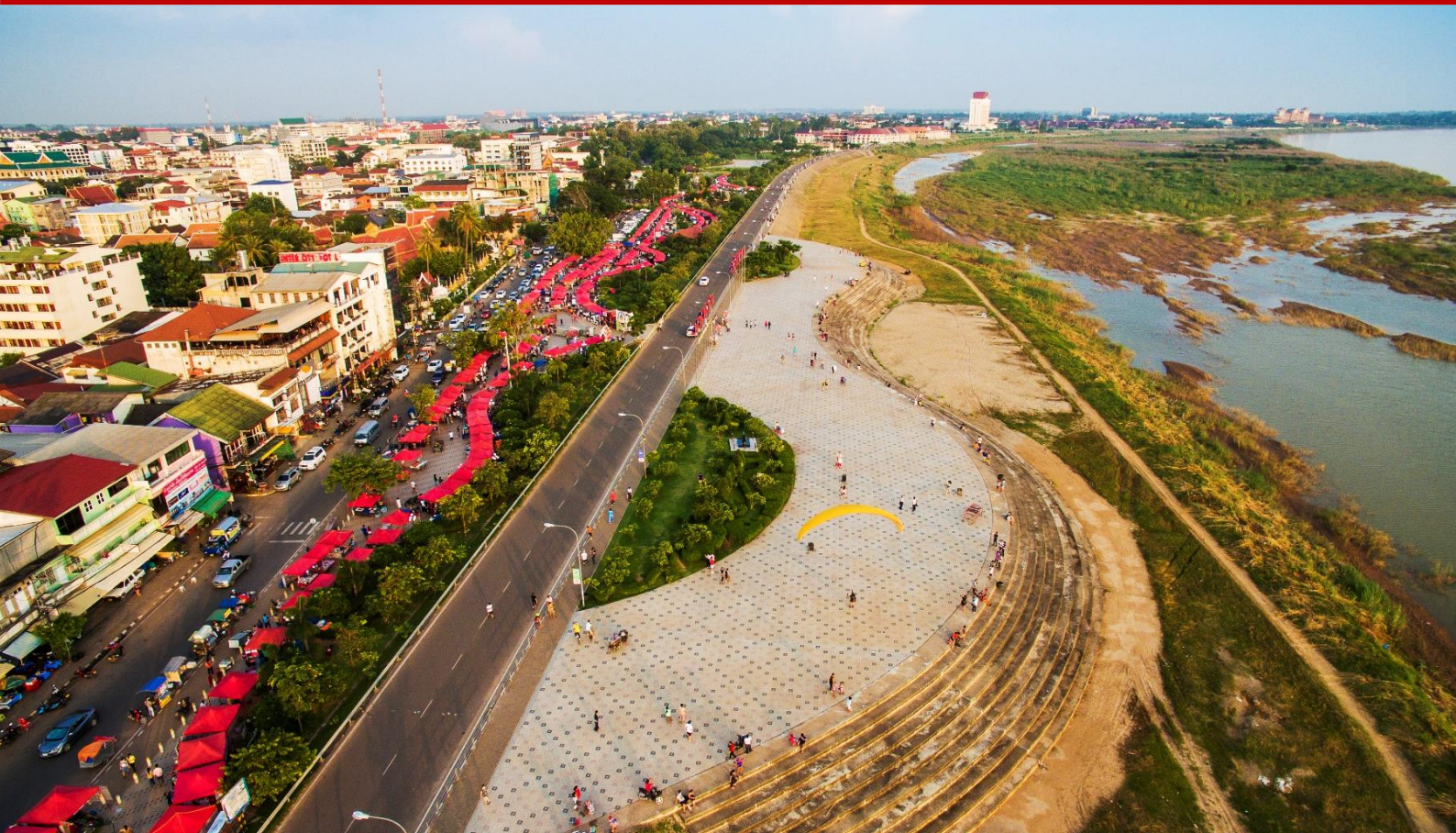


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# Labour Market Analysis – Lao PDR

Literature review and qualitative insights



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## LIST OF ACRONYMS

ALGI	Association of the Lao Garment Industry
ASEAN	Association of Southeast Asian Nations
BMZ	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (German Federal Ministry for Economic Cooperation and Development)
DCT	Dual-Cooperative Training
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
MoES	Ministry of Education and Sports
MoLSW	Ministry of Labour and Social Welfare
NAFC	Northern Agriculture and Forestry College
PDR	People's Democratic Republic
SDC	Swiss Agency for Development and Cooperation
SEZs	Special Economic Zones
SURAFCO	Support to the Reform of the Northern Agriculture and Forestry College
TVET	Technical and Vocational Education and Training
VELA	Vocational Education in Laos

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## EXECUTIVE SUMMARY



Photo: Phoonsab Thevongsa

## EXECUTIVE SUMMARY

This study aims to provide a comprehensive picture of the labour market in Lao PDR, in particular the demand from local and international companies for trained personnel and the most suitable forms of training provision. It examines which sectors are most likely to develop in the near future, along with the challenges that companies in those sectors will face in finding suitably skilled workers. It also explores the skills that are most commonly required by firms at present in a number of sectors and the skills that are most likely to be required in the future as each sector develops.

The population of Lao PDR is almost 7 million and is projected to increase to 8 million in 2030. The population of working age is 4.4 million, with approximately 96,000 additional people expected to reach working age each year in the coming decade. Labour force participation is high with 66 per cent of women and 69 per cent of men employed in 2015. Employment in Lao PDR is highly concentrated in the agricultural sector with 2.3 million people working in agriculture, 920,000 working in construction and services, 248,000 working in manufacturing and 22,000 working in power and mining in 2013.

Growth in the recent decade has been driven, to a large extent, by natural resources, which are capital intensive and create few jobs. While manufacturing and services are becoming increasingly important for the economy, agriculture still remains the backbone of the economy, employing almost three quarters of the population but with low levels of productivity. Moreover, manufacturing and services are concentrated in a few sectors, such as garment and tourism and hospitality.

In Lao PDR, the quality of education is very low, even at the foundational level, with low levels of students achieving reading fluency after grade 4. Equally, literacy skills among adults are lower than in other countries with similar conditions.

The agriculture sector is slowly transitioning from a low productivity sector primarily focused on self-consumption towards a more commercially oriented sector with higher levels of productivity based on use of modern technology and more updated agricultural practices. As agricultural productivity increases and the demand for labour in agriculture reduces in agriculture, off-farm employment in rural areas, such as agro-processing, will be able to absorb some of these labours. Agro-processing will initially be concentrated in labour intensive activities such as sorting, grading, drying, milling and packing of agricultural products.

Manufacturing companies in Lao PDR face important constraints to operate and grow, including the poor business environment, the lack of access to credit for investment, limited and poor infrastructure, and limited skills of the workforce. Partly because of these

constraints, the garment industry –traditionally a large employer of female workers– is in decline. The manufacturing sector will continue to develop in areas that require limited investment and a low skilled workforce, such as production of parts or assembly. The construction sector is also expected to absorb some of the workforce migrating from rural areas, as this sector will continue to grow with Government expenditure in infrastructure and other large-scale projects come to fruition.

The tourism sector, being labour-intensive and dispersed throughout the country, also has the potential to continue absorbing the labour force migrating from rural areas. However, the sector needs to address important challenges, such as attracting more tourists from the Association of Southeast Asian Nations (ASEAN) and other Asian countries as the number of European and American tourists appears to be in decline.

A clear finding of this study is that labour shortages are one of the main constraints to the development of the private sector in Lao PDR. These shortages relate primarily to a lack of skilled labour and, more worryingly, unskilled labour. There are multiple (closely-related) reasons for this shortage, including the low level of education provided by public vocational colleges and schools, low levels of productivity, low wages, migration to Thailand (where wages are substantially higher) and problems associated with the transition from an agrarian to an industrial economy.

Firms try to address the lack of skilled labour by training staff. Most of this training is done in-house, frequently provided by internal staff. Few firms use external providers of training. Among the constraints to training provision, firms claim they lack time to provide training, lack information on existing courses and training providers, that workers are not interested in training, that they fear that workers will leave after receiving training, that there are a lack of quality courses and training providers in the market, that the cost of training is high relative to the benefits, that there is lack of understanding of required skills and, in particular for small firms, that there is a perception that training is not required by staff.

This and other studies have found that vocational colleges and schools have limited and mostly informal relationships with businesses, and curricula and teaching materials were generally developed without employer or student inputs. No formal mechanisms are available for firms to provide feedback to vocational colleges and schools on their programmes or quality of teaching. They appear to be disconnected from labour markets and student needs and remain largely supply-driven, which increases the potential for a mismatch of skills. While several donor-driven projects have been working to address these issues over the past few years, the need for support remains, as the changes required are so drastic that they will be slow and costly.

## 1. INTRODUCTION



Photo: Satitphone Phommahack

## 1. INTRODUCTION

This study was conducted in the context of the Vocational Education in Laos (VELA) project, implemented by GIZ in coordination with the Ministry of Education and Sports (MoES) and the Ministry of Labour and Social Welfare (MoLSW). This is a project co-funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Swiss Agency for Development and Cooperation (SDC). Its aim is to strengthen Technical Vocational Education and Training (TVET) in Lao PDR by improving the quality of instruction and training to better align with the needs of the country's growing economy.

In January 2018, GIZ-VELA commissioned a labour market analysis to understand the current and future skills demands of companies operating in Lao PDR, as well as current recruitment and training practices and potential challenges. An international specialist was contracted to conduct the analysis based on secondary data and interviews with key informants in several parts of the country.

The study aims to provide a comprehensive picture of the labour market in Lao PDR, in particular the demand of local and international companies for trained personnel and the most suitable forms of training provision. It examines which sectors are most likely to develop in the near future, along with the challenges that companies in those sectors will face in finding suitably skilled workers. It also explores the skills that are most commonly required by firms at present in a number of sectors and the skills that are most likely to be required in the future as each sector develops.

The report presents a number of recommendations about the role of the TVET system and vocational schools in addressing the identified current and future requirements of local and international companies. The findings and recommendations will be used to inform the development of future interventions for the subsequent phase of the GIZ-VELA project and support to the consolidation of Dual-Cooperative Training (DCT) and short-term training measures.

## 2. RESEARCH DESIGN & METHODOLOGY



## 2. RESEARCH DESIGN AND METHODOLOGY

### 2.1 STUDY METHODOLOGY

In order to get an understanding of the labour market in Lao PDR, a literature review of the economy and labour market in Lao PDR was conducted at the outset. Based on the main findings of the literature review, interview checklists were developed to fill in the gaps in the literature through semi-structured interviews with key informants. Interviews were conducted with key informants in large firms, small and medium-enterprises, business associations, development organizations, and government officials. The interviews focused on gaining a deeper understanding of the challenges that firms have to find, recruit, train and develop staff and on their view on the past, present and future development of their particular sector.

### 2.2 LIMITATIONS OF THIS STUDY

Analysing labour market dynamics in Lao PDR is challenging given the shortcomings in the available data. Not only are national datasets on the labour force limited and not easily accessible, but there is very limited to no data by sub-sector. Key information on sectoral employment, migration, and other labour market indicators is lacking. Further research, such as a labour force survey, could help provide essential information for policymakers to understand the key challenges facing the labour market in Lao PDR and design appropriate solutions. There seems to have been a lack of interest and resources by actors in different sectors to collect better data to make informed decisions.

Any study solely based on desk research and qualitative data will be prone to biases and gaps in information. This is even more the case where there is very limited quantitative information on a number of sectors that can provide a clear picture of economic and social trends. However, the range of documents reviewed and the variety of stakeholders interviewed should provide a degree of confidence that the findings presented in this report reflect – with a high level of accuracy – the trends, problems and opportunities that exist in the labour market in Lao PDR.

### 3. OVERVIEW OF THE LABOUR MARKET IN LAO PDR



Photo: Lucas Wahl

### 3. OVERVIEW OF THE LABOUR MARKET IN LAO PDR

Lao PDR has achieved impressive economic growth and poverty reduction over the past decade, with an average growth in gross domestic product (GDP) of around 8 per cent per year (World Bank, 2017a). Lao PDR is the second-fastest growing economy among members of the Association of Southeast Asian Nations (ASEAN). Poverty declined from 41.4 per cent in 2002/2003 to 28.8 per cent in 2012/2013 (World Bank, 2014). Furthermore, with a GDP per capita of around US\$1,600 in 2014 (compared to US\$1,296 in 2011), Lao PDR has become a lower-middle income country (World Bank, 2014).

The population of Lao PDR is 6.9 million and is projected to increase to 8.0 million in 2030 (UN, 2018). The population of working age is 4.4 million, with approximately 96,000 additional people expected to reach working age each year in the coming decade. Labour force participation is high with 66 per cent of women and 69 per cent of men employed in 2015 (LSB, 2015). Employment is highly concentrated in the agricultural sector with 2.3 million people working in agriculture, 920,000 people working in construction and services, 248,000 people working in manufacturing and 22,000 people working in power and mining in 2013 (World Bank, 2014).

Lao PDR faces important challenges. Growth in the recent decade has been driven, to a large extent, by natural resources, which are capital intensive and create few jobs. While manufacturing and services are becoming increasingly important for the economy, agriculture still remains the backbone of the economy, employing almost three quarters of the population but with low levels of productivity. Moreover, manufacturing and services are concentrated on a few sectors, such as garment and tourism and hospitality.

As the country links up with other ASEAN and Asian economies, the opportunities for economic development and poverty alleviation will increase. However, these opportunities will only be realised if a number of conditions are met, chief among them the need for a better prepared and skilled workforce.

In Lao PDR, the quality of education is very low, even at the foundational level. The Early Grade Reading Assessment conducted in 2012 found that 30 per cent of students in grade 2 could not read and only 60 per cent of students in grade 4 had achieved reading fluency. A study conducted by the World Bank in 2013 also found that literacy skills among adults in Lao PDR are lower than in other similar countries. Considering the importance of reading for learning and other more advanced skills, this low level of basic literacy has serious implications for the country's productivity, growth, and competitiveness.

Table 1 shows the distribution of educational attainment for different sectors in 2012/2013 (the latest available data). As the data shows, over 75 per cent of people working in agriculture have a primary or lower level of education, while only 21 per cent have a secondary education.

In the manufacturing sector, over 60 per cent of the workforce in garment factories has a primary education or less, 34 per cent has some secondary education and only 5 per cent has a vocational degree or higher. Levels of education are slightly higher in other manufacturing sub-sectors where just under half of the workforce has primary education or less, 41 per cent has some secondary education and only 10 per cent has vocational education or higher. The levels of education in the service sector are naturally higher. One third of the workforce has primary education or less, 37 per cent has some secondary education and 30 per cent has a vocational education or higher.

**Table 1. Distribution of educational attainment for different sectors (2012/2013)**

Sector	Less than primary	Primary	Lower-Secondary	Upper Secondary	Vocational	Tertiary
Agriculture	30.1	45.8	16.4	4.9	1.8	0.9
Mining	17.5	33.9	28.7	8.3	2.3	9.2
Garment	16.0	44.9	18.2	15.9	4.3	0.7
Other Manufacturing	13.6	35.8	27.1	13.6	6.4	3.4
Services	9.6	23.2	19.5	17.9	13.8	16.1

Source: Lao PDR Earning and Consumption Surveys 2012/2013

The sectoral ratios of skilled-to-unskilled workers are highest in sectors that employ few people such as metals and machinery (82 per cent are skilled) and the chemicals sector (59 per cent). In contrast, they are lowest in sectors that employ the largest amount of people, such as in the garment sector (56 per cent) (see Table 2).

**Table 2. Percentage of skilled and unskilled workers per sector (2012/2013)**

Sector	% of skilled workers	% of unskilled workers
Food	37	63
Non-metallic and plastic materials	22	78
Metal and machinery	82	18
Textiles	53	47
Garments	56	44
Electronics	48	52
Chemicals	59	41
Other manufacturing	47	53

Source: World Bank, 2016

Over the medium term, the Lao economy will slowly transition from an agricultural towards a basic industrial and service economy. However, for this to happen faster important issues must be addressed to increase the productivity of agriculture. These include the lack of skills and providers of updated knowledge (via the extension system or the agricultural colleges and universities), the limited supply of good quality inputs, the lack of finance to invest in equipment and infrastructure, and the low level of machinery and equipment.

As agricultural productivity slowly increases and the demand for labour in agriculture reduces, individuals will look to migrate in search of more profitable work opportunities. At present, a large number of people migrate to Thailand<sup>1</sup> to work in manufacturing, retail and services. A major pull factor is the perceived limited work opportunities in Lao PDR and the salaries that workers receive in Thailand, which are considerably higher than in Lao PDR (IOM, 2016). Interestingly, many of these migrants believe that they learn valuable skills while working in Thailand, such as improved Thai language skills, service skills, manufacturing-related skills, business skills and mechanical skills<sup>2</sup>.

On the other hand, manufacturing companies in Lao PDR face important constraints to operate and grow, including the poor business environment, the lack of access to credit for investment, limited and poor infrastructure, and limited skills of the workforce (World Bank, 2016). This suggests that the manufacturing sector will initially develop in areas that require limited investment and a low skilled workforce, such as production parts or assembly.

The construction sector is also expected to absorb some of the workforce migrating from rural areas, as this sector will continue to grow with the corresponding need of a workforce. However, similar to other sectors, businesses struggle to find semi-skilled workers (i.e. operators of machinery). Interestingly, the IOM (2018) reports that there are an estimated 200,000 migrant workers officially in the country, mostly in the construction sector, where Chinese and Vietnamese contractors and investors prefer to employ their compatriots because of their experience, ease of communication (speak the same language) and willingness to work for lower wages<sup>3</sup>.

The tourism sector, being labour-intensive and dispersed throughout the country, offers great potential for job creation in Lao PDR. However, the sector needs to address important challenges, such as attracting more tourists from ASEAN countries and other Asian countries as the number of European and American tourists seems to be in decline. This in turn raises

<sup>1</sup> According to a recent study conducted by IOM, there are an estimated 300,000 Lao men and women working in Thailand, mostly in manufacturing, retail of food and beverages and services (ILO, 2016).

<sup>2</sup> However, this acquired skills tend to be different for men and women, with female migrants reporting learning mainly language, service skills and business skills, while male migrants obtain mechanical, language and manufacturing skills (ILO, 2016)

<sup>3</sup> The Ministry of Labour and Social Welfare reported that approximately 24,000 foreign workers were registered in 2016, the majority of them being Vietnamese, Chinese and Thai nationals. (The Lao Times, 15 March 2017)

the issue of learning to work with a different type of tourist whose needs and expectations may be different from those of Western tourists.

A clear finding of this study is that shortages of labour and skills are among the largest constraints facing the private sector in Lao PDR. Almost every interviewee highlighted labour shortages as one of the biggest constraints, and often the biggest constraint, to growth for their firm or, more generally, their sector. Whereas a shortage of skilled labour is a challenge common to many developing countries, Lao PDR also lacks an adequate supply of unskilled labour. The underlying causes of labour shortages are interrelated and involve challenges with education, productivity, wages, and the migration of workers to Thailand.

This study and other studies (LNNCI-ILO, 2014) have found that some (mainly large) firms try to address the lack of skilled labour by training staff. Most of this training is done in-house, frequently provided by internal staff. Few firms use external providers of training including private companies, government agencies, NGOs and business associations. Among the constraints to provide training, the LNNCI-ILO (2014) found that firms claim to lack time to provide training, they lack information on existing courses and training providers, workers are not interested in training, the fear that workers will leave after receiving training, the lack of quality courses and training providers in the market, the high cost of training relative to the benefits, the lack of understanding of required skills and in particular for small firms the perception that no training was required by staff.

## 4. SECTORAL ANALYSIS



Photo: Phoonsab Thevongsa

## 4. SECTORAL ANALYSIS

### 4.1 AGRICULTURE

Agriculture remains central to the development of Lao PDR, contributing to the livelihoods of over 70 per cent of the population. However, agriculture and forestry accounted for only 27.4 per cent of GDP, or approximately US\$2.8 billion in 2015 (World Bank, 2017a) indicating the low level of productivity of the sector. Nevertheless, this is down from 61 per cent in 1990 and 45 per cent in 2000, which also reflects the growing importance for the economy of other sectors such as mining, hydropower, manufacturing and services.

Agricultural production is concentrated on a few crops, such as rice, a small number of vegetables and fruits (mainly produced for self-consumption) and maize, cassava and sugar cane (produced for commercialisation). Rice is also produced for commercialisation mainly in the lowland plains and vegetables are produced for commercialisation mostly in Vientiane province.

The growth of agricultural commercialisation in Lao PDR has been slow. Although agricultural exports have recently experienced a growth rate of 33 per cent annually between 2011 and 2015 (Trademap, 2018), these exports are primarily raw crops, with no value added. Maize, rice, and coffee (as raw beans) account for some 46 per cent of total export value; vegetables (mainly cassava and cabbage) account for 16 per cent, and fruits only three per cent (Trademap, 2018). Furthermore, exports remain at a relatively small level. For example, in 2015 exports to ASEAN countries were valued at US\$70 million, representing only 1 per cent of the total value of exports to ASEAN countries. This has occurred for a number of reasons,



Photo: Phoonsab Thevongsa

including a small and weak agricultural knowledge and information system, limited access to good quality inputs, poor infrastructure, inadequate or limited mechanisation facilities and equipment, limited access to finance and poor business skills, and an overall poor business environment for agriculture.

Regarding skills, according to informants the opportunities for agricultural training and education are limited and of poor quality. In general, the agricultural and vocational colleges and schools have very limited resources, obsolete equipment and provide teaching with old curricula. The links and flow of information between schools and farmers and agricultural companies are weak or non-existent. For an example of how this is being addressed see Box 1.

### **Box 1. Vocational Education in Laos (VELA)**

The GIZ project VELA was launched in 2013 and provides support to selected vocational schools under the Ministry of Education and Sports (MOES) with the planning, development, implementation and assessment of Dual-Cooperative Training (DCT) programmes. The objective of the project is to link school-based training with on-the-job training in companies to ensure that students learn the relevant skills required to perform a job. The DCT approach follows and promotes the idea of shared responsibility between public and private stakeholders and facilitates the involvement of companies in the planning, delivery and assessment of training programmes. The two-year DCT programme for “Farmer” (level 4, diploma) is currently piloted with the Dongkhamxang Agriculture Technical School, Vientiane Province Technical College, Khammouane Technical College and more than 50 partner companies. The first batch of DCT students will graduate in summer 2018.

*Source: VELA project staff*

On the other hand, the extension system is severely under-funded and unable to support farmers and agricultural firms. The extension system relies heavily on donor support for operation and training and has very limited reach.

There are few (medium-sized) agricultural farms operating in Lao PDR (less than 100). Most are micro- or small firms with less than 10 workers. However, farms can employ between a handful of workers up to a hundred workers. Although there is no official data on the number of people working in agricultural farms, a rough estimate (based on interviews with officials and farm owners) would be around 1,500 people currently working in medium-sized farms.

Agricultural farms (producing vegetables or raising livestock) frequently hire graduates from agricultural and vocational colleges and schools and place them under a training programme/internship, usually by working alongside a more experienced member of staff to learn every step of their activities/processes. Some farms also hire foreign trainers, mostly Thai trainers, to provide some up-to-date knowledge to their workers in a particular area of work, i.e. irrigation, chemical input use, and vaccinations. Moreover, some farms train

extension workers within the farm so that they are able to train individual farmers that are under contract by the farm. In this way, some of the knowledge is shared with other actors.

While this situation allows farms to operate in the short-term, it is a major constraint for the development of the sector, as existing firms will be reluctant to invest more and new potential investors will be reluctant to make investments if they are unable to find a steady and reliable supply of semi-skilled workers. The positions that firms are looking to fill are not only for agricultural labourers (which are the most easily trained), but also for agricultural machinery operators and mechanics, and operators of other machinery like trucks, refrigerators and others. At present these positions are filled by local staff trained on the job and by foreign staff, mainly Thai or Vietnamese workers.

As existing commercial farms grow and new ones start to operate, the demand for low skilled workers will continue to increase. The demand for workers in existing agricultural farms is already in the low to mid hundreds and will likely increase to the high hundreds in the next three or four years as Lao PDR increasingly integrates commercially with neighbouring countries.

Recent studies have found that alternative employment opportunities in rural areas are expanding and many people have secondary jobs. According to the latest Agricultural Census (MAF, 2012), the percentage of the rural population aged 15 years and over who carried out their main work on their own farm as well as other work increased from 24 per cent in 1998/1999 to 40 per cent by 2010/2011. Many individuals also worked in other family businesses, while 249,000 people worked as non-farm employees. However, there is limited information on the exact characteristics of these jobs and enterprises and on the particular skills required. A natural area of off-farm employment in rural areas is agro-processing. Other areas include services for agriculture (i.e. selling and servicing agricultural equipment, selling agricultural inputs, providing technical advice to agriculture) and non-agricultural activities.

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#### 4.1.1 AGRO-PROCESSING

Most food processing in Lao PDR is still carried out at the household level with very limited skills and equipment. The processing of agricultural commodities or meat at this level is mainly oriented towards preservation (i.e. drying, pickling, conserving) and small-scale commercialisation (i.e. dried and fried fruit, dried meat, etc.). Farmers process commodities and meat using traditional skills with very limited use of equipment and usually with little regard to health and sanitation. At present, there is no known support from Government or development partners for households to improve the way in which they process food.

The formal/industrial food processing sector is still in its infancy in Lao PDR. With a few exceptions<sup>4</sup>, the large majority of formal processors are family-run micro-enterprises (less than 5 employees) and are highly concentrated on a few activities. There is no official data on the number of food processing firms in the country, but based on existing records it is estimated that there are around 4,000 food processing firms in Lao PDR. About half of these are rice milling companies and about 500 more are companies that bottle water or other products. Other activities include the manufacturing of rice noodles, production of rice wine, and processing of meat and fish. These firms tend to employ staff with limited skills and technology, and are focused on local markets. Most firms in this sector hire unskilled staff that is trained internally on-the-job. Frequently, these workers remain with limited skills and simply learn by doing.

The larger companies such as the sugar mill (MITR) and the coffee and fruit processing (DAO) companies in Savannakhet have formal training systems that include internal training and, on some occasions send their workers to be trained in Thailand for weeks or even months. In the case of the sugar mill, they have close interaction with their head office in Thailand, which provides support in training and capacity building of workers and staff. Other companies, like the cassava mills in Xaiyaboury province train their (usually seasonal) workers internally on basic tasks with some support from external trainers from China. Smaller processing firms, such as maize drying operations, simply train their workers on-the-job, as their tasks are basic and repetitive. While there is no official data on the number of people employed by this sector, it can be estimated that around 800 workers are currently employed by the medium and large food processing firms (excluding Beer Lao).

Business owners and managers interviewed for this and previous studies in a number of firms processing different agricultural commodities express their frustration at the lack of semi-skilled workers available in the industry. Interviewees mentioned that workers have to be trained even for the most basic skills, such as sorting, grading, husking, and drying commodities. Training is also required for operation of basic machinery, such as mills and driers. Firms have to develop the skills to fix machinery when it breaks down, as there is also a lack of mechanics. For more sophisticated processes, firms have to recruit trainers from Vietnam and Thailand, when their revenue and margins allow it. More specialised skills such as food scientists and technologists are non-existent in the Lao workforce and the jobs are mostly filled by foreigners. At present, few companies in food processing interact with schools or universities to address this issue.

The agricultural and food processing sector is likely to grow substantially in the next five years. The demand for processed agricultural commodities will grow internally as incomes rise, and

<sup>4</sup> The few large-scale food processing firms in Lao PDR include Beer Lao, which employs more than 700 workers and claims to have an indirect impact on over 250,000 people, DAO coffee and DAO Food, which process dry fruit and vegetables to eat as snacks and which also employ more than 200 people.

the increase in commercial and logistical links with neighbouring countries will facilitate the investment in processing facilities and the export of processed food. The demand for skilled workers in areas such as grading and sorting of fruits and vegetables, food processing machine operation (i.e. industrial driers, crushers, grinders, mills, smoking machines, refrigerators, freezers) and repair, operation and repair of other industrial equipment used in processing facilities (i.e. tractors, forklifts, trucks), and operators of smaller processing and packaging machinery (i.e. roasters, bottling, filling and packaging machines) will increase. The demand for new workers in this sector is likely to be in the low hundreds (300 to 400 in the next five years) as existing factories grow and new ones are established.

In particular, the meat processing sub-sector shows potential for growth as the local demand for processed meat is growing rapidly. While there are no official figures, a recent study (IRL, 2017) found that there is a growing demand for properly processed meat in urban areas: meat processed in clean establishments and in a hygienic environment.

## 4.2 INDUSTRY

Manufacturing accounts for about 9 per cent of GDP with around a quarter of a million people working in the sector (World Bank, 2014). Manufacturing is still mainly concentrated in the garment sectors, although the influence of the sub-sector is diminishing (see section on the garment sectors below). Manufacturing is slowly diversifying to other sub-sectors such as assembly of parts and equipment, albeit from a low base and mostly confined to special economic zones. However, these sub-sectors face similar challenges to operate and grow including the lack of a skilled workforce (World Bank, 2017).

### Box 2. Lao PDR's Special Economic Zones

Lao PDR currently operates a total of twelve Special Economic Zones (SEZs), covering a total area of approximately 19,000 hectares. More than 290 foreign and domestic firms have invested in the SEZs with activities divided between the service sector, industry, and trade. The capital invested already exceeds more than US\$1.6 billion and has created about 15,600 jobs.

Companies working in SEZs operate in a wide number of sectors, but assembly plants and production of parts tend to dominate. According to informants, SEZs are generating around 500-1,000 jobs per year, but it remains difficult to recruit workers. The challenges reported to recruit workers are similar to those faced by other companies outside SEZs and include the low level of skills of existing workers and the incapacity to attract workers with the salaries offered. This makes some companies reluctant to invest more in Lao PDR.

*Source: Time for Investment (November/December 2016) Foreign Affairs and interviews with key informants*

The power sector has expanded significantly since the mid-2000s. Associated construction activities (mainly carried out by foreign companies), and subsequent commercial operation, largely expected to meet demand in neighbouring countries, drove growth as well. The installed capacity increased ten-fold between 2000 and 2016 to above 6,000MW, mostly through engagement with the private, mostly foreign, investors (World Bank, 2017a). However, given that the sector is capital intensive its contribution to job generation is modest. The sector employs only between 8,000 and 10,000 people.

### 4.2.1 CONSTRUCTION

The construction sector is mainly composed of medium to large-size construction companies mostly focused on large infrastructure projects primarily financed by the Government of Lao PDR. There is no census of construction companies, but the Lao Construction Association has 150 members, about half of which have more than 20 workers. This does not include foreign firms that are usually focused on the large, more complex construction projects, such as hydropower plants<sup>5</sup>. It is estimated that the sector employs over 200,000 workers, most of them on a temporary basis and for basic tasks. A small proportion of these workers are semi-skilled workers in charge of operation of heavy machinery like cranes, bulldozers, graders, and conveyors.

Construction activity has slowed down since the completion of several large construction projects in 2015 and restricted public investment in an attempt to reduce the Government's budget deficit. However, construction activity will remain robust supported by upcoming projects, mainly in infrastructure, as well as real estate development (World Bank, 2017b).



Photo: Satitphone Phommahack

<sup>5</sup> The construction of power plants contributed to the significant growth in employment in the construction sector (almost a 50 per cent increase between 2003 and 2013 to 113,000 jobs), though anecdotal evidence suggests that a considerable share of the labour needs during construction has been met with foreign labour, mostly from neighbouring countries.

The main problem for the industry in terms of vocational skills is the limited supply of machinery operators, which are in high demand in the sector. Most firms hire Thai or Vietnamese operators as they are more experienced and skilled<sup>6</sup>. Firms try to promote on-the-job training for Lao operators, but they learn only the most basic skills to operate machinery. As a result, the sector will continue to be in dire need of a few hundred workers with technical skills in machine operation.

The Lao Construction Association is working with the MoES to build their own technical school to train operators of machinery and other specialised staff for the construction sector. However, it will be several years before any students graduate from such a school. In the meantime, the VELA project has supported the MoES with the development and introduction of training programmes for “House Builder” (level 4, diploma), “Building Electricians”, “Industrial Electricians” and “Air Condition Technicians” (all level 5, higher diploma).

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#### 4.2.2 GARMENT

The garment sector is the largest manufacturing employer in Lao PDR and the most female-intensive sector in the Lao economy. According to the Association of the Lao Garment Industry (ALGI), in 2016<sup>7</sup> Lao PDR had 85 garment factories mainly located in and around Vientiane Capital, with only 12 of these solely owned by Lao investors. Japanese and Thai investment is dominant in the industry. These factories create 27,000 jobs for local people, with 90 per cent of all workers being women (Vientiane Times, March 27, 2017) who are mostly unskilled and semi-skilled workers carrying out activities such as cutting, sewing, packing and ironing.

There are a large number of micro enterprises operating in the sector (supplying the local market or producing sub-contracted work from larger firms) and only one firm reported having more than 1,000 employees. This provides an indication of the size of the firms in the industry, with the majority having less than 100 employees.

Garment sector employers identify labour supply as their most significant constraint to doing business. The ALGI claims there is currently an unmet demand of 5,000 to 10,000 workers in the industry (data provided during interview). Some factories report that only half their workers stay beyond three years. Firms find it hard to improve productivity while regularly losing experienced workers, and the sector remains stuck in a cycle of low productivity and high staff turnover.

<sup>6</sup> As was previously mentioned, the IOM (2018) reports that there are an estimated 200,000 migrant workers officially in the country, mostly in the construction sector, where Chinese and Vietnamese contractors and investors prefer to employ their compatriots because of their experience, ease of communication (speak the same language) and willingness to work for lower wages.

<sup>7</sup> The last time the ALGI made a proper count of garment factories in Lao PDR.

This points to the need for a change in the incentive structure of garment jobs (such as compensation policies, working conditions, or career development) to entice workers to remain in relatively productive work, rather than returning to the farm or migrating. However, this seems rather challenging given the context. Policies could centre on skill acquisition and upgrading to facilitate the shift to higher value-added activities, or support for career development, among other things.

The educational level of garment sector workers is in general low. New entrants to the sector generally lack a secondary or vocational degree, and require employer-provided training. It is estimated that only about 1 in 10 workers in the sector has concluded their primary education.

On average, garment sector workers are only moderately more skilled than farmers (see Table 1). In 2012/2013, 60 per cent of workers in the garment sector had a primary education or less, up from 47 per cent in 2007/2008 (LECS, 2013). In 2012/2013, only 18 per cent of workers had lower-secondary education, down from 28 per cent in 2007/2008 (LECS, 2013). This shift to a less educated workforce is consistent with reported high turnover rates and increasing competition from migration, in response to which garment manufacturers are increasingly trying to recruit younger women from remote areas.

According to a recent study (Santoyo Rio, 2016), line workers do not receive any formal training. All “training” that was provided to workers was a one day session with another worker where she/he would be explained what the job was about and put to practice.

In a study on labour standards in the garment industry (World Bank, 2012), many managers expressed reservations about investing in training for workers. When asked to identify the primary constraint for increasing their firm’s investment in skills training, half of survey respondents cited ‘loss of return on investment because of high turnover rates’ and another quarter cited that ‘useful or appropriate training was not available’. This was corroborated in interviews with human resource managers conducted for another study (Santoyo Rio, 2016).

Regarding skills for managerial staff, supervisors willing to upgrade their management skills struggle to get support from garment firms to do so. In many cases, they have to pay for their own training and do it in non-working hours.

A Garment Skills Development Centre (GSDC) was established in 2009 by the Government under the World Bank-led Trade Development Facility to provide skills training to garment factory employees covering both technical and management skills. The cost-sharing programme was initially embraced by a significant number of employers, but demand subsequently fell, and the centre has been unable to transition to financial independence following the initial subsidy period, despite diversifying its course offerings. At the same time, the GSDC has been a reliable partner of the VELA project, in particular during the development of a DCT programme for “In-line-/End-line Quality Controller” (level 3, certificate 3). The programme is planned to be piloted from the school year 2018/19 on in close cooperation with the GSDC.



Photo: GIZ/Laos

The garment sector is experiencing a slow decline mainly given to its incapacity to attract more workers. Garment workers complain about the low salary and difficult working conditions, while factory owners and managers claim that they cannot raise salaries given the low level of productivity of workers. Unless more investments are made in increasing the skills of workers to attract more sophisticated and better paid work, the garment sector will face increasingly more challenges to survive.

#### 4.2.3 MINING

Mining is a key sector of the Lao economy. The International Council on Mining and Metals estimates that the sector is responsible for 80 per cent of foreign direct investment, 45 per cent of total exports, and 12 per cent of government revenue (EIU, 2013). According to Fong-Sam from the United States Geological Survey (2014), employment in the mining sector was 15,381 in 2014. The sector is relatively concentrated on a few companies that employ a large number of workers. Among them are MMG LXML, Pan Aust and PBM.

According to an industry informant, new workers are recruited through the traditional sources of newspapers, mouth to mouth advertising and social networks. As in other sectors, one of the main challenges to find workers is the low salaries offered in the sector, compared to salaries in Thailand. Furthermore, industry insiders claim it is virtually impossible to find Lao workers with more technical skills, in areas such as mineral processing, mining engineering, and geotechnical specialists. Given the lack of qualified workers in these areas, many firms resort to hiring foreign workers.

Despite the relative low salaries in the mining sector, turnover in the sector is low compared to other sectors, with turnover in international firms of about 5 to 10 per cent per quarter<sup>8</sup>. This could be because, despite the low salaries in comparison to Thailand, the mining industry is paying higher salaries than other industries in Lao PDR and workers perceive the working conditions and prospect of long-term stable work as positive. Large companies provide internal training to workers through their own programmes. In contrast, smaller companies do not usually provide training, and thus new workers are expected to learn on-the-job.



Photo: Phoonsab Thevongsa

The mining sector's contribution to the Lao economy is expected to gradually decline as the current investments mature, while the moratorium currently in place limits investments in new deposits. This uncertainty will further limit the willingness of companies in the sector to invest in training and the development of skills.

<sup>8</sup> Personal communication with Mr. Saman Aneka, Director & Manager Stakeholder Relations MMG LXML SEPN.

#### 4.2.4 AUTOMOTIVE

The automotive sector in Lao PDR consists of two types of firms: around 20 distributors of foreign manufacturers of cars and motorcycles (which also provide services) and two small assembly plants of trucks, cars and motorcycles. There are no official statistics on the number of people employed in the sector but informants estimated that it employs approximately 2,500 people<sup>9</sup>. Turnover in the sector is low as it provides better salaries and benefits than firms in other sectors (i.e. bonuses, food, health checks, and uniforms). There also seems to be a strong loyalty to firms and brands.

Distributors hire unskilled workers with limited formal education through social networks and by advertisements in mass media. Workers are trained in-house in car and motorcycle repair. Many of these workers then quit and open their own informal repair shop. According to a person interviewed for this study, the assembly plants employ around 400 technicians, mostly with a technical education. These workers are trained in the factories on the specific production processes of the assembly lines.

The most needed skills in the sector are general mechanics (i.e. the ability to assess problems and fix simple issues) and soft skills, such as communication skills, discipline, responsibility and team work.

According to informants, the sector is growing exponentially and the demand for skilled or semi-skilled workers is growing. While there are a number of vocational colleges and schools that train workers in mechanics and similar skills, such as the Lao-German Technical College, interviewees claim that the demand for workers is higher and graduates sometimes need to be retrained when they are hired by firms.



Photo: Lucas Wahl

<sup>9</sup> Personal communication with Mr. Saneu Chounlamany, President Lao Automotive Association.

As well as for other sub-sectors (i.e. agriculture, construction and garment), in the automotive sub-sector a DCT programme for “Automotive Mechanic” (level 4, diploma) was developed with support of the VELA project. The programme was successfully introduced in three vocational schools in Vientiane Capital, Louang Prabang and Champasak in the school year 2016/17 and is implemented in close cooperation with more than 10 automotive companies.

## 4.3 SERVICES

Services account for about 36 per cent of GDP (World Bank, 2017a), but remain concentrated in low-value added sectors. The sector is expanding due to some liberalisation of the economy (trading, tourism, banking, transport, etc.) and spill overs from natural resource projects (World Bank, 2017a). However, serious challenges remain as the tourism sector has declined in the last couple of years (see section 4.3.1 on Tourism) and other sectors struggle to grow under a challenging business environment.

### 4.3.1 TOURISM

The tourism sector in Lao PDR has been one of the main contributing sectors to the national income and employment. In 2015, tourism and travel accounted for 14.7 per cent of the GDP and 12.8 per cent of total employment including industries indirectly supported by the sector (World Bank, 2017b). Unlike other sectors, tourism has a balance between the level of employment and GDP contribution.

According to the Statistical Report on Tourism in Laos 2016, there were 6,229 establishments in operation in the tourism and hospitality sector with 545 hotels, 1,982 guesthouses, 3,334 restaurants and 368 travel services companies in 18 provinces. Most of these enterprises operate in Vientiane Municipality and Capital, Louang Prabang province, and to a lesser extent in Savannakhet and Champasak provinces.

Most companies in the sector are small. According to the 2013 Economic Census (LSB, 2013), 73 per cent of firms in the sector are micro enterprises (1-4 employees), 22.4 per cent are small and medium enterprises (5-19 employees), and only 4.6 per cent of enterprises in the tourism and hospitality sector have 20 or more employees. This reflects the concentration of firms in a few cities and towns in the country and the generally small size of businesses.

Lao PDR has seen a reduction in the number of tourists in the last few years. After declining by 10 per cent in 2016, the total number of tourist arrivals continued to decline in 2017, falling by 10 per cent in the first nine months of 2017 (compared to the same period in 2016) to just over 2.88 million tourists (World Bank, 2017b). The decline is driven by a drop in visitors from member countries of ASEAN to just over 2.1 million people. The drop in Thai and Vietnamese

visitors accounts for about 56 per cent of the decline. Overall, the number of visitors from the Asia-Pacific region fell by 7 per cent, to just over 2.7 million, during the first nine months of 2017 compared to the first nine months of the previous year (World Bank, 2017b).

Despite an increase in the number of arrivals from China to more than 429,000 in the first nine months of 2016, the number of arrivals from non-ASEAN countries also declined, due to a 34 per cent decline in the number of arrivals from Europe and 35 per cent decline in the number of arrivals from the Americas to 113,982 and 43,224, respectively (World Bank, 2017). In addition, the average length of stay of tourists is slightly shorter, while the average spending increased from US\$70 per day per tourist in 2013 to US\$77 per day more recently (World Bank, 2017).

Despite the long-term investment in developing skills for the industry in Lao PDR, businesses in the sector, mainly outside Vientiane, still struggle to find skilled or semi-skilled staff for their businesses. Firms in the sector hire people through social networks and mass media as well as word of mouth. People working in three or four-star hotels usually have some previous experience working for a lower end hotel or restaurant. Graduates from vocational colleges and schools have to be trained intensively for several months before they reach an acceptable level of performance. Turnover is also high and this is attributed to a negative perception of the industry among young people. Families also put pressure on young people to look for work in other sectors as the tourism and hospitality sector has a negative perception.

The demand for skilled staff will continue to grow as new accommodation continues to be built and a number of new restaurants and other hospitality businesses are opening. According to an industry informant between 2018 and 2020 more than 600 new four and five star hotel rooms will be available in the country, mostly concentrated in Vientiane Capital and in Vang Vieng. The sector is looking at requiring 1,800 new staff in the next couple of years and this is only for four and five star hotels<sup>10</sup>.

In order to address the lack of skilled labour, the VELA project has also provided support to the development of a programme for “F/B Service and Food Production Professional” (level 4, diploma). The programme is currently implemented in two vocational colleges and schools in Pakse and Louang Prabang and cooperates closely with more than 15 three to five-star hotels.

<sup>10</sup> Assuming a staff to room ratio of 3:1.

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### 4.3.2 INFORMATION TECHNOLOGY

The information technology sector is a new emerging industry in Lao PDR. The sector has at present around 100 firms most of which are small. Only 40 firms employ more than 20 people. Overall, the sector employs between 900 and 1,000 individuals, with approximately one third of them being IT specialists.

Firms in this sector tend to hire young engineering graduates from local universities, but they require around one year of in-house training to get them to the right level of performance and knowledge. Firms mostly carry out basic IT work for local and international firms based in Lao PDR, i.e. there is no software development, robotics or machine learning.

Turnover in the sector is generally low as most staff are relatively specialised and want to pursue a career in the sector. The prospects of the sector are good as the demand for IT services is growing substantially. However, the sector also faces important challenges such as the lack of skilled staff to upgrade their services and competition from firms in Thailand.

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### 4.3.3 BANKING AND INSURANCE

At present, Lao PDR has 42 commercial banks, consisting of four state-owned commercial banks, three joint-venture banks, seven private banks and 28 subsidiaries and branches of foreign banks. There are no statistics on the number of people employed in the banking sector but an industry informant estimates that the sector employs approximately 5,000 people<sup>11</sup>. Banking is a highly attractive sector for young people, in particular for young university graduates and women.

In addition, there are around 10 insurance companies in Lao PDR. The insurance sector remains largely undeveloped and operates in rudimentary regulatory and supervisory environments. A lack of reliable statistics makes it hard to accurately assess the size and performance of this sub-sector, but a rough estimate would indicate that insurance companies employ around 2,000 people.

Demand for banking and insurance services has grown exponentially in the last decade. This growth reflects an expansion from a relatively low customer base. Demand for banking services derive from commercial and industrial sources and increasingly from individuals. Demand for insurance products derives primarily from commercial and industrial sources. Personal insurance coverage is low throughout the country.

<sup>11</sup> Estimate done by an industry informant, assuming that each bank has an average of 120 employees.

According to industry informants, most employees in the sector have vocational or tertiary education. They are recruited through social networks or advertisements in mass media. There is a large supply of individuals interested in working in banking and finance. Companies typically train their new staff internally. There is very little cooperation between banks to provide training to their staff, although the Bank of Laos does provide some technical training to staff of commercial banks.

Lack of insurance-related skills in the workforce is considered a major constraint to internal operations. Companies indicate that, while they are able to hire Laotians, they are mainly sourced from Thailand where they have completed insurance programmes. High-level employees in some of the companies are often from other countries. Other notable constraints are the lack of adequate information technology and the lack of actuarial or managerial skills.

Given the low coverage of financial institutions it can be expected that the sector will continue to grow at a rapid pace, considering that new technological tools are constantly introduced in the market to facilitate the inclusion of more people.

## 5. CONCLUSIONS

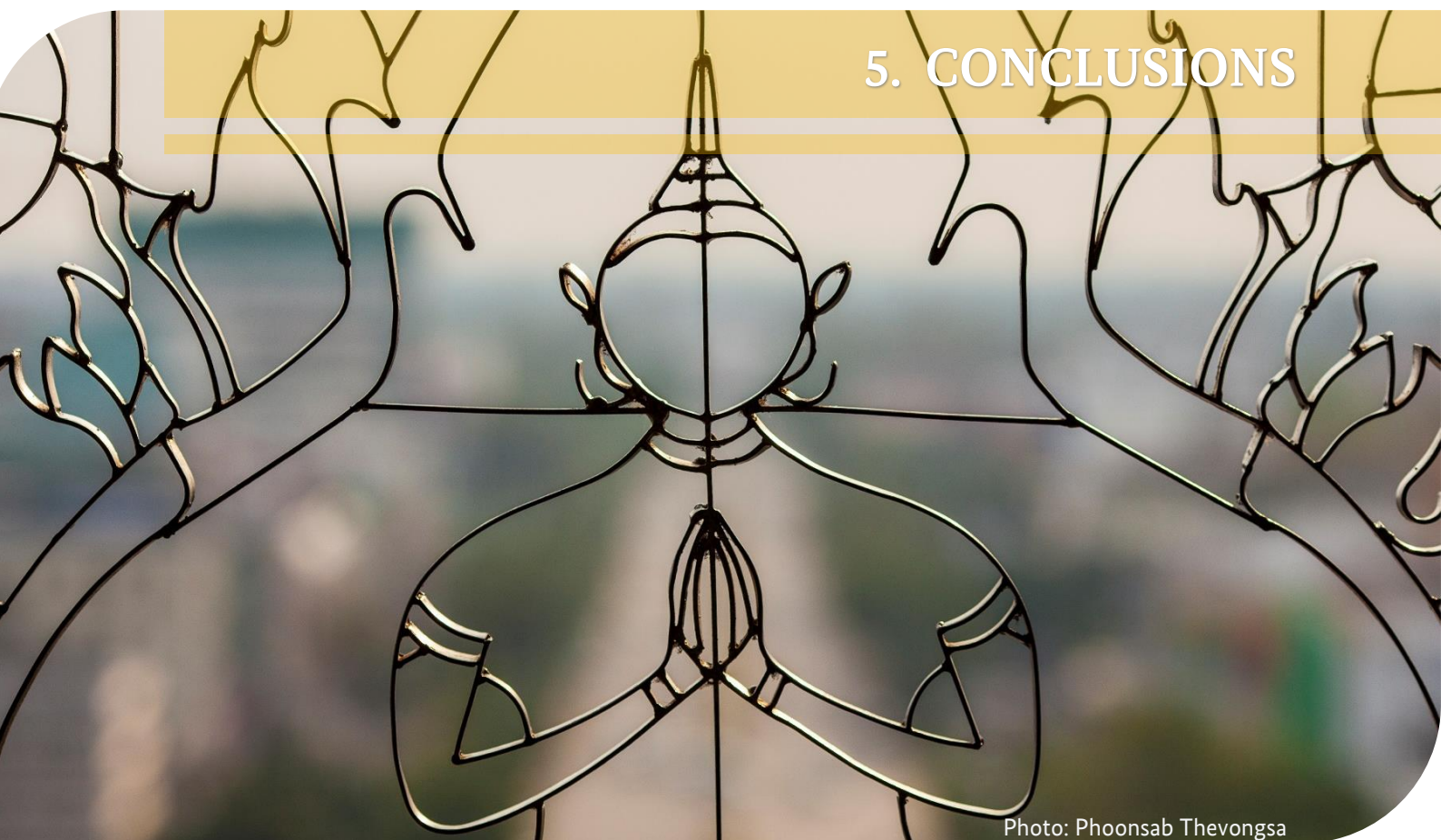


Photo: Phoonsab Thevongsa

## 5. CONCLUSIONS

Analysing labour market dynamics in Lao PDR is challenging given the shortcomings in available data. Not only are national datasets on the labour force limited and not easily accessible, but there is very limited to no data by sub-sector. There has been a lack of interest and resources by actors in different sectors to collect better data to make informed decisions. Key information on sectoral employment, migration, and other labour market indicators is lacking. More research such as a labour force survey could help provide essential information for policymakers to understand the key challenges and design appropriate solutions.

A clear finding of this study is that labour shortages are one of the main constraints to the development of the private sector in Lao PDR. These shortages relate primarily to a lack of skilled labour and, more worryingly, unskilled labour. Nearly everyone interviewed for this and previous studies highlighted the shortage of skilled and unskilled labour as one of the largest constraints for their business' growth or for the growth of their sector in general. There are multiple (closely-related) reasons for this shortage, including the low level of education provided by public schools, low levels of productivity, low wages, migration to Thailand (where wages are substantially higher) and problems associated with the transition from an agrarian to an industrial economy.

Firms try to address the lack of skilled labour by training staff. Most of this training is done in-house, frequently provided by internal staff. Few firms use external providers of training. Among the constraints to provide training, firms claim to lack time to provide training, to lack information on existing courses and training providers, that workers are not interested in training, the fear that workers will leave after receiving training, the lack of quality courses and training providers in the market, the high cost of training relative to the benefits, the lack of understanding of required skills and in particular for small firms the perception that no training is required by staff.

This and other studies have found that vocational colleges and schools have limited and mostly informal relationships with businesses, and curricula and teaching materials were generally developed without employer or student inputs. No formal mechanisms are available for firms to provide feedback to schools on their programmes or quality of teaching. Moreover, public vocational colleges and schools have little incentive to redesign or close down programmes with declining student numbers as the Government pays for teachers' salaries despite the schools' performance. These schools therefore appear to be disconnected from labour markets and student needs and remain largely supply-driven, which increases the potential for skills mismatches. While several donor-driven projects have been working to

address these issues over the past few years, the need for support remains, as the changes required are so drastic that they will be slow and costly.<sup>12</sup>

However, the skills problem in Lao PDR is a problem not simply of vocational skills, but of even the most basic reading and numeracy skills. This is a problem that the vocational level cannot be expected to solve.

Regarding the labour market, it can be expected that as a number of public sector, private sector and development initiatives generate results, the agricultural sector will continue to increase its productivity. Higher agricultural productivity will help generate better livelihoods for Lao people living on farms. As agricultural productivity increases and more workers are able to leave agriculture, people will look for jobs in rural and urban areas.

It is expected that new jobs will be created in rural areas in off-farm, but still agricultural-related activities. Rough estimates indicate that already more than a quarter of a million people work in non-farm jobs. One area where there is ample potential and where the Government, private and development sectors agree is suitable to absorb workers is in agro-processing. This is likely to include activities such as grading, sorting, drying, milling, roasting, packing, and storing of agricultural commodities such as rice, maize, cassava, coffee and vegetables. In addition, there is increased investment and demand for processed meat, where at present there is limited workforce capacity and little Government capacity for monitoring and regulation. Further research is needed to fully understand the types of employment in the rural off-farm sector and the potential for future growth in specific sub-sectors, segments, and markets.

Beyond rural areas, sectors that will continue to offer opportunities for Lao people are tourism and hospitality, which despite the recent slump in visitors, will continue to grow significantly. In contrast, the garment sector will slowly decrease in size and importance unless important policy measures are taken soon, such as improving the investment and business environment and increasing the productivity of the sector. However, it will remain an important employer of (mainly) women in the short term. Construction, on the other hand, will provide a steady stream of job opportunities for Lao workers, but this will remain the lowest paid jobs unless Lao workers learn new skills, such as operation of heavy machinery.

Other areas of light manufacturing that have potential for growth in Lao PDR include automotive assembly and assembly of small-scale electronic equipment and parts. These sectors require relatively limited skills and there is already investment in them. As greater diversification generates more productive employment opportunities, it will be critical to

<sup>12</sup> The newly developed DCT programmes which are based on the needs of the private sector are just at the initial stages and require continuous support from donor organization(s) in order to address the identified shortage of skilled labour. As such, they do not provide an adequate answer to the lack of unskilled labour.

ensure that the Lao workforce is equipped with the knowledge and skills to be able to take up these jobs.

Finance and ICT are still niche sectors that absorb mainly university graduates given the required skills and the high desirability of these jobs. It will be several years before students from vocational colleges and schools are able to access these jobs.

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