

National Report on skills demand and gaps in current hospitality and tourism workforce in Lao PDR

Deliverable D2.2

Author one, Author two



Co-funded by the European Union

## **Deliverable information**

Grant Agreement No.	
Project acronym	Inno4Tourism
Project title	Innovative Curricula for Life-Long Learning of Sustainable Tourism Workforce
Project timeframe and duration	36 months - 01/12/2023 - 30/11/2026
Project reference number	101129247
WP	2: Identification of skills demand in sustainable tourism
Task	T2.2 Primary and secondary research on skills demand and gaps in current hospitality and tourism workforce
Deliverable	D2. 2 National Report on skills demand and gaps in current hospitality and tourism workforce Lao PDR
Status	First draft
Version number	1.0
Deliverable responsible	Dr. Soubin Sisavath
Dissemination level	Public
Due date	15/05/2024
Date of submission	

# **Project coordinator**

Name	Dr. Soubin Sisavath
Organization	National University of Laos
Email	soubin@nuol.edu.la
Postal address:	International Relations Office, National University of Laos, Dong Dok, Xaythany, P.O. Box 7322, Vientiane, Lao PDR

# **Version history**

Version	Date	Author	Description
1.0	31 May	NUOL & SKU	
1.1	20 June	NUOL & SKU	
1.2	22 June	NUOL & SKU	
1.3	10 July	NUOL & SKU	

## **Author list**

Name	Organisation
Dr. Soubin Sisavath	NUOL
Dr. Kiengkay Ounmany	NUOL
Asst. Prof. Dr. Maliphone Douangphachanh	NUOL
Dr. Souphinh Vongphachanh	NUOL
Assoc. Prof. Phanphasa Lomchanthala	NUOL
Ms. Phetsavanh Somsivilay	SKU
Mr. Vilaiphone Hanthavong	SKU
Mr. Somphone Vongkeo	SKU
Mr. Yung Chomthong	SKU
Ms. Douangdeuan Kommanivanh	SKU
Ms. Latdavanh Phothilarth	SKU

## **Project Summary**

Innovative Curricula for Lifelong Learning of Sustainable Tourism Workforce /INNO4Tourism (Project ID: 101129247 — INNO4TOURISM — ERASMUS-EDU-2023-CBHE) is a Education Capacity Building for Higher Proiect. funded under the ERASMUS-EDU-2023-CBHE Call. The general objective of the INNO4Tourism project is to contribute to the alignment of HEIs in Thailand and Lao PDR with the rapidly changing hospitality and tourism labour market, so that the employability of students and recent graduates is enhanced, along with the skills and knowledge of current employees. Through cooperation with universities and relevant organisations from Europe, it will enable their expertise and European good practices and policies to be transferred and adapted, benefitting the Asian higher education institutions (HEIs) and systems in general. It proposes an international cooperation mechanism to update, modernise and improve higher education in Asia, aiming at the partner countries' socio-economic recovery, growth and prosperity in the context of the current economic globalisation, decline in human development, fragility and rising socio-economic and environmental inequalities caused by the COVID-19 pandemic.

The project proposes effective solutions for global challenges, externalising relevant EU policies and initiatives that promote inclusive sustainable growth and a green economy, thus demonstrating the EU added value. In view of the above, the project aims to achieve the following objectives:

- 1. Improve the academic offer of HEIs and students' access to innovative curricula on sustainable tourism in the form of online, non-degree courses (sustainable tourism -inclusive and accessible tourism-, tourism entrepreneurship and management, digital skills, soft skills, e.g., problem-solving, time management, teamwork).
- 2. Improve the skills of current and future students of hospitality and tourism programmes according to the labour market needs.
- 3. Upskill/reskill the hospitality and tourism workforce and recent graduates, addressing market gaps/needs to boost their employability.
- 4. Strengthen the skills of HEIs' academic/ teaching staff on developing innovative curricula and introducing innovative elements in existing curricula on sustainable tourism.
- 5. Enhance teaching skills of academic/ teaching staff in hospitality and tourism programmes (including learner centred and problem-based teaching and learning).
- 6. Increase the capacities of HEIs' administrative staff on active cooperation with the hospitality and tourism sector and/or other relevant stakeholders and provision of holistic career services to hospitality and tourism students and graduates.
- 7. Enhance students' and graduates' access to modern and holistic career services.
- 8. Enhance the active engagement of HEIs with the business world to address mismatches between the requirements of employers and the offer of HEIs in the hospitality and tourism sector.

#### List of Participants

Number	Role	Short name	Legal name	Country
1	CO0	PSU	Prince of Songkla University	Thailand
2	BEN	CMU	Chiang Mai University	Thailand
3	BEN	NUOL	National University of Laos	Lao PDR
4	BEN	SKU	Savannakhet University	Lao PDR
5	BEN	UOM	University of Macedonia	Greece
6	BEN	SYMPLEXIS	SYMPLEXIS	Greece
7	BEN	UNIPA	Università Degli Studi Di Palermo	Italy
8	BEN	CESIE	CESIE	Italy
9	BEN	PTA	Phuket Tourist Business Association	Thailand

## **Table of Contents**

Natio	nal Report on skills demand and gaps in current hospitality and	tourism
workf	force in Lao PDR	1
Delive	erable information	2
Projec	ct coordinator	2
Versio	on history	3
Autho	r list	3
Projec	ct Summary	4
Table	of Contents	6
Execu	tive summary	7
	nal Report on skills demand and gaps in the current hospitality and orce in Lao PDR	tourism 8
1.	Introduction	8
2.	Results from the desk research in Lao PDR	9
3.	Results from the online surveys in Lao PDR	18
4.	Results from the semi-structured interviews in Lao PDR	29
5.	Conclusions	39
6.	Recommendations	40
7	Poforoncos	<b>/</b> ·O

## **Executive summary**

Following the economic liberalisation in 1986, the Lao People's Democratic Republic (Lao PDR) has opened to international tourism. Since then, the tourism and hospitality industry has played a significant role in driving the Lao economy. Also, there are various policy documents, strategies, and initiatives established by the Lao government to facilitate tourism development. Notably, Lao Ministry of Information, Culture, and Tourism adopted the Lao National Tourism Strategy 2016-2020. To realise the strategy, the government in collaboration with development partners, including higher education institutions, to develop Lao PDR as a sustainable tourism destination. Therefore, it is worth investigating the current situation of the hospitality and tourism industry to identify skills gaps and demands and develop a mechanism to foster institution-industry collaboration.

This study aims to explore the current context of the hospitality and tourism industry in the Lao PDR and identify workforce requirements within this industry, especially in the areas of sustainability, entrepreneurship and management, digital and green skills. The study adopted a mixed-methods research approach to collect data from stakeholders who have been involved in the hospitality and tourism industry in Lao PDR. The research tools (survey questionnaire, interview guide) were developed and refined based on the literature reviews and feedback from consortium partners. As a result, 54 questionnaires were collected from government agencies, private enterprises, non-governmental organisations, and higher education institutions. In addition, 11 semi-structured interviews were carried out via face-to-face and online modes with hospitality and tourism industry experts, academics, and entrepreneurs across Lao PDR to explore in-depth regarding the current situation of the hospitality and tourism industry, skills gaps and demands in this industry. Both surveys and interviews were gathered mainly around Vientiane and Savannakhet during April 2024 and the 1st week of May 2024.

The data analysis showed that respondents in Lao PDR were moderately aware of sustainable tourism. Also, they believed that sustainable tourism was not well developed toward achieving sustainability goals. Despite a lack of awareness of sustainable tourism, in reality, participants incorporated sustainable tourism practices into their professional activities to varying extents. For example, they adhered to governmental regulations and participated in recycling and reuse initiatives. In terms of skills demands, digital skills were found to be a major concern in the Lao workforce in the hospitality and tourism industry. Also, proficiency in digital technologies, information management, and collaboration are essential for professional success. Meanwhile, entrepreneurship skills and other soft skills, such as problem-solving and effective planning, were deemed significant not only for domestic but also international clients. Lastly, it was found that integrating green skills into university curricula can further enhance employability and contribute to sustainable practices.

Based on findings, some recommendations were made related to the development of soft skills for the hospitality and tourism workforce, raising awareness on green skills and capacity development activities, and strengthening collaboration between public and the private sector on human resources development.

# National Report on skills demand and gaps in the current hospitality and tourism workforce in Lao PDR

#### 1. Introduction

#### 1.1. Purpose of the study

The purpose of this study is to explore the current context of the Lao labour market and identify workforce requirements within the hospitality and tourism industry in Lao People's Democratic Republic (Lao PDR). By analysing both secondary and primary data, we aim to capture a snapshot of the existing hospitality and tourism workforce in terms of knowledge and skills demands. Essential knowledge and skills demand, drawn from desk research of secondary data (e.g., policy documents, national reports, and statistical data), forms the important background of this study. Additionally, engaging more data from stakeholders who engage in hospitality and tourism industries through surveys and interviews enriches our investigation by incorporating diverse perspectives from the industry insiders. Results from this study will be useful for curriculum revision and development and policy recommendations to address skill gaps and ensure to nurture a workforce equipped with required knowledge and skills, particularly sustainable, entrepreneurial, digital, and green skills. These competencies are pivotal for the growth of the hospitality and tourism sectors, and significantly contribute to the industry's long-term success and sustainability.

#### 1.2. Research process

This study adopted a mixed-methods (quantitative and qualitative) research approach (Creswell, 2014) to gather data from stakeholders who have been involved in the hospitality and tourism industry in Lao PDR. The research tools (i.e., a survey questionnaire and an interview guide) were developed and refined based on the literature reviews and feedback from consortium partners. The instruments were translated into Lao language and verified by a professional translator to ensure linguistic accuracy. The purposive and snowball sampling techniques were utilised to recruit target participants for the study. Doing so enabled us to access a range of industry insiders, enriching the understanding of workforce demands and skill requirements.

Given the research design, in the first phase, desk research was conducted to mainly explore the Lao labour market, national policy on the hospitality and tourism industry, and identify the demands for knowledge and skills in the industry. In the second phase,

70 questionnaires were distributed online, targeting stakeholders from private and public sectors, including higher education institutions. The questionnaire aimed to collect data on awareness of the current situation of hospitality and tourism workforce and skills gaps, especially in the areas of sustainability, entrepreneurship and management, digital and green skills. As a result, 54 questionnaires were answered and returned and included in the analysis for this study. In addition, 11 semi-structured interviews were carried out via face-to-face and online modes with hospitality and tourism industry experts, academics, and entrepreneurs across Lao PDR. This is to explore in-depth regarding the current situation of the hospitality and tourism industry, skills gaps and demands in this industry. By combining quantitative and qualitative results, the study aims to inform policy recommendations, curriculum development, and strategic workforce, planning to address skill gaps and foster a highly qualified workforce for the hospitality and tourism industry in Lao PDR. Both surveys and interviews centred mainly around Vientiane and Savannakhet during April 2024 and the 1st week of May 2024. Regarding analysis, descriptive statistics were used to analyse survey data while interview data were analysed by using thematic and content analysis approach.

#### 2. Results from the desk research in Lao PDR

#### 2.1. The state of the art in the tourism & hospitality workforce

Following the economic liberalisation in 1986, the Lao People's Democratic Republic (hereafter Lao PDR or Laos) has opened to international tourism. Since then, the tourism and hospitality industry has played a significant role in driving the Lao economy. In 1991, the country hosted only 37,613 international visitors who contributed about US\$2.2 million to the local economy. In 2000, the number of 737,208 international arrivals was recorded and generated over US\$100 million in foreign exchange. A decade later, over 2.5 million visitors visited the country and spent over US\$300 million in the local economy. In 2015, the number of international visitors was recorded at 4.6 million arrivals, generating US\$ 725 million in total revenue, making the industry the second top foreign exchange generator after the mining sector. Between 2016 and 2017, however, the number of international visitors dropped from 4.2 and 3.8 million visitors respectively. compared to the number in 2015. This resulted in a decrease in tourism revenue from US\$ 725 million in 2015 to US\$ 648 million in 2017. In 2018, the number of international visitors recovered, with 4.1 million arrivals and generated US\$ 811 in foreign exchange, partly because of the launch of Visit Lao Year 2018 campaign (Tourism Development Department, 2018).

In terms of employment, the hospitality and tourism industry are the largest employers of the Lao workforce. In 2019, the industry employed about 347,000 people, equivalent to 10% of the total employment of the country. The number of total employment in the hospitality and tourism sector is expected to grow to 431,800 by 2029, making it a significant contributor to the Lao economy. According to the World Travel & Tourism

Council (WTTC), the hospitality and tourism industry contributed about 12% of the Gross Domestic Product (GDP) of the Lao PDR.1

Lao hospitality and tourism industry was severely affected by the outbreak of COVID - 19 in early 2020. To control the pandemic, the Lao government imposed an international travel ban in April 2020, which resulted in a decrease in international arrivals by over 80%. It was reported that the number of international tourists decreased from 4.7 million in 2019 to 0.8 million by mid-2020 (Tourism Development Department, 2023). COVID-19 generated massive impacts on hospitality and tourism enterprises, particularly the businesses that rely on international markets. In 2020, the Asian Development Bank (ADB) conducted a survey on the impacts of COVID – 19 on Lao hospitality and tourism enterprises in four major destinations including Luang Prabang, Vangvieng, Vientiane, and Champasack. Over 360 hospitality and tourism enterprises, including tour operators, hotels, and restaurants participated in the survey. The results suggested that half of hospitality and tourism enterprises temporarily closed by May 2020. About 70% of them reduced the number of their workforce; reducing the number of employees by 38% (Yamano et al., 2020). Despite a number of mitigating measures such as travel bubbles, Lao Thiew Lao (domestic tourism), many hospitality and tourism enterprises struggled to survive throughout the course of the pandemic.

In early 2022, when many countries reopened their borders to international travels, Lao PDR followed suit by fully lifting its international travel restrictions on 9 May 2022. The Lao hospitality and tourism industry has gradually recovered from the unprecedented pandemic. The Ministry of Information, Culture and Tourism (MICT) reported 1.2 million international arrivals in 2022, although it is still far below the number of the peak period, which registered 4.7 million international visitors in 2019 (Tourism Development Department, 2023). The recovery of the hospitality and tourism industry was significantly supported by the inauguration of Lao-China Railway (LCR) on 3 December 2021. The Lao - China Railway significantly contributes to boosting domestic and international travels, particularly in the northern provinces located along the railway namely Vientiane, Luang Prabang, Oudomxay and Luang Namtha. Since the introduction of cross-border service in April 2023, LCR has transported over 150,000 passengers of 80 nationalities and 8 million tons of freight. In particular, the introduction of the cross-border service has had a profound impact on tourism development between China and Laos. In 2022, about 50,000 Chinese tourists visited the country. Within one year, the number increased over tenfold to 641,314 in 2023.2 The number of passengers continues to rise as additional trains were added in the service.

In addition, Lao PDR has launched the Visit Lao Year 2024 campaign in concurrent with assuming the role of ASEAN Chairmanship in 2024. Several regional meetings were organised in Vientiane and Luang Prabang, which significantly contribute to stimulate hospitality and tourism demand in the country. Many large hotels, including international hotel chains such as Hilton and InterContinental Hotel Group (IHG), are planning to open new hotels to accommodate international delegates during the ASEAN Summit Meeting, which will be held in Vientiane late this year. The opening of new large

https://www.vientianetimes.org.la/freefreenews/freecontent 75 Laoschina v24.php

hotels requires a large number of people to fill the vacancies. Many enterprises, including hospitality and tourism businesses, face challenges in recruiting quality human resources to join their workforces due to low quality of the graduates, impacts of COVID-19 and economic crisis. Studies suggested that Lao student learning outcomes are among the lowest in Southeast Asia due to limited spending in the education sector.3 Following the COVID-19 outbreak, Laos experienced a debt crisis, which led to depreciation of the kip (Lao local currency). For example, in 2022 Lao kip depreciated by 32% and 43% against Thai baht and US dollar respectively in the year to April 2023 (World Bank, 2023). With high inflation, a large number of young people migrated overseas to seek employment with higher real wages. The exodus of the young people leads to labour shortage for businesses in Laos. An increase in living costs has forced many young people, especially from poor families, to drop out from school, which contributes to worsening the low-quality human resource problem. There is an urgent need to address the issue to improve education quality and to attract more people to continue learning, in order to meet the increasing demand of the hospitality and tourism workforce.

#### Sustainable Tourism Development in Laos

The history of sustainable tourism development in Lao PDR can be traced back to 1999, when the first community-based tourism (CBT) development project called "Nam Ha Ecotourism Project" (NHEP) was introduced in Nam Ha National Protected Areas (NHNPA) in Luang Namtha Province in Northern Laos (Harrison & Schipani, 2007). The Lao government received technical and financial support from New Zealand Aid (NZAID) and UNESCO Bangkok in initiating this project. The project aims to reduce poverty and promote nature conservation in the NHNPA. Tourism activities include trekking, kayaking, and staying in a local homestay. In addition to building infrastructure such as trekking trails and communal homestays, the donors developed capacity for the Provincial Department of Information, Culture and Tourism (PDICT), local communities, and other stakeholders in implementing the development activities. PDICT was responsible for marketing and promotion by operating a booking office in its premises. while the local communities provided food, accommodation, and tour guiding for the visitors in their communities. Between 2004 and 2005, the private sector has been involved to offer the tour services to ensure sustainability, whereas PDICT turned to perform regulatory functions as it is supposed to do as a government agency. NHEP was a successful development model and replicated in other CBT projects in provinces across the country. In 2021, a total number of 16 out of 18 provinces of Laos had CBT villages, where the local people offer hospitality services to the visitors. Nevertheless, service quality standards remain a major challenge for the local people, due to insufficient financial means, knowledge, and skills of the majority of the local people. These barriers prevent the hosts from maximising economic benefits from the businesses. In NHNPA, for example, a homestay host earns less than US\$ 5 per person per day from providing food and accommodation to the visitors. This small amount may be not attractive to motivate local people to participate in nature conversation in the NPA.

\_

https://rtm.org.la/wp-content/uploads/2023/01/Draft-RTIM-2022-Education-SWG-Report-7-12-22-.pdf

Realising the crucial role of tourism as a tool for poverty reduction and nature conservation, the Lao Ministry of Information, Culture and Tourism adopted the Lao National Tourism Strategy 2016-2020, with the aim of "strengthening and developing tourism to become an industrial sector that generates foreign exchange revenue for the country; providing more employment; promoting the cultural conservation and preserving the nation's customs and traditions, including the protection of abundant natural resources; promoting sectoral products in order to contribute to poverty reduction of all ethnic groups". This strategy clearly reflects the desire of the Lao PDR to develop itself as a sustainable tourism destination. The implementation of this strategy was very challenging due to limited technical and financial resources.

In driving the sustainable tourism development strategy, the government of Lao PDR, in collaboration with development partners, such as the Asian Development Bank (ADB), set up a project called "Sustainable Tourism Development in Lao PDR". The aim of the project is to contribute to the sustainable socioeconomic development of Lao PDR, focusing especially on poverty reduction, sustainable development and protection of the natural and cultural heritage and protection of vulnerable groups from exploitation. The project activities included: (1) Biodiversity Conservation and Protection through Tourism at the Siphandone Wetland; (2) Urban Environment Protection and Management – Vang Vieng Town Waste Water Centralization and Treatment; (3) Pro-Poor Tourism Development in Salavanh, Vientiane Province, Houaphanh, Oudomxay, Sayabouli and Bokeo; (4) Facilitation of Tourism on the North-South and East-West Economic Corridors; (5) Human Resource Development; and (6) Institutional Strengthening and Implementation Assistance. The project was completed many years ago; however, information on the impacts of the project is limited.

Recently, Switch Asia, a programme funded by the European Union<sup>5</sup>, launched a €2.2 million project called "Sustainable Tourism Project" (SUSTOUR) from 2020-2024 in Lao PDR.6 The project aims to promote sustainable tourism, by integrating MSMEs into sustainable supply chains and raising consumer awareness. The project mobilises and provides advisory support to tour operators, hotels and restaurants in Vientiane, Vientiane Province and Luang Prabang to adapt and promote sustainable production and consumption (SPC) practices. The project encouraged tourism and hospitality micro, small, and medium enterprises (MSMEs) to use local suppliers, purchasing environmentally friendly products, conserving natural resources, and socially responsible practices toward local communities. In return for the sustainable practices, the enterprises will be awarded the certified Travelife programme<sup>7</sup>, which has been developed by the European Centre for Ecological and Agricultural Tourism (ECEAT) in partnership with the EU travel association. The programme will contribute to stimulating demand for sustainable tourism by promoting Laos as a green destination. As a result, there will be more income and employment opportunities for hospitality and tourism MSMEs in Lao PDR.

#### **Digital Skills**

<sup>4</sup> www.stdplaos.com

<sup>&</sup>lt;sup>5</sup> https://www.switch-asia.eu/switch-asia/who-we-are/

https://www.switch-asia.eu/project/sustour-laos/

<sup>&</sup>lt;sup>7</sup> https://www.travelife.info/index\_new.php?menu=home&lang=en\_

Digital skills remain a major concern of the Lao workforce. Lao PDR is lagging behind its neighbours in terms of ICT development. A study commissioned by the United Nations Development Programme ranks Laos 9th out of 10 ASEAN member countries in terms of digital access, affordability, and quality of internet services (United Nations Development Programme, 2022). Figure 1 below shows how people used the internet in Lao PDR. The majority of respondents used the Internet for Facebook (84%), whereas only 3% of the respondents used it for shopping, and 2% used it for practising English. As the graph shows, E-commerce entrepreneurs faced challenges in reaching target consumers via e-commerce platforms. As the majority of internet users use social media, it might be an explanation why e-commerce entrepreneurs in Lao prefer to use social media platforms to communicate with prospect buyers.

3% Shopping **Practicing English** Video calling 11% Games 12% Other Social Media **Email** 18% MP3/Video/Picture Download Browsing/Surfing/Information Message/Chatting 48% Facebook 0% 10% 20% 30% 40% 50% 60% 70% 80% 90%

Figure 1: What is mobile Internet used for?

Source: Indochina Research, 2017

Concerning human resource capability, there is inadequate supply of quality graduates, especially in information and communication technology (ICT) related disciplines, to meet the increasing demand for qualified human resources of the sector. A number of private companies have to import talents from neighbouring countries, for example from Thailand. In fact, Laos has experienced a shortage of qualified professionals in almost all professional areas. The shortage of qualified professionals is explained by the fact that there are not enough academic institutions to train graduates including in the ICT disciplines. At the college or university levels, only one or two courses on entrepreneurship are offered for students. They are not directly related to e-commerce. If e-commerce plays an increasing role in economic development of the Lao PDR, higher academic institutions should develop relevant academic programmes to meet the demand of the e-commerce sub-sector.

At vocational education level, the Economic Research Institute for Trade (ERIT), a think tank under the Ministry of Industry and Commerce, has developed a diploma

programme on e-commerce under the United Nations Conference on Trade and Development (UNCTAD) supports. The programme is delivered over 16 weeks (four hour per week) includes the following courses:

- Basic knowledge of Internet
- Internet application for businesses
- E-commerce activities
- Business models in e-commerce, B2C and other topics
- Electronic transactions
- Payment systems
- Case studies: eBay and PayPal

The curriculum was condensed into a three-day training course for Government officials at the national, provincial, and district levels and will be offered for MSME entrepreneurs and the general public.

A number of relevant government ministries have made some efforts to address digital literacy problems. The Ministry of Education and Sports (MOES) collaborated with the Ministry of Industry and Commerce working on ICT competency development. The initiative was limited to internet access rather than the application of ICT in industry or businesses. The Ministry of Technology and Communication established the e-Government Centre. However, it is mainly used for government officials to communicate across government agencies. The application of this development for businesses is still limited.

For long-term development, the Ministry of Education and Sports has developed an e-Education project. The project constructed computer labs in 50 schools and provided free Internet access in 500 schools across the country. Also, MOES built eighteen e-learning classrooms in eighteen provinces (one for each province) across the country. MOES also planned to develop e-learning programmes at the National University of Laos and Teacher Training Colleges. In the near future, e-learning will be introduced in lower and upper secondary schools. This would require massive investment, particularly in rural areas given poor ICT infrastructure to support this development.

#### **Green Employment Opportunities**

In 2018, the Lao government formulated the Lao National Strategy on Green Growth to 2030 (NGGS 2030), with the aim to promote green growth and sustainable natural resources management (Lao PDR, 2018). This strategy was developed based on the National Adaptation Programme of Action to Climate Change (NAPACC) in 2009 and the Strategy on Climate Change 2010. The Strategy on Climate Change was linked to green job creation. In the agriculture sector, there is a need to identify crop and animal varieties that better adapt to climate change and strengthen financial resilience for farmers, through developing financial capabilities and availability of financial instruments at household and community level (ILO, 2019). Another area that has been identified for adaptation, that involves green job creation, is forest-based carbon sequestration.

Green job is an emerging concept in Laos; as a result, there is no agreed definition of green job so far. Although Laos has adopted the NGGS 2030, the terminology and its definition did not appear in the plan. NGGS 2030 identified focus areas for green growth, including natural resources and environment; agriculture and forestry; industry and commerce; public work and transports; information, culture and tourism; and science and technology (Lao PDR, 2018). As a result, green job creation would be promoted within these sectors.

Government agencies responsible for green job promotion include Department of Skill Development and Employment and Department of Labor Management, Ministry of Labor and Social Welfare. Nevertheless, green job development also involves other ministries such as Education and Sports; Industry and Commerce, Agriculture and Forestry; and Natural Resources and Environment. Effective collaboration among these line ministries is essential in green job development.

Table 1 shows green job policy readiness assessment based on seven policy areas. Laos has only two areas that have significant policy in place, while the rest has some policy elements (ILO, 2021). Additional efforts need to be made to improve policy and regulatory framework for green job development.

Table 1: Policy readiness assessment

Policy area		Notes		
Macro-economic growth plans and development policies establish the green agenda		Green economy well established in development plans		
Industrial and sector policies for greening		Specifically, Agriculture and Energy Sector		
Enterprise policies and initiatives for greening		Investment promotion and rural strategy		
Skill development for green skills		Existing skill development strategy are linked to Green and Climate Change Policies		
Occupational and Health for climate change issues		OSH provision emerging, ILO C 155 still to be ratified		
Social protection		ILO C102 on social protection still to be ratified, some medical, sickness, maternity, old-age, work injury, invalidity and survivors' benefit available, no family allowances and unemployment benefit program in development		
Active labour market for greening		Emerging through pilot project		
Cross-cutting issues – labour rights and		C144 in force, no specific detail on social		
social dialogue process in greening dialogue processes in green economy plar				

Source: International Labor Organization, 2021

In 2021, the Lao government adopted the Green and Sustainable Agriculture Framework for Lao PDR to 2030. This framework aims to push the "agriculture sector toward a more sustainable production system, conservation of resources such as water and soil and long-term high-quality output critical to the sustainable development goals of the country" (Ministry of Agriculture and Forestry, 2021). To do so, it is necessary to upgrade

the skills of the farmers. The framework mentioned about the roles of the private sector, focusing on investment of the private sector in GSA, whereas human resource development was not articulated in the framework. As about 60% of the population lives in rural areas, the agriculture sector remains the largest source of employment in Laos including vulnerable employment.

The private sector constitutes a major source for green employment. Since the introduction of the open-door policy in 1986, the Lao government has promoted private investment in many sectors including tourism. Laos has a comparative advantage in culture and nature-based tourism. As a result, the Lao government promotes investment in tourism in line with nature, culture, and history of the country to be environmentally friendly and sustainable. The tourism sector is considered as "the most active sector in Lao PDR in green job creation" (ILO, 2021).

#### 2.2. Skill gaps & demands

As a developing economy, Lao PDR is likely to experience economic growth and an increase in demand for the workforce for many years to come. According to the Asian Development Bank (ADB), the Lao economy grew by 3.5% in 2023<sup>8</sup>. The growth was supported by the opening of Lao-China Railway and Thanaleng Dry Port and rebound of regional tourism (World Bank, 2022). This translated into additional job creation, particularly in the service sector, including hospitality and tourism. Between 2019 and 2022, the Ministry of Labor and Social Welfare (MLSW) reported that labour demand gradually increased, despite the impacts of COVID-19 (Ministry of Labor and Social Welfare, 2019).

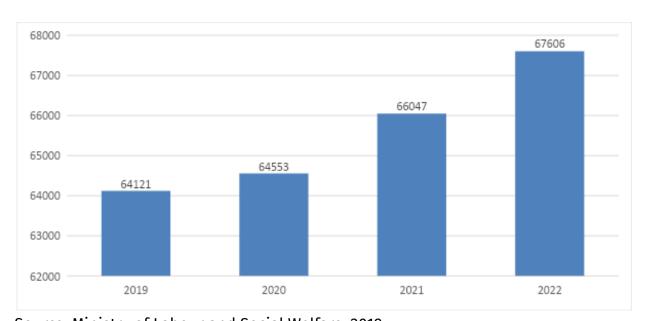


Figure 2: Labour Demand 2019-2022

Source: Ministry of Labour and Social Welfare, 2019

<sup>8</sup> https://www.adb.org/countries/lao-pdr/economy

The same study indicates that labour demand gradually increased in all sectors, including agriculture, industry and services. The service sector plays an increasing role in employment of the labour forces, partly as a result of the diversification of the Lao economy from the natural resource-based to high value-added industries such as transportation, logistics, hospitality and tourism. Many education institutions are developing new study programmes to support this growth. In the transport sector, for example, the Lao Railway Vocational Technical College (LRVTC) was constructed in Vientiane with technical and financial assistance from China. This project intended to supply quality human resources to the Lao-China Railway Company (LCR). When the construction is completed, there might be a close collaboration between the LRVTC and LCR in practical training for students.

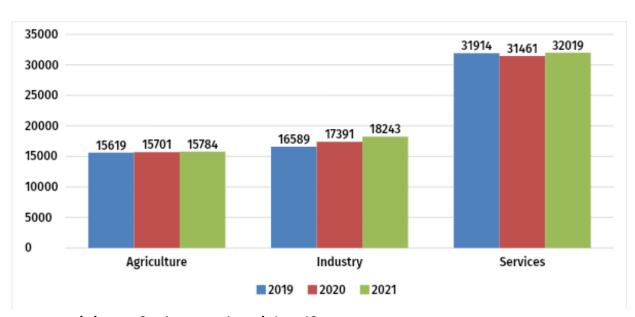


Figure 3: Labour demand by sectors 2019-2021

Source: Ministry of Labour and Social Welfare, 2019

There was a mismatch between the supply and demand in many sectors. Labour shortage occurred in agriculture, construction, education, and public health. For agriculture and construction, the shortage occurred due to negative attitudes toward working in the sectors, viewing them as underprivileged jobs. There were not many young people choosing to study in these areas. The shortage in education and public health could be explained by the limited employment quota from the government. Labour surplus occurred in the processing, electricity and water management, accommodation and restaurant, finance and insurance and telecommunication and transport.

Table 2: Comparison between supply for and demand of labour in nine sectors in 2019

Sector	Supply			Demand		
	TVET	Bachelor	Total	TVET	Bachelor	Total
Agriculture	1,299	386	1,685	1,751	831	2,538

<sup>&</sup>lt;sup>9</sup> Laos Constructs Railway Vocational Technical College sees 70 % complete (kpl.gov.la)

Processing industry	1,241	386	1,627	710	222	932
Electricity & water management	851	253	1,104	411	118	530
Construction	892	467	1,359	3,259	1,164	4,423
Education	737	1830	2,567	1,737	1,038	2,775
Public health	330	265	595	403	296	699
Accommodation & restaurant	218	123	341	213	73	287
Finance and insurance	451	479	930	178	218	396
Telecommunication & transport	333	167	500	278	80	358
Total	6,352	4356	10,708	8,941	4,041	12,982

Source: Ministry of Labour and Social Welfare, 2019

Nevertheless, the study mentioned only the quantity of labour supply and demand, whereas the information on labour productivity in Lao PDR is extremely limited. A large number of government documents mentioned education quality. Factors responsible for low education quality include inadequate financial support, poor infrastructure, and low quality of teaching. A strategy to improve education quality is to promote collaboration between educational institutions and the private enterprises to deliver vocational and technical education.

The Lao labour market has a high degree of formalisation and hierarchy in terms of educational qualifications and skills required for employment (MLSW, 2019). There is a certain set of skills and competencies demanded for specific types of occupation high-skilled, medium-skilled, and low-skilled occupations. However, employers find it very difficult to seek skillfully qualified workers for positions, especially managerial and professional levels, even though they are ready to pay high salaries. In the employers' view, local graduates are insufficiently equipped with both soft and hard skills required for employment (World Bank, 2013), which is a major constraint for running businesses and impeding socio-economic development in Lao PDR (Onphanhdala et al., 2020; World Bank, 2017). Recently, MLSW (2019) reported that there is a high demand for high-skilled workers in wholesale and retail trade, financial and insurance activities. For employability skills, Lao employers want graduates to be sufficiently equipped with both cognitive and non-cognitive skills, including a foreign language, ICT and computer skills, communication, customer service, teamwork, problem-solving skills, ability to learn, independence, and timeliness (World Bank, 2013; MLSW, 2019). After having entered workplaces, graduates need to be more responsible for developing or accumulating skills specific to work tasks in order to sustain employability and progress career upward mobility.

#### 3. Results from the online surveys in Lao PDR

This section presents findings derived from data collected through 54 survey questionnaires returned from stakeholders within the hospitality and tourism industry in Lao PDR.

#### 3.1. Number & profile of respondents

There were 54 respondents who engage in the hospitality and tourism industry participating in this study. They represented different sectors, such as government agencies, private enterprise, non-governmental organisations (NGO), and freelance. Specifically, most respondents are private staff (48%) and government officers of the hospitality and tourism sector (37%); followed by the respondents from NGOs and business and freelance, as illustrated in Table 3. Notably, most respondents have working experiences in hospitality and tourism for more than 10 years (44%). It is indicated that the respondents have a lot of experience, they may share their perspective in hospitality and tourism. In terms of type of organisation, more than half were governmental agencies, followed by private enterprises and higher education institutions.

Table 3: Number and profile of respondents (N = 54)

rable 3. Number and profile of respondents (N - 34)		
Occupation	n	Percent
Hospitality and tourism business owner	3	5,6
Hospitality and tourism freelance (Tour guide)	3	5 <b>,</b> 6
Hospitality and tourism government Officer	20	37,0
Hospitality and tourism private staff	26	48
Hospitality and tourism Staff of NGO	2	3,7
Total	54	100
Organisation	n	Percent
Government agency	30	55,6
Higher education institution	5	9,3
Private enterprise	17	31,5
Multilateral or NGO	2	3,7
Total	54	100
Experience	n	Percent
Less than 5 years	11	20
5-10 years	19	35
More than 10 years	24	44
Total	54	100

#### 3.2. Sustainable Tourism skills

Overall, the respondents were moderately aware of the current situation of the tourism and hospitality industry in Lao PDR. According to Table 4, the degree of awareness was mostly between somewhat (37,0%) and moderately (35,2%). Only 11,1% of the participants agreed that they were completely aware of the current context of the tourism and hospitality industry in the country.

Table 4: Awareness of current situation of the tourism & hospitality industry (N=54)

Awareness of current situation of the tourism & hospitality industry n Percent

Slightly aware	9	16,7
Somewhat aware	20	37,0
Moderately aware	19	35,2
Completely aware	6	11,1
Total	54	100

Furthermore, the study found that most respondents evaluated the degree of tourism development as quite low. In other words, they perceived the tourism sector as not developed. This is because there is limited tourist infrastructure, minimal visitor amenities, and low tourist traffic (64,8%), as indicated in Table 5. This finding implied that the tourism sector in Lao PDR needs to be more developed.

Table 5: Degree of tourism development (N=45)

Degree of tourism development	n	Percent
Not Developed: Limited tourist infrastructure, minimal visitor amenities, and low tourist traffic	35	64,8
Moderately Developed: Well-established tourist facilities, moderation environmental management, and steady visitor flow	15	27,8
Developed: Extensive tourist infrastructure, sustainable environmental practices, and high visitor satisfaction.	2	3,7
Overtourism: Overwhelmed infrastructure, significant environmental degradation, and negative impacts	2	3,7
Total	54	100

Moreover, the data analysis revealed that respondents were in dilemma when asking about whether sustainable tourism is common in the context of Lao PDR. Based on Table 6, nearly one-third of the respondents (31,5%) agreed that tourism in Lao PDR was neither sustainable nor unsustainable. For the latter, it was supported by a group of 20 respondents saying that sustainable tourism was not common at all. Still, 31,5% of the respondents agreed that sustainable tourism is common in the Lao PDR. These findings could somehow reflect that it was unclear what sustainable tourism actually meant or referred to.

Table 6: Belief in sustainable tourism (N=54)

Belief in sustainable tourism is common	n	Percent
Not at all	10	18,5
No	10	18,5
Neither	17	31,5
Yes	12	22,2
Totally yes	5	9,3
Total	54	100

In terms of sustainable tourism integration to professional activities, the analysis indicated that the respondents integrated the sustainable tourism term to their career to a varied extent. In other words, they took initiative to integrate the concept of sustainable tourism in their career. For example, they adhered to governmental regulations concerning tourism activities (8,9%); participated in initiatives to reduce, recycle, and reuse materials within the office (8,9%); established strategic partnerships with suppliers to advance sustainable tourism objectives (8,5%); and integrated elements of local culture into the office environment and design (8,1%), as demonstrated in Table 6. In addition, they established a documented standard procedure for all sustainability efforts within business operations; purchase environmentally friendly products; cultivate mutually beneficial business relationships with local communities; and procure goods and services locally. However, it was noted that the respondents did not provide tailored facilities for individuals with disabilities.

Table 7: Integration of sustainable tourism to professional activities (N=54)

Table 7: Integration of sustainable tourism to professional activities (N=54)			
Integration of sustainable tourism to professional activities	n	Percent	
Integrating elements of local culture into the office environment and design	19	8,1	
Providing tailored facilities for individuals with disabilities	7	3,0	
Establishing a documented standard procedure for all sustainability efforts within business operations	18	7,7	
Adhering to governmental regulations concerning tourism activities	21	8,9	
Recruiting local personnel for both managerial and non-managerial positions	14	6,0	
Offering wages that surpass the minimum standards mandated by the government	12	5,1	
Engaging in initiatives aimed at conserving energy	13	5,5	
Participating in initiatives to reduce, recycle, and reuse materials within the office	21	8,9	
Procuring goods and services locally	16	6,8	
Purchasing environmentally friendly products	18	7,7	
Cultivating mutually beneficial business relationships with local communities	18	7,7	
Contributing to community projects, encompassing both tourism-related and non-tourism-related endeavours	14	6,0	
Supporting wildlife conservation efforts in destinations offered by the company.	11	4,7	
Providing guidance to customers regarding local activities available at their destination	13	5,5	
Establishing strategic partnerships with suppliers to advance sustainable tourism objectives	20	8,5	

Note: Multiple choice was allowed.

According to the low percentage of the integration of sustainable tourism, three critical obstacles were considered for the implementation of sustainable tourism practices in the professional activities. First, the awareness of deep understanding in the sustainable tourism sector of stakeholders (e.g. local community, services unit, staff, related institutions) remained low. Consequently, the local community was not well supported for cooperation in the implementation of the concept of sustainable tourism because they are not sensitive to this matter of sustainability yet. Second, there was limited funding for implementation of sustainable development in the tourism sector which included the implementation of such sustainable activities. Third, human resources were insufficiently equipped with skills and knowledge of the concept of sustainable development in tourism. As a result, necessary information was not fully reached to target stakeholders at all the levels of the tourism sector. In addition to this, existing regulation and policy were not fully responsive to comprehensive implementation in the tourism sector.

Considering necessary training on sustainable tourism, it was found that the training was available for tourism and hospitality stakeholders in Lao PDR. As shown in Table 8, most respondents (74,1%) answered that the training was available. Nearly half (46,3%) responded that they received this training, as illustrated in Table 9. Still, more training is needed, and it should be made accessible to stakeholders in both onsite and online modes to raise awareness about sustainable tourism.

Table 8: Necessary training available on sustainable tourism practices (N=54)

Necessary training available on sustainable tourism practices		Percent
yes	40	74,1
No	4	7,4
l don't know	10	18,5
Total	54	100

Table 9: Received training on sustainable tourism (N=54)

Received training on sustainable tourism	n	Percent
No	29	53,7
Yes	25	46,3
Total	54	100

Those who responded having received the training on sustainable tourism, joined training either locally or internationally, conducted by the government and NGOs. The training workshops mainly covered the concept of sustainable tourism. In terms of training areas received, they included basic knowledge about green tourism, green hotel standards, energy management according to standards, and encouraging and promoting local skills and products; cognitive behavioural therapy; heritage national sustainable tourism; long lasting Laos conducting; save energy, stop using plastic, wastewater

treatment; smart and sustainable tourism development and business outreach; training on sustainability tourism; enhancing knowledge and practise for a better future; food safety; waste management to enter the zero waste process; people-participation tourism sub-activities welcoming tourists, homestay, cooking, local tour guide training; the development of tourism by the people involved and the reception department in the hotel; the conservation of trees and forest; being a good host for a homestay; the standards of guest houses and hotels for the ASEAN; unity, participation, cultural identity of the village, city, province, locality; clean rivers, healthy people. Besides this, in the curriculum of each institution in the tourism sector, there is a subject of conservation and sustainable tourism which has included these concepts already.

Based on responses from the participants who work for higher education institutions, two factors were deemed to be significantly essential for the successful development of curricula in sustainable tourism in the institution. They included efficient administration (21,4%) and community engagement (17,9%), as shown in Table 10.

Table 10: Factors for the successful development of curricula in sustainable tourism in higher education institutions

Factors for the successful development of curriculum in sustainable tourism in higher education institutions		Percent
Internationalisation	2	7,1
Efficient Administration	6	21,4
High-Level Professors	3	10,7
Industry Linkages	3	10,7
Innovation and Technology	2	7,1
Community Engagement	5	17,9
Student-Centred Learning	1	3,6
Continuous Improvement	3	10,7
New Teaching Methods and Approaches	3	10,7
Total	28	100

#### 3.3. Digital skills

Overall, digital skills were deemed necessary in the tourism and hospitality industry in Lao PDR. According to Table 11, nearly two-thirds (63%) responded that digital skills were completely necessary in the tourism and hospitality industry. This implied that there is potential for digitalisation in this industry to ensure international competitiveness and sustainability in the digital era.

Table 11: Necessary of Digital skills in the tourism and hospitality industry (N=54)

Necessary of Digital skills in the tourism and hospitality industry		Percent
Neutral	4	7,4
Necessary	16	29,6
Completely necessary	34	63,0
Total	54	100

The respondents were further asked to identify digital skills required for their professional activities. According to Table 12, the top five professional activities necessarily required digital skills were identified. They included browsing, searching and filtering data, information and digital content (11,9%), sharing through digital technologies (7,5%), managing data, information, and digital content (7,2%), collaborating through digital technology (6%), and evaluating data, information, and digital content. However, managing digital identity and identifying digital competence gaps were found to be least necessary, accounted for only 2.1%, as seen in Table 12.

Table 12: Necessary digital skills for the professional activities

Necessary digital skills for the professional activities	Frequency	Percent
Browsing, searching and filtering data, information and digital content	40	11,9
Evaluating data, information, and digital content	18	5,4
Managing data, information, and digital content	24	7,2
Interacting through digital technologies	17	5,1
Sharing through digital technologies	25	7,5
Collaborating through digital technologies	20	6,0
Netiquette	10	3,0
Managing digital identity	9	2,7
Developing digital content	16	4,8
Integrating and re-elaborating digital content	17	5,1
Copyright and licences	13	3,9
Programming	15	4,5
Protecting devices	12	3,6
Protecting personal data and privacy	16	4,8
Solving technical problems	15	4,5
Identifying needs and technological responses	18	5,4
Creatively using digital technologies	13	3,9
Identifying digital competence gaps	7	2,1
Digital Intellectual Property	11	3,3
Digital skill for accounting and payments	19	5,7

Note: Multiple choice was allowed.

Based on the online survey, it was found that there were a variety of digital skills training is available in Lao PDR, as following:

- Access to online information
- Booking online
- Computer training
- Create application, website promotion
- Data collection
- Data management
- Database creation
- Develop booking website and payment online, content creation for tourism promotion
- Digital storytelling
- Government initiatives, online courses and platforms
- Hotel customer record for check in and check out
- IT, website, and social media
- Online meeting
- Online promotion
- Produce promotion
- OR code creation
- Selling and promotion
- Send email
- Sharing information
- Tourism information accessibility
- Using booking and payment online
- Using canvas
- Using programme for hotel
- Using programme POS
- Writing programme
- Information management, design, programming, and modern digital applications applied to today's work.
- Online tourism advertising
- Use of information management systems in hotels such as hotel reservation system, program check in, check out, program accounting system.

In addition, many respondents were found to have attended digital skill training, as accounted for 44,4% (see Table 13).

Table 13: Have you attend lectures to develop your digital skills (N=54)

Have you attended lectures to develop your digital skills	n	Percent
Yes	24	44.44
No	30	55.56
Total	54	100

Various obstacles regarding the acquisition of digital skills in the tourism and hospitality workforce were pointed out in the online survey. They are summarised as follows:

Table 14: Key obstacles for acquisition of digital skills in tourism and hospitality workforce

WOLKIOICE	
Theme	Description
Training and Skills	<ul> <li>Short training duration with delayed application in work</li> <li>Advanced techniques not suitable for professional life.</li> <li>Technology and skills become obsolete quickly</li> <li>Lack of basic knowledge and training opportunities</li> <li>No opportunities or time to learn.</li> </ul>
Technology Infrastructure and Resources	<ul> <li>Inconvenient travel for training</li> <li>Unstable Internet connectivity and slow speeds         <ul> <li>Electricity problems</li> </ul> </li> <li>Limited access to technology and infrastructure.         <ul> <li>Lack of modern equipment and IT plans</li> <li>Lack of tools and equipment</li> </ul> </li> <li>Limited content in Lao language and outdated information         <ul> <li>Slow and limited Internet signals in some areas</li> </ul> </li> <li>Internet booking and computer education not yet developed</li> </ul>
Human Resources	<ul> <li>Lack of knowledgeable advisors and skilled instructors</li> <li>Lack of cooperation among staff</li> <li>New staff unfamiliar with systems</li> <li>Limited digital literacy and language barriers</li> <li>Lack of teachers</li> <li>New staff lack experience with hotel program systems</li> </ul>
Financial Constraint	<ul> <li>Lack of budget for training and equipment</li> <li>Lack of fund and incentive for training</li> <li>Limited access to social media, advertising, and travel information</li> <li>Expensive software with few staff able to manage programs</li> </ul>

#### 3.4. (Entrepreneurship & Management skills)

Table 15 shows that respondents are aware of the entrepreneurship and management skills for the hospitality and tourism workforce in Lao PDR. The study indicated the top five skills related to entrepreneurship and management, including creativity (8,3%), spotting opportunities (7.5%), ethical & sustainable thinking (7.0%), planning & management (7.3%), and having a vision (6.3%).

Table 15: Awareness of entrepreneurship and management skills

Entrepreneurship and management skills	Frequency	Percent
Spotting opportunities	30	7.5
Creativity	33	8.3
Vision	27	6.8
Valuing ideas	17	4.3
Ethical & sustainable thinking	28	7.0
Self-awareness & self-efficacy	16	4.0

Motivation & perseverance	22	5.5
·		
Mobilising resources	17	4.3
Financial & economic literacy	21	5.3
Mobilising others	17	4.3
Taking initiative	20	5.0
Planning & management	29	7.3
Coping with uncertainty, ambiguity, and risk	14	3.5
Working with others	25	6.3
Learning through experience	18	4.5
Analytical and problem-solving skills	22	5.5
Time-management skills	18	4.5
Customer service skills	25	6.3

According to Table 16, most respondents shared that the tourism & hospitality workforce in Lao PDR possessed entrepreneurial and management skills. In particular, 57.4% for the participants were found to have some extent, while only 31.5% were confident to say that they have skills in entrepreneurship and management. Besides, nearly three-fourths of respondents said that the tourism & hospitality workforce in Lao PDR received proper training to enhance their entrepreneurship & management skills.

Table 16: Entrepreneurial and management skills of tourism and hospitality workforce (N=54)

	Frequency (n (%))			
Question	Yes	No	I don't know	To some extent
In your opinion, does the tourism & hospitality workforce in your country possess entrepreneurial and management skills?	17 (31.5)	4 (7.4)	2 (3.7)	31 (57.4)
Does the tourism & hospitality workforce in your country receive proper training to enhance their entrepreneurship & management skills?	39 (72.2)	8 (14.8)	7 (13)	0 (0)

When asked to explain why entrepreneurship and management skills should be taught and acquired at university, respondents generally gave similar reasons. In their opinion, entrepreneurship and management skills are essential for the workforce in the hospitality and tourism industry, which should be equipped before starting their career. It is essential for students' entrepreneurship and management skills to be developed and nurtured in a more learning-focused environment and well-designed learning system at the university. In addition, teaching and learning offered by the university can be collaborated between the university and industry through work integrated learning and internship. Training students with entrepreneurship and management skills will enable graduates more career advancement and enhance life-long learning.

Regarding the findings of the online survey, a key obstacle that might impede the acquisition and/or enhancement of the tourism and hospitality workforce's entrepreneurship and management skills was the lack of opportunity to train. Also, training was not yet adequate and appropriate. Additionally, there is a lack of appropriate budget; if they want to train, they have to be self-supported for learning and their time available.

Furthermore, 83.3% of the participants recommended that entrepreneurship and management skills should be taught and acquired at university level, as shown in Table 17. Therefore, it is important to take this into account.

Table 17: Should entrepreneurship and management skills be taught and acquired at university (N=54)

Should entrepreneurship and management skills be taught and acquired at university	n	Percent
Yes	45	83.3
No	4	7.4
I don't know	5	9.3
Total	54	100

#### 3.5. Green skills

Overall, green skills were deemed necessary at a highest level  $(\overline{X}$ =4.44) in the tourism and hospitality industry in Lao PDR. According to Table 18, more than 90% of respondents agreed that green skills were important in the tourism and hospitality industry. This implied that most of the respondents see the importance of green skills, it may be because in Lao PDR there has been dissemination that links environmental action to the global development agenda. However, they still faced challenges in continuing to upgrade the green skills of the Lao workforce and entrepreneurs in the tourism and hospitality business sectors.

Table 18: The Importance of Green Skills for the tourism & hospitality industry (N=54)

n	Percent
1	1.9
2	3.7
22	40.7
29	53.7
1	1.9
54	100
	<del>X</del> =4.44
	1 2 22 29 1

Data analysis on how much the tourism & hospitality workforce in Lao PDR possess green skills is presented in Table 19. More than half of the respondents (51.9%) believe, but only to a small extent, that the hospitality and tourism workforce in Lao PDR

possess green skills. About 33.33% of respondents firmly believe that the workforce has acquired the required green skills, and only 7.4% of respondents confirm that the workforce does not possess sufficient necessary green skills.

Table 19: Belief in tourism and hospitality workforce possessing green skills (N=54)

Do you believe that the tourism & hospitality workforce in your country possesses green skills?	n	Percent
Yes	18	33.3
No	4	7.4
To some extent	28	51.9
I don't know	4	7.4
Total	54	100

Table 20 shows that about 61.11% of respondents confirm that the hospitality and tourism workforce in Laos have received sufficient training on green skills. However, a minority of respondents (9.25%) believe that the workforce does not receive adequate training to develop green skills, while 27.77% of the respondents have no information to make a conclusion on this issue. This implies that the Lao workforce has received training to acquire and/or enhance its green skills to some extent, but they might not be clear yet. This requires the government to repeatedly remind the workforce and entrepreneurs who are involved in the tourism and hospitality business to contribute to better sustainable tourism development.

Table 20: Training to acquire and/or enhance its green skills (N=54)

Does the tourism & hospitality workforce in your country receive training to acquire and/or enhance its green skills?	n	Percent
Yes	33	61.1
No	6	11.1
I don't know	15	27.8
Total	54	100

Although most of the respondents see the importance of green skills, the data analysis results revealed that about (55.6%) of the respondents responded "I don't know". Less than half of respondents (42.5%) agreed that the skills should be taught at universities and/or once someone has entered the tourism and hospitality workforce.

Table 21: Perception of green to be taught at university (N=54)

Do you think green skills should be taught at university level or once someone has entered the tourism & hospitality workforce?	n	Percent
At university level After entering the labour market/Lifelong	23	42.5
	1	1.9
Both	30	55.6
Total	54	100

# 4. Results from the semi-structured interviews in Lao PDR

This section is devoted to describing key findings from semi-structured interviews with 11 stakeholders. The analysis focused on the current situation of the hospitality and tourism industry, skills gaps, and demands in the tourism and hospitality workforce in terms of sustainability, digital, and soft skills in the industry.

#### 4.1. Number & profile of interviewees

In the qualitative part, 11 key stakeholders from governmental agencies, private enterprises, and higher education institutions were invited to participate in this study and joined semi-structured interviews. Purposive and snowball sampling techniques were used to recruit the participants. Two selection criteria were applied: (1) having at least five years of work experience in education, hospitality, and tourism industries, and (2) currently engaging with the hospitality and tourism industry in Lao PDR. Before the interviews, the study purpose was explained and participants were asked to sign the consent form. Of this group, only two informants agreed to be audiotaped, which were later transcribed for data analysis, while the rest did not consent to doing so. In addition to the interview data, notes from the panel discussion among entrepreneurs, academics and representatives from the government agency and NGOs, on tourism and hospitality workforce development were also included in this analysis. The data was analysed manually by identifying themes and key issues derived from the data. The profile of the interviewees is presented in Table 22.

Table 22: Number and interviewee profile (N=11)

- 00000	able 22: Namber and interviewee profite (N 11)				
No.	Gender	Years of work experience in the tourism industry (Year)	Occupation	Location	
1	Male	18	Tourism and Hotel Curriculum Developer	Vientiane	
2	Male	5	General Manager of Hotel	Vientiane	
3	Male	40	Adviser for Hotel Business Operator	Vientiane	
4	Male	12	Company Manager	Vientiane	
5	Male	30	TVET Expert	Vientiane	
6	Female	18	Foods and Beverages Manager of Restaurant	Savannakhet	
7	Male	20	Head of Information, Cultural and Tourism Office	Savannakhet	
8	Female	12	Academic Staff of Information, Cultural and Tourism Department	Savannakhet	
9	Male	32	Director of Tours Company	Savannakhet	
10	Male	19	Director of Travel Company	Savannakhet	

## 4.2. Current situation of the hospitality & tourism industry and workforce in Lao PDR

The current tourism situation in Lao PDR has made good progress compared to the last decades, because the infrastructure has developed, particularly the railway transportation connected to China. Recently, the Vientiane capital was connected to the main tourist sites in Northern Lao PDR, namely Vangvieng, Luangprabang City, Luangnamtha, and Oudomxay. This development made tourism and hospitality in Lao PDR improve quite fast. In Savannakhet province, there is a friendship bridge connecting Mukdahan, Thailand, and Laobao, Vietnam. Meanwhile, the road connecting Vientiane to Savannakhet is under reconstruction, making the tourism atmosphere in the province quiet.

"It is a very good position for the tourism industry of Laos now. Before, it was very challenging; the most difficult one was accessibility to the cities, provinces, and tourist areas. Now, many weak points are solved, especially the biggest one is the new mode of transportation such as railway, plus air transportation, for example, Sam Nua (a city in Northern Lao) had very limited tourists before. Now there is an airline to help with these logistics. This is considered to unlock this problem."

The hospitality and tourism industry in Lao PDR has many strengths and weaknesses. In terms of strengths, the interviews highlighted that the unique cultural, historical, and natural tourism resources were the strength of the industry in the country. The Lao government also had a clear sustainable tourism development policy and green growth strategy.

"In Lao, the weather is hot for 4 seasons; it is considered to be a strong point to attract tourists. The most impressive thing here is the people, they look very peaceful, which has a good potential to serve guests. Ah, hospitality because as you know peaceful means much more comfortable to take the guests. It links automatically and naturally with hospitality to serve the guests better than in other countries."

"Strength? Um, the policy is clear, the second point is that we have many natural, historical, and cultural tourism resources, especially cultural resources, yes, there are two things."

However, weakness persisted in the Lao hospitality and tourism industry. Particularly, Lao PDR has not yet fully developed its potential in terms of tourism resources, due to

the lack of knowledge and experience in managing the tourism industry. Despite the basic infrastructure being developed to a certain level, especially international transportation, such as the development of many international airports, the development of the Lao-China railway, and four friendship bridges between Thailand and Lao PDR. Domestic transportation has not yet been developed, which makes access to tourism destinations difficult. In terms of services, most services in tourist destinations were found to be more family-oriented. This results in the employment and management of tourism businesses and services not being very systematic, except for the famous tourist destinations with foreign investment, such as Vientiane and Luangprabang. Another weakness was that the implementation of sustainable tourism policy remained not comprehensive due to the lack of a clear understanding of the term "sustainable". This is because most people understand that the term "sustainable" only means sustainability of natural resources and the environment, which does not include economic, cultural, and heritage sustainability.

Furthermore, more natural and environmental resources were used for tourism. Environmental sustainability is likely to decrease; this is not caused by tourism activities alone, but also includes the use of resources for the development of various mining industries. All of that is caused by the incomprehensive use of the term "sustainable".

"The word "sustainable" is difficult to answer. Many people still do not understand it. They understand only natural sustainability. In fact, it means more than that, there are still people's sustainability, economic sustainability, and other things. I can say that we still have not understood the term sustainable yet."

Creating an experience for tourists is possible to a certain extent, especially in terms of being friendly and hospitable. However, regarding the records of the number of international tourists visiting Lao PDR, most of them visited for the first time, while a small number of tourists re-visited Lao PDR. This reflects that creating a tourist experience in Lao PDR might not be good enough. This was explained by one of the interviewees:

"Honestly, the tourist experience is still not very good, because if we look at the numbers of international tourists visiting Lao PDR, they are mostly for the first time."

Addressing this problem requires specialised training at every level. Most informants expressed that Lao workforces in the tourism and hospitality industry were trained at a certain level, particularly in the hotel sector. This finding reflected the fact that Lao PDR has developed a total of twenty-six technical vocational training courses countrywide aiming to train human resources for the tourism and hospitality industry nationwide. At the university level, tourism and hospitality courses have also been developed. In addition, there was technical and financial assistance from international organisations

in providing short-term training for the Lao workforce such as the Lao National Institute of Tourism and Hospitality. This was explained by one of the interviewees:

"I think the human resource development in Laos has been done according to the system, if we compare this development to levels from A to C, we get level B, but we can't get level A."

However, if compared to the ratio, it perhaps accounts for about 30% of the workforce in the tourism and hospitality industry that has undergone training. Most of the workforce has received training work in Vientiane, Luangprabang, and in some provinces where the tourist sites were invested by foreigners. This was explained by one of the interviewees:

"I think about 30% of the workforce have received the training. For example, a restaurant will require people to go through training, maybe it's not a regular course, it is maybe training at the workplace or a short course training before working in the restaurant. Ah, for instance, drivers, they were trained...."

The rest of the workforce was considered unskilled, especially in other provinces including Savannakhet. Therefore, the necessary training for the Lao workforce in the tourism & hospitality sector is required for workforce and business operators, especially business owners. This is because they are key people who use the workforce; they might understand how to select the workforce and manage it better. In terms of skills demand, the necessary skills for the Lao workforce include foreign language skills, communication skills, and tourism business management skills.

"The owner of the tourism company should be upgraded in management. To become the owner of a tourism business or hotel owner, it is not enough to know only foreign languages. Most of the hotel owners in Lao are people who have money to set up a restaurant, hotel, or guest house. They rarely go through any training. The managers as well, only know Chinese, English, and French, they can become hotel managers without having gone through anything."

#### 4.3. Sustainable tourism skills

Despite the Lao government's efforts to promote sustainable tourism development through green growth strategies, including the Lao green hotel, and green tourism city standards, there remains a lack of clarity regarding sustainable tourism among tourism and hospitality business operators and local residents in Vientiane capital and Savannakhet province. Often, the focus is on natural sustainability, overlooking important aspects related to social, economic, and cultural sustainability. This was explained by one of the interviewees:

"As I already mentioned, the term "sustainable" is difficult to define. Most Lao people think of only natural sustainability. But what about community sustainability, economic sustainability, heritage, and other things? We don't think about these. For instance, in Naduang Homestay, local people just think about how to bring tourists to stay at home to get money, that is."

"Sustainable tourism in our country is mostly born from the habits of the Lao people. Later on, we brought the academic principle of sustainable tourism into tourism development. For example, for a long time, the local people in the village used banana leaves and bamboo, and they didn't use plastic at all, when tourist sites exist, it causes more consumption. Then there is a lot of talk about sustainability, which is different from many countries because tourism sites developed first, oh! Now it is not sustainable. It will affect this, and that, and then they start thinking about sustainability later."

The adoption of sustainable tourism practices in Lao PDR faces several challenges. First, there is a limited awareness among entrepreneurs, and local people in the host destinations. Second, while there are measures in place to recognise those who implement sustainability criteria, such as awarding outstanding entrepreneurs, there are no effective punishment measures for those who harm the sustainability of tourist attractions. Third, the promotion of investment in hydropower, mining, and industrial crops also impacts the sustainability of tourism site development due to overlapping land use planning and the absence of a robust system.

Although Lao PDR has many limitations in adopting sustainable development practices, some informants still believe that it could be achieved if it is taken seriously. This is because the tourism industry in Lao PDR is still in its early stage of development. Also, many natural resources and attractive sites have not yet been fully developed into a tourist destination that provides full service to visitors. For example, one informant explained:

"Our country still has this potential, if there is expertise and good and appropriate regulations, that means we will not apply American concepts. It means that those who research in this area, if they comprehend it well, the sustainability of our country is higher than other places because it's slow. The good point is that the development is slow. Due to its slowness, there is time to check what is wrong and what is right and learn from others."

Preparing the tourism workforce of Lao PDR for the transition to sustainable tourism presents a landscape of strengths and challenges. In terms of challenges, there is a lack of awareness of sustainability concepts among Lao entrepreneurs and local people. Moreover, some tourism officers are also less aware of this concept, which creates gaps in translating Sustainable Development Goals knowledge into practical application. This finding implies that comprehensive training programmes are essential to address such gaps. Many individuals do not fully understand the benefits of sustainable practices, particularly in terms of community sustainability, social-cultural preservation, traditional heritage, environmental impacts, and businesses. Thus, in-depth training programmes on topics, such as the benefit of community participation in the tourism

business, and other topics related to the environment, namely energy conservation and waste management, are crucial. Another barrier to adopting sustainable tourism development practices is the absence of effective punishment measures for tourism firms that create any actions harming tourist attractions. Practical actions are needed to address this issue. Meanwhile, land use management should be a key consideration in sustainable tourism development planning in Lao PDR.

#### 4.4. Entrepreneurship, Management, & Soft skills

Business entrepreneurship is considered new in Lao PDR. It has gradually been introduced as a teaching subject in private schools and some fields in public colleges and universities. It is very necessary to maintain the entrepreneurial spirit. Interviewees highlighted that the Lao government should establish clear policies for entrepreneurship education, ensuring consistency across the country. Furthermore, the policymakers have to be experts in tourism and hospitality management to create a mechanism to support the entrepreneurs in effectively operating and managing their businesses in a sustainable manner.

"The entrepreneurs have helped us a lot in developing human resources, but the mechanism of working together between entrepreneurs and the university still does not go the same way. We should organise a seminar with them and invite them to be guest speakers. Do it gradually. Start this way first. Most of them now don't care about sustainability. As you can see the restaurants open for a period and run out of business and the travel companies as well because they can't continue their business"

"The central policymakers should not write policies without academic knowledge and should research from real data, and they must have expertise. Should not base on unusable statistics that we call drawing statistics. In the past, the policymakers would like to make it best, but due to the readiness, our expertise is still low and not considered comprehensively."

Analysis of interview data highlighted the significance of soft skills for the tourism and hospitality workforce. It is because services mean creating a good atmosphere to comfort the clients who come to use our services. While soft skills are intangible and not easily understood, interviewees believed they could be developed with time and training. Still, although entrepreneurs recognize the importance of soft skills, they have not emphasised training for their employees in this area.

"The matter of this service must be from the heart, so it reflects emotional skills. I would say it is about the atmosphere, this is the most important thing in the work. The team will be able to move on or not, it is because of a good atmosphere in working. All the skills that I circled on the question sheet can

create a good atmosphere. In conclusion, the workforce must have the skills to create a good atmosphere."

"According to my understanding, according to my experience, I may give it less importance. This is important for middle and high-level managers. I have used soft skills many times with employees, but it doesn't work because the education of the Lao workforce or human resources is still low. For example, some employees just finished grade 5 (primary school) and grade 8 (lower secondary school). If we emphasise soft skills, they seem intangible. They least understand these skills. I have tried many times but I don't see how it will help. For middle-high level managers, this is very important for them."

Overall, entrepreneurship skills and soft skills are crucial for Lao workers. Developing these skills takes time, especially in the case of entrepreneurship. Soft skills, although they are intangible, could be improved through practice. The public sector and high-level business executives must prioritise promoting these skill sets for both Lao workers and business owners through regular and continuous training.

#### 4.5. Digital skills

Digital skills are crucial for workforces, entrepreneurs, and middle and high-level managers in the tourism and hospitality sector. This is because many countries have already made significant advancements in areas, such as hotel reservations, airline tickets, digital payments. In addition, the workforce serves not only domestic clients but also international clients who speak different languages and use digital platforms for booking and arranging their travel plans.

"Yes, it is very important, for example, I wrote this by hand. You guys won't understand what it is. But sometimes we cannot recognize each other, and we need to unify the worksheet, and PowerPoint for the work proceeding and work on the computer. So, I want to emphasise more on digital skills. We mean 2024, we need this skill. We will not work with only Laotian, but we will work with people around the world, not only Chinese or English languages will be used, but we will also use various languages. How can I communicate with them? So, digital skill is needed."

"Oh, it is very important, everything goes to the E-market, online. The Lao workforce must learn. It is helpful, especially for reducing the advertisement cost."

Although the Lao government and entrepreneurs have tried to use digital technology to develop their businesses and work, there are still many hindrances preventing Lao PDR from adopting digital skills. This is because of lacking knowledge of digital use, financial

constraints, and reluctance to invest in digital technology. Furthermore, a policy to promote the use of digital technology is not yet available.

"This one is very necessary for personnel, we must understand, must learn it because it is necessary. But how to learn is the point. The manager or the director, the owner of the business still doesn't know that it is necessary to use it, how can the employee know, how do they have the opportunity to know? I will not talk only about others but myself as well. There is still a problem for me as well. Because we think it's a big investment but has little return. We think like that. It's an old idea. On the contrary, if we invest in digital technology, it can minimise our costs."

An additional challenge of adopting digital technology is language barriers. Informants are required for instruction in Lao or Thai and practical applications tailored to diverse linguistic backgrounds.

"Language is very important if you are going to use digital technology. For example, using a computer. If you really want to know, the staff should not just listen to the teaching of bosses. The staff must spend time studying, searching to absorb knowledge by themselves. To do so, then language is necessary for learning."

Overall, respondents recognised the importance of digital skills, focusing on specific aspects such as direct marketing. Yet, they highlighted various constraints hindering the adoption of digital technology in the tourism, hospitality, and service sectors of the Lao PDR. That includes insufficient knowledge, budget constraints, reluctance and hesitating to invest in digital technology, and language barriers.

#### 4.6. Strategies & recommendations

To develop the human resources effectively in terms of skills needed to be adopted in sustainable tourism development and be able to supply to the tourism and hospitality market qualitatively and sufficiently, there are strategies required at both macro and micro levels to strengthen the hospitality and tourism sector in Lao PDR.

On the macro level, there is a need to restructure government policies and regulations in order to build confidence and provide direction for sustainable tourism development to tourism business entrepreneurs, and establishing security protection systems and implementing frameworks for the use of digital technology within the public sector are also inquired. A key informant mentioned:

"Many tourism business operators hesitate to adopt digital technology in their business management because they are not confident about the security of digital usage, will protect their security or not, so the Lao government should have a clear regulation to protect us."

In addition, fostering collaboration among the public and private sector, and educational institutions is inquired. Most respondents expressed that:

"Actually, our business has no curriculum, we cannot do that, we are the best users of the workforce produced by educational institutions. What our business sector can do is create economic activities in the community that can create jobs, promote employment, and generate income for residents. Of course, we can provide short course training in very necessary skills for staff where the employment emerged, but creating quality human resources should be done by educational sectors"

"The collaboration among the education sectors (universities) and private sector is not only about students-internships, but we need experts from universities to conduct research like R&D, to understand what the private sector is doing, and what labour skills are needed. In the meantime, universities and the public sector can also inform the direction of tourism development to the private sector. We know how to plan our one-year, or two-year business plans, but we don't really know what the Lao government's direction of tourism development goal is, so we should cooperate in such a way. It might help."

On the micro level, workforce development was crucial, particularly focusing on hospitality management knowledge for middle and high-level tourism managers. Soft skills, green practices, digital literacy, and language proficiency should be emphasised in order to minimise the gap in knowledge and skills that the workforce learns from universities or colleges and what knowledge and skills they would challenge in the workplaces less. One of the respondents mentioned that:

"From my experience as a collaborating mediator between the public sector and private sector, we have three skills development programmes for tourism: 1) provide short training (3 months, 6 months or a year course) for new graduate students from high school to help them get employed, 2) provide labour training to those already in the labour market, especially after the covid-19 pandemic, and 3) support collaboration among technical vocational training colleges and the private sector. The collaboration is categorised into three levels: 1) between Hotel and College, 2) between Hotel and Teachers, 3) between the Hotel and the students. This collaboration could help reduce the gap between human resources development and labour market demand."

Furthermore, creating information sources for tourism development planning would help both government and private sectors to use data for human resources development plans under the sustainable tourism development goal more easily. "In addition to knowledge, there is also management. Development lacks information: the development of human resources must have data. For example, the development of tourism resources must collect data such as what kind of product, what kind of operation, what kind of model, who is involved, what can they do, do it like Thailand (BCG) Bio-Circular-Green Economic Model."

Additionally, creating a joint business network among business sectors to support each other for sustainability and stability and sharing equitable benefits are also recommended.

"Among entrepreneurs themselves, a tourism network should be built. Look at China as a model; even if they are photographers, they have a network. I also want the university to work together with entrepreneurs and the Ministry of Information, Culture and Tourism."

"First of all, I would say about the infrastructure, but the infrastructure is not related to human resources, right? However, the basic infrastructure for the tourism industry is still important, in addition, technology is also important. Previously I talked about the workforce upgrade on skills and knowledge at many levels."

In summary, the government plays a crucial role in promoting and supporting the adoption of sustainable concepts, soft skills, green skills, and digital skills to enable the development of the tourism and hospitality industry in Lao PDR. This support is to align with the three pillars of sustainable development. To achieve this, the government should establish effective mechanisms, policies, and management frameworks supporting entrepreneurs, and local people to manage and operate tourism destinations sustainably. Additionally, we should improve the system of collaboration among the public, private, and educational sectors. The private sector should invest in developing human resources with the necessary skills for sustainable tourism operations and should invest in digital technology to improve the tourism market share.

#### 5. Conclusions

The Lao government has demonstrated awareness of sustainable tourism since its introduction in 1999. Over time, various policy documents, strategies, and initiatives have been established. Notably, the Lao Ministry of Information, Culture, and Tourism adopted the Lao National Tourism Strategy 2016-2020. Despite these efforts, there remain skill gaps and demands within the Lao labour market.

Employers in Lao PDR seek graduates who possess a blend of cognitive and non-cognitive skills. These skills include proficiency in foreign languages, ICT,

communication, customer service, teamwork, problem-solving, adaptability, independence, and punctuality. Possession of these skills could enable the workforce to contribute to developing sustainable tourism and digitalise this industry to ensure competitiveness and sustainability in today's digital era.

Findings suggest that respondents in Lao PDR were moderately aware of sustainable tourism, but the industry's development still falls short of sustainability goals. Despite a lack of awareness of sustainable tourism, they engage with sustainable tourism practices to varying extents, such as adhering to governmental regulations and participating in recycling and reuse initiatives. Participants also received sustainable tourism plays a crucial role in enhancing awareness and implementation of sustainable development.

In addition to this, digital skills were found to be a major concern in the Lao workforce in the hospitality and tourism industry. Proficiency in digital technologies, information management, and collaboration are essential for professional success. However, various constraints are hindering the adoption of digital technology in tourism and hospitality in Lao PDR: (1) insufficient knowledge, (2) budget constraints, (3) reluctance and hesitancy to invest in digital technology, (4) language barriers, and (5) protection laws are not yet clear, while protective devices are not yet available.

Furthermore, entrepreneurship and other soft skills, such as problem-solving and effective planning, are vital not only for domestic but also for international clients. The majority of interviewees perceived that the soft skills of the Lao workforce were being humble and friendly. This makes Laos unique and charming. However, some soft skills are still insufficient, particularly service-minded or ethics, communication skills or negotiation skills, leadership skills, problem-solving and effective planning, and time management.

Last but not least, it was suggested that the government still plays a crucial role in promoting and supporting the adoption of sustainable concepts, soft skills, green skills, and digital skills to enable the development of the tourism and hospitality industry in Lao PDR. Finally, collaboration among the public sector, entrepreneurs, and educational sectors is the best way to adopt those skills.

#### 6. Recommendations

The following set of recommendations can be considered for the implementation of this project in the hospitality and tourism sector in Lao PDR as a whole:

- 1. Findings from the literature review suggest that there is a lack of continuity in tourism policy and strategic formulation and improvement, particularly about the question of sustainability. Tourism policies and strategies should be improved to reflect the materialisation of sustainable practices in the sector. Tourism policy and strategic plan development processes should be research-oriented and take into account both public and private sector perspectives.
- 2. Findings from the survey and expert interviews indicate that awareness of sustainable tourism practices remains low among the public and the private sector. Additional awareness raising on sustainable tourism practices should be

- developed, to ensure that key hospital and tourism stakeholders have a clear understanding of sustainable tourism concepts and practices. Capacity development programmes should be developed for both the public and the private sector. As far as the private sector is concerned, the capacity development activities should focus on the middle and top management, as they are the key drivers of sustainable practices in the industry.
- 3. The quality of hospitality and tourism education remains low in Laos. Strong efforts should be made to improve education quality by providing additional support to ICT infrastructure development; upskilling and reskilling digital competency among personnel working in the hospitality and tourism educational institutions at the vocational and technical education and higher education levels.
- 4. The Lao hospitality and tourism workforce has technical knowledge and skills to some extent. Also, in general, the Lao workforce is honest and humble by nature. However, research suggests that there is a need to develop soft skills such as service-mindedness, communication skills (e.g., online and face-to-face), negotiation, and leadership skills, which are increasingly required by the hospitality and tourism businesses.
- 5. Several frameworks for green employment are available in Laos. However, the awareness of its potential is still limited. Awareness of green skills and capacity development activities should be provided to both the public and the private sector.
- 6. Finally, the collaboration between the public and the private sectors on human resources development in terms of sustainable tourism practices, digital skills, green employment, and soft skills should be strongly promoted to ensure the sustainability of the Lao tourism sector.

#### 7. References

- Harrison, D., & Schipani, S. (2007). Lao Tourism and Poverty Alleviation:

  Community-based Tourism and the Private Sector. *Current Issues in Tourism*, 10(2–3), 194-230.
- International Labour Organization (ILO). (2019). Preparing for the Future of Works: National policy responses in ASEAN+6. ILO.
- International Labour Organization (ILO). (2021). Regional Study on Green Jobs Policy Readiness in ASEAN. ILO.
- Lao PDR. (2018). National Green Growth Strategy of the Lao PDR till 2030. Prime Minister Office.

- Ministry of Agriculture and Forestry (MAF). (2021). *Green and Sustainable Agriculture Framework for Lao PDR to 2030*. MAF.
- Ministry of Labor and Social Welfare (MLSW). (2019). *Labor Market Forecasting* 2019-2022. MLSW.
- Onphandala, P., Philavong, V., & Sengkhamkhoutlavong, B. (2020). Career decision and readiness in undergraduate students of Lao PDR. *Journal of Nusantara Studies*, 5(1), 1–26.
- Tourism Development Department. (2018). 2018 Statistical Report on Tourism in Laos.

  Ministry of Information, Culture and Tourism.
- Tourism Development Department. (2023). *Lao Tourism Statistical Report 2022*. Ministry of Information, Culture and Tourism.
- United Nations Development Programme. (2022). Digital Maturity Assessment Lao PDR: Supporting digital government transformation. UNDP Lao PDR.
- World Bank. (2013). Skills for quality jobs and development in Lao PDR: A technical assessment of the current context. World Bank Group.
- World Bank. (2022). LAO PDR ECONOMIC MONITOR Tackling Macroeconomic Vulnerabilities. World Bank Group.
- World Bank. (2023). Lao PDR Economic Monitor: Addressing Economic Uncertainty. World Bank Group.
- Yamano, T., Pradhananga, M., Schipani, S., Samson, J. N., Quiao, L., Leuangkhamsing, S., & Maddawin, A. (2020). The Impact of COVID-19 on Tourism Enterprises in the Lao People's Democratic Republic: An Initial Assessment. Asian Development Bank. Retrieved from
  - https://www.adb.org/sites/default/files/publication/613466/impact-covid-19-tour ism-lao-pdr.pdf











#### symplexis







Prince of Songkla University (PSU) en.psu.ac.th

Chiang Mai University (CMU)
www.cmu.ac.th

National University Of Laos www.nuol.edu.laindex.php/en

Savannakhet University sku.edu.la

University Of Macedonia www.uom.gr/en

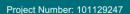
Symplexis symplexis.eu

Universita degli Studi di Palermo www.unipa.it/mobilita/en

CESIE cesie.org/en

Phuket Tourist Association www.phukettourist.com

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.





Co-funded by the European Unio