

EdTech in Lao People's Democratic Republic: A Rapid Scan

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Abbreviations and acronyms

ADB Asian Development Bank

ASEAN Association of Southeast Asian Nations

BEQUAL Basic Education Quality and Access in Lao PDR Program

DFAT Australian Department of Foreign Affairs and Trade

GDP Gross Domestic Product

GNI Gross National Income

GPE Global Partnership for Education

HDI Human Development Index

HEI Higher education institution

ICT Information and communications technology

ITU International Telecommunication Union

LESMIS Lao Education and Sports Management Information System

LDC Least Developed Country

LSIS Lao Social Indicator Survey

MOES Ministry of Education and Sports

OOSCY Out-of-School Children and Youth

PDR People's Democratic Republic

SEAMEO Southeast Asian Ministers of Education Organization

TVET Technical and Vocational Education and Training

UNEVOC International Centre for Technical and Vocational Education

and Training

VEDC Village Education Development Committee

WASH Water, Sanitation, and Hygiene

WTO World Trade Organization

1. About this scan

EdTech Hub country scans explore factors that enable and hinder the use of technology in education. This includes policies, government leadership, private-sector partnerships, and digital infrastructure for education. The scans are intended to be comprehensive but are by no means exhaustive. Nonetheless, we hope they will serve as a useful starting point for more in-depth discussions about opportunities and barriers in EdTech in specific countries, and in this case, Lao People's Democratic Republic (PDR) (hereafter referred to as 'Laos').

This report was originally written in February 2024. It is based primarily on desk research, with quality assurance provided by a country expert based at the Australian Council for Educational Research. Given how rapidly the educational technology landscape is evolving, EdTech Hub plans to provide periodic updates. Table 1 below provides a summary of the status of EdTech in Laos.

Table 1. Overview of EdTech in Laos

Policies	 After the government's decentralisation efforts, the Ministry of Education and Sports (MoES), the Provincial Education Services and the District Education Bureau jointly work on education policies. Education and Sports Sector Development Plan 2021–2025 (†MoES, 2020). Education and Sports Sector Development Plan 2016–2020 (†MoES, 2015).
Infrastructure	 The high cost of ICT relative to Gross National Income (GNI) and limited exposure to mass media create barriers to effective EdTech utilisation and ICT ecosystem development in Laos (†International Telecommunication Union (ITU), 2023). See also Section 5. Low levels of computer usage highlight lower ICT skills (†Lao Statistics Bureau, 2024) that may potentially challenge the development of digital learning. Laos ranks 109 out of 134 economies on the 2023 Network Readiness Index (†Portulans Institute, 2024). As of 2021, 95% of Laos's population is covered by a mobile-cellular network, and 72% of households have internet access at home (†ITU, 2023). Device ownership across households decreased from 2017 to 2023, with a notable decline in radio, television, and computer ownership. Mobile phone ownership is moderately high, with 80.8% of men and 79.3% of women owning a mobile phone as of 2023 (†Lao Statistics Bureau, 2018; 2024). Rural-to-urban technology gaps exist, with significantly lower device ownership rates in rural communities (†Runde et al., 2022). Internet usage remains relatively low, with 54.8% of women and 58.7% of men using the internet at least once a week as of 2023 (†Lao Statistics Bureau, 2024).
Partners and initiatives	 The EdTech landscape in Laos comprises various initiatives developed in partnerships with public agencies, private stakeholders, and international development partners in various capacities.

	 Multiple initiatives were developed in response to the challenges that emerged in the context of the Covid-19 pandemic. MoES's collaboration with public and private stakeholders produced multiple EdTech initiatives in Laos. See also Table 7.
Out-of-school children and youth (OOSCY)	 In 2022, Laos reported one of the highest numbers of out-of-school children in Southeast Asia—31,254 girls and 29,190 boys were out of primary school (*World Bank, 2024d). Significantly more girls than boys are out of school at the lower secondary level, indicating a trend of dropout after completing primary school (*UNESCO, 2017). Several factors contribute to the high dropout rates in Laos, including the incidence of child marriage, limited access to education in rural areas and by ethnic minorities, and child labour. See also Section 3.3.
Girls' education	 Laos ranked 120 out of 189 countries in the Gender Inequality Index in 2022 (†UNDP, 2022). Women's participation in political and economic decision-making remains unequal. Only 27.5% of parliamentary seats are held by women, and women are even less represented at subnational levels (†UN Women, no date). In education, there is a gender disparity in enrolment rates, particularly in rural areas, where only 77% of girls attend compared to 83% of boys (†Philipp, 2023). In terms of access to technology, as highlighted above, women have slightly less access to the internet and mobile phones than men. See also Section 4.

2. Country overview

Laos is a landlocked Southeast Asian country, classified as a lower-middle-income economy (†World Bank, 2024c). According to †World Bank, 2024d, it is home to a diverse population comprising approximately 7.5 million people across over 100 ethnic groups. Vientiane, the capital city, is the largest urban centre and serves as the country's political, economic, and cultural hub (†Britannica, 2024). As per †World Population Review (2024a), Vientiane's population is 737,750 people, whereas the rural population of Laos stands at 62% (†World Bank, 2024d).

Laos has a history influenced by cultural exchange and geopolitical forces, including colonisation by the French in the late 19th century, which led to socio-economic changes and resistance movements (*Ivarsson, 2008). The events of the 20th century, such as the Indochina Wars and the Vietnam War, had a significant impact on modern Laos, ultimately leading to its establishment in 1975 (*BBC, 2018).

2.1. Demographics

Laos's ethnic makeup is primarily categorised by geographic location. The three main ethnic categories are the Lao Loum (lowland Lao), Lao Theung (upland Lao), and Lao Soung (highland Lao) (†Britannica, 2024). Approximately 60% of the population consists of lowland peoples, who are mainly ethnic Lao and descended from migrants originating from China during the first millennium (†World Population Review, 2024a). Another 10% belong to various lowland groups. The central and southern mountainous areas are inhabited by Mon-Khmer tribes (Lao Theung), accounting for about 30% of the population, including indigenous northern Laotians alongside minorities such as Vietnamese, Chinese, and Thai. The remaining 10% comprises the Lao Soung, or highland people, consisting of minority cultures like the Hmong, Yao, Dao, Shan, and others residing in the isolated mountainous region for generations (†World Population Review, 2024a).

Laos has the youngest population in Asia, with a median age of 21.6 years (*World Population Review, 2024a). The 2007 Education Law mandates using Lao as the primary language in education. Since approximately half of the population speaks Lao as their first language, this puts non-Lao-speaking students at a disadvantage (*Kosonen, 2017). Due to the diverse demographic makeup, the linguistic diversity in Laos is relatively high, with a Linguistic Diversity Index of 70% (*World Population Review, 2024b).¹

¹ The Linguistic Diversity Index is a metric used to measure the probability of any two individuals within a country having different mother tongues.

2.2. Socio-economic development

As of 2022, Laos reported a Gross Domestic Product (GDP) per capita of approximately USD 2,054 and an annual GDP growth rate of 2.7% (†World Bank, 2024d. Foreign direct investment remains at 3.4% of the GDP (†World Bank, 2024d. The economy is primarily agricultural, with agriculture employing the majority of the workforce and contributing significantly to the GDP and the rural economy. Small-scale farming and subsistence agriculture are pertinent to many rural households. In recent years, the government has prioritised economic diversification (†Lashitew et al., 2021).

In 2018, Laos became eligible to graduate from its status as one of the Least Developed Countries (LDCs).² According to the National Socio-Economic Development Plan 2021–2025, the government aims to graduate from the LDC status in 2026 by investing in digital skills and technology, aiding its economic growth.³ Despite progress in economic development, Laos faces several socio-economic challenges, including poverty, income inequality, and lack of access to essential services. With the poverty headcount ratio⁴ remaining at 7.1% (USD 2.15 per day), poverty remains widespread, especially in rural and remote areas where infrastructure and public services are often lacking (†World Bank, 2024d). Income sources are limited, and access to education and healthcare remains challenging for vulnerable groups.

Efforts to address these challenges include rural development initiatives aimed at poverty reduction programmes, focusing on agricultural interventions (*Vongxay & Suzuki, 2021). Foreign investment plays a substantial role in poverty alleviation and sustaining the economy. The government has also implemented policies to promote gender equality, integrating gender concerns into agricultural programmes and projects (*Food and Agriculture Organization, 2011). Food security, particularly rice production, is a top priority and has increased primarily due to irrigation system development.

² The List of Least Developed Countries (LDCs) includes developing countries identified by the United Nations (Office of the High Representative for the LDCs, Landlocked Developing Countries and Small Island Developing States). See https://www.un.org/ohrlls/content/list-ldcs. Retrieved 13 May 2024.

³ Laos met the criteria to be eligible to graduate from its LDC status given improvements in the following indicators: Gross National Income (GNI), Human Asset Index, and the Economic and Environmental Vulnerability Index. See https://nipn.lsb.gov.la/document/the-9th-national-socio-economic-development-plan-2021-20 25/. Retrieved 16 May 2024.

⁴ Based on World Bank data, the national poverty headcount ratio is the percentage of the population living below the national poverty line(s).

2.3. Political system overview

Governed as a one-party socialist republic, Laos's political landscape centres on the Lao People's Revolutionary Party. The president exercises nominal power, while the prime minister (appointed by the president) leads the government, assisted by deputy prime ministers and in collaboration with influential bodies like the Politburo and Central Committee (†World Population Review, 2024a).

The government has tried decentralising governance along legal frameworks, administrative capacity, fiscal management, human resource development, and civil engagement. These dimensions seek to strengthen service delivery, alleviate poverty, and foster socio-economic development while acknowledging the imperative of addressing diverse public preferences. In the context of education governance, since the decentralisation policies were initiated in 2002, the Ministry of Education and Sports (MoES), the Provincial Education and Sports Services, and the District Education and Sports Bureau share responsibilities. The Three Build Policy delineates the roles and duties of both the central education administration and subnational-level units (†Sithirajvongsa, 2021). Accordingly, the provincial unit plays a strategic role; the district unit is responsible for planning and management, and the village serves as a development unit under the Village Education Development Committee (†Sithirajvongsa, 2021).

2.4. International relations and development

A delicate balancing act between regional powers and ideological allies characterises Laos's foreign policy. While maintaining close ties with traditional partners such as Vietnam and China, Laos also seeks to diversify its diplomatic relationships through engagement with regional organisations like the Association of Southeast Asian Nations (ASEAN) and international development partners such as the World Trade Organisation (WTO) (†Chen & Intal, 2017; †International Trade Association, 2024). Other development partnerships include projects with UNICEF, the Global Partnership for Education (GPE) and the European Union (†UNICEF, 2021). Furthermore, there are continuous projects with the World Bank, Asian Development Bank (ADB), and USAID⁶ (†World Bank, 2021a).

⁵ Strategic principles such as decentralisation of authority and accountability, along with capacity building and awareness initiatives, have been recognised as key factors in mitigating barriers to education inclusion and effectively executing the National Policy on Inclusive Education.

⁶ USAID's partnership with the Government of Laos, see https://www.usaid.gov/laos/education. Retrieved 13 May 2024.

2.5. Implications for education

Laos's distinctive geographic, historical, and socio-economic positioning impacts its education system. Rugged terrain hinders equitable access to schooling, particularly in remote areas (*Oum, 2019). Additionally, historical factors, including periods of colonisation and conflict, have left lasting effects on educational infrastructure and human capital development. Resource constraints and competing priorities have hampered efforts to rebuild and modernise the education system.

Socio-economic disparities, notably poverty and income inequality, further exacerbate educational inequities, with rural areas disproportionately affected (†Bader et al., 2016). Despite these challenges, collaborative efforts between the government, international partners, and civil society organisations aim to enhance educational access, equity, and quality (†Sengchaleun et al., 2023). Addressing these challenges requires targeted interventions with considerations to serve vulnerable populations.

3. Education system overview

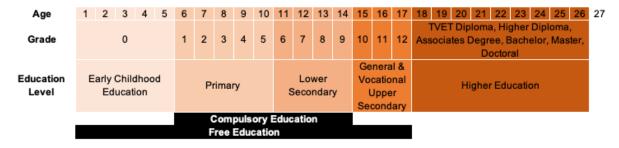
The education system in Laos has been influenced by various factors, including indigenous cultural heritage, colonialism, the socialist revolution, the emergence of the market economy, and, more recently, globalisation (*World Bank, 2016). Government expenditure on education as a percentage of total government expenditure (excluding debt service) decreased from 17.2% in 2020 to 13.7% in 2022 (*GPE, 2023).

The Lao education system is structured into four main levels:

- primary education (5 years, compulsory)
- secondary education (i.e. lower [4 years, compulsory] and upper [3 years]), as well as technical and vocational education
- higher education (*MoES, 2020).

According to *UNICEF (2023), the Gross Enrolment Ratio (GER) for early childhood education in 2022-2023 was 61.3% for children aged 3-5 years and 81.9% for those aged 5. Primary school enrolment was high at 97.7%, with a 93.1% primary school completion rate. However, 67.3% and 36.2% of students transitioned to lower and upper secondary, respectively (†UNICEF, 2023). Figure 1 below illustrates Laos' education system across age groups, grades, and education levels.

Figure 1. Laos' education system from early childhood to higher education



Over the years, the education system has experienced notable advancements as it has focused on enhancing educational accessibility and overall schooling standards. Progress has been made in terms of quality and quantity, although challenges remain (*World Bank, 2021a). Based on recent developments, Figure 2 below outlines key elements of the education system at various levels.

⁷ According to UNESCO and the World Bank, GER is defined as the ratio of total enrolment in a specific level of education, regardless of age, to the eligible, official school-age population of the corresponding level of education in a given year.

Figure 2. Key elements of education levels in Laos from primary to higher education.*

Early childhood education

- In 2017, approximately 70% of 5-year-old children were not enrolled in early childhood education programmes (†UNICEF, no date c). However, enrolment improved in 2022–23, with the GER for children aged 5 at 81.9% (†UNICEF, 2023). Data from 2017 shows that exclusion from early childhood education is most pronounced among children from impoverished families and those residing in remote areas (†UNICEF, no date a).
- Key challenges to early childhood education access include language barriers. A considerable number of children from marginalised backgrounds do not speak Lao, the official language of instruction.
- Laos employs various modalities for delivering ECE. Factors influencing the modality of choice include age group, remoteness of the community, and availability of caregivers/teachers. In well-served communities, early childhood education is provided through three-year kindergartens for three, four, and five-year-olds, respectively. In areas where three-year kindergartens are not feasible, schools offer one-year pre-primary classrooms for five-year-olds attached to primary schools. However, these classrooms often accommodate multiple age groups, as five-year-olds bring their younger siblings (*World Bank, 2021d).

Primary education

- Primary education in Laos is compulsory and typically spans five years, commencing at the age of six. The Laos government has embarked on rolling out a new primary curriculum emphasising Lao language and other subjects, inclusive teaching methods, student-centred learning, a localised curriculum, and ongoing assessment tools (*Wong et al., 2023).
- In 2023, 93.1% of enrolled children completed primary education (†UNICEF, 2023). Despite this relatively high completion rate, many students lack crucial knowledge and skills. For example, the Southeast Asia Primary Learning Metrics (2019) results indicate that 49.6% of Grade 5 students in Laos stand at the lowest band in reading proficiency; whereas 32.8% of students exhibited the lowest band in mathematics (†MoES & UNICEF Lao PDR, 2022).
- In the 2017–18 school year, MoES and the Basic Education Quality and Access in Lao PDR Program (BEQUAL) found that only 34% of Grade 3 students in a sample of 17,000 students of the same grade who were administered the National Assessment of Student Learning Outcomes in Lao language met the threshold for moving on to Grade 4 (†MOES, 2018). In mathematics, only 18% of this sample of Grade 3 students were ready to move on to Grade 4 (†MoES & UNICEF Lao PDR, 2022).

*Figure 2 continues on the next page

Secondary education

Secondary education in Laos is segmented into lower and upper levels (see Figure 1 above). Lower secondary education is compulsory. It spans four years and includes Grades 6–9 (*SEAMEO Secretariat, 2023). Lower secondary is succeeded by upper secondary education, which extends for an additional three years from Grades 10 to 12. At the upper secondary level, students can opt for either the general education or vocational education tracks.

- The general education track emphasises academic subjects and aims to prepare students for higher education (†UNESCO & UNEVOC, 2020).
- The technical and vocational education training (TVET) track prepares students for entry into the workforce by equipping them with practical skills and knowledge pertaining to diverse trades and professions.
- Graduates from the general education and TVET tracks are eligible to apply to higher education institutes (†World Bank, 2016).
- Socio-economic disparities and maternal education levels significantly impact attendance rates in lower secondary education, with less than 30% of children from the poorest quintile attending compared to over 90% from the richest (†UNICEF & Government of Lao PDR, 2020).
- Additionally, ethnolinguistic background plays a crucial role, as children from Lao-Tai communities are much more likely to attend than those from other groups, with this disparity widening further compared to primary education levels (*UNICEF & Government of Lao PDR, 2020).

Higher education

Higher education in Lao PDR is provided through 5 public universities, around 50 government-associated institutions, and 60 private higher education institutions (HEIs).8 However, only public ones can award bachelor's or higher degrees (†ADB, 2023). Features and trends in the higher education sector include:

- Increased enrolment. In the past decade, total higher education enrolments have increased significantly, with private HEIs experiencing substantial growth.
- **Focus on 'soft' disciplines.** The educational focus is predominantly on soft disciplines like social sciences, despite efforts to develop a skilled workforce through diplomas and technical degrees.
- **Gender disparities.** Gender disparity in enrolment persists, although there are higher proportions of women in specific fields.
- **Variable quality.** The quality of education varies widely, often constrained by limited resources and inadequate pedagogical tools, affecting the practical skills of graduates.
- Research output. Research output is low due to funding and resource limitations. The higher education system is actively seeking to improve faculty qualifications, strengthen industry links, and enhance governance and incentive structures to foster a more diversified and relevant curriculum (†ADB, 2023).

Higher education in Laos is expanding but faces challenges in education quality, gender disparities, and increasing outputs. However, efforts to improve faculty qualifications, industry connections, and governance are ongoing.

⁸ The actual number of operational HEIs is not accurate (ranging from 60 to 90), depending on the definition and parameters used (†ADB, 2023).

Across these different levels, several challenges are compounded by teacher competency and access to resources. At the early childhood education level, pre-primary teachers often need more skills in child-centred teaching methods and supporting resources. At the primary and secondary levels, several factors contribute to students' low levels of mastery, including teacher capacity, an inadequate pedagogical support system, difficulties in multi-grade teaching, and the scarcity of teaching and learning materials (†UNICEF, no date a).

†Karakaya (2021) identifies teacher capacity as the greatest challenge of these factors. Adding to the challenge, multigrade teaching is a significant issue for teachers; in 2017, 5651 classes used multigrade teaching (†MoES, 2018). Research has shown that multigrade teaching is more demanding than teaching in single-grade classrooms, and teachers need increased knowledge and skills to manage and teach such classes (†Thephavongsa, 2018).

3.1. Teacher education

According to the †Ministry of Education and Sports (2008), the National Education System Reform Strategy (2006–2015) prioritised teacher management. Today, education administration consists of two levels: central (consisting of MoES and other relevant departments) and institutional (consisting of eight teacher training colleges, faculties, and specialised institutes) (†UNESCO, 2021).

Those interested in becoming teachers can begin their training at the upper secondary level, where teacher training is offered. This specialisation deepens at the tertiary level (†Asia-Europe Meeting, 2021).

The qualifications required for teaching positions vary depending on the educational level at which a teacher will be teaching. For pre-primary and primary school teachers, several pathways are available. These include the:

- 8+3 training programme, which is based on the previous education system (comprising lower secondary education plus three years of teacher education).
- 9+3 programme, which is aligned with the current education system (completing lower secondary education plus three years of teacher education).
- 12+2 programme (consisting of upper secondary education followed by two years of teacher education).

Furthermore, graduates from the 12+2 programme are also qualified to teach at the lower secondary level (†Noonan, 2020).

Teachers interested in teaching upper secondary must complete the 12+4 programme, which involves completing secondary education and pursuing a bachelor's degree. Additionally, teachers have the option to further enhance their qualifications by pursuing a master's degree (†Noonan, 2020).

3.2. Education challenges

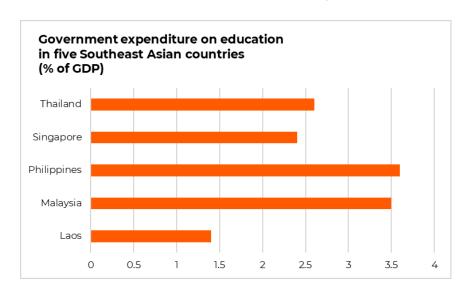
The Government of Laos has shown dedication to improving educational achievements, with strong support from various development partners. Nevertheless, many challenges hindering quality education in Laos remain; key challenges are detailed below.

Notably, children from disadvantaged backgrounds often face barriers to accessing quality education, including inadequate school facilities, teacher shortages, and limited educational materials. As a result, dropout rates remain high, especially among vulnerable groups, perpetuating cycles of poverty and social exclusion (*Xayavong & Pholphirul, 2018).

3.2.1. Insufficient education budget

Government allocation and expenditure in the education sector remain low—in 2022, Laos spent only 1.4% of its GDP on education, one of the lowest in the region (see Figure 3) (*World Bank, 2024d). Over recent years, the education sector in Laos has consistently received less than the target of 18% of the budget stipulated in the Education Law (*UNICEF, 2023). Instead, the sector's budget share has remained between 13.3% and 14% (*McCarthy, 2019).

Figure 3. Government expenditure on education in five Southeast Asian countries in 2022. Source: †World Bank, 2024a



The shortfall in financing from 2016 to 2019 led to the scaling back or postponing of several planned expenditure programmes. For example, significant financing gaps led to the cancelling of critical in-service teacher

training programmes, and limited essential funding to district education bureaus and schools as part of the school block grants. National investment in Water, Sanitation, and Hygiene (WASH) initiatives in schools was also stalled (†McCarthy, 2019).

According to the *World Bank (2024b), these budget cuts may become a further concern as over 32% of primary schools during the 2021–22 school year had a deficit in the number of teachers. Combined with limited tools available to appropriately adjust teacher deployment and low-skilled teachers (leading to low learning outcomes) (*World Bank, 2024b), continued budget cuts may prove detrimental to students and teachers unless MoES invests strategically and efficiently in teacher training, recruitment, and distribution.

3.2.2. Low enrolment rates in rural areas

According to UNICEF's MICS-EAGLE initiative, there are stark differences in rural and urban enrolment rates, with attendance falling short in rural areas.9 These rates vary across different educational levels. While over 95% of children attend primary school in urban areas, less than 90% attend school in rural areas. The gap increases at the lower secondary level, whereby less than 50% of children attend school compared to over 80% of children in urban areas. Similarly, the trend persists in the upper secondary level with 29% of children attending school in rural areas, compared to 61% in urban areas (*UNICEF & Government of Lao PDR, 2020). This discrepancy stems primarily from inadequate road infrastructure, rendering access to schools arduous, particularly for those dwelling in remote, mountainous regions. Consequently, parents, often low-income earners, find it financially challenging to send their children to school, opting instead to have them contribute to the family income through work. Compounding the issue, rural areas suffer from a dearth of teachers, exacerbated by an unequal distribution of local and international teachers favouring urban areas (†Philipp, 2023).

3.2.3. High dropout rates

Laos' education system is grappling with a significant dropout phenomenon. This is particularly evident at the lower levels of education and results in a sparse progression to upper secondary levels (†Philipp, 2023). Net primary enrolment was 99% in 2018–2019, with gender parity. However, according to a 2020 World Bank report, dropout rates at the primary level were high, with only 79% of pupils starting in Grade 1 reaching Grade 5 (†World Bank, 2020).

⁹ UNICEF introduced the MICS-EAGLE (Education Analysis for Global Learning and Equity) Initiative in 2018 to improve education outcomes and address equity by filling critical data gaps and enhancing data use by governments and stakeholders.

3.2.4. Low learning outcomes

A significant challenge lies in ensuring that children attending school learn and complete a full basic education cycle. As mentioned above, a Learning Assessment Study conducted by MoES in 2017 revealed that roughly only one in three Grade 3 students met the literacy standards required for progression to Grade 4; results were worse for mathematics, with just one in five meeting the requisite mathematics standards (†MoES, 2018; †Siriphongphanh, 2021). Similarly, a 2019 ministry learning assessment revealed that students finishing lower secondary education (i.e., Grade 9) failed to achieve proficiency in literacy and numeracy skills (†Siriphongphanh, 2021).

Low learning outcomes are of further concern as substantial disparities exist in learning outcomes among districts and schools and across a range of demographic factors. This includes location, race, wealth, and parental education levels, with children from rural areas and non-Lao-Tai backgrounds in the poorest economic quintile and mothers with no education faring the worst educationally (*World Bank, 2021c).

Finally, slight gender disparities do exist in the early grades, with some variation by subject. According to a 2019 Southeast Asia Primary Learning Metrics¹⁰ study on 5th graders, girls perform better than boys in reading and writing, while results in mathematics are similar across both genders (†MoES & UNICEF Lao PDR, 2022). Among low-performing Grade 5 students, the gender gap tends to favour girls. Further analysis indicates that the factors impacting test scores include:

- gender (with girls scoring higher in reading and writing)
- being a Lao-Tai speaker (indicating higher scores)
- parental education and family socio-economic status.

All of the above highlight contextual influences on student achievement. Additionally, attending two or more preschool years is associated with higher academic achievement. Larger schools tend to have higher student achievement levels, even after accounting for student background and location (†MoES & UNICEF Lao PDR, 2022).

3.2.5.

Teacher absenteeism

Teacher availability remains a persistent challenge in Laos, both in terms of overall absence rates and actual numbers, particularly for remote schools. On any given day, approximately 20% of classes in Laos may have an absent

¹⁰ A regional learning assessment designed for and by Southeast Asia.

teacher, leaving students without instruction. Additionally, nearly 4% of schools face teacher deficits, with many located in MoES priority districts. Moreover, around 10% of the primary school teaching force consists of unpaid volunteer teachers, a strategy deemed unsustainable (†Demas et al., 2018).

3.2.6. Poor school governance

While Laos has made strides in decentralising education management and implementing school-based management (SBM), implementation has been hindered by vague objectives, fragmented decision-making, limited coordination, and insufficient data utilisation for decision-making (†World Bank, 2021c). Although many elements of effective governance are in place, such as implementing village education development committees (VEDCs) in all schools, administrative visits, and pedagogic adviser visits, they do not culminate in a coherent and well-governed system. For instance, while schools report high compliance with community involvement through VEDCs, there is limited evidence of parents holding schools accountable. Similarly, while principals report sharing recommendations from supervision visits with teachers, a low percentage of teachers receive written reports. Despite many schools receiving pedagogic adviser visits, only a fraction report sharing the final report with teachers (†World Bank, 2021c).

3.2.7. Education progress

The Laos Education Sector Planning (ESP) has historically been conducted in five-year planning cycles, with the most recent from 2021 to 2025 (†MoES, 2020). Section 3.2.8 summarises several of the recent key plans.

3.2.8. Education and sports sector development plan 2021–2025

The government's Education and Sports Sector Development Plan for 2021–2025 builds on the Education Sector Development Plan (ESDP) of 2016–2020. It aims to comprehensively tackle challenges in ECE, teacher effectiveness, and school governance. However, despite ambitious goals, adequate financing has not been secured. These include funding for crucial initiatives such as teacher in-service training, continuous teacher support, school block grants, and WASH activities. Moreover, the Covid-19 crisis has exacerbated budgetary constraints for the education sector.

There are four priority policy objectives as laid out in the 2021–2025 Education and Sports Sector Development Plan (*MOES, 2020):

¹¹ Forty disadvantaged districts are identified for prioritisation in the 2021–2025 Education and Sports Sector Development Plan. (†BEQUAL, 2020).

- Improve content knowledge and pedagogical skills of primary teachers.
 This will require a significant budget.
- Enhance the lower secondary level by making it more affordable, effective, and realistic.
- Realign and develop skills and competencies of MoES staff to better meet systemic needs.
- Provide institutional strengthening to the Provincial Education and Sports Services, District Education and Sports Bureau, clusters, and schools to enhance their efficiency, effectiveness, and accountability.

3.2.9. SEND learners and inclusive education

Limited information exists on the number and status of children with disabilities in Laos due to the absence of a comprehensive data collection system. However, data from the 2017 Lao Social Indicator Survey (LSIS) II survey indicates that approximately 2% of children aged two to four experience functional difficulties in at least one domain such as seeing, hearing, walking, fine motor skills, communication, learning, playing, or behaviour control (†Lao Statistics Bureau, 2018). In rural areas that lack road infrastructure, this percentage rises to 3.8%. Disparities between regions have been observed, with a lower prevalence in the North (1.7%) compared to the South (4.3%). This is particularly high in the Sekong province, reaching 21.8% (†Lao Statistics Bureau, 2018; †UNICEF, 2020).

Improving and promoting inclusive education, including support to students with disabilities, is one of the primary policy objectives for Laos (†MoES, 2020).¹² Many communities, parents, and school staff lack awareness regarding the right to education of children with disabilities. This highlights the necessity for teacher training to enhance comprehension of inclusive education principles. According to the 2021–2025 Education and Sports Sector Development Plan, all curricula were revised to align with inclusive education principles, prioritising child-centred approaches and employing active, participatory pedagogy. Furthermore, the plan focuses on teachers receiving training to meet the diverse needs of students in their classrooms. The competency-based teacher standards for teacher training college graduates, endorsed in 2015, serve as the basis for establishing a comprehensive system for continuous professional development (†MoES, 2020).

¹² Laos's National Strategy and Plan of Action on Inclusive Education 2011–15 (†MOES, 2011) operationally defines 'inclusive education' as the provision of quality education that is continuously and appropriately adapted to the characteristics, capabilities, and diverse needs of all learners. It focuses on addressing barriers to accessing education of good quality by creating friendly, safe, and protective environments for all learners, without discrimination, and encouraging learners, families, and communities to be involved effectively in learning.

3.3. Out-of-School children and youth

The issue of out-of-school children and youth (OOSCY) remains a pervasive global problem, as evidenced by the 124 million OOSCY in the world, approximately 14.3 million of whom live in East Asia and the Pacific. In 2022, as many as 31,254 girls and 29,190 boys were out of primary school in Laos, among the highest numbers in the region (*World Bank, 2024d). In Laos, OOSCY rates for primary-school-age children are higher for girls than boys (*World Bank, 2024d).

The rate of OOSCY among lower secondary school-age children has fluctuated through the years. Since 2002, the OOSCY rate has gradually decreased overall, with periodic increases or spikes. In 2013, this rate was at its lowest since 2002. Based on gender-disaggregated data, there are significantly more OOSCY girls than boys of lower secondary school age. The higher rates in the lower secondary level suggest that many children tend to leave school after they complete primary school (†UNESCO, 2017).

Several factors contribute to the high dropout rates; key factors are detailed below.

3.3.1. Child marriage

In Southeast Asia, including countries such as Cambodia, Indonesia, and Laos, where rates of child marriage are notably elevated, the practice of child marriage significantly contributes to the prevalence of children being out of school. Between 2010 and 2012, Laos reported that 35.4% of girls were married by the age of 18; this rate of child marriage further exacerbates the impact on education access (*UNESCO, 2017).

3.3.2 Rural areas and ethnic minorities

In Laos, children (particularly girls) from ethnic minorities who live in impoverished rural areas face significant barriers to accessing education. Nearly half of the Lao population consists of ethnic groups, many of whom inhabit remote regions where Lao-Tai is not the primary language. Despite comprising only one-third of the primary-school-age population, these communities account for approximately 75% of out-of-school children (†UNESCO, 2017).

3.3.3 Child labour

Child labour remains widespread in Laos, with an estimated 10% of children compelled to work to support their families' livelihoods. Instead of exercising their right to education, these children often labour in agriculture, fishing, or manufacturing (†Humaniam, no date).

3.4. Education provision

In 2003, Laos enshrined the enforcement of compulsory primary education through Article 22 of the revised constitution to "cultivate well-rounded citizens equipped with revolutionary skills, knowledge, and competencies". Article 38 further guarantees all Laos citizens the right to education and self-improvement (*Khamphaeng, no date).

Of particular importance to the OOSCY population is Article 9 of the National Education Law No. 04/NP (2007), which established the Lao national education system as unified and encompassing both formal and non-formal education. These two pathways operate concurrently and hold equal value and content across all grades and educational levels (†UNESCO, 2017). Article 24 further outlines three approaches to delivering non-formal education to enhance access to universal primary education: school-based instruction, mobile learning, and distance education (†UNESCO, 2017).

In 2017, UNESCO also reported that two MoES documents—the *Education* and *Sport Vision Development until 2030* and the *Education and Sports Development Strategy 2016–2025*—were unpublished at the time and in the process of being finalised and contained policies that encourage "the creation of conditions that would allow dropout students to re-enter general formal school" (†UNESCO, 2017, p. 29). However, current versions of these documents could not be located online.

Importantly, as per *MoES (2020), the current Education and Sports Sector Development Plan 2021–2025 includes a non-formal education sub-sector plan (see Section V) which includes:

- Efforts made to provide non-formal education, as well as their limitations and challenges;
- 2021–2025 priorities, which focus on MoES's list of 40 priority districts;
- Key targets, including literacy rates for the 15–24-year-old population and the number of graduates from non-formal education equivalency programmes;
- High-level and intermediate outcomes with associated key activities ↑MoES (2020).

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Finally, the Department of Non-Formal Education is vital in offering educational and lifelong learning opportunities as an alternative to formal education. It caters to children, youths, and adults facing barriers to formal education, particularly for ethnic minorities and marginalised groups in remote regions (†UNESCO, 2017).

4. Girls Education

According to *UNDP (2022), Laos ranked 120 out of 189 countries in the Gender Inequality Index in 2022, despite women's life expectancy at birth being higher than men's (*World Bank, 2024e).

Women's involvement in political and economic decision-making processes at the national and household levels remains unequal and restricted. There is a notable disparity in the representation of women in decision-making positions within the country's legislative bodies, public administration, and subnational levels. As of 2021, women hold only 27.5% of seats in the national parliament, and representation is even lower at subnational levels (†UN Women, no date).

Additionally, many households in Laos continue to value traditional gender roles, with women expected to assume caretaking responsibilities and shoulder the domestic burden (†Philipp, 2023; †UNICEF, no date b). Relatedly, several factors mentioned above that influence dropout rates, such as child marriage and early pregnancy, disproportionately impact girls in specific communities (†UNICEF, no date b) and thus their educational progress and families' prioritisation of their education.

For example, in ECE, almost the same number of boys and girls are enrolled (†Noonan, 2020). However, a small enrolment gap begins to emerge at the primary education level, with enrolment rates at 75% for boys and 71% for girls. The gap widens slightly at the secondary level, at 36% for boys and 31% for girls. This gap is more pronounced when the intersection of location (i.e., rural vs urban) and gender are considered. In urban areas, 95% of both girls and boys attend primary school, compared to 77% of girls and 83% of boys in rural areas without roads (†Philipp, 2023).

5. The ICT ecosystem

5.1. ICT infrastructure and connectivity

Laos ranks 109 out of 134 economies on the 2023 Network Readiness Index, a global index measuring the application and impact of ICT in economies (*Portulans Institute, 2024). The International Telecommunication Union (ITU) reports high network coverage in Laos as of 2021, with 95% of the population covered by a mobile-cellular network (see Table 2).

A moderately high percentage (72%) of households have access to the internet at home as of 2021 (see Table 2). Notably, this is significantly higher than data from the 2017 LSIS II, which reported that 1.7% of 22,287 households interviewed had access to the internet at home (*Lao Statistics Bureau, 2018). Disaggregated data by urban and rural households were unavailable from ITU; however, the 2017 LSIS II suggests that there are differences in access between urban (3.7%) and rural (0.7%) areas (*Lao Statistics Bureau, 2018).

The 2017 LSIS II reports a 93.6% percentage of households with access to electricity (*Lao Statistics Bureau, 2018). *World Bank (2024d) data report 100% electricity access across Laos (see Table 2).

Table 2. Internet and electricity access in Laos

Indicator	Percentage	
Network coverage ¹³		
Population covered by a mobile-cellular network (2021)	95%	
Population covered by at least a 3G mobile network (2021)	85%	
Population covered by at least a 4G mobile network (2021)	52%	
Access to the internet at home ¹⁴		
Households with internet access at home (2021)	72% ¹⁵	
Access to electricity at home ¹⁶		
Households with access to electricity (2021)	100%	
Households with access to electricity, urban (2021)	100%	
Households with access to electricity, rural (2021)	100%	

¹³ These statistics are published on the Digital Development Dashboard, †ITU (2023).

¹⁴ These statistics are published on the Digital Development Dashboard 1TU (2023).

¹⁵ This figure is comparable to the 2023 Lao Social Indicator Survey III, which indicates that 68.9% of households have access to the internet from a device at home (†Lao Statistics Bureau, 2024).

¹⁶ Data is as per †World Bank (2024d).

As of 2023, mobile phone ownership was moderately high in Laos, with 80.8% of men and 79.3% of women aged 15–49 years surveyed reporting mobile phone ownership (†Lao Statistics Bureau, 2018; †2024). Compared to 2017, the percentage of men who owned a mobile phone decreased from 84.3% to 80.8%, while the percentage of women increased from 73.1% to 79.3% (†Lao Statistics Bureau, 2018; †2024). Additionally, the gap in mobile phone ownership between men and women narrowed during this period.

Notably, device ownership (see Table 3), as measured by the percentage of households owning a specific device, decreased across most devices from 2017 to 2023 (†Lao Statistics Bureau, 2018; †2024). For example:

- The percentage of households that own a radio decreased from 20.6% in 2017 to 12.7% in 2023
- The percentage of households that own a television decreased from 79.3% in 2017 to 71.6% in 2023
- The percentage of households that own a computer decreased from 13.5% in 2017 to 10.9% in 2023

Rural-to-urban technology gaps also exist in Laos, with 49% of households in rural communities owning a television, 15% radios, and 2% computers (*Runde et al., 2022).

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Table 3.	Device (ownership	ın Lad	2S GS G	ナンロンろ

Device	Percentage of households owning device
Radio	20.6%
Television	71.6%
Telephone (fixed line or mobile)	93.4%
Computer	10.9%

Mobile phone usage was fairly even across genders, with 84.3% of women and 84.5% of men reporting that they used a mobile phone during the last three months (*Lao Statistics Bureau, 2024). Similarly, the World Bank reports that in 2021, men and women in Laos used a mobile or the internet to pay their bills at similar rates, i.e., 8.3% and 9.3% for men and women, respectively (*World Bank, 2024e).

Despite the moderately high levels of internet coverage and mobile phone ownership, 32.6% of smartphone users in Laos are considered 'mobile-only'

smartphone users.¹⁷ They never connect to Wi-Fi, relying only on mobile connectivity (†Wyrzykowski, 2023). Given that 4G coverage is relatively limited, with primary reliance on 3G networks (see Table 2), this may affect smartphone user experiences regarding speed and reliability. Such considerations should, therefore, be factored into policy choices for educational technology programming.

The 2023 LSIS III also indicated that overall internet usage was relatively low, with 54.8% of women and 58.7% of women aged 15–49 years reporting that they had used the internet at least once a week during the last three months. The percentages were slightly higher but comparable when asked about internet usage within the previous three months (*Lao Statistics Bureau, 2024).

5.2. Barriers to ICT usage

The moderately high cost of ICT as a percentage of the GNI is a potential barrier to the successful utilisation of EdTech in Laos (see breakdown in Table 4 below). This is high compared to other countries in the Southeast Asian region and also exceeds the ITU/UNESCO Broadband Commission for Sustainable Development 2025 target that entry-level broadband services in developing countries should not exceed 2% of monthly GNI per capita (†ITU, 2021).

Table 4. ICT prices as a percentage of national GNI in Laos, Vietnam, and Singapore. Source: †ITU, 2023

ICT Prices	Laos	Vietnam	Singapore
Fixed broadband basket as a % of GNI per capita (2022)	7.2%	3.5%	0.8%
Mobile data and voice basket (high consumption) as a % of GNI per capita (2022)	8.2%	2.9%	0.3%
Mobile data and voice basket (low consumption) as a % of GNI per capita (2022)	4.0%	1.9%	0.3%
Mobile cellular basket as a % of GNI per capita (2022)	3.0%	1.8%	0.3%
Mobile broadband basket as a % of GNI per capita (2022)	2.1%	0.5%	0.2%

Aside from the cost, the 2023 LSIS III suggests that Laotians' exposure to mass media is limited, with only 3.6% of women and 2.2% of men aged 15–49 surveyed indicating that they read a newspaper or magazine, listened to the radio, or watched television at least once a week (*Lao Statistics Bureau, 2024). Additionally, computer use among Laotians surveyed was limited. Only 11.3% of

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¹⁷ Not all mobile phone users are smartphone users.

men and 8.8% of women aged 15–49 years reported using a computer during the previous three months. This has potential implications for the choice of device or modality in education technology design.

Given the low rate of computer usage, unsurprisingly, the level of ICT skills among respondents was similarly low (see Table 5), with minimal differences between age groups (15–24 vs 15–49) and gender (†Lao Statistics Bureau, 2024). Consequently, digital skills among families are likely to be low, thus limiting their ability to support students' digital learning and skill development. This is an essential consideration for educational technology strategy and design, particularly in home settings, especially when parental skill levels often factor into students' digital skills development.

Table 5. ICT skills among Laotians aged 15–49 in 2023

Gender	Age range	Percentage of men and women who carried out at least one of nine specific computer-related activities ¹⁸ in the last three months
Female	15–24	7.2%
Female	15-49	8.1%
Male	15–24	8.3%
Male	15–49	10.9%

created an electronic presentation with presentation software, including text, images, soun video, or charts; and transferred a file between a computer and other device (†Lao Statistics Bureau, 2024 p. 10)

¹⁸ Copied or moved a file or folder; used a copy and paste tool to duplicate or move information within a document; sent email with an attached file, such as a document, picture, or video; used a basic arithmetic formula in a spreadsheet; connected and installed a new device, such as a modem, camera, or printer; found, downloaded, installed, and configured software; created an electronic presentation with presentation software, including text, images, sound,

6. Key stakeholders and initiatives in EdTech

6.1. EdTech stakeholders

Public stakeholders in Laos, including government ministries and agencies, have been implementing various education projects to enhance access and quality. Efforts have been made to engage and collaborate with private stakeholders, such as non-governmental organisations and international development agencies, that actively engage in education initiatives across Laos, contributing to improved learning and capacity-building.

International aid has played a crucial role in enhancing Laos's quality of education.

- One notable example is a programme initiated by Save the Children to enhance the learning experience for children in Laos. With an allocation of USD 8 million in funding, the programme facilitated primary school attendance for 3,000 children in 2012.
- In 2021, the World Bank, in collaboration with other nations, announced USD 47 million of funding for the Global Partnership for Education III: Learning and Equity Acceleration Project. This funding is geared towards enhancing preschool and primary education performance while bolstering education systems nationwide (*World Bank, 2021b).

Table 6 below maps the key education stakeholders in Laos.

Table 6. EdTech and education stakeholders in Laos

Stakeholder/Agency	Role
 Public stakeholders Ministry of Education and Sports Provincial Education Services District Education Bureau Research Institute for Educational Sciences Department of Legislation and Education Quality Assurance Teacher Training Colleges 	The Ministry of Education and Sports (MoES) oversees education in Laos in a primarily centralised system. Further devolution involves two entities: the Provincial Education Services, which has a strategic role, and the District Education Bureau, which comprises local units and is responsible for planning and management. The village serves as a development unit (†Sithirajvongsa, 2021).
Public stakeholders ■ National Commission for Human Resource Development ■ Provincial Committee for Human Resource Development ■ Provincial Education and Sports Services in Vientiane Capital	These government agencies in Laos have been involved in executing the Lifelong Learning Decree. The decree aims to elevate learning opportunities for educational, vocational, and ethical development (†Dalbéra, 2023; †Ministry of Education and Sports Department of Non-Formal Education, 2020). ¹⁹ Implementation areas involve teaching, assessment, certification, and recognition across formal, non-formal, and informal learning pathways.

¹⁹ The decree determines regulations for lifelong learning in three main areas: 1. Teaching/learning; 2. Assessment, recognition, certification, equivalence, and transfer; 3. Quality assurance of lifelong learning programmes.

Stakeholder/Agency	Role
 Department of Early Childhood Education Department of General Education Department of Teacher Education Department of Non-Formal Education Inclusive Education Centre 	According to *MoES (2020), the Education and Sports Sector Development Plan 2021–2025, these departments have been designated to achieve the following outcomes: Improved and more inclusive curricula are implemented at all levels of school education. Improved student learning outcomes measurement. Increased intake and progression rates at all levels, leading to improved graduation rates. Extension of vocational classroom training.
Private development partners Global Partnership for Education (GPE)	GPE has been involved in education development in Laos with projects such as the Learning Equity Acceleration Project, Education and Sports Sector Development Plan 2021–25), and Data Must Speak (DMS) (*GPE, no date; *MoES, 2020; *World Bank, 2021d). It positions itself as focusing on: Prioritising primary education by enhancing teacher skills while improving the affordability and effectiveness of lower secondary education. Strengthening institutional capacity and targeting resources to reduce disparities and support social and economic educational priorities.

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Stakeholder/Agency	Role
UNICEF	The positive deviance research conducted through the DMS initiative in Laos is a collaborative initiative involving MoES, UNICEF Lao PDR, UNICEF Innocenti—Global Office of Research and Foresight, and key partners within the Lao education sector.
	The initiative aims to enhance education through the digital Khang Panya Lao (Lao Education and Sports Teaching and Learning Platform) (†UNICEF, no date c).
	The platform serves the dual purposes of facilitating children and youth's learning experiences both online and offline and supporting the professional development of teachers, principals, pedagogical advisors, and Early Childhood Education (ECE) technical staff.
Australian Department of Foreign Affairs and Trade (DFAT)	The Basic Education Quality and Access in Lao PDR (BEQUAL) programme by the Australian Council for Educational Research (ACER) under DFAT supports primary education reforms in Laos, focusing on implementing a new curriculum to enhance teaching quality and student outcomes. The study investigates BEQUAL's impact on teaching quality and student literacy over three years, highlighting improvements and the need for continued teacher support, especially in light of the Covid-19 pandemic disruptions. Recommendations stress ongoing professional development for teachers to fully integrate new approaches into their practice (†Wong et al., 2023).

Stakeholder/Agency	Role
Asian Development Bank (ADB)	ADB supports multiple education-based initiatives, comprising policy-based loans (PBL) and grants. One project, the Secondary Education Sector Development Program (2022), involved targeted investments in 30 poor and educationally disadvantaged districts in Laos. The expected impact was improved educational attainment in the country (†ADB, 2022). ADB further proposed initiating the Education for Employment Sector
	Development Program (2023) to align secondary education, technical and vocational education and training (TVET), and higher education with Laos's workforce needs (†ADB, 2019).
Association of Southeast Asian Nations (ASEAN)	ASEAN supports a five-year project led by the non-profit organisation Aide et Action Laos. The project aims to enhance inclusive, child-friendly environments and improve learning outcomes in pre-primary and primary schools in Vientiane and Oudomxay provinces.
	The initiative, launched in 2019, builds on previous pilot programmes and aims to ensure equitable access to quality education and promote lifelong learning opportunities for all (*ASEAN Post, 2020).
Other development partners	International development partners are collaborating with public and private education stakeholders in Laos in various capacities.
European UnionWorld Bank	The projects aim to improve overall access to primary education, elevate
 Japan International Cooperation Agency 	its quality annually, and provide essential support for school management. They also promote access to quality education, especially
■ Plan International	for vulnerable groups such as girls, while emphasising nutrition and
■ Save the Children	sanitation practices for improved well-being.
■ USAID	

6.2. EdTech Initiatives

From a regional perspective, specific EdTech models, such as the broadcast / dual-teacher approach, have effectively improved student learning. Other models, including assistive technologies, are still promising but lack consistent positive impacts at scale in the East Asian and Pacific context. Furthermore, interventions such as e-readers, remote teacher training, and Al applications require further evidence to validate their effectiveness on a large scale (*Yarrow et al., 2023).

Notably, smaller-scale EdTech initiatives led by non-governmental organisations significantly impact learning outcomes more than government-led efforts.

Notably, Laos prioritises poverty alleviation and the enhancement of ICT use and training for both teachers and students, aligning with the 'Knowledge Ladder' framework (*Yuen & Hew, 2018). Table 7 below dives deeper into a non-exhaustive list of EdTech interventions in Laos.

Table 7. EdTech initiatives and implementing partners in Laos (non-exhaustive)

Initiative	Type of EdTech used	Implementing partners	Details
Eduten ²⁰ Access: Free	Platform	UNICEF	A 12-week pilot was launched in December 2023, with the aim of mapping the efficacy of the Eduten platform in enhancing student engagement and mathematics skills compared to traditional teaching methods. Ten schools across Laos were selected, represented by a teacher each who had undergone a 3-day training programme. This approach will provide valuable insights into the impact of digital learning platforms in diverse educational settings.
Lao Education and Sports Management Information System (LESMIS) ²¹ Access: Free	Platform	UNICEF	Through the PSES programme backed by the European Union, UNICEF supports MoES in creating LESMIS, a GIS-powered data platform to improve data quality, accessibility, and utilisation for monitoring and planning in Laos's education system. By integrating data from various MoES sources and data collection apps, LESMIS will facilitate tracking progress towards the 9th Education and Sports Sector Development Plan 2021–25, enhancing monitoring and planning capabilities.

²⁰ Eduten launched its pilot in Laos (†Muurimaa, 2023). See also https://eduten.com/. Retrieved 18 May 2024.

²¹ See https://www.unicef.org/laos/lao-education-and-sports-management-information-system-lesmis. Retrieved 14 May 2024.

Khang Panya Lao ²² Access: Free	Website and mobile application	Lao Research Institute for Educational Sciences (RIES), Ministry of Education and Sports (MoES), UNICEF, funded by the European Union and GPE	Khang Panya Lao supports learning continuity for children and adolescents and enhances teaching through resources and professional development for educators. It also boosts Laotian students' and educators' digital skills. It can be used for blended learning, in schools and at home, ensuring education continuity during emergencies.
LAO ESTV (Education and Sport TV) ²³ Access: Free	Television, multimedia, and social media	Ministry of Education and Sports (MoES), Ministry of Information, Culture and Tourism (MICT)	This intervention was the first-ever TV channel in the country dedicated to providing learning content.
Library for All ²⁴ Access: Free	Mobile application	Childfund	Library for All provides high-quality digital books and educational resources for children. Some schools are provided tablets with preloaded learning materials to help improve students' literacy outcomes. A mobile app with over 200 books is also available to download.
Lao Autism Talks ²⁵ Access: Free	Mobile application	Lao Association For Autism, The Association For Autism Vientiane	The Lao Autism Talks application is suitable for children from ethnic groups who want to learn the Lao language. It assists people with limited speech abilities in communicating using a picture-based system.

²² See https://www.unicef.org/laos/khang-panya-lao. Retrieved 14 May 2024

https://laos.worlded.org/news/the-lao-association-for-autism-afa-launches-app-to-help-persons-with-speech-impairments-communicate/. Retrieved 14 May 2024.

²³ See more details on the initiative in Nietschke & Dabrowski's (2023) background paper for UNESCO's Global Education Monitoring Report.

²⁴ See https://libraryforall.org/impact/asia/. Retrieved 18 May 2024.

²⁵ See

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LearnBig ²⁶ Access: Free	Website and mobile application	UNESCO	LearnBig is a multilingual online reading resource. The project aims to improve the literacy and numeracy skills of 5,500 marginalised children using ICT and mobile learning, benefiting over 230 teachers. ²⁷
E-Classroom App ²⁸ Access: Free	Mobile application	Aide et Action Laos	E-Classroom is an application about learning the basics of the Lao language, mathematics, and general knowledge for children from kindergarten to elementary school or foreigners who want to start learning the Lao language.
Australian Strategic Partnerships in Remote Education ²⁹	Training	Australian Council for Educational Research (ACER), funded by DFAT Australia	This initiative equips teacher trainers and lecturers with online pedagogy and digital skills to deliver remote education.

https://action-education.org/ch/en/au-laos-assistance-and-action-is-supplying-learning-and-teaching-materials-to-two-schools-in-the-framework-of-its-early-childhood-education-project/. Retrieved 18 May 2024.

²⁶ See https://www.learnbig.net/. Retrieved 18 May 2024.

²⁷ For more details on EdTech initiatives in the context of Covid-19, see *GPE (2020).

²⁸ See

²⁹ This intervention is one of the ASPIRE initiatives. See https://www.acer.org/au/discover/article/supporting-education-transformation-in-lao-pdr. Retrieved 14 May 2024.

7. Looking ahead

Over the last five decades, the Government of Laos has worked hard to ensure every child has access to education. This work has also involved several development partners. Much progress has been made to date, from reflecting the country's commitment to education in its legal and policy frameworks to constructing schools, strengthening its public administration systems, and enhancing curricula. Nevertheless, different and more ambitious actions are still needed to ensure that all students can learn regardless of their backgrounds.

One of the most significant challenges facing the Laos education system is the quality of its teaching workforce. Among other factors, teachers require more in-service training to increase their effectiveness. The pipeline of incoming teachers needs to be improved through rigorous acceptance standards, solid in-service training, and equitable deployment of teachers. Furthermore, teacher absenteeism must be addressed to reduce lost instructional time (*Demas et al., 2018).

Additionally, financial commitments must be reallocated to the education sector and strategically invested in the system to ensure teachers receive the necessary training. Strong and appropriate accountability measures must be set up, all curricula updated, and students must have safe, suitable, and sanitary learning environments.

Digital education, when appropriately used and contextualised, also has the potential to further enhance teaching and learning in Laos. Over the past few years, Laos has stepped up its efforts to improve its digital infrastructure and tightened regulations to fuel future economic growth and enhance human development. These efforts can open up exciting possibilities to integrate technological advancements into the education system, particularly by fortifying key systemic and school components. The existing list of educational technology interventions also demonstrates the potential and appetite for utilisation of such interventions to reach learners. It will be necessary for Laos to ensure that interventions and investments across its various development partners and ministries are well aligned and coordinated to prevent duplicative efforts and minimise inefficiencies.

Additionally, the education system must consider the appropriateness of each intervention type for its varying student populations to ensure equitable access. It must also provide appropriate training for its teaching force, empower parents and families to support learners by improving digital

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literacy, and carefully build in monitoring. and evaluation structures to enable iterative programming and data-guided investments.

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