



# SECONDARY TEACHER WORKFORCE MANAGEMENT IN LAO PDR: DATA ANALYSIS AND POLICY INSIGHTS FROM THE KIX EMAP LEARNING CYCLE

Sompong Siboulapha  
Xayapheth Chaphichith  
Sommay Shingphachanh  
Thongthiane Vathanavong  
Souliphone Sivixay

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## ABOUT THE LEARNING CYCLE ON SECONDARY TEACHER WORKFORCE MANAGEMENT

This case study is a result of the KIX EMAP Learning Cycle "Secondary Teacher Workforce Management". Facilitated by the UNESCO International Institute for Educational Planning (IIEP), this Learning Cycle ran from 24 September to 30 November 2024. Across 10 weeks, it equipped participants with the necessary theory and practical techniques to plan and analyse data on their secondary teacher workforce in relation to teacher requirements, deployment, and utilisation and to identify potential policy options. Thirteen national teams took part in this Learning Cycle, including Bhutan, Cambodia, Egypt, Lao PDR, Maldives, Moldova, Mongolia, Philippines, Sri Lanka, Sudan, Tajikistan, Tunisia and Ukraine.



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**KIX EMAP Hub / NORRAG**  
20, Rue Rothschild  
P.O. Box 1672 1211 Geneva 1  
Switzerland  
[norrage.kix@graduateinstitute.ch](mailto:norrage.kix@graduateinstitute.ch)

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## A BIOGRAPHICAL NOTE ON THE AUTHORS

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**Sompong Siboualipha**, PhD, is a Lecturer and Head of the Department of Biology–Chemistry at Bankeun Teacher Training College, Lao PDR. She holds PhD and master’s degrees in biology from Khon Kaen University, Thailand, and a bachelor’s degree in biology from the National University of Laos. With over 15 years of teaching and academic leadership experience, she has been involved in teacher evaluation, curriculum planning and in-service teacher training. Her work extends to international conferences, workshops and regional collaborations focused on lesson study, environmental education and education for sustainable development (ESD). She has also served as a technical consultant for Plan International and contributed to the development of Asian standards for science teacher education under the Japan Society for the Promotion of Science (JSPS) Core-to-Core Programme. Her expertise includes science education, zooplankton taxonomy, bioindicator–based water quality assessment and the promotion of learner-centred approaches and ESD.

**Xayapheth Chaphichith**, PhD, an Assistant Professor, boasts extensive experience in education. He has held leadership roles, such as Vice Dean of the Faculty of Letters and Deputy Director General for Teacher Education. Academically, he holds a BA in English, a PGDip in applied linguistics, an MA from Hiroshima University, and a PhD in education sciences. For the past decade, he has actively lectured in master’s programmes at the Faculty of Letters. His research includes a five-year project on e-learning English courses for secondary schools in Lao PDR. Now, as an ASEM Education and Research Hub for Lifelong Learning (ASEM LLL Hub) member, his aim is to contribute to regional and global educational sustainability.

**Sommay Shingphachanh**, PhD, is an Assistant Professor and Head of the Science Research Center at Khangkhai Teacher Training College, Lao PDR. He teaches and conducts research in mathematics education and serves on the editorial board of the Journal of Science and Teacher Education (JLSTE). He holds a bachelor’s degree from the National University of Laos, a master’s degree from Osaka University and a PhD in mathematics education from Hiroshima University, Japan. He has participated in various international training programmes on STEM education, lesson study and inquiry-based learning. His research interests include mathematics education, teacher development and education innovation.

**Thongthiane Vathanavong**, PhD, is a Vice Dean for Academic Affairs, Faculty of Education, Souphanouvong University. Academically, he holds a BSc in mathematics and computer sciences, an MEd in curriculum and instruction from Nakhon Pathom Rajabhat University and a PhD in curriculum and instruction from Khon Kaen University, Thailand. For the past decade, he has been an active senior lecturer in education, specialising in curriculum and instruction, research methodology, innovative educational technology and applied mathematics, as well as serving as a trainer for university lecturers and newly recruited teaching staff. His research includes a two-year project on enhancing professional development with lesson study training for lecturers at higher education institutions in the Lao PDR.

**Souliphone Sivixay**, PhD, is Head of the Department of Biology at Salavan Teacher Training College, Lao PDR, where she teaches biology and science teaching methodology. She holds a PhD in agriculture from Okayama University and a Master of Education from Naruto University of Education in Japan. With extensive experience in teaching, laboratory management and science education, she has also coordinated Japan International Cooperation Agency (JICA) volunteer programmes and has contributed to teacher training at the national level. She is a certified national science teacher trainer and has achieved several professional levels. Her research, which focuses on gut microbiota, science pedagogy and curriculum development, has generated multiple international publications as well as textbooks authored in biology and teaching methodology.

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# CONTENTS

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Biographical Notes on the Authors	3
List of Acronyms and Abbreviations	6
Acknowledgements	7
Executive Summary	8
Introduction: Addressing Challenges in Secondary Teacher Management in Lao PDR	9
Establishing the Demand for Secondary Teachers	10
Evaluation of Secondary Teacher Distribution	14
Diagnosing Secondary Teacher Utilisation	15
Secondary Teacher Management Policies and Strategies	18
Conclusion and Recommendations	20
References	21

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## LIST OF TABLES AND FIGURES

---

Table 1: Enrolment Figures and Number of Pedagogical Groups (PGs) for Subject-Specialised Secondary Teacher Needs, Lao PDR	11
Table 2: Learning Hours per Week, Lower and Upper Secondary School, Lao PDR	11
Table 3: The Total Number of Learning Hours Needed per Subject, Secondary Education, Lao PDR	12
Table 4: Statutory Teaching Time (STT) per Teacher, Secondary Education, Lao PDR	12
Table 5: Estimated Total Teacher Requirements for Secondary Education, Lao PDR	13
Table 6: The Number of PGs and Science Teachers in 15 Schools in a District in Vientiane Province, Lao PDR	16
Table 7: An Analysis of Teacher Allocation and Utilisation at the District Level, Lao PDR	17
Figure 1: The Four-Step Method for Projecting Teacher Requirements	10
Figure 2: Example: Calculation of the Additional Teachers Needed for Secondary Education	14
Figure 3: Example: Calculation of the Average Utilisation Rate	15
Figure 4: Illustration of English Teacher Utilisation at the School Level	15

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## LIST OF ACRONYMS AND ABBREVIATIONS

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<b>AUR</b>	Average Utilisation Rate
<b>ANT</b>	Actual Number of Teachers
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>CERCER</b>	Coverage Equity Ratio
<b>DESBs</b>	District Education and Sports Bureaus
<b>EESDP</b>	Education and Sports Sector Development Plan
<b>EMAP</b>	Europe, Middle East and North Africa, Asia and Pacific
<b>GDP</b>	Gross Domestic Product
<b>GPE KIX</b>	Global Partnership for Education Knowledge and Innovation Exchange
<b>HR</b>	Human Resources
<b>ICT</b>	Information and Communication Technology
<b>LCR</b>	Learning Coverage Rate
<b>Lao PDR</b>	Lao People's Democratic Republic
<b>MoES</b>	Ministry of Education and Sports
<b>PESS</b>	Provincial Education and Sport Service
<b>PG</b>	Pedagogical Group`
<b>PQTR</b>	Pupil–Qualified Teacher Ratio
<b>PTR</b>	Pupil–Teacher Ratio
<b>RNT</b>	Required Number of Teachers
<b>STEM</b>	Science, Technology, Engineering and Mathematics
<b>STT</b>	Statutory Teaching Time
<b>TNT</b>	Theoretical Number of Teachers
<b>TTLT</b>	Total Theoretical Learning Time
<b>TTTT</b>	Total Theoretical Teaching Time
<b>TTCs</b>	Teacher Training Colleges

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challenges during interviews and data collection. Their voices grounded this work in practical realities and highlighted the urgent need for informed and equitable teacher management strategies.

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## EXECUTIVE SUMMARY

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Effective secondary teacher management is critical for achieving equitable, high-quality education in the Lao People's Democratic Republic (Lao PDR). This report identifies key challenges and proposes data-informed strategies to address the shortages, inefficient allocation and underutilisation of teachers in Lao PDR.

Using national enrolment data, pedagogical group distribution and statutory teaching time, the analysis estimates a demand for 37,927 secondary teachers in 2024. The greatest needs are in national language, mathematics, English and science. However, current allocation patterns reveal inconsistencies and inefficiencies, as only 50% of the required teaching hours are being met in some districts, thereby highlighting the urgent need to improve teacher deployment and workload distribution.

This report presents a multi-level diagnosis framework that covers allocation consistency, equity and effectiveness, together with teacher utilisation analysis at the national, district and school levels. Case studies from Vientiane Province

demonstrate significant mismatches between actual teacher numbers and classroom needs.

To address these gaps, the report recommends:

- expanding lower secondary education with a focus on foundational skills,
- enhancing teacher training and professional development through upgraded Teacher Training Colleges,
- implementing targeted recruitment and incentives in rural areas,
- optimising resource use and improving data-driven decision making, and
- strengthening institutional capacity for human resource planning and monitoring.

Ultimately, a comprehensive system-wide reform, anchored in realistic projections, policy alignment and stakeholder collaboration, is essential to ensure that every learner in Lao PDR has access to qualified, motivated teachers.

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## INTRODUCTION: ADDRESSING CHALLENGES IN SECONDARY TEACHER MANAGEMENT IN LAO PDR

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The Lao People's Democratic Republic (Lao PDR) is a landlocked and mountainous country in Southeast Asia, covering a total area of 236,800 square kilometres. It shares borders with Cambodia, China, Myanmar, Thailand, and Vietnam (United Nations, 2015). The geographic and socioeconomic conditions of the country present distinct challenges to the effective delivery to educational services, particularly in the management and deployment of secondary-level teachers.

Globally, the management of secondary teachers has emerged as a critical policy concern due to a range of interrelated factors. The growing demand for secondary education, driven by increased primary-to-secondary transitions, has imposed significant financial pressure on the Lao PDR education system and heightened the demand for qualified and competent teachers. Additionally, an increasing emphasis is now placed on aligning educational outcomes with labour market needs to ensure that graduates possess the requisite skills for employment (Tournier et al., 2024). Tournier et al. (2024) highlight the following four primary and interconnected challenges in this regard: expanding access and participation, addressing teacher shortages, managing financial constraints and enhancing the relevance of education to labour market demands.

Effective management of the secondary teaching workforce is shaped by the following three key domains: the institutional, organisational and individual/environmental dimensions. Institutional factors encompass the policies, laws and regulatory frameworks governing teacher recruitment, deployment and professional development. Organisational factors relate to the mechanisms through which these policies are operationalised, including resource allocation, school leadership and administrative structures. Individual and environmental factors, although often beyond direct managerial control, include teacher motivation, socio-economic conditions, and geographic context and can significantly influence management outcomes and must be factored into decision-making processes.

In the context of Lao PDR, secondary teacher management is hindered by a set of persistent systemic challenges, as follows:

- **Teacher shortages:** A critical shortage exists regarding qualified secondary school teachers, particularly in rural and remote areas, where difficult living conditions, limited infrastructure and professional isolation impede recruitment and retention efforts (Demas et al., 2018).
- **Declining education funding:** Public financing for education dropped to around 2% of the GDP in 2022 from its peak in 2013. This reduction, which limits teacher recruitment, training and retention, is further compounded by inadequate pre-service teacher training (World Bank, 2023).
- **Gaps in pedagogical and vocational training:** The Education and Sports Sector Development Plan (EESDP) 2021–2025 identifies significant weaknesses in the capacity of teachers to deliver remedial education, vocational subjects and core academic content, particularly in relation to learning outcomes and gender equity (Ministry of Education and Sports, 2020).
- **Limited access to specialised training and instructional resources:** The EESDP underscores the need for highly qualified teaching staff, enhanced subject-specific training (particularly in technical and core subjects) and improved access to teaching and learning resources to support quality instruction and research.
- **Weak performance monitoring and outdated professional standards:** Additional challenges include a lack of effective systems for monitoring teacher performance, inadequate classroom-level assessment practices, misalignment between pre-service and in-service training curricula and outdated teacher standards that do not align with regional (i.e. ASEAN) benchmarks.

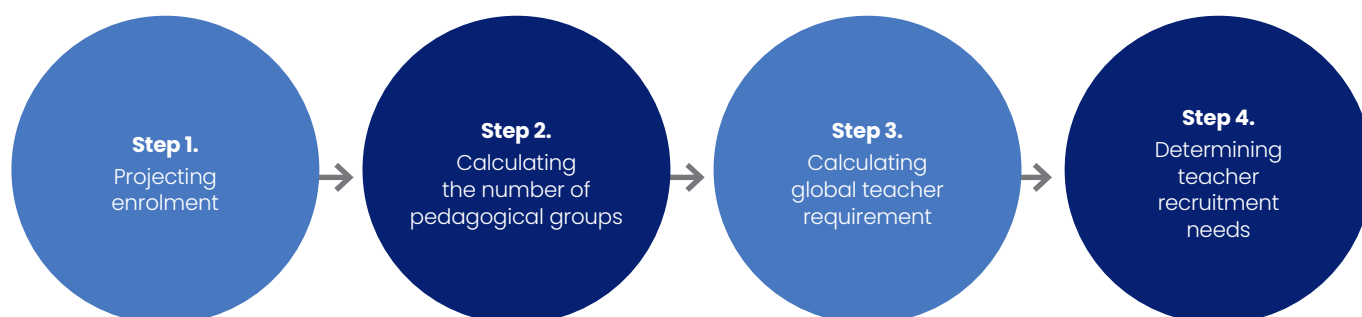
These challenges underscore the need for a comprehensive, multidimensional approach to teacher management in Lao PDR—one that addresses systematic issues while promoting equity, quality and sustainability in the education sector.

## ESTABLISHING THE DEMAND FOR SECONDARY TEACHERS

Effective planning for the education workforce requires a systematic approach to estimating teacher demand. Tournier et al. (2024) propose a comprehensive four-step method for projecting long-term teacher requirements, which considers key variables such as enrolment growth, pupil-teacher ratios, teacher attrition and education policy goals. This model, illustrated in Figure 1, provides a structured framework that supports data-driven decision-making in teacher recruitment and deployment. The figure outlines the sequential steps of

the projection process, beginning with enrolment forecasting and culminating in the estimation of the required teacher numbers. In addition to providing a long-term projection model, the authors also discuss strategies for estimating short-term teacher needs at the school level, including factors such as subject shortages and temporally staffing gaps. Together, these approaches facilitate a more responsive and evidence-based system for secondary teacher workforce management.

**Figure 1: The Four-Step Method for Projecting Teacher Requirements**



Source: Tournier et al. (2024)

## Case Study: Estimating Subject-Specialised Secondary Teacher Needs in Lao PDR

Table 1 presents a case study illustrating the estimation of subject-specialised secondary teacher needs in the Lao PDR. This example demonstrates the application of teacher demand forecasting at the national level, using current enrolment figures and the number of pedagogical groups (PGs) in secondary schools as the basis for calculation. The data provide a foundation for analysing the distribution of teaching needs across subject areas and inform strategic teacher allocation and workforce planning.

**Table 1: Enrolment Figures and Number of Pedagogical Groups (PGs) for Subject-Specialised Secondary Teacher Needs, Lao PDR**

Step 1. Projecting enrolment		
		2024
Junior secondary (lower secondary school)		491,729
Senior secondary (upper secondary school)		289,831
Step 2. Calculating the number of pedagogical groups (PGs)		
		2024
Junior secondary (lower secondary school)	Target size of PG	36
	Number of PGs	13,659
Senior secondary (upper secondary school)	Target size of PG	36
	Number of PGs	8,051

Source: Department of Organization and Personnel (2020)

Table 2 presents the weekly learning hours by subject at the junior and senior secondary level. This information supports the process of estimating subject-specific teacher needs by aligning instructional time with student enrolment figures. Based on the 2024–2025 projected enrolment of 491,729 students in junior secondary and 289,831 in senior secondary, and using a target PG size of 36 students, approximately 13,659 PGs were required at the junior level and 8,051 at the senior level (Department of Organization and Personnel, 2020). These calculations form the foundation for further analysis of teaching hour distribution and teacher allocation across subject areas.

**Table 2 Learning Hours per Week, Lower and Upper Secondary School, Lao PDR**

Curriculum Class Time		
	Lower secondary school	Upper secondary school
Social science	4	0
National language	4	4
History	0	2
Geography	0	2
Civic education	1	1
Natural science	5	0
Mathematics	4	4
Physics	0	2
Chemistry	0	2
Biology	0	2
English	4	3
Basic Information and Communication Technology (ICT)	0	1
Vocational foundation	2	2
Physical education	2	2
Art education	2	2
Other foreign language	2	1
<b>Total learning hours/week</b>	<b>30</b>	<b>30</b>

Source: Department of Organization and Personnel (2020)

Following the analysis of enrolment and pedagogical group distribution, the next step is to estimate subject-specific teacher demand by calculating total instructional hours, teacher workload and projected retirements. Table 3 presents the total learning hours required per subject based on curriculum guidelines and the number of PGs. Table 4 outlines the statutory teaching time (STT) per teacher. Using these data, Table 5 summarises the estimate of 37,927 secondary teachers needed in 2024. The highest demand is for National Language and Mathematics (4,825 each), followed by English (4,378), Natural Science (3,795), and Social Science (3,415). Moderate demand is seen in Vocational Foundation, Physical Education, and Art Education (2,714 each), and Other Foreign Languages (2,211). Lower demand includes subjects like History, Geography, and Basic Sciences (895 each), Civic Education (1,357) and Basic ICT (504).

The choice of an appropriate forecasting method depends on planning objectives and available data. Long-term projections require robust models and careful management of assumptions, as errors can accumulate over time. Effective

estimates should incorporate key policy indicators, such as enrolment growth, repetition rates, school structures and teacher attrition (Tournier et al., 2024).

**Table 3: The Total Number of Learning Hours Needed per Subject, Secondary Education, Lao PDR**

Step 3. Calculating the total number of learning hours needed				
		Lower secondary school	Upper secondary school	Total
All levels and streams	Social science	54,636	-	54,636
	National language	54,636	32,204	86,840
	History	-	16,102	16,102
	Geography	-	16,102	16,102
	Civic education	13,659	8,051	21,710
	Natural science	68,295	-	68,295
	Mathematics	54,636	32,204	86,840
	Physics	-	16,102	16,102
	Chemistry	-	16,102	16,102
	Biology	-	16,102	16,102
	English	54,636	24,153	78,789
	Basic ICT	-	8,051	8,051
	Vocational foundation	27,318	16,102	43,420
	Physical education	27,318	16,102	43,420
	Art education	27,318	16,102	43,420
	Other foreign language	27,318	8,051	35,369

Source: Department of Organization and Personnel (2020)

**Table 4: Statutory Teaching Time (STT) per Teacher, Secondary Education, Lao PDR**

	STT
Social science	16
National language	18
History	18
Geography	18
Civic education	16
Natural science	18
Mathematics	18
Physics	18
Chemistry	18
Biology	18
English	18
Basic ICT	16
Vocational foundation	16
Physical education	16
Art education	16
Other foreign language	16

Source: Department of Organization and Personnel (2020)

**Table 5: Estimated Total Teacher Requirements for Secondary Education, Lao PDR**

Step 4. Determining total number of teachers needed		2024
<b>All levels and streams</b>	Social science	3,415
	National language	4,825
	History	895
	Geography	895
	Civic education	1,357
	Natural science	3,795
	Mathematics	4,825
	Physics	895
	Chemistry	895
	Biology	895
	English	4,378
	Basic ICT	504
	Vocational foundation	2,714
	Physical education	2,714
	Art education	2,714
Other foreign language	2,211	

# EVALUATION OF SECONDARY TEACHER DISTRIBUTION

This section discusses the allocation of secondary school teachers through a conceptual framework that includes the following three diagnostic dimensions: consistency, equity and effectiveness. It also incorporates a quality-oriented perspective to assess the extent to which teacher deployment aligns with educational objectives and student needs (Tournier et al., 2024).

## Allocation Consistency

This dimension evaluates the coherence and balance in teacher deployment across subnational contexts using the following three indicators:

- **Pupil-teacher ratio (PTR):** Measures the average number of pupils per teacher. This indicator helps identify disparities in teacher distribution, particularly with respect to subject-specialised teachers, across regions.
- **Pupil-qualified teacher ratio (PQTR):** Assesses the proportion of students taught by teachers who are formally qualified to teach at the secondary level.
- **Learning coverage rate (LCR):** Evaluates the ratio of teaching hours theoretically available from existing teachers to the total number of instructional hours required by students.

## Allocation Equity

Building on the LCR, this analysis investigates whether differences in teacher allocation are associated with student characteristics, such as geographic location, socioeconomic status or gender. This goal is to determine whether teacher distribution practices compensate for disadvantages or, conversely, reinforce inequities, either intentionally or inadvertently.

## Allocation Effectiveness

The final level examines the degree to which current teacher deployment contributes to improved student learning outcomes. This involves assessing whether existing allocation patterns support instructional quality and align with broader educational goals.

The diagnosis of teacher allocation requires a complementary quantification of the gap between the current teacher supply and projected instructional needs. This involves calculating the number of additional teachers required to meet the demands of a growing student population, curriculum standards and equitable distribution. Figure 2 illustrates the step-by-step process for estimating additional teacher needs, including an example based on enrolment data, PG distribution, and STT. This approach provides a practical tool for planners to identify subject-specific shortages and to inform evidence-based recruitment strategies.

**Figure 2: Example: Calculation of the Additional Teachers Needed for Secondary Education**

**Example: In a district level**  
Number of science teachers = 500  
STT per teacher = 24 hours per week  
Number of PGs = 1000  
Number of periods in the curriculum per PG = 30 hours per week  
Substituting the values:  
$$= 500 \times 24 / 1000 \times 30$$
$$= 12000 / 30000$$
$$= 0.40 \text{ or } 40\%$$

The Learning Coverage Rate (LCR) is 40%, meaning that only about 40% of the required teaching hours are covered, indicating a teacher shortage for the given number of student groups. Since 40% coverage is too low, we need to find the required number of teachers for 100% coverage.

Calculate the required teacher numbers for 100% coverage

$$\text{Required teachers} = 1000 \times 30 / 24$$
$$= 30000 / 24$$
$$= 1250 \text{ teachers}$$

Therefore, additional teachers needed =  $1250 - 500 = 750$  teachers.

# DIAGNOSING SECONDARY TEACHER UTILISATION

This section introduces a comprehensive conceptual framework for analysing secondary teacher utilisation to address the efficiency of teacher deployment throughout the education system. The framework consists of the following three analytical levels: (1) national or regional comparative analysis, which uses the average teacher utilisation rate to evaluate how effectively teachers are engaged across different geographic or administrative areas; (2) district or cluster-level investigative analysis, which examines teacher deployment patterns within smaller administrative units to identify localised issues or disparities; and (3) micro-level descriptive analysis at the school level, which focuses on the effective utilisation rate by comparing actual teacher workload against theoretical and required teaching hours (Tournier et al., 2024). This multi-level approach enables a detailed understanding of utilisation dynamics, from broad system trends down to individual school practices.

Figure 3 illustrates the calculation process for the Average Utilisation Rate (AUR) of teachers and demonstrates its practical application for national or subnational education assessment and planning. The example assumes a scenario involving 800 Pedagogical Groups (PGs), each requiring 32 class periods per week in accordance with the national curriculum. Based on this, the Total Theoretical Learning Time (TTLT) is calculated as the total number of instructional periods needed across all PGs. Figure 4 further illustrates teacher utilisation at the school level, using English language teaching as a case study to highlight discrepancies between the theoretical number of teachers (TNT) needed, the required number of teachers (RNT) practically required to cover classes and the actual number of teachers (ANT) currently employed. These examples underscore the potential inefficiencies and areas needing improvement in teacher deployment and utilisation.

**Figure 3: Example: Calculation of the Average Utilisation**

**Illustration:**

800 PGs, 32 of class/week according to curriculum  
1000 teachers, 22 hours/week STT

Total Theoretical Learning Time (TTLT) =  $800 \times 32 = 25,600$   
Total Theoretical Teaching Time (TTT) =  $1000 \times 22 = 22,000$   
If teachers cannot work overtime:  $LCR = 22,000/25,600 = 86\%$   
Teachers can only cover 86% of the curriculum

If teachers can work overtime: Average utilisation rate (AUR) =  $1/LCR = 116\%$   
Teachers need to work overtime of 16% to cover the curriculum

**Interpretation:**

Average utilisation rate < 100%  
This suggests a surplus of teachers but often reflects (at least in part) structural underutilisation  
Also need to consider only active teachers (in class, not substitutes)  
Average utilisation rate > 100%  
This indicates a shortage of teachers but does not indicate scale of shortage

**Calculation:**

Total under-utilisation rate is only computed when the average utilisation rate is < 100%  
Total underutilisation rate =  $100\% - \text{average utilisation rate}$   
e.g. if average utilisation rate = 80%, total underutilisation rate = 20%

**Figure 4: Illustration of English Teacher Utilisation at the School Level**

**Illustration - School level:**

Your school has 5 PGs, and each PG is due to receive 6 hours of English lessons per week.

The school has 3 English teachers, each required to teach 24 hours per week.  
Calculation: The school needs a total of 30 hours ( $5 \times 6$ ) of English per week.  
TNT: Theoretically, the school needs 1.25 English teachers ( $TNT = 30/24 = 1.25$ ).  
RNT: In practice, the school needs 2 English teachers to cover all English classes:  
RNT = 2.

ANT: However, the school actually has 3 English teachers: ANT = 3.

Calculation:    TNT = 1.25                      RNT = 2                      ATN = 3

## Context and Data Overview

In a district within Vientiane Province, suppose 15 schools are analysed to assess science teacher utilisation. Each PG is allocated 4 hours of science instruction per week, with the STT for science teachers set at 24 hours per week. Table 6 presents the distribution of PGs and the number of science teachers across these schools, serving as the basis for evaluating teacher deployment efficiency at the district level.

**Table 6: The Number of PGs and Science Teachers in 15 Schools in a District in Vientiane Province, Lao PDR**

	Number of PGs	Number of science teachers
School 1	8	3
School 2	9	2
School 3	12	2
School 4	11	2
School 5	9	3
School 6	9	4
School 7	8	4
School 8	7	3
School 9	6	3
School 10	5	2
School 11	8	3
School 12	9	2
School 13	8	3
School 14	9	3
School 15	7	3

<b>Number of hours of science in the curriculum</b>	<b>4</b>
<b>STT</b>	<b>24</b>
<b>AUR</b>	<b>50%</b>

The data in Table 6 indicate that only 50% of the required teaching hours are covered, meaning that the current allocation of teachers is insufficient to fully meet the teaching demands. The AUR of 50% suggests a significant teacher shortage, wherein only half of the required teaching time is covered. To achieve 100% coverage, either more teachers need to be recruited or the existing teachers need to increase their teaching hours (i.e. overtime).

Table 7 presents a summary of teacher allocation and utilisation across 15 schools. It highlights the gap between the required teaching hours and current teacher capacity, offering insight into the efficiency of teacher deployment and areas where additional staffing or workload adjustments may be necessary.

**Table 7: An Analysis of Teacher Allocation and Utilisation at the District Level, Lao PDR**

	Number of PGs	Theoretical Number of Teachers (TNT)	Real Number of Teachers (RNT)	Actual Number of Teachers (ANT)
School 1	8	1.3	4	3
School 2	9	1.5	2	2
School 3	12	2.0	5	2
School 4	11	1.8	3	2
School 5	9	1.5	4	3
School 6	9	1.5	3	4
School 7	8	1.3	6	4
School 8	7	1.2	4	3
School 9	6	1.0	2	3
School 10	5	0.8	2	2
School 11	8	1.3	3	3
School 12	9	1.5	4	2
School 13	8	1.3	3	3
School 14	9	1.5	6	3
School 15	7	1.2	4	3
<b>Total</b>	<b>125</b>	<b>20.8</b>	<b>55.0</b>	<b>42.0</b>
<b>RNT - TNT = 34.2</b>			<b>ANT - RNT = -13.0</b>	
<b>Structural Under-Utilisation Rate = 0.81</b>			<b>Operational Under-Utilisation Rate = -0.31</b>	
<b>Total Under-Utilisation Rate = 0.50</b>				

Table 7 presents an analysis of teacher allocation and utilisation in a district (15 schools). From the calculation, a clear shortage of 13 teachers is evident, resulting in only 50% of the necessary curriculum being covered. The teacher utilisation rate (81%) suggests that the existing teachers have nearly full teaching loads, but this is still insufficient to meet demand. Schools with

a higher gap between required and actual teachers are facing the most learning deficits. To ensure full coverage, additional teachers must be recruited, or existing teachers must work overtime, although the latter is not a sustainable solution in the long term.

# SECONDARY TEACHER MANAGEMENT POLICIES AND STRATEGIES

Effective management of secondary teachers in Lao PDR requires a multifaceted policy approach focused on improving teacher supply, enhancing equitable allocation and optimising resource utilisation. This section outlines key proposed strategies aimed at strengthening teacher management in response to persistent systemic challenges.

## Feasible Expansion of Lower Secondary Education

The expansion of lower secondary education must be both affordable and realistic, with a strong focus on improving primary-level literacy and numeracy to ensure a smooth transition and reduce dropout rates. Additionally, equivalent secondary education should be strategically expanded to ensure that students have the necessary academic foundation for success.

## Improving Learning Outcomes and Reducing Disparities

Effective teacher management is crucial for improving student learning outcomes. A more efficient and equitable allocation of teachers and resources is essential, particularly in the 40 most disadvantaged districts identified by the Ministry of Education and Sports (MoES) (Ministry of Education and Sports, 2020). Strengthening resource management and ensuring that qualified teachers are available where they are most needed will help reduce disparities and improve education quality.

## Enhancing Teacher Training and Professional Development

To enhance teacher supply and quality, Teacher Training Colleges (TTCs) will be upgraded to serve as professional development centres for both pre-service and in-service teacher training. Given the shortage of subject-specialised teachers, TTCs must expand training programmes to equip teachers with the ability to teach multiple subjects. This is particularly the case for teachers in rural areas, where teacher shortages are more pronounced. The systematic implementation of teaching standards will provide a foundation for teacher performance evaluations that will ensure accountability and continuous improvement.

## Institutional Strengthening for Optimised Teacher Allocation

Achieving a more balanced teacher distribution requires institutional strengthening at all levels of the education system.

The skills and competencies of MoES staff must be realigned to address current and future challenges, supported by improved human resources (HR) systems to optimise teacher deployment. Strengthening the Provincial Education and Sport Service (PESS), the District Education and Sports Bureaus (DESBs), clusters and schools by clarifying their mandates and refining job descriptions will enhance efficiency, accountability and transparency in teacher allocation. Additionally, establishing monitoring systems to track teacher supply and demand will ensure effective deployment (Ministry of Education and Sports, 2020).

## Building Capacity in STEM and Technical Education

To align teacher competencies with labour market needs, teacher training institutions must provide technical training, research and services that equip teachers with essential skills, particularly in science, technology, engineering and mathematics (STEM) and life skills education.

## Ensuring Teacher Supply and Equitable Distribution

Policies must support equitable teacher deployment through targeted recruitment strategies, particularly in underserved rural areas. This includes rural practicum programmes, which have shown promise in improving teacher perceptions of rural postings (Versland et al., 2020), and incentive packages, such as housing support and hardship allowances, that address regional disparities (Crawford & Pugatch, 2020).

## Optimising Resource and Teacher Utilisation

Improving the efficiency of education systems involves balancing teacher workloads and adjusting class sizes without compromising learning quality. Integrating educational technology can further enhance teaching effectiveness and resource impact.

## Creating a Supportive Policy Environment

Clear teacher management guidelines, including well-defined policies on performance assessments and career progression, are essential for maintaining teacher motivation and accountability. Additionally, data-driven decision making plays a crucial role in improving teacher management by regularly collecting and analysing data on teacher distribution, student performance and regional needs. This approach enables

informed policy decisions, ensures effective resource allocation and enhances the overall efficiency of the education systems.

### **Strategies to Attract and Retain Teachers**

To attract and retain enough teachers in Lao PDR, educational policies should focus on competitive incentives, comprehensive support and clear career development pathways. Offering adequate salaries, housing allowances, health care benefits, and retirement plans can make teaching more attractive, while scholarships and financial aid for candidates from underserved areas can help to address shortages where demand is greatest. Career advancement opportunities, including mentorship and leadership roles, can motivate teachers to remain in the profession, while targeted financial incentives and allowances can encourage rural placements. Regular

professional development, manageable class sizes and strong administrative support can reduce burnout and improve retention. Additionally, relocation assistance, family support and community integration can further incentivise teachers to stay in high-need areas. To ensure equitable teacher allocation, data-driven strategies should identify under-resourced areas, prioritise vulnerable schools and implement financial and housing incentives that will attract teachers. Short-term exchange programmes, localised recruitment and continuous monitoring will help balance staffing and improve equity. Maximising teacher efficiency through optimised workloads, multi-subject training, hybrid learning models, and mentorship programmes will ensure better resource utilisation while reducing reliance on new hires.

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## CONCLUSION AND RECOMMENDATIONS

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Effective secondary teacher management is crucial for ensuring equitable access to quality education in Lao PDR. However, significant challenges remain, including the rising demand for secondary education, financial constraints and the need to align education with the labour market. Managing teacher supply, allocation, and utilisation requires a strategic approach that addresses institutional, organisational and environmental factors. Key issues include teacher shortages, declining education funding, gaps in pedagogical and vocational training and inefficient resource distribution. Addressing these challenges through data-driven policies and targeted interventions can improve teacher availability, retention and effectiveness and ultimately enhance learning outcomes.

The strategic focus for improving secondary teacher management should prioritise strengthening teacher supply, ensuring equitable allocation and optimising teacher utilisation. By recruiting and training teachers (especially in underserved areas), offering incentives for rural placements and promoting professional development, Lao PDR can enhance teacher distribution and adjust strategies for equitable educational resource allocation.

Ultimately, improving teacher management in Lao PDR will require a multifaceted approach that integrates both short-term solutions and long-term reforms to create a sustainable, well-supported teaching workforce capable of meeting the educational needs of the country's growing student population. This comprehensive approach will improve the quality of education while also bridging the gap between the education system and the job market, thereby ensuring that graduating students are better prepared for the workforce.

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KIX EMAP Learning Cycle Case Study, August 2025



20, Rue Rothschild | P.O. Box 1672  
1211 Geneva 1, Switzerland  
+41 (0) 22 908 45 47  
norrag.kix@graduatenstitute.ch



@KIXEMAP



@KIXEMAP



@KIXEMAP



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