LITERACY & EDUCATION
Accessibility of schools

Achieving inclusive and equitable education for all is one of the 17 globally agreed upon SDGs. Benefits from investments in education are not limited to individual returns, such as enabling individuals to increase their personal income and prosperity, but result in society-wide benefits as well. Education contributes to poverty reduction, public health improvements, as well as increased accumulated of human capital for society as a whole. Thus, education is seen as a key driver for national growth. Access to schools and basic educational opportunities is listed as a fundamental human right for children in the Universal Declaration of Human Rights in 1948, and is key to pursuing further education later in their life, while better educated individuals contribute their knowledge and skills to society as a whole.

The GoL highlights education and human resource development as a primary tool for poverty reduction and socio-economic development. The GoL has put significant efforts into improving basic education to achieve the dual goals of Education for All (EFA) and Millennium Development Goals (MDGs) in the past decades, and continues to do so as manifested in the 8th NSEDAR, and as part of its commitment to the SDGs. The Lao PDR has made significant progress towards those goals. According to the censuses, the number of primary school students has increased from 3,747 in 2005 to 6,427 in 2015, which is an increase of over 70%. This goes along with an increase in the number of primary school students from 589,265 in 2005 to 814,719 in 2015, and an improvement of the net enrolment rate from 66 to 75%.

During the 2015 census, the existence and type of primary school facilities within the village was recorded. In the absence of more precise data on the location of such school facilities within a given village, the administrative centre was taken as reference. Travel time from any given location to the nearest school was estimated using GIS information on road connectivity, road type and condition, terrain, and land cover. The resulting travel time map provides an overview of the general accessibility of primary school facilities across the country.

Spatial patterns in 2015

Map D1 presents the geographical distribution of villages that accommodate a primary school facility, combined with the estimated travel time required to reach the nearest school. Primary schools are present in 78% of the villages throughout the country. This percentage does not vary significantly between urban and rural areas. Physical accessibility to schools depends on a number of factors, including the geographical location of schools in relation to the village, the quality of infrastructure for travel, such as roads, bridges, and ferries, and the local terrain. Schools are unevenly distributed across the country, and the distribution largely follows the geographical pattern of population density (see Map B1.1). Schools are most densely distributed in and around urban, more densely populated areas such as Vientiane Capital City, provincial capitals, and along main roads. This means, that children in more remote areas are likely to have to travel longer ways to school than those residing in more accessible areas, reflecting also the challenges for a government to providing equal access to schools in more remote areas. Nonetheless, overall access to schools in terms of the distribution of primary schools high, even in rural areas, and most schools can be reached within an hour.

Children in villages without a school have to commute to nearby villages where schools are available. However, as shown in Map D1, villages without a school are often located in remote areas, clustered with other villages where children have to travel further than just to the neighbouring village to attend school, thus requiring longer travel times. Figures 3 and 4 show the share of villages by average travel time to the nearest primary school. In 43% of villages, the nearest school is under 90 minutes away, ensuring relative good school accessibility to more than 50% of the primary school students in the country. A significant 15% of all primary school students need to travel over 90 minutes to reach the nearest school, and almost 8% need to travel over 2 hours. Villages without schools are often those in more remote areas - many of them located in Phonsavan and Luang Namtha in the north, as well as in Savannakhet and to a lesser extent in Saravane and Sekong in the south. Access to schools has an important impact on school attendance, dropout rates, and late enrolments, which correspond to lower academic performance later in school life.

Figure 3: Share of villages by average travel time to the nearest primary school

<table>
<thead>
<tr>
<th>Travel time in hours</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>0 - 0.5</td>
<td>14.9</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>24.6</td>
</tr>
<tr>
<td>1 - 1.5</td>
<td>14.9</td>
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<td>1.5 - 2</td>
<td>8.3</td>
</tr>
<tr>
<td>&gt; 2</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Figure 4: Share of primary school students (6-11 years old) by average travel time to the nearest primary school

<table>
<thead>
<tr>
<th>Travel time in hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
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<td>50</td>
</tr>
<tr>
<td>0.5 - 1</td>
<td>22.2</td>
</tr>
<tr>
<td>1 - 1.5</td>
<td>12.8</td>
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<td>1.5 - 2</td>
<td>7.7</td>
</tr>
<tr>
<td>&gt; 2</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Literacy

Literacy is a basic human right and an important skill enabling people to achieve their goals and fully participate in their community and wider society. People lacking basic levels of literacy have difficulties accessing basic services, and participating in political dialogue and decision making. Typically, illiteracy is associated with poverty, social exclusion, and various other forms of discrimination. Literacy is also directly related to the economic productivity of a society. Therefore, the disadvantages of illiteracy are not limited to individuals but may have an impact on entire communities and all of society.

Efforts by the GoL to improve basic education have resulted in improved literacy. Overall, literacy rose from 73% in 2005 to 85% in 2015. Despite this increase, however, there are still significant regional differences and social inequalities in literacy levels.

During the 2015 census, all people above 5 years of age were given a simple message to read and were asked about their ability to read, write, and understand Lao or any other language.

Spatial patterns in 2015

Map D2.1 reveals the spatial distribution of the illiterate working age population, represented by the size of the dots, along with the respective areas’ literacy rates represented by the coloured shadings. Although areas with low literacy rates are typically comparatively sparsely populated (compare Map B1.1), the absolute number of illiterate people is nonetheless high in those areas, which are primarily concentrated in Luang Namtha, Phongsaly, and Bokeo Provinces of the far north, and in Savannakhet Province in the South.

Map D2.2 shows the local literacy rates of 15-24 year olds, overlaid with the distribution of schools. Interestingly, at least at a national scale, the density of schools does not reflect the literacy rate of the young population, which is rather similar to that of the entire working age population where villages with high literacy rates (> 90%) are located primarily in the country’s lowlands, and in
the north, including parts of the uplands there, in Huaphanh, Xe-nguang, Luang Prabang, and Xayabury Provinces, most villages have a rather high literacy rate among the youth and young adults. These regions contrast with very distinctive areas of low literacy rates, where less than half of the young population between 15 and 24 years of age can read and write. They include in particular the northern parts of Luang namtha, Phongsaly, and part of Bokeo in the north, and the eastern two-thirds of Savannakhet Province in the south – areas that are typically home to many ethnic minority people whose primary language often differs from Lao language, which is the language used and taught in schools. Indeed, literacy rates are clearly affected by the native language group of different ethno-linguistic groups. Distinctly higher literacy rates occur in areas where people primarily speak languages similar to Lao, i.e. among the Lao-Tai language group (95% male literacy, 92% female literacy), while low literacy rates occur in rural remote areas where ethnic minority people, particularly those of Sino-Tibetan origin, reside (57% male literacy, 47% female literacy) (see Maps P1 and P2).

Literacy rates are high (above 90%) in urban areas both among men and women. In rural areas, however, the gender gap tends to be significantly wider. This is particularly true in rural areas without all-year road access, where only 62% of women can read and write, compared to 81% of men there.

**Dynamics between 2005 and 2015**

Though overall rates, however, is still there have been significant improvements in literacy rates between 2005 and 2015: in most of the areas with lower literacy rates, strong positive changes can be observed. While positive changes have occurred among both men and women, improvements are much stronger among women who have begun to catch up to men from the lower literacy rates exhibited in 2005, as illustrated in Maps D2.3 and D2.4 respectively.

Significant improvements are seen in most parts of the country, particularly in the most disadvantaged areas, although there are clearly also areas which have experienced decreases in literacy rates. The regions which exhibit smaller degrees of change, particularly the main lowland areas of the country along the Thai border, are areas that already had better literacy rates in 2005.
Sex ratio in literacy

Literacy among men in the Lao PDR (90%) remains significantly higher in 2015 than among women (80%). Literate and educated women have a great positive influence on themselves, their family, and society as a whole. Children with literate mothers tend to have better nutrition, and a better education (Alderman, 2017). The education level and literacy of women therefore play an important role in reducing poverty.

Using information on the gender, age, and literacy of each individual five years and older from the 2015 and 2005 censuses, sex ratios for the literate population of specific age groups can be calculated, along with the respective changes that occurred between the 2005 and 2015 censuses.

Significant increases in literacy rates can be observed among both men and women between 2005 and 2015: the literacy rate among women has increased by around 16% since 2005, while the literacy among men increased by 7% in that period, implying good progress in both overall literacy and narrowing the respective gender gap significantly.

The sex ratio of the literate population, as well as the respective trends, vary significantly across different geographic locations, across different ethno-linguistic groups, and by the degree of poverty.

Spatial patterns in 2015

Map D3.1 shows the proportion of literate men to literate women aged 15 - 24 in 2015. Literacy rates are higher among men in places shaded blue, whereas shades of red indicate areas where female literacy rates exceed male literacy rates. Given the overall gender imbalance of literacy with rates higher among men, it is surprising to see that large parts of the Lao PDR actually show slightly higher literacy rates among women. However, where more pronounced imbalances exist, rates among men are much higher, particularly in the far north close to the Chinese border in Luang Namtha and Phongsaly, as well as in the south near the Vietnamese border. In these regions, more in line with global trends of less affluent families prioritizing educating boys, literacy rates are already generally low and men have much higher literacy than women. Meanwhile, in the western part of the country, especially in urban areas, there is a much less pronounced gender gap in literacy rates along with generally higher literacy rates across these urban populations.

In the older age group of 25 – 64 year olds, the gender imbalance is much stronger: aside from in some urban and peri-urban areas, male literacy clearly outweighs female literacy, indicated by the dark blue areas on Map D3.3. Again, this pattern is most pronounced in the north and south where literacy rates are already low (see Map D3.1). Progress towards narrowing the gender gap in literacy is illustrated by the clear increase in red areas on Map D3.1 compared to Map D3.3, but also clearly points to areas still lagging behind in that respect.

Dynamics between 2005 and 2015

Maps D3.2 and D3.4 reveal how the gender imbalance in literacy among the population age 15-24 and among the working age population of 25 – 64 years old has changed between 2005 and 2015. As illustrated in the maps in red, the areas where male literacy is far greater than female literacy have decreased significantly across the country, but particularly in those areas that still show the greatest gender imbalances. This indicates that progress in narrowing the literacy gender gap was greatest in areas where this gap was also most pronounced.

Compared to the younger age group, the gap between higher literacy rates among men than women has decreased more significantly in the older age group. This implies that progress in narrowing the gender gap has slowed in some areas, which indeed happens to be in areas that today have a more balanced level of literacy among men and women. Nonetheless, a significant increase in the gender imbalance, illustrated in dark blue, can be identified in several villages located in the most disadvantaged regions with the lowest overall literacy rates, which certainly should be seen as a worrying trend.
Net enrolment rates

While education at least at the primary school level is compulsory in most countries, actual school enrolment is often below 100%. The net enrolment rate (NER) measures the proportion of children enrolled in school across different age groups. The NER is one important tool for measuring progress towards development objectives such as the SDGs, or the goals of the GoL’s NSEDP (2016).

Primary and lower secondary education is compulsory, universal and free in the Lao PDR. Costs for school books and other supplies, as well as shortage of teachers, or labour force at home, are, however, important reasons why not all children of school age attend, even during compulsory school years.

During the PHGs of 2005 and 2015, information on the age of every individual was collected, along with information on whether each individual currently attends school, and if so, which grade they are in. This forms the basis for the village-level NER calculations for primary, lower, and upper secondary school. For instance, the NER for primary education is the number of 6-11 year olds of a village that were attending school at the time of the census, divided by the total number of 6-11 year olds in that village.

Overall the NER in primary education in Laos has increased from 8.4% in 2005 to 98.5% in 2015, slightly surpassing the government’s target of 98%. While the NER of both lower and upper secondary education remain low, it has nevertheless improved significantly also for secondary education, and exceeds the Lao government’s respective goal stated in the 7th NSEDP (2011).
Spatial patterns in 2015

The different maps on this double page show the net enrolment rates of 2015 in primary, lower secondary, and upper secondary education, along with the respective changes between the censuses. Not surprisingly, enrolment rates drop significantly between primary and lower secondary school, and again at the transition to upper secondary school. The spatial pattern, however, remains relatively consistent across the country: lower enrolment rates occur in the mountainous areas of the far north and the southeast, contrasting with higher enrolment rates throughout the Mekong River valley, and in more accessible areas in the north. The NERs for primary school are particularly low and concentrated in the eastern half of Savannakhet and, to a lesser extent and with less consistency, in central and northern Luang Namtha and Phongsaly Provinces (Map D4.1). Some of these area show very low NERs of less than 50% despite the fact that physical access to schools in those areas is typically quite good (see Map D1).

Enrolment in lower, and even more so in upper secondary schools (Maps D4.3 and D4.5) is very low across Luang Namtha, Bokeo, and Phongsaly Provinces in the north, and in the east along the Vietnam border, including the eastern half of Savannakhet, Saravane, Sekong and Attapeu Provinces in the south. Enrolment is also particularly low for upper secondary schools in the mountainous parts of Khammuan and Borkhamxay.

These areas contrast with comparatively high enrolment rates in most of the northern provinces of Huaphanh, Xiengkhuanb, Kayabury, Luang Prabang, as well as in Vientiane Province, Vientiane Capital City, and Borkhamxay in central Lao PDR.

Dynamics between 2005 and 2015

The red and green coloured maps illustrate the changes in net enrolment rates between censuses: red represents a decrease in net enrolment rates, while green signifies an increase.

The most significant overall changes are observed in primary enrolment (Map D4.2), with strong increases in net enrolment in most of the villages in more disadvantaged, mountainous areas of the country in the north as well as in the south. The promotion of primary education in these areas has clearly resulted in positive change. In many more accessible lowland areas, on the other hand, changes were much more moderate, with slight increases as well as slight decreases in net enrolment rates. These are areas which already had rather high net enrolment rates in 2005.

A comparison of the spatial patterns of change in net enrolment rates in primary and lower secondary education (see Maps D4.2 and D4.4) reveals some interesting patterns: many of the areas that have experienced little to no change in primary school NERs experienced a strong increase in lower secondary NERs, which reflects the impact of high primary net enrolment on later improvements in secondary school enrolment.
D4.3: Lower secondary education enrolment

D4.4: Dynamics in lower secondary education enrolment

D4.5: Upper secondary education enrolment

D4.6: Dynamics in upper secondary education enrolment
Sex ratio in education

The global goals of the EFA (UNESCO, 2015) and SDGs (UNDP, 2015) call for equal access to education for boys and girls. Gender inequality in education is prominent where cultural norms give priority to educating boys, while traditional roles for girls include helping with domestic tasks and with raising younger siblings, often starting at young ages.

Despite significant progress in narrowing the gender gap in education in the Lao PDR, a strong imbalance remains at all levels of education, with a wider gap towards the higher levels of education.

Spatial patterns in 2015

Map D5.1 illustrates the proportion of male to female students in primary education. In general, it is far more common to find a student sex ratio above 100, meaning there are more boys in schools than girls. Villages with a particularly significant gender gap are concentrated in Phongsaly and Luang Namtha Provinces near the Chinese border in the north, in Savannakhet Province particularly near the Vietnam border, and in the south.

This gender imbalance becomes more pronounced at higher education levels. In the most remote areas, very few students enter into secondary education (see the white areas in Maps D5.3 and D5.5). Moreover, the higher NER of boys than girls in secondary education is much more significant in the urban and remote lowland areas, whereas in the more densely populated lowland and urban areas, the gender imbalance is less pronounced.

Dynamics between 2005 and 2015

Map D5.2 illustrates how the proportion of men to women in primary education changed in the past 10 years. In general, the NER of girls has increased in many parts of the country (indicated by a negative figure in the change of the sex ratio, shown in red), particularly in areas where boys have much higher NERs than girls. This illustrates that progress has been made, but that there is still ample room and need for improvement, particularly in the most disadvantaged areas of the country. Interestingly, progress in female NERs is even more pronounced in secondary education.
Out-of-school children

School-age children may not attend school for a variety of reasons sometimes related to the costs of attending school (direct and in terms of opportunity costs), to cultural attitudes towards education generally, and for a variety of other reasons. For example, children may have limited physical access to schools in their area, families may require children’s labour, priority might be given to other duties over studying, limited school facilities or resources may discourage attendance, and a range of other obstacles may exist. Generally, so-called out of school children (OOSC) come from poor households, typically in remote rural areas, and OOSC rates are especially high among children in ethnic minority groups whose first language is not Lao, which is used and taught in school.

Spatial patterns in 2015

Although the number of schools and net enrolment rates have increased in the Lao PDR over the past decade, many children are still not attending school regularly. Map D6.1 shows the distribution of OOSC between 6 and 11 years old who are supposed to attend primary school.

Large numbers of primary school aged children do not attend school in many villages in the northwest and the north, as well as in the eastern parts of the south, indicated with red dots on Map D6.1. These more remote rural areas are often populated with people of non-Lao ethnolinguistic groups. Among them, the Sino-Tibetan populations have the highest rates of OOSCs, followed by Mon-Khmer and Hmong-Mien populations (see Map F2). In terms of absolute numbers of OOSC, in Savannakhet, Saravane, and Champasak Provinces, many larger villages have high rates and large numbers of OOSC.

Map D6.3 reveals a gender gap among the 6 to 11 year old OOSCs, where in more accessible lowland areas a higher portion of OOSCs tend to be boys, and in the poorer areas (see Map F1) particularly in the southeast and the north of the Lao PDR generally more OOSCs are girls, largely reflecting the pattern of the gender gap in primary education (Map D5.1).

Dynamics between 2005 and 2015

Map D6.2 illustrates how the proportion of OOSCs among the 6 to 11 year olds in each village has changed over the last decade. A distinctive spatial pattern is quite clear: while the percentage of OOSCs decreased significantly throughout the uplands of the north and along the Vietnam border in southern Lao PDR, the changes are much smaller and more mixed in most of the lowland areas of the country. The areas with the strongest decreases in OOSCs in this age group are the areas that had the highest OOSC rates before, and are therefore also the areas where there was the greatest need and also the greatest scope for improvement.
School attendance

School attendance is mandatory in the Lao PDR at both the primary and lower secondary school levels. All children between 6 and 16 years of age should therefore be attending school.

During the implementation of the PHC 2015, information was collected on current school attendance for all people 6 years of age and older. Overall, four fifths of all 6-16 year olds were attending school in 2015 – a significant increase from two thirds in 2005. Over half of those not attending in 2015 had attended school at some point in the past, but dropped out before completing the mandatory years of schooling.

Spatial patterns in 2015

The maps on this page show school attendance rates among 6, 10, and 15 year olds, as well as changes in these indicators since 2005. A number of distinctive patterns can be observed.

Firstly, rather than steadily declining with age, school attendance starts at a rather low level among six year olds, reaching a high attendance rate in most parts of the Lao PDR among 10 year olds, then declining again to a low attendance rate among the 15 year olds. This indicates that many children start school late, i.e., after the official start of schooling at age 6, and drop out again before completing the compulsory lower secondary schooling.

Secondly, distinctive spatial patterns are obvious: areas with late school enrolment include the far north and the northwest, as well as much of south eastern Lao PDR. Attendance at age 10 is lowest by far in eastern Savannakhet Province, which is also among one of the poorest areas in the country (see Map 11.1). School attendance among 15 year olds provides a similar picture: in areas where children tend to start school late, there is also a clear tendency for early drop-outs. All those areas are comparatively poorer and typically inhabited by members of a non-Lao ethno-linguistic groups.

Dynamics between 2005 and 2015

Maps D7.2, D7.4 and D7.6 depict changes in the enrolment rates at the three aforementioned ages between 2005 and 2015. While there have been clear improvements in net enrolment rates in some places, there are also small pockets where rates declined. In the early years, improvements in enrolment rates were strongest in the poorer areas of the country, with some decreasing enrolment rates in certain lowland areas of the north. Among ten year olds, that pattern is even stronger, wherein the most disadvantaged areas of the country made the most progress, basically having caught up with the rest of the country, whereas enrolment rates remained at a relatively high level in most lowland areas. Patterns are again less distinctive among 15 year olds, although improvements have occurred in eastern Savannakhet Province and much of the northeast on the one hand, while decreases occurred in western Saravane and much of Sekong, as well as in many parts of the north western Lao PDR.