Partnership Schools for Liberia

Executive Summary

Partnership Schools for Liberia (PSL) is a public private partnership (PPP) for education aiming to dramatically improve learning outcomes for children. PSL launched in September 2016, with 93 primary schools managed by eight operators. PSL is a government-led initiative. All commissioning decisions, quality assurance and regulation remain the responsibility of the Ministry of Education. All schools remain government schools and are free. President Ellen Johnson Sirleaf and Education Minister George K. Werner launched PSL because they recognised that the status quo is unacceptable. Something new is urgently needed. Trying to deal with all of the problems across the system at once was overwhelming, especially given limited resources. The President and Education Minister wanted to get learning outcomes right in a small number of schools, funded at a basic level, and then scale up if reforms were effective. The cost of PSL is no more than the amount many governments in the region already spend on their primary schools ($100 per pupil). It was also hoped that performance, safety and standards would improve by having the contracted organizations visit each school regularly. Given highly constrained resources in education, most Liberian schools are currently visited only once a year, limiting performance management and improvement. PSL is a pilot, and like any good pilot, it should be judged on the empirical data it produces—data on whether PSL schools deliver better learning for Liberian children, both boys and girls, urban and rural, at affordable costs to the government and donors.

1) Context in Liberia

Education statistics in Liberia, both enrolment and learning outcomes, are among the worst in the world. After more than a decade of civil war and the Ebola crisis of 2014/15, the public education system is simply not able to deliver the quality of education that children need and deserve:

- In rural areas, 65 percent of young women and 35 percent of young men aged 15-24 are illiterate.
- Across the country, 25% of 15-24 year olds cannot read a single sentence.
- Just 20 percent of children who enrol in grade one go on to complete grade 12.

2) Rationale for Partnership Schools for Liberia

Bold and progressive reforms are needed if things are to change for Liberia’s children. Recognising the limited capacity of government to deliver better outcomes, the Ministry of Education looked to the non-state sector to insource school management expertise into the public system through a PPP. This is an integral part of a wider set of education sector reforms taking place and defined in Liberia’s Education Sector Plan 2017-2021. It is expected that the external expertise will bring in: closer monitoring and performance management, innovative learning models, and additional resources bringing Liberia to the investment level of many neighbouring countries while the Liberian economy recovers from shocks such as Ebola and the drop in commodity prices. PSL has also enabled standard policies to be developed for these 93 schools that can now be scaled and applied to all government schools – for example, extending the school day to 3pm, allowing more literacy hours; making Early Childhood Education free, not just primary school; and allowing teachers to be added to payroll if they pass a Ministry-administered test.

3) The Partnership Schools for Liberia pilot

Eight operators were commissioned by the Ministry of Education to manage 93 public primary schools, educating more than 27,000 children. Operators were commissioned through a transparent process, which scrutinized their track record, capacity, plans and budgets. Operators signed a contract with the Ministry of Education outlining the responsibilities of each partner within PSL and holding them accountable against a set of pre-agreed KPIs. The Ministry of Education is receiving
philanthropic support to increase its capacity to manage PSL through a delivery unit to become an informed and strong commissioner, regulator and quality assurer of PSL schools.

4) **External evaluation**

A three year randomised control trial (RCT) has been commissioned to provide independent and rigorous evidence on the impact of PSL on learning outcomes and other key metrics. The results from the RCT will be used to inform future PSL policy, particularly scale-up decisions.

5) **Financial model, scale and sustainability**

- **The funding formula** for PSL in year one provides a philanthropically funded per pupil subsidy of $50 per child to operators, in addition to the state’s investment of $50 per child – the same financial obligation the government has to every other public school. This aligns with the projected increase in state per-child expenditure to $101 by 2020.

- **The cost of the PSL pilot in year one** is $3.9 million, of which $2.5 million requires external funding. The balance is government funding. This is inclusive of operator subsidies, the evaluation and capacity building, but exclusive of operator R&D costs and costs related to diseconomies of scale.

- **Any scale up in year two** will take into account the political economy in Liberia with upcoming elections in late 2017, operator performance, realistic funding projections and the total financial liability of the program to Liberia’s education system.

- **Achieving equity is essential as PSL moves forward. PSL should not be viewed as a parallel system and every effort will be used to capture and integrate lessons learned from PSL into the wider education system. For example PSL schools can act as proactive learning hubs to disseminate modular innovations to the most disadvantaged districts in Liberia. PSL policies such as extending the school day at low cost; transferring and/or adding teachers to payroll based on performance in a test; administering the Teacher Code of Conduct can also be applied to all schools now that they have been tested in PSL schools.**
1. Context in Liberia

1.1. Country context
Liberia is a post-conflict country with substantial levels of vulnerability and fragility. The protracted 14-year civil war cost the lives of approximately 250,000 people and led to substantial losses in material wealth and social progress.

Liberia’s post-war GDP growth was strong between 2004–13. Real GDP grew on average 7 percent, with significant contributions from agriculture and services. However, hit by a twin shock - the Ebola epidemic and falling commodity prices - Liberia’s GDP growth sharply dropped to 0.7 percent in 2014 and 0 percent in 2015. In 2016, growth is expected to rise to 2.5 percent. Over the medium term, economic growth is expected to increase to 5.5 percent on average. Poverty levels in Liberia remain high:

- Nearly 70 percent of the population in Liberia lives on less than $1.90 per day (compared to 50% in other developing countries in Sub-Saharan Africa).
- Liberia continues to have one of the lowest human development indices in the world, ranking 177 out of 188 countries in 2015 (UN Human Development Report 2015).

Presidential and legislative elections are scheduled for October 2017. The transition to a new administration may result in political uncertainty and high turnover within government ministries.

1.2. Liberia’s education system

1.2.1. Recovery post civil war
Since the end of the civil war, the Ministry of Education has rebuilt the formal and informal public education systems to meet the goal of providing equal access to education for all children regardless of age, disability and gender. Liberia has recognized education as a top priority in its medium and long-term development plan. The Education Sector Plan 2010-2020 aimed to provide all Liberians with the opportunity to access and complete affordable education of a quality, relevance and appropriateness that meets their needs and that of the nation. This was reinforced by the Liberia Agenda for Transformation and Education Reform Act 2011. The Education Reform Act (2011) restructured the Ministry bureaus, reformed the student grade structure and laid out a pathway to decentralization through the establishments of county and district education boards. In 2016, the Ministry of Education developed and endorsed a new Education Sector Plan 2017-2021.

1.2.2. Provision and financing of education
Education is provided by both public and “non-state” schools. The definition of non-state includes church owned, private-for-profit, non-profit and community schools:

- About 30 percent of the children from the poorest 40 percent of the households are enrolled in non-state schools
- 30 percent of children from rural communities are also attending non-state schools.

Some children enrolled in non-state schools are there because there are no available public alternatives, while others, especially in more urban areas, have chosen private schools in the hope that they offer better quality education. The difference in the out-of-pocket costs between public and non-state schools is significant. This is because most non-state schools are low cost schools whereas the non-fee elements of the costs of attending public schools, including uniform, transportation or meals represent a significant burden on the average household. The most significant burden on households is the tuition paid for pre-primary education, which is strongly imposed on families by the schools as an entry condition to first grade.

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1.2.3. Government expenditure on education

The budget share for education within total government spending remained at around 13.5 percent between 2012-2016, planned to rise to 14.4 percent in 2016/17. This is below both the government’s own target in the Education Sector Plan 2010-20 and the Global Partnership for Education minimum benchmark (20 percent). This is incremental but significant progress towards raising education’s share of the national budget.

Compensation of employees currently makes up 78 percent of the MoE budget of $44 million per annum. This leaves little room for the Ministry to conduct other activities that are essential for enhancing education quality such as in-service teacher training, curriculum development, school monitoring and developing national assessments.

1.2.4. Challenges facing Liberia’s education sector

- **Low enrollment rates**: The Net Enrollment Ratios (NER) are low for all education levels, 29 percent for ECE, less than 60 percent for primary, and 26% for secondary. Gross enrollment is higher; in fact only 17 percent of primary-age children are not attending either Early Childhood Education or Basic Education services.

- **Late enrollment and overage enrollment**: Approximately 40 percent of primary school students are more than three years older than the appropriate age for their grade. This challenge begins at ECE. Nearly 40 percent of children enrolled in ECE are age six or older, the age for entry into grade one. Systemic late entrance into primary school has a negative ripple effect throughout the sector on learning outcomes, primary completion and efficient use of scarce resources.

- **Inequitable access to education**: Fewer than 47 percent of youth aged 10-19 from households in the lower two quintiles reach Grade 6, compared to 88 percent of the top quintile.

- **Fees for ECE**: Almost all public ECE schools currently charge fees (3,500 Liberian dollars per year - approximately USD 35), with additional costs for uniform and shoes. The current ECE fees policy contribute to the exclusion of children from poor households. Many schools require that children complete kindergarten prior to being allowed to enter grade one. ECE fees have been abolished in PSL schools and are being abolished in the rest of the country’s public schools.

- **Low learning outcomes**: Learning outcomes are dismal. A literacy assessment conducted in 2014 found that grade three students’ oral reading fluency was below 20 correct words per minute, which is significantly lower than the Ministry benchmark of 45 correct words. 35% of Grade 2 students could not read a single word correctly. Among adult women who reached fifth grade, only 20 percent can read a single sentence.

- **Limited accountability and support at all levels**: School inspection and supervision is inadequate; few schools receive regular, structured visits. District officials are often unable to inspect schools due to a lack of travel budget, difficult transport conditions and lack of human capacity.

- **Lack of a national learning assessment system**: There are no systems in place for measuring student learning outcomes in grades one to six. This means the Ministry cannot determine the level of student learning in early grades, compare learning outcomes across regions, or track students’ progress.

1.2.5. Education donor landscape

The major donors providing education funding to Liberia are USAID, the European Union, Global Partnership for Education (GPE) and the World Bank. Given the relatively small size of the domestic

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basic education budget ($44 million, of which 78 percent is spent on salaries) large donors wield considerable power. Official development assistance (ODA) for education is significantly more than domestic financing. Financing to education from USAID, GPE and the EU alone totals more than $50 million annually, but almost none of this is channeled through the Ministry of Education.

Put simply, Liberia could be described as the least sovereign country in the world. The chart below shows the ratio between ODA and gross national income (GNI). Liberia is a stark outlier: in 2010 Liberia received $1.42 billion in ODA, while posting a gross national income of $805 million giving a ratio of 177 percent. This had reduced to 116 percent by 2014, due to declining ODA and GNI, with ODA receipts totaling $842 million and GNI of $720 million.

What this means in practice is that the Ministry of Education’s ability to make financing decisions relating to education sector priorities is limited. While development partners, including USAID and the European Union, participate in the development of the Education Sector Plan, and ultimately endorse it, there is no requirement for them to commit funds aligned to its priorities.
2. Rationale for Partnership Schools for Liberia

2.1. An impetus for change

Heated debates rage, globally and within Liberia, about the relative performance of the public and non-state sectors. But the reality is that the vast majority of Liberia’s children are not getting the education they need to have real choices and chances in life. The data described in section 1.2 shows how dismal educational outcomes are in Liberia. President Ellen Johnson Sirleaf and Education Minister George Werner knew that they needed to try something new if they were to disrupt the failing system. Minister Werner looked outside of Liberia for proven models that might be adaptable to the Liberian context, and saw that US-style charter schools, or UK-style academies, could hold great potential for Liberia.

2.2. Public private partnerships for education

Charter schools and academies are forms of PPPs: these are government schools that are privately managed. Such arrangements have shown potential to improve learning, particularly for the poorest children. While evidence is by no means comprehensive or complete, it suggests a positive correlation between private provision of education and student learning.

Many governments are looking at ways to separate the financing of education from its provision so they can focus on strong regulation and commissioning, rather than being the monopoly provider. Experience from elsewhere in the world suggests that education systems where government retains the role of rigorously commissioning, regulating and funding education, but allow a diverse set of operators to provide education, have the potential to deliver better student performance. This sort of PPP is increasingly being considered by developing countries, including South Africa, India and Uganda, as a way to insource non-state sector expertise to increase access to quality education.

There are various different forms of education provision, illustrated below. Partnership Schools for Liberia is a publicly financed, privately provided PPP, where schools remain part of the public system.

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<thead>
<tr>
<th>Private Provision</th>
<th>Public Provision</th>
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<td>Private Finance</td>
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<td>• Private schools and universities</td>
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<td>• Private tutoring</td>
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<td>Public Finance</td>
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<td>• Vouchers for private schools</td>
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<td>• Charter schools, academies</td>
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<td>• Partnership Schools for Liberia</td>
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<td></td>
<td>• User fees in government schools</td>
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<td>• Student loans</td>
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<td></td>
<td>• Public schools and universities</td>
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2.3. The benefits and risks of PPPs for education

The introduction of PPP schools has the potential to drive up the quality of education in government or private schools. This typically works by:

- **Incentivising and controlling quality**: The potential of PPPs lies in the government’s ability to align contract incentives with education outcomes. Strong PPP contracts include measurable outcomes, allowing government to select, support and expand only quality providers. Good PPPs are embedded within strong accountability systems with good and transparent data and robust quality assurance frameworks.

- **Diversity of provision, bringing competition**: Introducing PPP schools should increase levels of competition in the sector (especially if funding follows students), putting pressure on all education providers - public, private and PPP – to improve quality.
• **Autonomy and accountability for school operators:** The flexibilities offered through PPPs for example in the recruitment and management of teachers, timetabling and curriculum freedoms can lead to both improved accountability, efficiency and quality. Research shows that privately managed schools produce positive results when combining increased levels of school autonomy with high accountability mechanisms.

• **System level impact:** PPP schools can serve as ‘innovation labs’: a means to test policies and interventions that can then be rolled out across the wider education system.

However, PPPs are not a panacea. Giving a school PPP status does not in itself make a difference and there are a number of risks for which the government needs to have mitigation strategies:

• **Weak accountability mechanisms can lead to failure:** If a PPP policy is introduced without the proper focus on quality outcomes, and without adequate regulatory systems in place, the effectiveness of the approach is undermined. For example, in Chile the voucher system established in the late 1980s was not accompanied by strong accountability frameworks and has increased inequality and segregation.

• **PPPs require high quality school operators:** A significant barrier to quality is low levels of capacity in the public system. Even within the private sector, human capital is a resource constraint. Investment in the incubation and growth of the school operators market is required in order to ensure there is a sufficient number of high-quality operators able to work within the public system.

• **PPPs require strong government capacity:** The relevant national, state or local government must play a role in the identification of potential school providers, the commissioning of new PPP schools and the on-going monitoring and contract management of school providers – and be willing and able to intervene effectively in the event of underperformance.

### 2.4. Evidence of the impact of PPPs

When considering the introduction of PSL, the Ministry of Education looked at evidence generated from elsewhere. In doing so, it found an insufficient evidence base, but some promising data points:

• In the USA, students living in poverty who attend charter schools show a marked improvement in learning outcomes compared with a similar cohort in government schools (CREDO 2013).

• Assessments of over 60,000 children in Punjab, Pakistan show that the Punjab Education Foundation – which enables poor children to attend low-cost private schools for free - has achieved significant gains in learning outcomes in both literacy and numeracy (Brookings, 2013).

• Test scores in Colombia’s concession schools, when controlled for confounding variables, are equal to or higher than those in equivalent government schools (Felipe Barrera-Osorio, 2007).

• The educational, operational and governance benefits of school networks, rather than individual schools, are increasingly recognised (Robert Hill, 2012).

Absolute Return for Kids (Ark) EPG has commissioned leading academics to produce a rigorous review on PPPs for education, which will be available in early 2017. This will validate the need for more evidence and for PPP experiments, like PSL, to be rigorously evaluated to contribute to this evidence base and to help inform policy dialogue at national and global level.

### 2.5. Designing Partnership Schools for Liberia

With the benefits, challenges and evidence outlined above in mind, the Ministry of Education designed PSL to be appropriate for the unique context in Liberia, while embedding principles of diversity of provision and competition, sustainability, a strong focus on quality and equity, high levels of accountability, and system strengthening.
3. The Partnership Schools for Liberia Pilot

3.1. Goal and objectives

The goal of Partnership Schools for Liberia is to rapidly improve numeracy and literacy outcomes for pre-primary and primary age children through contracting the management of public schools to non-state operators. The pilot project, which launched in September 2016, aims to test this model and has three objectives:

i. Select, commission and contract non-state operators to run 93 public primary schools, leading to higher learning outcomes in literacy and numeracy.

ii. Build the capacity of the Ministry of Education to effectively play the role of commissioner, regulator and quality assurer of PSL schools.

iii. Conduct a rigorous external evaluation to measure the performance (quality, cost-effectiveness, equity) of PSL schools in comparison with traditional public schools.

3.2. Commissioning process

The Ministry of Education contracted eight private operators to manage public primary and combined K-Grade 6 schools to non-state operators. This was managed through a transparent and competitive commissioning process, with applicants required to demonstrate how they met eligibility criteria. The process consisted of two stages, as required by the Liberian Public Procurement and Concessions Committee (PPCC), with which the Ministry of Education worked closely to plan the process. Stage One was a request for expressions of interest (REOI). Stage Two was a request for full proposals from those organizations that passed the REOI stage.

The selection committee, chaired by the Minister for Education, comprised two representatives from the Ministry, two advisors from ARK EPG and one from civil society. The process was overseen by the Ministry’s procurement director. Meetings were held before and after with the PPCC, which oversees all government procurement, to ensure the correct process was followed. Eleven organizations submitted expressions of interest; nine organizations were invited to make a full proposal; and seven organizations were finally selected as school operators as part of PSL.

Bridge International Academies was commissioned through a separate process, following a visit by Minister Werner and President Sirleaf to their schools in Kenya and Uganda. BIA was funded under a separate foundation grant before the existence of PSL. This was the result of a direct government request in 2016 to the philanthropic sector to support the implementation of an existing, low unit cost model to improve learning outcomes at scale. The PSL was developed following this initial grant, which then introduced a number of different partners and modalities working at different scales across the country.

3.3. Data on Partnership Schools for Liberia

3.3.1. PSL overview data (December 2016)

<table>
<thead>
<tr>
<th>Operators</th>
<th>Eight: with experience from more than 10 countries</th>
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<tbody>
<tr>
<td>Schools</td>
<td>93 pre-primary and primary schools</td>
</tr>
<tr>
<td>Children in PSL schools</td>
<td>27,379</td>
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<tr>
<td>Counties covered</td>
<td>13/15</td>
</tr>
<tr>
<td>New teachers on public payroll</td>
<td>500+</td>
</tr>
<tr>
<td>Increase in # learning hours per day</td>
<td>From four to seven (on average)</td>
</tr>
<tr>
<td>Percentage girl child learners</td>
<td>47 percent</td>
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</table>
3.3.2. PSL school allocation by operator

93 schools were allocated to eight school operators, based on their track record and capacity to manage schools. Of the eight operators, four have experience running schools outside of Liberia, and four have experience either running schools or educational programs within Liberia.

3.3.3. PSL’s geographical coverage

PSL schools are located in 13 of Liberia’s 15 countries. The map below shows the location of the PSL “treatment” schools, as well as the equivalent control schools within the randomized control trial (see section four). A priority for year two is to ensure greater coverage of PSL schools in underserved counties, especially in the southeast, to achieve greater equity.

3.4. Government capacity

3.4.1. Accountability within the Liberian education system

If PSL is to be successful, the government must take on the role of commissioner, regulator and quality assurer of school performance. This will strengthen the education system beyond PSL: information on school performance can help governments to support schools or challenge them to improve; help parents hold schools to account; and help schools understand better how they can improve themselves. Measuring school performance and acting accordingly through an
accountability system has been shown in many different geographies to drive up education standards (Hanushek 2004, Burgess 2010, Bruns, Filmer and Patrinos 2011).

Liberia already has elements of a basic school accountability system – for example it has a system of county and district education officers (DEOs and CEOs) that are supposed to support and provide oversight to schools. However, the system inhibits effective monitoring and accountability in a number of ways:

- **Quality assurance:** DEOs and CEOs are heavily involved in the running and day-to-day management of the system. This has the dual effect of reducing the time they have for effective monitoring and inspections and skewing incentives. DEOs and CEOs are responsible for both the quality of schools and ensuring improvement, and judging the quality of schools.

- **Data:** The process for collecting data is cumbersome. Anecdotal reports suggest that EMIS data is incomplete. There is little to no reliable data on attendance or retention and none on quality at primary years.

- **Assessments:** there are no agreed standards in primary or early years. Without these it is hard to compare quality. This has the dual impact of making accountability harder for the government and reducing the information schools and parents can use to make decisions.

Ultimately, the existing framework does not provide reliable data on student characteristics or student outcomes, and nor does it allow the Government to have adequate visibility of school performance across the country. For GoL to effectively play the role of commissioner, regulator and quality assurer, the government will need the capacity and expertise to hold schools accountable for performance.

### 3.4.2. PSL delivery unit

The Ministry is establishing a PSL delivery unit, a separate organizational unit within the Ministry organogram, reporting directly to the Minister, and primarily comprised of high performing Ministry staff who are seconded from their post or hired in. The delivery unit will meet responsible Ministers and their teams on a weekly basis to review progress and there will be stock-take meetings with the Minister every two weeks. The main roles of the delivery unit are outlined below; a capacity building plan is in place to ensure the Ministry can play these roles effectively.

#### a. Collect reliable and rigorous school-level data

Better data is needed at school and Ministry level to track attendance, attainment and other key metrics. School information systems (SIS) can improve accountability and highlight where action is required, as well as transform a government’s ability to monitor its schools.

The data collected will be fed into an aggregated dashboard, which allows the Ministry and other partners to keep track of progress at school, operator and pilot level. The shots below provide an example of the kind of dashboard that can be developed and kept updated. This has been trialed in Sierra Leone, India, Uganda and South Africa and has proven reliable in contexts with and without internet access.

The use of SIS provides visibility to school leaders and government on the measures of school performance outlined. Based on logistics, particularly access to internet, routines are being planned implemented whereby data is collected from schools, validated for quality and shared with government to allow regular monitoring. Crucially, operators are encouraged, and will be provided with training, to analyze their reports and adjust their plans accordingly.

The KPI framework was discussed and agreed with operators ahead of the launch and forms part of their contract with the government. Operators are required to submit KPI reports on a quarterly basis, which are combined into a data pack and scrutinized by the Ministry. The KPI data, together with results from the external evaluation, will feed into the government’s decision-making process regarding the scale of the program in year two.
Example data dashboard

b. Quality assure PSL schools

The Ministry of Education is being supported to design and implement a quality assurance framework, which identifies the most basic and critical issues faced by a school. This tool will likely be implemented by CEOs and DEOs, who will be trained as assessors to cover all schools. The tool complements and validates data generated through the school information system by providing more comprehensive insight into school performance. This approach has been trialed in more than 2,000 schools in Madhya Pradesh, India, where equivalent government resources have been trained as assessors.

The framework outlines and measures key indicators of school performance categorized under functional domains:

1. Quality of enablers
   - School leadership
   - School management

2. Quality of processes
   - Teaching
   - Support for students
   - Parent and community engagement

3. Quality of outcomes
   - Academic outcomes
   - Personal and social outcomes.

The tool provides both feedback to government and, crucially, a school improvement plan framework for the school itself.

c. Analysis of performance and subsequent action

A calendar of performance management routines has been established to regularly assess progress against the outcomes and actions in the policy and implementation plans:

- The PSL team is being trained to analyze school performance data and to present it to the Ministry leadership team in a format that encourages robust discussion.
• This performance data should be discussed at bi-weekly routine stocktake meetings, chaired by the Minister of Education. The outcomes of the discussion will lead to supportive or punitive action being taken – in other words, any decisions to terminate or expand individual school operators will be taken on the basis of robust data.
• A comprehensive system of support and interventions for low-performing schools will be developed and implemented.
• Government-provided reports on school performance will be shared with the schools, parents and civil society.

3.5. Achievements and challenges to date

3.5.1. Achievements

PSL commenced in September 2016 so outcome data is not yet available. However, some notable achievements have been recorded in the first semester, most importantly the successful launch of a truly government-led public private partnership for education, with multiple operators and a rigorous evaluation. The participating operators represent some of the highest performing education organizations in Africa and Liberia. In addition to the data in section 3.3.1, PSL has delivered the following for Liberia’s children:
• A surge in enrolment, in both primary and ECE, including in rural communities
• Hundreds of hours of teacher training delivered to PSL teachers, with plans for thousands over the rest of this year.
• Over 500 new qualified teachers are now on the payroll: this consist of 275 trained teachers who were waiting for jobs and 225 existing teachers who had been volunteering without pay
• A teacher in every classroom. PSL schools were on average missing four teachers in every school. They now have a teacher per grade, plus two administrators
• Longer school day. On average PSL students receive three more hours of learning per day
• PSL schools are monitored on average every two weeks, compared with around once per year previously.

In addition, there have been some notable system level effects of PSL, which have the potential to have enduring impact across the public system:
• Recognition of the need for a longer school day
• Recognition of the need to remove fees for ECE across the public system
• Determination to test teacher competencies, and remove those who are not performing
• Determination to reduce all class sizes to a maximum of 60
• Measuring success through learning outcomes, not solely inputs such as infrastructure or textbooks.
• Increased recognition of the need to hold schools accountable more effectively, through regular monitoring and supervision
• Better quality data on the state of the education system
• Improved Ministry capacity in areas including contracting and procurement, policy development, project management, partner engagement, problem-solving, KPI development.

3.5.2. Challenges

PSL has faced a number of challenges ahead of and since the launch in September. Most significant was the global and national media storm relating to the perceived privatization of Liberia’s education system. This was a stark signal to the Ministry and its partners to invest more in proactive communications going forward, to ensure that the media’s reporting on PSL is fair and accurate. PSL continues to receive significant media scrutiny and coverage, with articles in the New York Times, BBC, Mail and Guardian, Vox and numerous pieces in the Liberian media. Other challenges, which are being factored into the decision making process for scale in year two, include:
• **Government capacity to hold operators accountable:** While great emphasis is being placed on building up the capacity of the Ministry of Education, the limited resources mean that the government has not been able to monitor PSL schools as rigorously as it wants and needs to.

• **Operator capacity:** PSL operators were commissioned following diligence on their track record and capacity. However, four operators are working in Liberia for the first time and have been required to adapt to the unique context rapidly.

• **Compressed timeframe:** PSL was conceptualized in January 2016. Given the urgent need to improve educational outcomes, the Minister set an aggressive and ambitious timeframe to open PSL schools eight months later. The fact that 93 schools are up and running is a huge achievement, particularly given access challenges during the rainy season. However, the rapid start-up phase created imperfect conditions for operators, evaluators and government alike.

• **Teacher payroll:** The civil service agency (CSA) has instituted a freeze on all new civil service hires. Therefore, retiring teachers, ghost teachers or underperforming teachers need to be directly replaced with new ones. This has meant that a number of teachers in PSL schools were not paid for the months of September and October. The Ministry is currently resolving this issue and expects this to be complete by the start of semester two. Importantly, PSL has illuminated a system level challenge and government is finding ways to address it.

• **Sustainability:** PSL schools are receiving at least twice the funding of equivalent government schools, significantly more in some cases. The funding formula has been designed to ensure that schools operate at $100 per child, the projected government expenditure by 2021. However, getting to that price point will require some hard decisions to be made, particularly as PSL increases its footprint in more marginal areas in 2017, which is likely to result in higher unit costs.

• **Long-term funding for PSL:** The PSL pilot is being funded through a combination of government and philanthropic financing; the majority of the financial risk in the pilot is being absorbed by philanthropic foundations. In the medium to long term, a sustainable financing strategy needs to be in place that does not rely on external philanthropic funding. This will require the Ministry to work closely with the Ministry of Finance and Development Planning (MFDP) to ensure that the national education budget increases as planned, and/or for in-country donors, such as USAID and the World Bank, to commit funds to PSL. PSL schools receive the equivalent of $50 per child in the form of school staff salaries paid directly to the staff themselves, the same as traditional public schools. The PSL schools also receive an extra $50 per child raised by philanthropy in order to "turn around" the schools in initial years. In the short-term, these can be thought of as implementation costs attributable to the execution of new school management practices, learning environment policies, etc. The $50 amount for programming was determined given that this is the estimate that the MoE spends on programming at public schools through various albeit non-equitably distributed aid-funded intervention programs. Consequently, a spend of approximately $100 per child in a PSL school is the same as is expected to be spent in a non-PSL public school. It is expected that in the next 3-5 years, the MoE/GoL itself will take on the spend of $100 per child per year, with approximately $50 going to wage bills and $50 going to program costs. The premise of PSL is that while the intervention may be donor or aid funded now, the cost of continuing the program and expanding it nationally is within the financial reach of the Government of Liberia. This is a critical part of the program design. Some PSL operators have also independently secured additional funding, for example, to support initial R&D efforts they believe are necessary to improve student learning.

3.6 PSL partner roles and responsibilities
The Ministry of Education has successfully mobilized a coalition of partners who are committed to improving educational outcomes on Liberia through PSL. Managing any complex partnership like this is challenging, and there is need to tighten up roles, responsibilities and accountabilities in year two. The table below outlines the roles of each partner during the pilot year.
<table>
<thead>
<tr>
<th>Partner</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Education</td>
<td>Overall responsibility for decision making; commissioning, quality assurance, financing and regulation of operators, project management and performance management, policy development</td>
</tr>
<tr>
<td>Advisors (ARK EPG, AGI)</td>
<td>Policy advice, project management, operator and evaluator commissioning, capacity building of Ministry team, data analysis, fundraising, communication</td>
</tr>
<tr>
<td>Evaluation team (Principal Investigators and IPA)</td>
<td>Design of the randomized control trial (PIs); data collection through school and household surveys (IPA)</td>
</tr>
<tr>
<td>PSL funders (Vitol, UBS, ELMA and others)</td>
<td>Scrutinize PSL budgets, challenge sustainability pathway, engage other funders</td>
</tr>
<tr>
<td>Funders of individual operators (Mulago, VITOL, and others)</td>
<td>Bilateral funding relationships with individual operators</td>
</tr>
</tbody>
</table>
4. **External evaluation**

4.1. **Overview of the external evaluation**

The externally commissioned evaluation will compare the 93 PSL schools to regular government schools in the control group, to test whether non-state management improves teacher accountability as measured by absenteeism, time on task, and ultimately improved student performance. Complementary analysis will assess the sustainability, scalability, and relative cost-effectiveness of this PPP model, as well as its effects on equity. Finally, the evaluation itself will serve as a prototype for an overarching layer of "results-based accountability", linking payments and contracts for private operators to demonstrated improvements in enrollment and student learning. A set of FAQs providing more detail on the scope and design of the evaluation is available [here](#).

Minister Werner requested that Justin Sandefur be the academic advisor to PSL and principal investigator on the evaluation. Following a transparent and competitive bidding process, IPA was selected to be the evaluation agency. An academic advisory board consisting of Pauline Rose, Michael Kremer and Karthik Muralidharan has been established.

4.2. **Objectives and scope of the external evaluation**

The objective of the external evaluation is to provide a rigorous, independent measure of the effectiveness, equity, and sustainability of the PSL program in delivering quality education to Liberian children.

To investigate these questions, the evaluation will collect survey data from parents, teachers, and students to measure both intermediate inputs (e.g., school management, teacher behavior, parental engagement), and final outcomes (i.e., student learning outcomes). Data will be collected on intermediate factors to provide insights into why PSL schools did or did not have an impact. Specifically, the evaluation will study the impact of this program on:

- Access to schooling (i.e., enrolment and attendance rates in communities with and without PSL schools)
- Learning outcomes of students attending PSL schools (i.e., the effectiveness of these schools compared to regular public schools)
- Teacher behavior (e.g., absenteeism, time on task, use of corporal punishment, and teachers' job satisfaction and turnover rates)
- School management (e.g., monitoring visits, support and training for teachers, investment in school infrastructure and materials, and extra-curricular activities)
- Parental engagement in education (e.g., education expenditure, involvement in school activities)
- Perception of the program (i.e., how do teachers, parents, and students feel about the program)
- Equity, as measured by the socio-economic composition of students who access PSL schools
- Equity, as measured by spill over effects on nearby non-PSL schools

Impacts on each measure will be assessed by comparing improvements over time in PSL schools compared to control schools. The evaluation will also assess cost-effectiveness by collecting data on operators’ implementation costs and modeling the financial sustainability of the program.

Improvements in learning outcomes take time to manifest and the evaluation team is aware of this. Thus, capturing significant impacts in intermediary outcomes can provide insights on whether we expect the program to show greater improvements in learning outcomes in the future.

All of these activities are intended to inform policy decisions by the GoL and international donors about continuing or scaling-up the PSL program, while simultaneously informing international debates about the design of PPPs in education.
4.3. Evaluation design

This will be a randomized impact evaluation (RIE) or, synonymously, a randomized controlled trial (RCT). The key characteristic of an RCT is that participation in the program is randomly assigned by the researchers, and conclusions are drawn by comparing participants to a control group. Randomization helps ensure that any differences between PSL schools and control schools reflect the true impact of the program, and not pre-existing differences.

In the case of the PSL, randomization was done at the school level. Within the list of eligible schools approved by the Ministry and each operator, the evaluation team randomly assigned half of the schools to participate in PSL. The randomization for the PSL evaluation used a matched-pair design. In other words, each PSL school has a matched control school (i.e., a traditional public school not in PSL). The matching was done based on county, district, and school-level characteristics.

The RCT will rely on three to four rounds of data collection:

- Baseline: September 2016
- Midline: July 2017
- Midline: July 2018 (TBC)
- Endline: July 2019

4.4. Evaluating the performance of individual operators

Evaluating the performance of individual operators is not the primary purpose of the evaluation, and it has not been designed to make these kinds of comparisons. The reason for this is very simple: different operators will be working in different geographical locations. Some operators will have mostly urban schools in or near Monrovia, while others will have mostly rural schools that are harder to reach, with more marginalized populations. Furthermore some operators, which are able to do independent fundraising, will have larger budgets per pupil. This makes it difficult to compare like with like as inputs will vary across the different modalities. For example, some operators have conducted independent fundraising to enable startup, R&D efforts, publishing of new textbooks for use under the Liberian national syllabus, or to allow a larger per-pupil budget. Costs of creating textbooks or software may be understood differently than direct school operations.

A key message here is to keep in mind that this is an evaluation of the PSL program as a policy. The evaluation will ask whether the PSL policy works in the Liberian context given the set of potential operators available to the Ministry of Education. While it won’t be possible to make reliable comparisons between operators, it will be possible to make limited statements about individual operators on their own, especially those operating a larger number of PSL schools.

The official evaluation report will focus first and foremost on the overall effect of the PSL, not individual operators. However, the Ministry of Education will have access to operator-level data compared with their equivalent control schools. A presentation of operator-specific results will emphasize that operators ran schools in different contexts, with different processes for vetting schools, and the sample sizes for any one given operator wouldn’t suffice for a rigorous evaluation.

It is unlikely anyone will be able to detect statistically significant differences across operators due to sample sizes. This means that even if some operators have better outcomes than others, it will be impossible to tell from the data whether this is truly due to differences in the outcomes, or just natural variation in the data. Below is the minimum detectable effect for each operator:

- BRAC: 0.4 SD
- Bridge International Academies: 0.37 SD
- More than Me: 0.78 SD
- LIYONET: 1 SD
- Omega: 0.41 SD
- Rising: 0.87 SD
- Stella Maris: 1 SD
• Street Child: 0.52 SD

These power calculations will be included in the pre-analysis plan. An absence of statistical significance for a particular operator does not mean that there was not an impact - it could be that the sample was too small to detect a smaller, but still meaningful, impact. Essentially for operators taking on fewer schools, it is quite unlikely the evaluation could detect an impact for any of these operators on their own, even if they are successful and achieve impressive learning gains.

Finally, note that small differences in learning gains between different operators are almost certain to occur, and these are unlikely to be statistically significant. In order to state that a given operator had an impact that was significantly larger than the average PSL impact (or the impact of any other operator) these differences would have to be quite large.

4.5. Dissemination of results

The announcement of PSL provoked considerable controversy both in Liberia and globally, with some international media attention and responses from the UN and various advocacy organizations. The Minister of Education and the partners of the PSL program are keenly aware that this program is under scrutiny. One positive result of this scrutiny is that we expect the rigorous evaluation of the PSL program to garner a wide and eager audience.

There are two broad routes through which findings may influence policy: first, by directly guiding medium-term planning decisions in Liberia, and second, by using Liberia as a testing ground to generate broader knowledge about the design and effectiveness of PPP programs that can inform policy debates in other countries and in international organizations.

a) Direct impact on Liberian policy decisions

• **Detailed government report:** The report will provide specific recommendations on the scalability of PSL schools to improve education in Liberia. Studying PSL schools after three years of operation will provide an accurate description of the long-run implications of the program.

• **Direct engagement with the Minister and donors:** To date, the research team has collaborated closely with the PSL team in the Liberian Ministry of Education, and expects this close collaboration to continue through the research process and dissemination stage.

b) Broader impact on global policy discourse

There are several routes through which the research will impact the global policy conversation on public-private partnerships in education:

• **Academic journal publications:** The main academic article, unlike the report for the Liberian government, will focus on knowledge from the PSL program that can be generalized and therefore is useful in other contexts. This report will focus on the design of the PSL, and whether and how these features translate into greater accountability and improve student learning.

• **Direct engagement with investors and funders:** Several major investors in private schooling in the developing world have already expressed interest in this research, and the evaluators will maintain an open dialogue with these parties. In addition, results of the research will be presented to major public-sector donors in international development, including at seminars at the World Bank, UK Department for International Development, USAID, etc.

• **Media engagement:** As research results emerge, the evaluation team will disseminate findings with media contacts and compose one or more op-ed pieces based on the results to promote a balanced and nuanced understanding the results.

• **Policy brief:** As a starting point for media and policy engagement with the research results, the evaluators will produce a policy brief summarizing the main findings from the academic article and translating them into policy lessons for the policy makers.

• **Rich anonymized data set of 185+ schools in Liberia:** A complete anonymized dataset will be published alongside the journal article and placed in data repositories so other researchers can easily access it and explore additional questions about education in Liberia and PPP programs.
5. Financial model, scale and sustainability plan

5.1. Financial model for PSL pilot year one

During the first year of the pilot, the operating expenses funding formula is calculated as follows:

- Government per-child expenditure: $50 per child per year
- Philanthropic subsidy: $50 per child per year

The $50 external subsidy was calculated by analyzing the expected trajectory of government funding on education over the next five years, see section 5.2 on sustainability.

Subsidy payments are capped at 65 children per class (which explains the difference between total and eligible students in the table below). A minimum payment of $12,500 per school is paid (250 children) so that operators managing small rural schools are not disadvantaged.

<table>
<thead>
<tr>
<th>BRAC</th>
<th>LIYONET</th>
<th>MtM</th>
<th>Omega</th>
<th>Rising</th>
<th>Street Child</th>
<th>Stella Maris</th>
<th>Bridge</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>#Students</td>
<td>6,267</td>
<td>977</td>
<td>1,086</td>
<td>5,878</td>
<td>1,101</td>
<td>3,265</td>
<td>1,160</td>
<td>7,752</td>
</tr>
<tr>
<td>#Eligible</td>
<td>5,450</td>
<td>1,000</td>
<td>1,500</td>
<td>4,944</td>
<td>1,250</td>
<td>3,018</td>
<td>1,160</td>
<td>7,000</td>
</tr>
<tr>
<td>Payment</td>
<td>$273k</td>
<td>$50k</td>
<td>$75k</td>
<td>$247k</td>
<td>$62k</td>
<td>$151k</td>
<td>$58k</td>
<td>$388k</td>
</tr>
</tbody>
</table>

The additional cost drivers in the year one budget are the external evaluation and the government capacity building program. The evaluation cost is $800,000 in year one, due to two rounds of school and household surveys taking place at baseline and the end of the academic year.

<table>
<thead>
<tr>
<th>Cost (year one pilot)</th>
<th>$000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating subsidy (government)</td>
<td>1,374</td>
</tr>
<tr>
<td>Operating subsidy (philanthropic)</td>
<td>1,304</td>
</tr>
<tr>
<td>Evaluation</td>
<td>860</td>
</tr>
<tr>
<td>Government capacity program</td>
<td>350</td>
</tr>
<tr>
<td>Total cost</td>
<td>3,828</td>
</tr>
<tr>
<td>Total philanthropic funding required</td>
<td>2,513</td>
</tr>
</tbody>
</table>

Note that the budget above does not include funds raised by individual operators to support their launch in PSL. In some cases, this extra funding is considerable, outweighing their subsidy payments several fold. These costs have included R&D, capacity building, procurement, and transaction costs.

5.2. Sustainability

For PSL to be sustainable, it needs to be funded from domestic financing, or donor financing from long-term in-country donors. PSL cannot rely on short-term philanthropic funding. Both financing strategies are currently being pursued.

5.2.1. Domestic financing

Current per-pupil spend for basic education in Liberia is $50, according to the latest data from EMIS 2015 and MFDP. A comparison of regional counterparts shows that Liberia commits less to education than many countries (see graph below). Burundi’s GDP per person is just 63 percent of Liberia’s, but their share of government spending on education is significantly higher at 17 percent.

Liberia allocates just 14.4 percent of public expenditure to education of which an estimated 40 percent goes to basic education, below the 20 percent and 45 percent respectively recommended by the Global Partnership for Education. Higher education and TVET account for 48 percent of

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3 Ministry of Education data.
education spending in the country, despite educating just 100,000 students compared to over 1 million in primary and secondary education.

Percentage share of expenditure to education in low-income countries

Recognizing this underinvestment in basic education the Government plans to dramatically increase expenditure in real terms and as a percentage of public expenditure over the next five years. In line with recommendations from the Global Partnership for Education, and as part of the new education sector plan, Liberia will increase expenditure on education to 17 percent by 2020; growing basic education as a percentage of education spending to 34.4 percent (see table below). Based on IMF projections for GDP growth, sector expenditure as a whole will increase from $82m to $137m during that period (see table below).

Analyzing expected increases in student numbers, this increased investment translates to a projected pupil spend of $101 at basic education by 2020. During the same period salary growth (currently 58 percent of total sector expenditure) will be restricted to just 6 percent.

PSL will act as a test case for what can be done with the increased efficiency and effectiveness of a PPP, but will also provide a powerful demonstration of the improvements that can be achieved with an increased sector budget. Therefore, the operating budget of schools will be pegged at $100 throughout the pilot. This will provide the Ministry of Education with a compelling case to lobby for increased expenditure on education in the future. In the interim, PSL will require donor funding.

This sustainability strategy is reliant on economic growth increasing as projected. This clearly

<table>
<thead>
<tr>
<th>Year</th>
<th>13/14</th>
<th>14/15</th>
<th>15/16</th>
<th>16/17</th>
<th>17/18</th>
<th>18/19</th>
<th>19/20</th>
<th>20/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic growth rates, fiscal years</td>
<td>8.2%</td>
<td>-0.2%</td>
<td>5.1%</td>
<td>6.0%</td>
<td>6.0%</td>
<td>7.0%</td>
<td>8.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Adjustment path to 17% of non-grant exp</td>
<td>12.8%</td>
<td>13.1%</td>
<td>14.4%</td>
<td>15.3%</td>
<td>16.2%</td>
<td>17.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Govt expenditure less grants</td>
<td>542</td>
<td>731</td>
<td>636</td>
<td>620</td>
<td>630</td>
<td>681</td>
<td>743</td>
<td>810</td>
</tr>
<tr>
<td>Ministry sector target gvt budget, USDmill</td>
<td>82</td>
<td>82</td>
<td>91</td>
<td>104</td>
<td>120</td>
<td>137</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This also includes assumptions of salary changes due to process of payroll verification and cleansing (funded by Big Win Philanthropy).

Based on MFDP figures that have been revised downwards since IMF-Gol projection in December 2015. This is because Domestic tax revenue has underperformed so far this fiscal year; this is partly hangover from the Ebola crisis- the figures assume upturn once recovery takes hold later in 2016.
contains risk. PSL is mitigating the risk by also pursuing funding streams from the in-country donor partners.

5.2.2. Donor financing

Section 1.2.5 described the donor landscape in Liberia, and the exceptionally high donor to domestic financing ratio. This means that in theory, the national donor partners should be a source of sustainable financing for PSL. Despite the level of donor financing for education in Liberia, the chance of PSL leveraging it is by no means certain. Donor funding tends to be committed to programs in multi-year cycles (for example USAID and the EU are in the process of contracting large multi-year programs focused on out of school children).

PSL is included in the new Education Sector Plan and budget, to the tune of $15 million over three years. This is a significant milestone. However, while all the national donors above have endorsed the plan, it does not commit them to funding against it. PSL will need to be able to generate rigorous evidence and convince donors to support the Ministry in this priority program.

5.3. Scaling from year two onwards

Minister George Werner’s vision is to scale PSL so that it has widespread, systemic and enduring impact on Liberia’s education system, disrupting the status quo and ensuring a better education for Liberia’s children. At the same time, the capacity of the Ministry of Education needs to be built so that it can lead and monitor PSL, and embed the program into policy and budget.

With a political transition upcoming in late 2017, the Ministry is analyzing options for year two, with a commitment to a sensible scaling plan that best positions PSL for success. To help guide this analysis, a number of scaling principles have been identified, together with financial scenarios for different rates of scale. All require significant external philanthropic funding, and the Ministry will identify a sensible scale plan, which balances national coverage and momentum for PSL, with the unfunded financial liability this will give to the next government.

The Minister and PSL partners want PSL in year two to achieve better national coverage and better equity. In year one, the schools chosen for the PSL pilot had more teachers and better infrastructure than the average schools in Liberia. Many were deliberately chosen because they were closer to towns or roads and easier to access. Thus, one criticism of the pilot is that it is not reaching the poorest and most deserving schools in Liberia. (Though it should be noted, the pilot has a low proportion of schools in Monrovia relative to the overall EMIS data.)

The goal for year two is to reverse the biases in year one, and ensure that PSL is truly national and “pro-poor”. We have sampled schools across all 15 counties, in an attempt to correct for the over allocation in certain areas in year one and end up with a total coverage (combining year one and year two schools) that is nationally representative of Liberians living in poverty.

A fundamental challenge for the PSL is achieving scale in the short term. Domestic, bilateral and philanthropy funding cannot be accessed fast enough to make the program truly equitable nationally. PSL schools already exist in 45 of the 98 education districts. Additional equity could be achieved by expanding across all education districts so that there are two PSL schools per district. These schools can act as learning hubs for professional development of principals, teachers, and local government officials thereby improving capacity, as well as being a mechanism to capture modular innovations from the PSL that can be disseminated across the full education system.

For example, an ideal scenario would be for donors to commit to technical assistance packages to support quarterly development days in two PSL schools in each district. Those professional development days would be open to all educators in the district, one for teachers and another for Principals and school boards/PTAs. In addition to government schools, these professional
development days could include educators from private schools as we know they serve some of the poorest communities in Liberia.

5.3.1. Principles to guide scaling decisions

a) Place the interests of the child at the centre of decision making

b) Scale based on evidence
   - Decisions will be made based on evidence of outcomes and the capability of operators to expand at high quality
   - PSL funders will be encouraged to part-fund the evaluation as part of their grant

c) Place a strong focus on equity and national representation
   - Priority will be given to the underserved counties and districts of the country, which aligns with the Ministry’s and donor priorities to focus on rural areas
   - PSL will reach each of the 15 counties in year two, and ensure a more nationally representative coverage, particularly addressing pro-poor proportionality
   - PSL aims to reach two schools in each of the 98 education districts and serve as learning hubs for each education district, as funding allows
   - The requirements of individual operators will be second order to equity priorities, however every effort should be made for operators to cluster with others to improve sustainability

d) Chart a course towards sustainability
   - PSL should not give a large unfunded financial liability to the education system
   - True sustainability means the Ministry absorbing the full or majority cost of PSL in the long-term to reduce donor dependency and increase sovereignty
   - Operators will be required to show their trajectory towards running schools as $100 per child
   - Philanthropic funding should be risk capital for the early (one-three) years of the program, rather than a long-term funding stream

e) Ensure the Ministry has sufficient capacity to manage PSL
   - Quality assuring and holding accountable the existing 93 PSL schools is challenging for the Ministry with current capacity. This is a risk to the quality and credibility of PSL
   - Funders from year two will be encouraged to fund Ministry capacity

f) Ensure principles of good governance and robust procurement
   - PSL will implement an efficient, transparent and competitive commissioning process
   - PSL will encourage the development and expansion of the multi-operator initiative

g) Equity is also dependent upon sufficient infrastructure in place to deliver low cost scalable solutions, for example that schools need to be accessible for materials delivery and field support. This includes that each school should be served by cell phone coverage for support over phone and data, essential in achieving scale and equity, as well as improving quality.

5.3.2. Financial scenarios for scale in year two

PSL has generated great interest within and outside of Liberia, as well as great scrutiny. Any scaling plans for year two will almost certainly attract attention from those who both support and are hostile to year two. Minister Werner has said that any expansion needs to be sensible, underpinned by principles of transparency, equity, quality and sustainability.

PSL operators in year one have submitted initial indications of their self-assessed capacity to scale. This amounts to approximately 450 new schools (with the majority – 350 – being Bridge). This sums to 550, including the year one PSL schools. These operator submissions will be considered by the Ministry, together with the principles outlined in section 5.3.1 and their performance in year one.

The chart below shows the external subsidy required for a number of year two scenarios. Note that
the first scenario, 93 schools, means no scale; i.e. continuation of year one schools only. The final scenario, 550 schools, means the addition of 450 new schools to PSL. Assumptions included within the model, plus some alternative options, are noted below.

External funds required for 93, 150, 200, 400 and 550 PSL schools in year two

<table>
<thead>
<tr>
<th></th>
<th>93 schools</th>
<th>150 schools</th>
<th>200 schools</th>
<th>400 schools</th>
<th>550 schools</th>
</tr>
</thead>
<tbody>
<tr>
<td># Pro-poor schools</td>
<td>0</td>
<td>75</td>
<td>100</td>
<td>200</td>
<td>275</td>
</tr>
<tr>
<td># Children</td>
<td>27,260</td>
<td>43,500</td>
<td>58,000</td>
<td>116,000</td>
<td>159,500</td>
</tr>
<tr>
<td>School op-ex (gvt contribution)</td>
<td>1,363,000</td>
<td>2,175,000</td>
<td>2,900,000</td>
<td>5,800,000</td>
<td>7,975,000</td>
</tr>
<tr>
<td>School op-ex (extl contribution)</td>
<td>1,313,000</td>
<td>2,392,500</td>
<td>3,190,000</td>
<td>6,380,000</td>
<td>8,772,500</td>
</tr>
<tr>
<td>Evaluation cost</td>
<td>850,000</td>
<td>500,000</td>
<td>500,000</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Govt capacity building cost</td>
<td>350,000</td>
<td>375,000</td>
<td>400,000</td>
<td>450,000</td>
<td>450,000</td>
</tr>
<tr>
<td>Total cost</td>
<td>3,876,000</td>
<td>5,442,500</td>
<td>6,990,000</td>
<td>13,130,000</td>
<td>17,697,500</td>
</tr>
<tr>
<td>Expected donor contribution</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Philanthropic subsidy required</td>
<td>$2,513,000</td>
<td>$3,267,500</td>
<td>$4,090,000</td>
<td>$7,330,000</td>
<td>$9,722,500</td>
</tr>
</tbody>
</table>

Assumptions and options

- A pro-poor premium payment (PPPPP) will be included. This will ensure that operators have sufficient resources to deliver high quality education to children in remote and disadvantaged communities. Currently this is calculated as an extra $10 per child.
- A per-child funding formula may not be the right model going forward, given the Ministry’s objective to cover more rural and remote areas. Assuming these schools have lower enrolment on average, financial viability at school unit level may be challenging. However, if the formula were changed to address this (e.g. a school level rather than child level payment) the aggregate subsidy across all PSL schools should not exceed the $50 + $50 per child.
- The model includes three years of ECE. The Ministry may want to consider reducing this to one or two years, thereby reducing the total cost to the system.
- The Ministry may want to consider limiting the number of schools any one operator has, as a proportion of total PSL schools or total Liberian primary schools. This would be to ensure the continuation of the multi-operator model and to mitigate criticism from hostile partners. However, this would need to be balanced with assessment of the capacity of individual operators to scale, and their track record in year one.