Rwanda Education Sector Programme Implementation Grant

Programme Summary:

The Rwanda Education Sector Programme Implementation Grant (RESPIG) will Strengthen continuous professional development and management of teachers; Enhance quality learning outcomes relevant to Rwanda’s socioeconomic development; Strengthen Science Technology Engineering and Mathematics to increase the relevance of education for urban and rural markets; and Modernize school infrastructure and facilities in basic education institutions. The programme unpacks the orientation of the policy targets as documented in the Education Sector Strategic Plan (ESSP 2018-2023).

The expected impact of the RESPIG is to enhance quality and efficiency with inclusivity in basic education for a knowledge based economy.

The Programme will deliver the following impact results:

i. Improved student performance in Kinyarwanda and Mathematics in P3;
ii. Improved student performance in Science, Mathematics and English in P6;
iii. Improved student performance in Science, Mathematics and English in S3;
iv. Increased primary completion rate;
v. Reduced repetition rate in primary schools;
vi. Improved percentage of teachers achieving minimum English proficiency.

Country: Rwanda

Programme Value: $30.8 million

| Fixed Tranche: 70% ($21.56 million) |
| Variable Tranche: 30% ($9.24 million) |

Programme Application Window: 1st November 2019

Ministry of Education Rwanda
Representative: Sam Mulindwa
Permanent Secretary, Ministry of Education Rwanda

Grant Agent: DFID
Representative: Zaza Curran
Human Capital and Resilience Team Leader, DFID Rwanda

Coordinating Agent: UNICEF
Representative: Sara McGinty
Chief Education, UNICEF Rwanda
I. STRATEGIC CONTEXT ................................................................. 3
   A. Country Context ................................................................. 3
   B. Sectoral and Institutional Context ....................................... 5
   C. Challenges facing the Education Sector ............................... 10
   D. Rationale for the Programme ............................................. 11
II. PROGRAMME DESIGN ............................................................ 12
   A. Programme Impact and Outcomes ...................................... 12
   B. Programme Components ................................................ 13
   C. Programme Cost and Financing ....................................... 25
   D. Programme Beneficiaries ................................................ 25
III. PROGRAMME IMPLEMENTATION ARRANGEMENT .................... 28
   A. Institutional Implementation Arrangement ............................ 28
   B. Monitoring & Evaluation and Reporting .............................. 30
   C. Sustainability ................................................................. 30
IV. KEY RISKS ........................................................................... 32
V. PROGRAMME APPRAISAL SUMMARY ..................................... 35
   A. Economic and Financial analysis: ...................................... 35
   B. Financial Management ..................................................... 35
   C. Technical assessment ....................................................... 36
   D. Environmental and Social Safeguards ................................. 36
VI. RESULTS FRAMEWORK AND PROGRAMME MONITORING .......... 38
   E. Programme Results Framework .......................................... 38
   F. Indicator Description and Reporting .................................... 41
   G. Disbursement of the Funds Associated with the Variable Part .... 44
   H. DLI : Disbursement Protocol ............................................. 45
   I. DLI 2. Disbursement Protocol .......................................... 45
   J. DLI 3 Disbursement Protocol ............................................ 46
VII. ANNEX 1: DL1 : Learning: Improvement in student performance in Mathematics in P6 and Kinyarwanda in P3 ................................................... 47
VIII. ANNEX 2: DLI 2 Equity: Increase in enrolment of students with Disabilities .......... 48
IX. ANNEX 3: DLI 3 Efficiency: Reduced Repetition rate in primary schools .......... 50
ANEX 4: Programme Implementation Manual .................................. 53
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BESWG</td>
<td>Basic Education Sector Working Group</td>
</tr>
<tr>
<td>CBE</td>
<td>Competence Based Education</td>
</tr>
<tr>
<td>CBC</td>
<td>Competence Based Curriculum</td>
</tr>
<tr>
<td>CPD</td>
<td>Continuous Professional Development</td>
</tr>
<tr>
<td>DP</td>
<td>Development Partners</td>
</tr>
<tr>
<td>DfID</td>
<td>Department for International Development</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
</tr>
<tr>
<td>ESWG</td>
<td>Education Sector Working Group</td>
</tr>
<tr>
<td>EMIS</td>
<td>Education Management System</td>
</tr>
<tr>
<td>ESA</td>
<td>Education Sector Analysis</td>
</tr>
<tr>
<td>ESSP</td>
<td>Education Sector Strategic Plan</td>
</tr>
<tr>
<td>GER</td>
<td>Gross Enrolment Ratio</td>
</tr>
<tr>
<td>GoR</td>
<td>Government of Rwanda</td>
</tr>
<tr>
<td>GPE</td>
<td>Global Partnership for Education</td>
</tr>
<tr>
<td>HDI</td>
<td>Human Development Index</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>JICA</td>
<td>Japanese International Cooperation Agency</td>
</tr>
<tr>
<td>IPRC</td>
<td>Integrated Polytechnic Regional Colleges</td>
</tr>
<tr>
<td>KEI</td>
<td>Knowledge Economy Index</td>
</tr>
<tr>
<td>LFA</td>
<td>Learning for All</td>
</tr>
<tr>
<td>LwD</td>
<td>Learners with Disability</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MINALOC</td>
<td>Ministry of Local Government</td>
</tr>
<tr>
<td>MINEDUC</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>NER</td>
<td>Net Enrolment Ratio</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NST</td>
<td>National Strategy for Transformation</td>
</tr>
<tr>
<td>RQBEHCDP</td>
<td>Rwanda Quality Basic Education for Human Capital Development Project</td>
</tr>
<tr>
<td>SMASSE</td>
<td>Strengthening of Mathematics and Sciences in Secondary Education</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
</tr>
<tr>
<td>TA</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>TSS</td>
<td>Technical Secondary School</td>
</tr>
<tr>
<td>TTC</td>
<td>Teacher Training College</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical, Vocational Education and Training</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Childrens’ Fund</td>
</tr>
<tr>
<td>UR-CE</td>
<td>University of Rwanda – College of Education</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>VVOB</td>
<td>Development Cooperation and Technical Assistance</td>
</tr>
<tr>
<td>VSO</td>
<td>Voluntary Services Oversean</td>
</tr>
</tbody>
</table>
I. STRATEGIC CONTEXT

A. Country Context

1. Rwanda is a land locked country in Africa and a member of the East Africa Community (EAC) comprising of Kenya, Burundi, Tanzania and Uganda. Rwanda is bordered to the West by the Democratic Republic of the Congo (DRC), to the South by Burundi, to the East by Tanzania and to the North by Uganda. The national language and the first official language is Kinyarwanda which is spoken by a vast majority of the population and is used as the language of instruction for the first three years of primary school (P1-P3). Other official languages are English, French and Swahili. English was adopted as language of instruction in grade 4 of primary (P4) and upwards in 2009.

2. Politically, the country enjoys stability premised on the foundation of equality and constitutionalism. Rwanda is headed by H.E. President Paul Kagame who is the head of state and head of government following his democratic election in 2017 through multi-party democracy. The political landscape in the country is guided by the 2015 Constitution reviewed under the progress of equality manifested in the share of female legislators in the country. In the 2013 parliamentary elections, 64 percent of the elected leaders were female. The political stability observed in the country since the 1994 genocide against the Tutsi has been a solid foundation for socioeconomic growth. The political instability in Burundi and the Democratic republic of Congo however remain of significant concern as the country is called to shoulder the burden of refugees and asylum seekers estimated at 170,000 refugees in 2017. On the Gender Development Index, Rwanda scored 0.992, placing it in the top group of countries. On the Gender Inequality Index, which reflects three dimensions of gender-based inequalities (reproductive health, empowerment and economic activity), Rwanda had a value of 0.383, ranking it 84 out of 159 countries in the 2015 index. These two scores highlight the importance that Rwanda places on women and gender equality.

3. Rwanda has made remarkable economic growth in the past decade with strong focus on homegrown policies. Rwanda is among the countries celebrated worldwide for accelerated economic growth averaging 7 percent in the past decade, making it one of the fastest growing economies in the world. Service industry is the single biggest earner in the economy. Agriculture is second accounting for up to 33 percent of the Gross Domestic Product but is ahead of any other sector in exports – Rwandese coffee and tea being some of the export goods.

4. Socially, the country has made considerable transformation since the 1994 genocide against the Tutsi in improving living standards. Rwanda has an estimated population of 11.9 million – 52% of them female, 50% estimated to be under 18 years – growing at annual average of 2.4 percent and gaining significant grounds on health related milestones. Fertility has almost halved from 7.8 children per woman in the 1990s to 3.8 in 2016, adolescent fertility measured in the number of births per 1,000 women aged 15-19 has dropped from 64 in 1990 to 26 in 2016. The share of population living in poverty dropped although 4 in 10 people still live below USD 1.9 a day (World Bank 2014).

5. Development in Rwanda is guided by careful design based on realistic and achievable goals. The country’s long-term development goals are set out in Vision 2020 (and soon to be updated as Vision 2050), which aims to transform the country from a low-income agriculture-based economy to a middle-income knowledge-based and service-oriented economy. The Vision 2020 identified six pillars to frame the Vision's policy and
transformational thrust: Good governance and a capable state; Human resource development and a knowledge-based economy; Private sector-led development; infrastructure development; Productive high value and market-oriented agriculture; and Regional and international integration. The performance record of Vision 2020 has been reviewed as that with strong and inclusive growth, and among the fastest growing in the world, driven by a well calibrated and managed public investment programme premised on the adoption of homegrown solutions. Succeeding the Vision 2020 is the Vision 2050 which aspires to take Rwanda beyond high income to high living standards by 2050. Vision 2050 focuses on five priorities among them high quality and standards of life which envisions moving beyond meeting basic needs to ensuring a high standard of living to transform the lives of households and individuals, key strategic focus being sustained food security and quality nutrition, universal access to water and modern sanitation; affordable, reliable and clean energy; Quality education and health care; Modern housing and settlements with environmentally friendly and climate resilient surroundings; Inclusive financial services; Adequate social security and safety nets; and National and regional peace and security.

6. **Education is at the center of Rwanda’s long term development strategy** having been covered in economic and social pillars of the National Strategy for Transformation (NST-1). Under Priority Area 4 of the strategy, the Government seeks to harness the country’s demographic dividend through improved access to quality education with key objectives to be pursued between 2017 and 2024 including: Increasing access to pre-primary education from NER of 17.5 percent (2016) to 45 percent by 2024; Improving quality of education at all levels; Ensuring persons living with disabilities are able to start school and progress through all levels of education; Increasing the number of students pursuing TVET from 46.4 percent in 2016 to 60 percent by 2024; Strengthening Science, Technology, Engineering and Mathematics (STEM) across all levels of education; Promoting centers of excellence in critical areas of education and training to enhance quality, innovation and competitiveness; and Enhancing completion rates especially in primary and secondary education.

7. **The focus given to education in the national development strategy is catalytic to the quest for a Middle Development Country status.** The objectives highlighted in the National Strategy for Transformation should have an impact on the Human Capital Index (HCI) and the Knowledge Economy Index (KEI) both of which are relatively low for Rwanda compared to other countries in the region and globally. The 2018 Human Capital Index (HCI) ranked Rwanda at 142 out of 157 countries globally with low basic education learning outcomes as one of the major factors to the low performance.

8. **Comparison of the Knowledge Economy Index (KEI)** for the selected EAC countries shows that in 2012 Rwanda had a KEI of 1.53 and

---

1. The KEI is measured by 4 indicators of Innovation and Technology Adoption; Economic Incentives and Institutional Regime; Education and Training and ICT.
2. This is the latest data that was available so far. Efforts will be made to secure more recent data on this indicator
3. The index is measured in scale of 0-10

*Source: https://knoema.com/atlas/sources/WB?topic=World-Rankings*
globally was ranked 126 out of 140 countries considered for the survey (Figure 1a). Among the East African Community countries, Rwanda had the second lowest KEI after South Sudan with 1.48. Kenya had the highest KEI of 2.88 followed by Uganda with 2.37. Building on the progress that Rwanda has made since 2000 – when the KEI was 1.17 – there is need to invest more in the four pillars that constitute the KEI through improving the education system, improving adoption of ICT and innovation and adoption of technology.

B. Sectoral and Institutional Context

9. Rwanda’s formal education system has four main sub-sectors with provisions for compulsory basic education. The official Gazette number 34 of 22/08/2011 provides guidance on types of education offered in the country among them education within the family. Formal education is organized into four levels or sub sectors that includes pre-primary, primary, secondary and higher education with significant TVET streams at secondary and higher education levels. In addition to formal education, Rwanda provides non-formal education which mostly targets adult learners. There is a nine year compulsory education spanning age 7 to 15 and covers primary and lower secondary grades – this is commonly known as 9YBE. National examinations are administered at the end of primary, lower secondary and upper secondary to determine eligibility for proceeding to the next level of education. TVET is officially delivered through Vocational and Technical Colleges (VTCs), Technical Secondary Schools (TSSs), and Integrated Polytechnic Regional Colleges (IPRCs). To increase education’s external efficiency and relevance of education to the labour market, formal workplace learning - internships, industrial attachments and apprenticeships - has been increasingly used as part of curriculum delivery.

10. Pre-primary education has shown steady growth but the capacity of the sub sector remains low to accommodate the eligible population. Although access to Pre-Primary school is low (Figure 2a), the Gross Enrolment Rate (GER) almost doubled between 2012 and 2017 increasing from 12.9 percent to 24.4 percent (2018 Education Statistics) with government schools accounting for 17.5 percent of the enrolment (ESSP 2018-2023). Enrolments show that there is almost parity between boys and girls maintained over the years, with a slight disparity favoring girls (2018 Education Statistics). Notable disparities exist between rural and urban areas, with children from remote rural areas less likely to access pre-primary education compared to their peers from urban households. Enrolment of children with disabilities is also lower than their peers without disabilities. In 2018, there were 1,253 children with disabilities enrolled in pre-primary schools accounting for 0.5 percent of the total enrolments which was below the share of the children with disability in the population, estimated at 15 percent (WHO 2011). Among those with disability, children with physical disability were the majority in pre-primary (28.2 percent) followed closely by children with speech related special needs while children with intellectual special needs accounted for 15.4 percent of the total children enrolled. Until 2014/15 Financial Year, there was no government investment in pre-primary schools and the burden of expenditure for this level of education was left to households (ESSP 2018-2023). The Government has laid out plans to roll out a payroll for pre-primary teachers, this move is expected to incentivize training of pre-primary teachers and ensure improved quality of learning for children at this level.
11. In primary, access is marked with multi-generational enrolment and low completion.

Between 2012 and 2018 primary Gross Enrolment Rate (GER) increased from 123.2 percent to 139.1 percent (2017 Education Statistics) and dropped to 137.4 percent (Education Statistics 2018) indicating considerable number of overage children are enrolled in primary but starting to decline (Figure 2b). While the GER indicates that there is sufficient capacity in primary to accommodate primary school age children, it is noted that this is boosted by the double shift system. The first shift begins at 7.20 am and ends at 11.40 am while the second shift begins at 12.40 pm and ends at 5:00 pm with each shift covering six lessons. The sub-sector has however begun phasing out double shift learning by constructing additional classrooms and recruiting more teachers, starting with P6 transitioning from double to single shift in 2018 school year. This has increased the periods of interaction between teachers and learners in P6 from six to twelve and is expected to have a positive impact on learning and completion. In 2018/19 FY, the government plans to phase out double shift in P5 and progressively P4 in the subsequent year. This will require more classrooms and more teachers. While double shift was introduced to ensure all children of school going age had space for learning, the considerable time spent out of school when their shift is not in session has been said to be one of the reasons for low primary completion rates – primary completion dropped from 72.7 percent in 2012 to 60.4 percent in 2015 before improving to 82.9 percent in 2018 (ESA 2017, EMIS 2018). Apart from enhancing the contact time learners will have with their teachers, transition from double shift is also expected to improve completion rates.

Sources: Rwanda Education Sector Strategic Plan (2018-2023), 2018 Education Statistics

[Graphs showing GER and Survival Rate]
12. Enrolment in lower and senior secondary more than doubled from 267,000 in 2007 to 658,285 in 2018 growing at an annual average rate of 8.3 percent. Secondary enrolment has been growing at a significantly high rate in the last decade. Student enrolment in lower secondary increased by 36,000 from 346,800 in 2016 to 422,093 in 2018 while in upper secondary, increased to 236,192 up from 209,840 in 2017. The Gross Enrolment Rate averaged 39 percent during the period recording a high of 42 percent in 2013 (Figure 3b). The slight advantage for girls in pre-primary and primary levels is more pronounced at secondary level, with enrolment figures showing that in 2017, there were 53.3 percent girls in school compared to 46.7 percent boys and this has been consistent since 2007 (EMIS 2016, 2017 Education Statistics, 2018 Education Statistics). According to the Household Living Conditions Survey 4, there is more participation in urban schools compared to rural schools, the former recording a Net Attendance Rate of 39 percent compared to 19 percent for the latter. In addition to location disparities, there is considerable disparity between provinces and districts, Kigali has the highest secondary school attendance (37 percent) compared to 20 percent in the Southern and Western Provinces.

13. Access to basic education is showing steady progress but evidence from existing examination data shows that cumulative learning has not progressed with assessments showing that achievements in literacy and numeracy are low. Enrolment in pre-primary, primary and lower secondary has recorded tremendous growth, with all the sub sectors increasing in volume. Results of the national examinations also indicate improvements albeit marginal. Percentage passes in P6 examinations improved by 2 percentage points between 2011 and 2015 while in lower secondary, there was 4.2 percentage points improvement over the same period (ESA, 2017). Apart from the national examinations, the 2014 Learning Achievement in Rwandan Schools (LARS) indicate that only less than half (45.3 percent) of learners in P2 met the expected competence in literacy. In numeracy only 1 in 3 learners in the same grade met the required numeracy competence. In P5, the literacy achievements were similar to P2 with 44.1 percent meeting the set benchmarks. While there was better achievement in numeracy in P5 compared to P2, only 4 in 10 learners met the set benchmarks. There are considerable differences in achievement between locations, learners in urban schools performing much better compared to learners in rural schools. Results from LARS III for P6 shows that 56.4 percent of learners were at or above the benchmark in literacy and 59.0 percent were at or above the benchmark in numeracy. For S3 71.3 percent of learners were at or above the benchmark for literacy while 78.8 percent were at or above the benchmark for numeracy. Results for P3 were however different with 54.4 percent of learners at or above the benchmark in literacy while 40.7 percent were at or above the benchmark in numeracy. Further findings from the LARS III are similar to those from LARS II which indicated that learners in urban schools performed better than their counterparts in rural schools; older students perform at a lower level on all the assessment instruments compared to their younger peers; and girls’ performance tends to better or equal to that of boys at lower primary but the reverse is true at upper education levels (LARS III Phase 1). It also shows variation in performance across districts and provinces.

14. Rwanda in 2016 introduced a Competence Based Curriculum (CBC) in basic education to enhance learner centered education but envisaged benefits could be jeopardized by low teacher proficiency in English as the language of delivery, coupled with limited availability of learning resources. The curriculum has undergone a major reform, a new competence-based curriculum has been introduced across all grades from pre-primary to upper secondary. Implementation of the CBC began in 2016 with full roll out expected to be completed in 2019. The curriculum framework provides the principles for development of the curriculum, its delivery, assessment and capacity building for teachers including continuous professional development (CPD) for head teachers in
school leadership, school management and School Improvement Planning (SIP) and for teachers in coaching and mentoring. Key competencies are based on the expectations and aspirations reflected in related policy documents, and include literacy, numeracy, citizenship, entrepreneurship, science and technology, and communication in official languages. Preliminary feedback indicates that implementation of the CBC is facing challenges as teachers are yet to be comfortable in the use of learner-centered pedagogy and still have difficulties in using English as the language of instruction. Rwanda changed its language of instruction from French to English in 2008. However, proficiency in English language remains a challenge for many teachers. This challenge is compounded by the limited orientation provided to teachers on the CBC (ESA, 2017). Apart from teacher preparation, implementation of CBC is also constrained by delayed delivery of learning materials to schools – availability of the curriculum to every learner and learner centered approach as expected in the CBC may not be fully implemented.

15. **The challenges of English language proficiency is not only limited to the classrooms and schools but transcends teacher training colleges, universities and education administration levels.** While learning takes place in classrooms and ultimately classrooms are the barometer for effectiveness of learning processes, the challenge of English proficiency is deeper than the classrooms – it begins from the source of teacher preparation to teacher practice and ultimately the management of education processes. There is limited documentation (quantification of the status) but evidence from field visits have not only confirmed the magnitude of the challenge the sector is facing with transition from French to English as a language of instruction but also the scope. The English proficiency of tutors in the training colleges and the college of education is below the level required of them for effective transfer to teacher trainees with colleges acknowledging the need to begin providing solutions from the teacher preparation stage. In addition to the teacher training colleges, the administrators in the four districts visited during programme design consultation had low English proficiency which is subsequently thought to affect their administrative obligations especially in overseeing transition to the use of English in the education system. The ESSP has identified improved skills and competencies of teachers, TVET instructors and university lecturers as one of the critical outcomes that will support effective delivery of the reformed curriculum. Discussions with English language experts also revealed that part of the challenge the system is facing is the teaching methodology of English at all levels. There is too much focus on grammar at the expense of phonetics and practical application.

16. **Rwanda has made great strides towards integration of ICT into education to support quality delivery of the CBC but despite provision of digital learning resources to schools, their usage remains low.** Under the One Laptop per Child Programme, considerable number of laptops have been supplied to schools. 7 in 10 primary schools have computers for pedagogy, the ratio of computers to learners in these schools being 1:10 (2018 Education Statistics). However, inspection visits have found that many of the laptops are not being used – particularly in primary schools (ESA, 2017). The provision falls short of the policy expectation of 1 laptop shared between two learners in primary schools. Noting that distribution of the laptops is contingent upon connectivity of schools to power, nearly all primary schools have fertile grounds for use of ICT equipment as 85 percent of primary schools are connected to a power source (55.8 percent connected to the national grid; 24.6 percent solar; 4.8 percent generator; and 0.2 percent use biogas). In secondary 85 percent of schools have computers with 8 students sharing a computer. As the use of ICT is being broadened to support quality delivery, there is need to evaluate the effect of this investment and establish whether the inputs are proportional to the learning outcomes and identify best practices.
17. **Transformation of the education sector is anchored on strengthening Science Technology Engineering and Mathematics.** The move towards a knowledge-based economy, as outlined in Vision 2020, has necessitated a focus on science, technology, engineering and mathematics (STEM). This will require the development of scientific and technological skills across all levels, with a priority to attract more girls into these fields of learning. STEM are increasingly important fields at all levels in the education sector, as regards achieving this vision. Strengthening and promoting STEM subjects has been a Government priority in recent years, and will continue to be so in the future. However, there is currently a shortage of adequately qualified teachers and lecturers, and of laboratories, laboratory equipment and materials in schools, TVET institutions and HEIs, that will need addressing over the period of the new ESSP. One issue is on how practically science is assessed- or how it will be done differently from the theoretical approach currently in schools.

18. **Public spending in education more than doubled in the past decade with significant spending committed to recurrent needs but this is not adequate to meet the existing and growing needs of the sector.** To accomplish the achievements highlighted above, the Government increased spending in education from RWF 103.243 billion in 2008/09 FY to RWF 240.8 billion in the 2017/18 budget representing a nominal growth of 26%. (Figure 4a). Capital expenditure averaged 16 percent marked with fluctuations during the period. The highest capital spending as share of total education spending was in 2013/14 when the country spent almost one quarter of its commitment to education on capital needs. Since then, the share of education spending in capital has been on a downward trend owing to investment in additional teachers and curriculum related recurrent items. By volume, district education spending almost tripled growing by 176 percent during the period reviewed (Figure 4b). The share of district education spending as a share of total education spending generally increased from 45 percent in 2008/09 to 53 percent in 2017/18). Notwithstanding the increase in volume of budget, available resources are inadequate to support critical sector needs. For instance, phasing out double shift in primary education will take 6 years at the very least if the government keeps the current pace of transition. The government has nominally increased education sector budget by 13.3% from Rwf. 240.8 in 2017/18 to Rwf. 272.8 in the 2018/19 FY.

---

**Source: Rwanda Education Sector Analysis, 2017and 2019 Budget Data**

19. **Rwanda prioritizes basic education in its spending, with more than two thirds of the total education spending committed to primary and secondary education but in the recent past, primary education has had more focus.** Primary, secondary and tertiary sub sectors had almost equal expenditures between 2011/12 and 2015/16 each accounting for 31 percent, 32 percent and 33 percent of education spending respectively. In 2018/19 the government...
increased allocation for primary education recurrent budget to 40 percent with a further increase to 46.2% in 2019/20. (Fig.5)

![Figure 5. Share of Public by Sub-Sectors](image)

**Source:** Rwanda Education Sector Analysis, 2017 and 2018 Budget Data
*Pre-primary and Primary have been Combined*
*TVET and HE spending have been combined*

**C. Challenges facing the Education Sector**

20. Some of the key challenges identified in the ESA and the ESSP include, (i) insufficient teacher competencies in subject content, pedagogy and languages of instruction (English and Kinyarwanda) threatening to jeopardize curriculum delivery and inclusion, and ultimately negatively impact on student learning outcomes; (ii) lack of an appropriate teacher support system and clear teacher career path; (iii) shortage of STEM qualified teachers, equipment, materials; (iv) lack of electricity and internet connectivity in some schools; (v) the need for increased investment in education by the GoR to be consistently within the recommended 15-20 percent of the overall government budget to education for sustainable expansion of quality education including financing phasing out of double shifting; (vi) the ambitious policy to provide a three-year school readiness programme which may affect the quality delivery of education at this level and also noting the limited resources that is currently available for this sub sector; (vii) limited processes and tools in MINEDUC and agencies to measure key composite indicators to enable more effective monitoring of the ESSP which poses a major risk to the provision of equitable access to relevant, quality education; (viii) the lack of coordination between ESSP and district plans through performance contracts (imihigo) which poses a risk to education sector progress, and (vi) the limited cooperation between the public and private sector in education which poses a risk for coherent expansion and quality particularly for pre-primary, TVET and higher education.

21. Overall there are low levels of literacy and numeracy competencies as measured by the Learning Achievement in Rwanda Schools (LARS) with over 40% percent of learners not achieving the expected competences for their levels. At P3 45% and 59% of learners were below benchmark for literacy (Kinyarwanda) and numeracy (Math) respectively. At P6 - 43.7% and 41% were below benchmark in literacy (English) and numeracy (Maths) respectively. The results were better for learners in S3 with 28% and 21% below benchmark in literacy and numeracy respectively. Repetition is high particularly in the early grades of primary and grade 5, and survival rates at around 50 percent pose a serious challenge to the internal efficiency of the system whose coefficient was 0.27 (ESA 2017).
22. Rwanda has finalized an Education Sector Strategic Plan, identifying nine key priority areas which will be pursued between 2018/19 and 2023/24 to increase supply of appropriate competencies that will drive the socioeconomic transformation of the country. The proposed programme will contribute to four of the nine priorities identified in the ESSP through the following:

a. Teacher training in the curriculum delivery with emphasis on English teaching and teachers English proficiency (targeting upper primary and lower secondary)

b. Development and procurement of teaching and learning materials and readers including digitalizing of textbooks content, utilization of smart classrooms and provision of materials for children with special educational needs. (targeting pre-primary, primary & lower secondary)

c. Implementation of Science Technology Engineering and Mathematics (STEM) in lower secondary through provision of relevant teaching and learning materials (STEM Kits) with innovative ways to promote STEM in pre-primary and primary levels of education (targeting pre-primary, primary & lower secondary), and

d. Construction of classrooms to facilitate the transition from primary to secondary. (targeting lower secondary)

23. The programme will aim to strengthen continuous professional development with a focus on English and management of teachers; Enhance quality learning outcomes relevant to Rwanda’s socioeconomic development; Provision of learning and teaching resources relevant to the CBC curriculum including the adoption of ICT and digitalization of education content; Strengthen Science Technology Engineering and Mathematics to increase the relevance of education for urban and rural markets; and Modernize school infrastructure and facilities across all levels of education. The programme thus unpacks the orientation of the policy targets as documented in the ESSP.

24. The shift from a knowledge based curriculum to a competence based curriculum demands a shift from traditional methods of instruction to participatory and interactive methods that allow for active involvement by learners in groups and as individuals. This is complicated by the challenges of teaching in English starting in P4 with limited English proficiencies among the teachers and limited availability of learning materials to support child-centered learning. Addressing these challenges requires support to all aspects of education service delivery and monitoring systems through:

a) Pre-service teacher training, in-service teacher training, coaching and mentoring, and school leadership: The short training that has been provided as part of the curriculum orientation and induction and is being supplemented by coaching and mentoring programmes in pedagogy at the school level has not proved effective (ESSP 2018-2023). The introduction of English as a medium of instruction has made acquisition of key competencies difficult and short training programmes alone are unlikely to produce the substantial change in teaching behavior necessary for the transformation that is required in teaching practice in the classroom. Investing in continuous professional development of teachers and administrators which includes induction of new teachers, coaching and mentoring activities at school level, school leadership, school management, school improvement planning and English proficiency is therefore essential. Ongoing provision of certified continuous professional development in educational mentorship and coaching as well as in effective school leadership is likely to increase capacity for effective teaching resulting in improved students’ learning outcomes if all teachers are reached with these programs. There is need for more investment in these courses delivered in both face-to-face and blended
mode to increase access by teachers.

b) **Provision of teaching and learning materials such as textbooks and other reading materials aligned to the new curriculum and integration of ICT as an enabler for quality and relevant education through the creation of blended teaching.** A key priority to support quality and to effectively implement the new competence-based curriculum is the timely provision of textbooks and readers (both teachers and learner handbooks). This is expected to be carried out through in-house production and digitalization of materials and the application of ICT in teaching and learning, as outlined in the *ICT in Education Policy (2016)* and accompanying *Implementation Framework*. This will build on the provision of laptops under the *One Laptop per Child* programme and the introduction of SMART classrooms. The provision of these materials will also address those with SEN.

c) **Early foundation in STEM.** Early learning is important as it is the foundation for future learning. With the GoR’s thrust on STEM, science subjects need to be promoted at pre-primary, primary and lower secondary level to capture learners’ interest and to stimulate the choice of science subjects at upper secondary level and beyond. There is need to invest more in science labs and science kits at school level and also build capacity among teachers to be able to use the science kits and make or get low cost equipment for science. The delivery of high-quality, regionally aligned and benchmarked higher education programmes requires sustained investment in infrastructure and facilities, including ICT and *E-Systems*, to enable more diverse, expanded and modern delivery of courses. Upgrading facilities will require standards to be developed, and schools of excellence particularly will need to comply with these standards.

d) **Expansion of regular and SMART classrooms and ICT.** Limited classroom space and SMART classrooms in schools has resulted in the introduction of double shifting which in turn reduces contact time for teaching and learning. As part of the process of modernizing education infrastructure additional classrooms, laboratories, and smart classrooms are being introduced at all levels of education, which meet the basic minimum standards for accessibility for LwD with the supply of the respective equipment such as computers, projectors, digital content, connection to the electricity grid (or solar and generators) and internet connectivity.

### II. PROGRAMME DESIGN

#### A. Programme Impact and Outcomes

25. The expected impact of RESPIG is to enhance quality and efficiency with inclusivity in basic education for a knowledge based economy.

26. The Programme will deliver the following impact results (Specific targets to be developed)

   i. Improved student performance in Kinyarwanda and Mathematics in P3;
   
   ii. Improved student performance in Science, Mathematics and English in P6;
   
   iii. Improved student performance in Science, Mathematics and English in S3;
   
   iv. Increased primary completion rate;
   
   v. Reduced repetition rate in primary schools;
   
   vi. Improved percentage of teachers achieving minimum English proficiency;

27. The programme will track the following output indicators aligned to the identified
programme activities and interventions.

i. Number of teacher trainees trained on the revised compulsory English course;

ii. Number of teachers completing inclusive education training package;

iii. Number of subjects whose content is available in digital format;

iv. Student Textbook Ratio in Science and Mathematics in upper primary;

v. Student textbook ratio for pre-primary;

vi. Number of lower secondary schools receiving smart classroom package;

vii. Number of pre-primary schools receiving ECD kits;

viii. Number of primary schools receiving science kits;

ix. Number of lower secondary schools receiving laboratory equipment;

x. Number of schools with 9 year basic education following the construction of lower secondary classrooms;

xi. Number of special needs education resource rooms constructed and equipped;

B. Programme Components

28. The programme is aligned to the recently endorsed Education Sector Strategic Plan (ESSP) (2018/19 – 2023/24) and the National Strategy for Transformation (NST-1). It has four components that address the four priorities selected by MINEDUC from the nine priority areas identified in the ESSP. The Components aim to deliver a sustainable, effective quality of education programme to improve learning outcomes and reduce repetition rates, targeting pre-primary, primary and lower secondary focused on teachers, teaching and learning materials, equipment and education infrastructure. The programme will support interventions organized in four components as presented below and reflect the discussions with government implementing agencies (REB and MINEDUC), development partners and other key stakeholders. Programme resources will complement the resources provided by Government and the partners for the implementation of the ESSP priorities based on the priorities set by MINEDUC. The Programme will not cover all the interventions contained in the ESSP under the selected four priorities.

29. Component 1: Teacher training in curriculum delivery with emphasis on English teaching and teachers’ English proficiency and Inclusive Education (USD 2.06million)

This component is aligned to priority 2 on the ESSP which seeks to strengthen Continuous Professional Development (CPD) and management of teachers across all levels of the education in Rwanda. The programme will focus on improving English proficiency which has been identified as a key challenge at all levels of the education starting from P1 up to University. Visits to education institutions revealed that lecturers at the college of education, teacher training colleges, officers at district education offices and teachers in schools exhibited low English proficiency in spite of all interventions that have been implemented over the last 11 years. Interventions have focused on improving English proficiency of teachers and on the use of English as a medium of instruction, starting in P4. Currently, there are a number of ongoing initiatives supported by development partners and NGOs. Some of these interventions are the Building Learning Foundations (BLF) project supported by DFID focusing on English and Mathematics subject teachers in P1-P5 and Soma Umenye (USAID) focused on P1-P3 Kinyarwanda. Both initiatives are focusing at the school level and the School Based Mentorship (SBM) system; Mastercard Foundation is also supporting both pre-service and in-service programmes aimed at enhancing capacity of both education administrators and teachers. With persistent challenges in English, innovative ways beyond the SBM system are needed to address this challenge at the school level.
30. Under the Rwanda Quality Basic Education for Human Capital Development Project (RQBEHCDP) the World Bank will support the enhancement of English and digital proficiency in all primary and secondary schools including 17 demonstration schools, 16 teacher training colleges and University of Rwanda College of Education (UR-CE). The support will include testing of teachers’ levels of English Proficiency, developing a training programme to improve both English and digital proficiency in the education system based on the results of the testing. The programme will also provide equipment to the UR-CE, all TTCs and the 17 demonstration schools that will be attached to the TTCs and the UR-CE. Implementation of the proficiency programmes will initially start in the TTCs, the demonstration schools and UR-CE for one year as a pilot before it is scaled up to all primary and secondary schools. The training programmes will mostly be delivered on-line with face-to-face elements.

31. Complementing the World Bank project, this GPE project will therefore strengthen the teaching of English proficiency programme for all students at the UR–CE and 16 TTCs through provision of multi-media equipment and related TLMs. It will also support the delivery of the English proficiency course, developed under RQBEHCDP in all schools, by strengthening the support to the delivery of the on-line learning and the face to face elements of the English course including the formative assessment of this learning as agreed with REB.

32. The support will be coordinated with the work that is being done under the RQBEHCDP and the BLF programme in P1 to P5 and will draw heavily on the best practices under these programmes. It will cater for upper primary and lower secondary, while other government interventions will target the other levels of the education system.

33. With lessons and experiences from the ongoing English interventions in the sector, the component will support the following:

34. Component 1.1 Support the Training of all Teachers in Enhancing their English Proficiency

a) Provision of Multi-media Equipment to UR-CE and 16 Teacher Training Colleges
The project will augment the equipment that will be supplied to UR-CE and TTCs under the RQBEHCDP through provision of multimedia laboratories with English materials – textbooks, digitized English content – that lecturers and students can use during formal training and during their private study time to enhance their English proficiency at the UR-CE and all TTCs.

b) Strengthening School Based Mentorship program to support on-line training and Face to Face Components of the English Proficiency Course Developed under the RQBEHCDP
This will entail (i) building capacity of school heads in effective planning and implementation of on line learning and face-to-face components of the English Proficiency Course at the school level through a series of local workshops for over 8,000 school heads and mentors out of 42,000 teachers in 2,800 schools and (ii) reduction of teaching load for the identified SBMs so that they can support teachers on the online training course and monitoring their performance. This activity will build on the existing framework of SBM which has not been effectively implemented in the past due to absence of a CPD implementation plan at the school level and the fact that school time tables have not provided adequate time for the implementation of the SBM framework. Enforcement and monitoring of the SBM framework will be crucial for effective implementation of this intervention.
c) **Support to the training unit of REB and staff at the sector level** to develop a training framework to guide the implementation of SBM, and to carry out an audit on compliance of the training framework to ensure that training is taking place in the schools for both the mentorship and self-learning programmes.

34. **Component 1.2. Support training of teachers in inclusive education in targeted schools.** Using the inclusive education toolkit and training package already developed and distributed to schools by government in collaboration with UNICEF and other partners, the GPE project through REB will support the following activities:

i. Induction of 20 special needs education trainer of trainers (SNE TOTs) in inclusive education on the programme for them to train teachers in the schools that will receive special education resources rooms in component 4 of this Programme. The training of trainers will be conducted at UR-CE. Each of the trainers will be assigned to each of the schools so that the training of the teachers will be done at the school level.

ii. Training of 200 teachers in the 20 schools with special needs resource rooms constructed and equipped with learning devices under this programme. The training will be conducted at the school level by the SNE Special TOTs. This will complement government plans to train 3000 teachers on inclusive and special needs education.

35. **Component 2: Curriculum - Development and procurement of teaching and learning materials, readers and materials for learners in pre-primary, and upper primary including for children with special educational needs (USD 7.95 million)**

This component is aligned to Priority 1 of the ESSP which seeks to enhance the quality of learning outcomes that are relevant to Rwanda’s social and economic development. It will address the challenges that have so far faced the system in the provision of relevant and appropriate teaching and learning materials especially textbooks and digitalized content and materials.

36. The Ministry has in the past procured textbooks and other reading materials from publishers based on the local curriculum. This approach has been fraught with inordinate delays in the provision of textbooks, largely attributed to the publishers. This has adversely affected teaching and learning at all levels of the system. The Government has now secured copyright for all the educational materials available in the school system from the publishers. Ministry is now able to edit, print hard copies of the textbooks locally, digitalize the materials and distribute them. REB will continue with the editing of these materials and developing more educational materials aligned to the CBC curriculum. This is in line with Governments policy on in-house production of textbooks and other TLMs with outsourcing of their printing to local printers. This approach is expected to reduce the delays in the supply and digitalization of textbooks and other teaching and learning resources, reduce the cost of the learning and ensure that the materials are aligned to the culture of Rwanda. The added advantage is that Government now has the copyright of the materials and will retain copyright of the materials developed internally. This should facilitate the digitalization of the materials.

37. The REB, using technical assistance is currently developing a framework for the digitalization of the education materials. It is adopting a two prong approach to digitalization. The first is the development of e-books out of the materials for which they are developing and those for which they now have copyright. The second is the development of digital interactive content.

38. The REB has an audio visual laboratory which is currently dysfunctional which will be
revamped for use in the digitalization of teaching and learning materials. The services of an Audio Engineer will be required to do this effectively. The plan to build capacity in the use of this laboratory is already under development and will guide the implementation of this initiative.

The Programme will therefore provide support to the following.

39. **Sub Component 2.1: Development, printing and distribution of teaching and learning materials and readers with a focus on STEM.**

40. To meet the minimum standards required to benefit from the CBC, this sub-component will support capacity enhancement at REB, to develop curriculum materials aligned to the CBC, the printing of the materials and delivery of the materials to schools. The sub-component will specifically support:

   a) **Provision of TA to enhance the capacity of REB to produce digitalised TLMs.** This will be done through outsourcing expertise in the following areas as needed such as Story Board Designer, Animation and Graphics Designer, Audio engineer, Animation Specialist, Multimedia e-learning Expert, and a Video camera Trainer. This expertise is expected to build capacity in these areas over until REB is able to do this internally with its own staff.

   b) **Provision of Equipment and Software Required for Digitalization.** The programme will provide the equipment and software required for digitalization. It will also support revamp the multi-media laboratory required for all the digitalization of the TLMs. This will be based on the internal assessment of the needs. The equipment will include: Mac Desktops and Mac books Air.

   c) **Provision of TLMs for all the 2,429 pre-primary schools.** The Programme will provide 3,500 packages of TLMs in 2,429 pre-primary schools – public, government grant aided (comprising of CBC curriculum, schemes of work, CBC teachers guides, Maths Guide, Kinyarwanda Guide, storybooks) in public and religious pre-primary schools.

   d) **Procurement and distribution of ECD kits for each sector.** The programme will support the procurement and distribution of 416 ECD Kits with one pre-primary school at the sector level receiving one kit. The kits comprise of locally produced materials as a sample from which teachers will be trained to make their own materials using locally available resources to reduce the cost of the kit items. The existence of the 'Discovery of the world' curriculum for pre-primary education – which has science embedded – is an opportunity for the provision of materials that can stimulate the explorative minds of the young learners.

1. The categories of schools in Rwanda there in 3 categories which are:- Public Schools solely owned by government. The other category is Government Aided which are owned by different owners in partnership with government to support these schools. The other category is Private which are solely owned by private people and do not benefit directly from Government support.
e) **The printing of 1,600,000 STEM textbooks developed in-house for learners in public and grant aided upper primary schools.** Tenders for the printing of these textbooks locally is already being processed. The books will be distributed to P4 to P6 students. A total of 1,072,218 students will benefit. Half the books will be for Math and the other half will be for Science and Elementary Technology. Forty percent of the books will go to 429,412 P4 students, another 35.7 percent will go the 382,746 P5 students and the remainder of 24.3 percent will go to 260,060 P6 students. This will be complemented by the work that is being done by WB who are supporting the printing of TLMs for 16 TTC and 17 Demonstration schools it is constructing and that of DFID which is assisting in the printing of P1 and to P6 English and Maths textbooks and Tool kits for teachers, and USAID who are printing of Kinyarwanda books for P1 P3 for all public and Government aided schools.

41. **Sub Component 2.2: Digitalization of learning in primary and lower secondary education**

This sub-component is aligned to Strategic Priority 4 of the ESSP which seeks to enhance the use of ICT to transform teaching and learning and to improve quality across all levels of education in Rwanda. The data from the Education Statistics of 2018 shows that 75.5 percent of primary schools had computers in 2018 up from 69.2 percent in 2017 and up from 65.8 percent in 2016. It also shows that 84.3 percent of secondary schools had computers in 2018 down from 84.7 percent in 2017 up from 77.3 percent in 2016. The data also shows that 30.0 percent of primary schools had internet connectivity up from 25.1 percent in 2017 up from 9.8 percent in 2016 and 62.9 percent of the secondary schools had internet connectivity up from 41.3 percent in 2017. This data shows that there is potential for using ICT in teaching and learning but there is need to increase internet connectivity to those schools that have computers but do not have connectivity.

42. This sub component will support a phased approach to digitalization starting with provision of digitalized textbooks and other materials and moving to the development of interactive learning materials for teaching and learning including virtual laboratory software. While the ultimate goal of digitalization is to ensure that all teachers and learners have easy access to digital materials, this programme will focus on STEM subjects for lower secondary. This will support the work being done by KOICA which will provide SMART Classrooms to 60 schools at 2 schools per district and Mastercard who are also providing SMART classrooms in all districts. Despite all these interventions there are still gaps in adequacy of SMART classrooms in all schools in Rwanda.

43. Visits to some schools have revealed under-utilization of SMART classrooms with most of them being used for the delivery of the ICT Curriculum and not for teaching other subjects and conducting research. This could be as a result of limited digital literacy among the teachers, the limited availability of digitalized materials in the schools, and the lack of knowledge of the potential of the internet in widening the scope of teaching and learning. There is need to speed up the provision of digital content in the schools, the improving of teachers’ capacity and induction of schools on the full potential of the ICT in education improving the quality of education at all levels.

44. The Programme will support:

   a) **Development of digital content for the Competence Based Curriculum.** The programme will support development of digital content both interactive and e-pub formats aligned to the CBC through technical assistance that will enhance capacity for continued digitalization. In lower secondary, development of interactive digital content
for secondary schools is ongoing with content currently under evaluation. The programme will support development of interactive and simulation software for science and mathematics for upper primary and for Mathematics, English, Chemistry, Physics and Biology for lower secondary. This will include converting developed materials to e-Pub.

b) Development of a Digital library in the form of DSPACE\footnote{DSpace is an \textit{open source} repository software package typically used for creating \textit{open access} repositories for scholarly and/or published digital content.}. The programme will support the development and utilization of a digital repository where learning materials can be converted to e-records to be easily accessible to all and also linked to other digital libraries nationally and internationally. This will require expertise in DSPACE and KOHA\footnote{This a Library Management Software} for cataloguing books on line and induction of users on the use of the digital resources nationwide. It will also support the development of e-Library Guidelines for the users to complement the Library Guidelines that have already been developed and distributed with support from Soma Umenye.

c) Provide smart-classroom equipment to targeted schools in lower secondary schools including provision for alternative technologies in schools without electricity and internet connectivity.

Under this intervention, the programme will support the following activities:

i. ** Provision and installation of equipment for SMART classroom.** This will entail provision of 25 schools with 102 computers/laptops, another 10 laptops for use by teachers per school, two interactive white boards, a server, a local area network, two projectors, cloud services, broadband connectivity, power, digital content and furniture to accommodate 100 students as defined in the ICT in Education Policy. Government will come up with criteria for the selection of the schools that will benefit from this intervention taking into account equity and performance of the schools. The Programme will also support the building of capacity among the head teachers and teachers in the use and maintenance of the equipment supplied. The lessons learnt from the projects supported by KOICA and AIMS which have provided equipment for smart classrooms to 90 selected schools will inform this activity.

ii. ** Provision of ICT based education to 25 schools not connected to the power grid and do not have internet connectivity:**

The number of secondary schools on the electricity grid increased from 1,115 in 2017 (71.2 percent) to 1,283 in 2018 (74.2 percent). This is as a result of Government's thrust to ensure that all school will have grid electricity by 2024. In spite of this thrust there are still 25.8 percent of schools that are yet to get on the grid. 58.7 percent of the schools do not have internet connectivity and therefore cannot benefit fully from the provision ICT-based education. In order to address this inequity, the programme will pilot the use of technologies that use solar power such as tablets and smart phone based technologies with compatible digitalized software (Apps) to deliver teaching to students. Being a pilot these will not be supplied at the same level as those in the Smart Classrooms and is therefore expected to cost considerably less. This will be a short term measure until such time as all schools are on the electricity grid and have internet connectivity. The programme will therefore provide computer screens, tablets, smartphones, compatible digitalized
software and solar systems. This being a pilot will be done at a low level since the electrification programme is expected to gather pace after which the schools will receive smart classroom equipment.

iii. In targeted schools induction of 50 head teachers and teachers responsible for ICT and all teachers in the effective use of smart classrooms and tablet and smartphone-based technologies. The training will target teachers drawn from schools that will have benefitted from provision of smart classroom packages. This should include appreciation of the potential of SMART classrooms in enhancing lesson delivery. This will be complemented by the course on digital literacy under the RQBEHCDP.

45. Component 3: Enhancing STEM in Pre-Primary, Primary and Lower Secondary (USD 5.22 Million)

46. This component is aligned to ESSP Priority 3 on strengthening STEM across all levels of education in Rwanda to increase the relevance of education for urban and rural markets. It is also aligned to Priority 7 which seeks to provide equitable opportunities for all Rwandan children and young people at all levels of education. Rwanda Vision 2020 and Vision 2050 broadly aim at transforming the country into a knowledge based and technology led economy. STEM is acknowledged as critical to laying the foundation for the required human capital for the National Strategy for Transformation (NST1). It is thus identified as one of the key priorities of the ESSP. Despite effort to infuse STEM in the curriculum, the level of adoption is still low. This is because (i) STEM was not prioritized before, (ii) STEM subjects are considered difficult; (iii) a significant number of schools do not have science laboratories, science equipment, science kits, and consumables required for teaching of STEM subjects; and (iv) there is a critical shortage of teachers of STEM subjects.

47. The 2018 data shows that 68.8 percent of secondary schools and 34.3 percent of primary schools had science kits\(^7\). The science kits were last provided in 2010. Consumables in most of them have not been replenished thereby limiting their usefulness for teaching. Schools are expected to use part of the Capitation Grants to procure consumables among other quality inputs needed to promote learning. Some schools visited were not able to quantify the amount they are spending on consumables for the science kits. Some teachers interviewed during the field visits indicated they did not know how to use the science kits. This has resulted in science being taught theoretically making it uninteresting and difficult for the learners to fully grasp the concepts. There has been little attempt at using the ICT equipment in those schools that have computers for simulation software, which can provide some experience for learning in the teaching of science.

48. The 2018 data shows that only 338 secondary schools have fully-fledged laboratories for the teaching of STEM constituting 21.6 percent of the total number of secondary schools. MINEDUC intends to construct up to 129 laboratories between 2018/19 and 2020/21. It is expected MINEDUC will, during the period of the Programme construct these laboratories so that they be fully equipped under the Programme.

49. There were in 2018 17,133 students with disability out of a total enrolment of 2,503,705 constituting about 0.7 percent which is very low. The combined data for primary and secondary students shows that the largest impairment is physical at 36.9 percent followed by visual impairment with 16 percent and learning impairment with 16.5 percent.

1. \(\text{\textsuperscript{7} There is currently no data on the availability of science kits in pre-primary}\)
comparing the 2017 and 2018 data reveals that enrolments of students with disability are decreasing in primary with a reduction of over 7,847 students. The reduction is due to the change in guidelines that define the types of disabilities that are hindering the learning. Disability that does not require any support or any facilitation is no longer counted in the data collection. This has resulted in the counted number of LwD. Measures continue to be taken to ensure more learners with Disabilities are enrolled and retained in schools. Steps are being taken to increase the number of children with disability in the school system within the recently approved Inclusive and Special Needs Education Policy.

50. A key strategy adopted in the Revised Special Needs and Inclusive Education Policy (2018) for promoting access, retention and completion of special needs learners is the provision of appropriate special needs and inclusive education facilities in schools through promoting and facilitating resource rooms in inclusive and Child-friendly schools. In addition to this the Policy advocates for the provision of adequate and appropriate special needs and inclusive education instructional resources. It is noted that there are very few resource rooms in the system and those that are in existence are not adequately equipped to address the special needs of students with disability.

This component will therefore support the following interventions:

51. **Component 3.1. Provide science kits for Pre-primary, primary and laboratory equipment for secondary schools**

a) **Induct pre-primary teachers and head teachers in the use of locally made materials for ECD play materials:** This intervention is aimed at reducing the cost of ECD materials and making them more relevant to the curriculum by training head teachers and teachers to produce their own ECD materials based on the ECD kits that were provided one to each sector in Component 2. The advantage of this is that it uses local materials which the learners are already familiar with to making the learning process more relevant and the materials can be made more relevant to the curriculum. The other advantage is that in the long term all schools will be able to make their own kits at a low expense. The production of these will depend on how innovative the head teachers and teachers are and how they can utilize the training received.

b) **Provision of science kits for 1,500 primary schools:** This intervention is premised on the importance of exposing learners to STEM as early as possible and sustaining the experience throughout basic education. The materials provided will be aligned to the CBC. The intervention will cover the following activities:

i. **Procurement of Science kits to 1,500 primary schools.** REB has provided guidelines the use of capitation grants to ensure constant availability of consumables to ensure sustainable use of the Science kits in primary schools.

ii. Induction of head teachers and teachers in the targeted primary schools on the effective use of the science kits and how to use local resources to augment their teaching and establish science corners in classrooms. Induction will also include head teachers and teachers in schools that will receive laboratory equipment in b) below. This will be done at the school level.

 c) **Procurement and provision of equipment for science laboratories in lower secondary schools.** This Programme will provide science equipment for 121 out of

1.  
2. This is a room in a school for supporting and teaching learners with SEN, equipped with specialised resources, various learning materials and support services. At times it is also used by teachers and other resource personnel, for other activities related to special needs education services.
the 129 laboratories to be constructed by Government over the four years of the Programme. The savings on equipment on the part of Government will enable MINEDUC to provide more laboratories and increase the percentage of schools with laboratories.

52. **Component 3.2. Provision of materials for learners with disability.** The programme will support procurement of learning devices (braille, talking computers, large print text books, magnifying glasses etc.) targeting the 20 resource rooms to be constructed under the programme (Component 4).

53. **Component 4. School Infrastructure in Lower Secondary (USD 5.33 Million)**

54. This component is aligned to ESSP Priority 6 which seeks to provide sufficient modern infrastructure, facilities and resources to all schools, TVET and higher education institutions. It is also aligned to ESSP Priority 1 which seeks to enhance the quality of learning outcomes in the education system.

55. The GoR introduced free education in 2003 in line with Goal 2 of the Millennium Development Goals (MDGs) which sought to ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. The SDG 4.1 requires that by 2030, Governments ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. The current investments being made by Government and its partners are aimed at improving learning and increase pass rates in primary. This will put pressure on the demand for lower secondary places. The 2018 data shows that there were 15,284 classrooms at secondary level in public and grant aided schools for a total enrolment of 576,346 students giving a classroom ratio of 38. Much as this is below the target of 46 it masks the differences that exist across districts and within districts with some schools having averages above the standard of 46 leading to over-crowding. Additional classes are therefore needed to reduce overcrowding. Data provided by MINEDUC shows that an additional 537 classrooms are needed to reduce overcrowding in lower secondary.

56. The 2018 data shows that there were 244,503 pupils in P6 in 2017. Of these 184,327 enrolled in S1. The transition rate from Primary to lower secondary was 71.6 percent, in 2018, a drop from 74.5 percent in 2017. The data indicates that 60,1769 of the pupils who were in P6 failed to transition into secondary schools. One of the reasons for failure to transition from Primary to Secondary are lack of classrooms in the same schools and nearby schools and distances to secondary schools from primary feeder schools. To achieve near 100 percent transition from the primary to secondary would require 1,308 at a classroom ratio of 46. Based on the calculations above the additional classrooms needed to absorb more graduates from the primary cycle and reduce current overcrowding are 1,845. Thus, more classrooms and schools are needed for the expansion of lower secondary schools based on a school mapping, if Rwanda is to meet SDG 4.1.

This component will therefore support infrastructure improvement in the following:

57. **Component 4.1. Construction of classrooms in lower secondary schools.** The Programme will support the construction of 600 out of the 1,845 classrooms needed in identified schools using the cost effective Home grown Construction Approach. This is a method adopted by the Government of Rwanda through the Ministry of Education as one strategy to fast track the construction of classrooms and latrines using minimum resources

1. 

3. 9 This assumes a 100% pass rate. Repetition in P6 is very low and around 1.0%
available. It involves different stakeholders who participate in different activities in the construction. Their work is guided by a concept note which provides a guidance to all stakeholders to be involved in construction activities. Steering Committees and Technical Committees are established from National Level to School Levels (on construction sites) for coordination purposes. Unlike in the past where this work was voluntary all skilled and unskilled labour who work on these projects are now paid.

a) MINEDUC will define the criteria to be used to identify the schools that will benefit from this investment. The main focus will be to provide classrooms to increase access and reduce distances students have to travel to access lower secondary and in order to meet the aspirations of the primary graduates since this also moves the country towards achieving the SDG that requires all students complete secondary. School mapping will also be used as criteria for identification of classroom needs. Local communities will also be consulted to identify their needs including classrooms, which are processed at the sector, district and national level. Emphasis will be in the rural areas where secondary access has been a problem because of long distances that students have to walk to school. In addition, the MINEDUC will ensure that classrooms to be built meet the infrastructure Standards set out in the “Child Friendly Schools Infrastructure Standards and Guidelines” for schools including those for learners with disability. Given that the mean pupil classroom ratio is below the standard Ministry will have to base the siting of these classrooms on a school mapping.

58. **Component 4.2. Construction of resource rooms in targeted primary and secondary schools:** The programme will support the construction of 20 special needs resource rooms in targeted primary and secondary schools to enhance access and learning for children living with disabilities. The programme will also support in equipping the resource rooms as described in Component 2.

59. **Component 5: Variable Part/Disbursement Linked Indicators (USD 9.24 Million)**

Thirty percent of the total grant allocation will be committed to the variable part of the programme under the new GPE funding model. Disbursement of the variable part will be linked to the achievement of agreed indicators which target the three areas: (i) learning outcomes (DLI1); (ii) equity (DLI2); and (iii) efficiency (DLI3). The indicators are a blend of outcome, output, and process indicators and linked to the interventions outlined in the fixed tranche components of this programme and other on-going interventions by Government and development partners drawn from the ESSP. Linking disbursements to the achievement of tangible and verifiable results, will incentivize MINEDUC to achieve key programme results and improve performance and outcomes within the ESSP. The three Disbursement Linked Indicators are:

a) **DLI 1(Learning Outcomes): Learner achievement in Mathematics at P6 and Kinyarwanda at P3** : This indicator has two sub indicators associated with the Learning Assessment in Rwanda Schools. In addition to the assessments carried out in the past three rounds of LARS, the programme will support the development of a LARS (P3,P6,S3) to ensure it is of international standard, benchmarked to other recognized international assessments and will complement the World Bank support to LARS. In line with the assessment commitments provided in the ESSP for every two years, the fourth LARS is being undertaken by government in 2019/20 ,the GPE programme will support the Fifth round of LARS to be done in 2021/22. Refer Annex 1 for more details.
### Deliverables/Results against which disbursements will be made

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>Year 1 2020/21</th>
<th>Year 2 2021/22</th>
<th>Year 3 2022/23</th>
<th>Year 4 2023/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLI 1: Improvement in student performance in Mathematics in P6 and at P3 in Kinyarwanda</td>
<td>P6 Math - 59% P3 Kinyarwanda - 54.4%; 2017</td>
<td>.</td>
<td>61% P6 students at or above benchmark in Math</td>
<td>Payment trigger</td>
<td>58% P3 students at or above benchmark in Kinyarwanda</td>
</tr>
</tbody>
</table>

**b) DLI 2: (Equity): Number of in-service teachers equipped to deliver inclusive and special needs education; Increase in enrollment of learners with disabilities.** One of the challenges that perpetuate exclusion in schools is the limitation of teachers’ capacity in supporting children with special needs and disabilities. REB plans to build the capacity of existing teachers to equip them in delivering education services to children who would otherwise have been excluded from learning. The toolkit and training package have already been developed and distributed to schools. Alongside with other interventions being undertaken by government in implementing the Inclusive and Special Needs Education Policy, the number of learners with disabilities enrolled in school is expected to increase. The results against which disbursements will be made in the project are summarized in the table below. Refer Annex 2 for more details.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>Year 1</th>
<th>Year 2 2021/22</th>
<th>Year 3 2022/23</th>
<th>Year 4 2023/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLI 2: Increase in enrolment for Learners with Disabilities</td>
<td>#17,133 in 2018</td>
<td>1,000 teachers trained on the toolkit (government funded)</td>
<td>2,000 teachers trained on the toolkit - cumulative from Year 1 (government funded)</td>
<td>3,000 teachers trained on the toolkit - cumulative from Year 1 (government funded)</td>
<td>Enrolment of LwD increase by 8% over the 2018 baseline – 17,133 LWD</td>
</tr>
</tbody>
</table>

**c) DLI 3 (Efficiency): A framework for addressing repetition implemented and reduced repetition rate.** In order to enhance internal efficiency in the education system, the government is targeting to address repetition rates especially in provinces and districts with high repetition rates. To make this initiative effective and sustainable, government with support from UNICEF is developing a national framework for addressing repetition. The framework will contain strategies for reducing repetition with provision for contextualizing such in the implementation districts. Government through REB will orient all schools with special focus on the schools with high repetition rate. Repetition rate is expected to reduce over the programme period. Funds will be
disbursed to this DLI based on the results that have been summarized below. Refer Annex 3 for more details.

**Deliverables/Results against which disbursements will be made**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>Year 1 2020/21</th>
<th>Year 2 2021/22</th>
<th>Year 3 2022/23</th>
<th>Year 4 2023/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLI 3: Reduction in repetition rate in primary schools</td>
<td>% 16.4% 2017</td>
<td>Orientation on repetition framework in districts with high repetition</td>
<td>Implementation(^{10}) of the repetition framework in at least 90% of schools with high repetition rate</td>
<td>All schools implement the repetition framework ongoing</td>
<td>Overall primary repetition rate at 10%</td>
</tr>
</tbody>
</table>

60. The project activities under fixed part and those related to the achievement of the variable part indicators are closely aligned to the achievement of the programme results. Further, some of the programme-funded activities under fixed part will contribute to achievement of the indicators of the variable tranche.

61. **Component 6: Management, Sector Program Support and Coordination (USD 0.98 Million)**

This component will finance activities related to the development of the Environmental Safeguard Management Frameworks (ESMF), Implementation of LARS and third-party validation of the variable tranche indicators. Specifically, this component will finance:

a) Development of the Environmental Safeguard Management Framework;

b) The conduct of the LARS for P3, P6 and S3 in the second year of the programme; and

c) The third-party validation of the targets of the variable tranche indicators annually.

d) Grant Agent Supervision Fee

---

1. 

4. Implementation in this case means all schools have developed guidelines for the implementation of the Framework and that teachers have been inducted in the use of the guidelines and are applying them as evidence of records showing expected aspects of the framework.
C. Programme Cost and Financing

62. The following tables present the project financing and costing by components and by categories of expenditures.

Table 1. Programme Costs by Component

<table>
<thead>
<tr>
<th>Programme Components</th>
<th>Project cost Million</th>
<th>% of Total</th>
<th>% of Fixed Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teacher training in curriculum delivery with emphasis on English teaching and teachers’ English proficiency and Inclusive Education</td>
<td>2,062,108</td>
<td>6.70%</td>
<td>9.56%</td>
</tr>
<tr>
<td>2. Curriculum - Development and procurement of teaching and learning materials, readers and materials including for children with special educational needs.</td>
<td>7,959,238</td>
<td>23.10%</td>
<td>36.92%</td>
</tr>
<tr>
<td>3. Enhancing STEM in pre-primary, primary and lower secondary</td>
<td>5,224,498</td>
<td>17.10%</td>
<td>24.23%</td>
</tr>
<tr>
<td>4. School infrastructure in Lower Secondary</td>
<td>5,331,074</td>
<td>17.30%</td>
<td>24.73%</td>
</tr>
<tr>
<td>5. Variable Part/Disbursement Linked Indicators</td>
<td>9,240,003</td>
<td>30.0%</td>
<td></td>
</tr>
<tr>
<td>6. Project Management, Sector Program Support and Coordination</td>
<td>983,083</td>
<td>1.80%</td>
<td>4.56%</td>
</tr>
<tr>
<td>7. Total Project Costs</td>
<td>30,800,004</td>
<td>100%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

D. Programme Beneficiaries

63. Although the programme will be implemented nationally some interventions will target areas where there is identified need based on disparities established in every area of intervention. Interventions related to the training of teachers will target in-service activities since the challenges identified in teaching proficiency transcends the entire country - affects all schools and the related teacher training colleges. The design of some of the in-service interventions will take into account local contexts.

64. The decision by the Government of Rwanda to develop textbooks and procurement of textbooks and other teaching materials in-house is meant to address this shortage of teaching materials. The disparities across districts notwithstanding, this intervention will adopt a nation-wide implementation to ensure all schools have the similar levels of resourcing – noting that the introduction of the CBC, the adoption of the policy on using English as a medium of instruction, the use of ICT in teaching and the adoption of STEM has put the impetus on the provision of relevant and appropriate learning and teaching materials across the education sector.

65. There will be need for the equitable distribution of learning and teaching materials to address the current disproportionate distribution of these materials in order to improve equity across districts with a bias towards rural districts and schools in areas that are populated by the poor. This is in line with the ESSP Strategic Priority of the ESSP which calls for “equitable opportunities for all Rwandan children and young people at all levels of
education. This will also apply to the provision of STEM and use of ICT in the teaching and learning processes where there are some disparities resulting from inadequate infrastructure such as classrooms, electricity and connectivity. Increasing enrolment and the adoption of the policy of free education has resulted in overcrowding causing shortage of classrooms and teachers. The provision of additional classrooms in lower secondary will contribute to the improvement of transition rate from primary to secondary which is affected by lack of full nine year basic education in some of the schools.

66. The implementation of the programme will take into account interventions by other players in the three target levels of pre-primary, primary and lower secondary including the investment by government in these proposed interventions to ensure that there are synergies with similar interventions by other partners and government. This will avoid duplication of efforts and enhance complementarity. Coordination will be enhanced through the Basic Education Sector Working Group (BESWG). There are some interventions which are ongoing such as: certification of unqualified teachers which is being run by UR-CE where unqualified teachers can obtain A1 qualifications within three years of INSET and together with the Flemish Association for Development Cooperation and Technical Assistance (VVOB) on the development and delivery of certified CPD Programs in Educational Mentorship and Coaching for teachers as well as in Effective School Leadership for head teachers; Supporting, Institutionalizing and Improving the Quality of School-Based In-Service Training being supported by the Japan International Cooperation Agency (JICA) and has so far provided training to 4,500 teachers in mathematics and science content and methodology; Building Learning Foundations being funded by DFID focuses on building foundational skills in literacy in English and in numeracy; Soma Umenye which focuses on Kinyarwanda in early-grade teaching funded by the United States Agency for International Development (USAID); In-service teacher development through the National School-based Mentorship Programme supported by UNICEF; and Mastercard Foundation who are supporting strengthening teacher training at the pre and in-service levels, particularly in STEM and ICT; strengthening school leadership and management, and elevating the status of the teaching profession and strengthening teacher motivation. The World Bank will finance a programme which will improve the English competency and digital literacy of all primary and secondary teachers, lecturers in TTCs and UR-CE in collaboration with the GPE funded Programme. Other stakeholders and NGOs amongst others, are also supporting projects addressing the competencies of serving teachers in relation to meeting the learning needs of students.

67. English proficiency impacts negatively on the education sector as a whole at both the administrative and teaching levels. Broadly, in-service teacher development efforts in teaching methodology by government supported by other DPs including UNICEF, DFID among others have made significant impact, while little has been done on English. With transition to the competency-based curriculum, teachers still need support with innovative ways of facilitating teaching and learning.
<table>
<thead>
<tr>
<th>Sub-component</th>
<th>Activities/Interventions</th>
<th>Expected Output</th>
<th>Intermediate Outcomes</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of Multi-media Equipment and English materials – textbooks, digitized English content to UR-CE and 16 Teacher Training Colleges</td>
<td>Identify the type of Multi-media equipment, English materials – textbooks, digitized English content needed, procure and install</td>
<td>Multi-media equipment, English materials – textbooks, digitized English content procured and installed</td>
<td>Enhanced capacity to delivery English proficiency programmes in the tertiary institutions</td>
<td>English proficiency improved across all education institutions including schools</td>
</tr>
<tr>
<td>Strengthening School Based Mentorship programme to support delivery of on-line self-learning and face-to-face courses</td>
<td>Design a programme for the support of on-line for teachers and a system of assessment for the English Proficiency course</td>
<td>Programme for support to on-line learning of teachers of the English Proficiency Component in place</td>
<td>Effective participation of teachers in the online and face-to-face components of the English proficiency courses</td>
<td></td>
</tr>
<tr>
<td>Support implementation of the national teacher training package and tool kit for inclusive and special needs education in line with the Special Needs and Inclusive Education Policy.</td>
<td>Train 200 teachers in targeted 20 schools</td>
<td>The trained 200 teachers in targeted 20 schools operate as models on inclusive and special needs education to the surrounding school</td>
<td>Improved capacity for institutions to implement inclusive education policy</td>
<td></td>
</tr>
<tr>
<td>Development of printing and distribution of teaching and learning materials and readers with a focus on STEM.</td>
<td>Develop capacity in REB to develop learning and teaching materials inhouse</td>
<td>REB staff are trained in material development and production</td>
<td>Enhanced capacity in the development and production of teaching and learning resources</td>
<td></td>
</tr>
<tr>
<td>Digitalization of primary and secondary education</td>
<td>Develop digital content for the Competence based Curriculum</td>
<td>Teaching and Learning materials developed and distributed to pre-primary, primary and lower secondary</td>
<td>Increased and timely availability of teaching and learning resources in the schools</td>
<td></td>
</tr>
<tr>
<td>Implementation of Science, Technology Engineering and Mathematics (STEM) in lower secondary</td>
<td>Strengthen digitalization infrastructure in REB</td>
<td>ICT Unit equipped with relevant ICT hardware, software and TA</td>
<td>Enhanced capacity in REB in digitalization of education content</td>
<td>Conducive inclusive environment for improved learning achievements in pre-primary, primary and lower secondary.</td>
</tr>
<tr>
<td>Supply of Science equipment, learning materials and learning devices for CwD</td>
<td>Develop digital content for the Competence based Curriculum</td>
<td>Interactive digital content developed for the Competence Based Curriculum</td>
<td>Increased accessibility to CBC Teaching and Learning Materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Establish SMART Classroom in lower secondary</td>
<td>SMART Classrooms established and equipped in lower selected secondary schools</td>
<td>Increased efficiency and effectiveness in the delivery of CBC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide EDC Kits to targeted pre-primary schools and Science kits for Primary Schools</td>
<td>ECD kits provided to pre-primary schools and science kits provided to primary schools</td>
<td>Improved learning achievement in science and mathematics in primary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide science equipment to lower secondary schools</td>
<td>Equipment for science laboratories provided and installed in lower secondary schools</td>
<td>Improved learning achievement in science and mathematics in lower secondary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Induct headteachers and teachers in the use of science equipment</td>
<td>Headteacher and teachers inducted in the use of science kits and laboratory equipment</td>
<td>Efficient and effective use of science kits and laboratory equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Induct headteachers and pre-primary teachers on ECD kits and use of locally available resources for play based learning</td>
<td>Headteacher and pre-primary teachers inducted in the use of ECD kits and use of locally available resources for play based learning</td>
<td>Increased availability and use of ECD kits for learning using locally available resources</td>
<td></td>
</tr>
<tr>
<td>Provide School Infrastructure to lower Secondary</td>
<td>Construct additional classrooms to in crease access and reduce overcrowding in lower secondary schools</td>
<td>Additional classrooms constructed in targeted lower secondary schools</td>
<td>Increased access to junior secondary and elimination of over-crowding in junior secondary schools</td>
<td>Equitable access to lower secondary and inclusive education</td>
</tr>
<tr>
<td></td>
<td>Construct and equip special needs education resource rooms in targeted lower secondary schools</td>
<td>Special needs education resource rooms constructed and equipped in selected lower secondary schools</td>
<td>Enhance participation and performance of learners with special needs</td>
<td></td>
</tr>
</tbody>
</table>
III. PROGRAMME IMPLEMENTATION ARRANGEMENT

A. Institutional Implementation Arrangement

68. The programme is based on the ESSP 2018-2023 with high ownership by all stakeholders which is one of the prerequisites for smooth implementation of any programme/project. The ESSP was appraised independently and endorsed by stakeholders as a credible plan which has a comprehensive risk analysis with plausible mitigating measures to facilitate the implementation of the ESSP and its programmes. The appraisal notes that overall the risks associated with the Rwandan education delivery system are moderate since political and economic stability, public financial management as well as partnership with external donors are generally moderate. The programme will be implemented based on existing structures of the education sector, within and outside government.

69. In addition to overlaying implementation of the programme to existing structures, the MINEDUC has begun implementation of some of the activities identified in the ESSP 2018-2023 and some preliminary lessons on smooth implementation are already emerging. The programme intervention are within the ESSP activities therefore MINEDUC and REB at the central administration as well as district level implementers have experience to implement. In cases where capacity has been evaluated to be weak or limited and likely to negatively impact implementation, the programme has made provision for enhancing skills and capacity building.

70. To ensure that all interventions are anchored to existing structures, the programme has allocated all the interventions to existing units and departments in the sector. The pre-service English support training for teachers will be carried out by the Teacher Training Colleges and the College of Education of Rwanda University while the School Based Mentorship intervention will be coordinated by the TDM unit. Development of CBC support materials (textbooks, readers, e-learning materials and teacher guides) will be carried out by the Curriculum Development department under REB in line with the policy on local production of learning materials adopted by Government. Digitalization of the learning content and supply of ICT hardware and software as well as building capacity of head teachers and teachers in the use of ICT will be carried out by the department of ICT under REB. This will build on the experience gained from implementing similar initiative in 55 schools.

71. The procurement department will be responsible for procurement of all goods and services envisaged in the programme. The planning department in the MINEDUC, working closely with district engineers will be responsible for planning for school infrastructure. To ensure sustainability in the construction of additional classrooms, the programme will embrace the unconventional method of school construction. This will involve mobilization of communities with support from the army and the police. The MINEDUC will be responsible for monitoring the progress of construction of classrooms and the infrastructure package.

72. Figure 1 below provides a summary of the roles and responsibilities allocated to existing structures in the sector, their roles being important to the implementation of the programme.
Figure 1: Roles and Responsibilities.

- **MINEDUC**
  - Strategy; Planning; oversight; M&E; Research; School Infrastructure

- **ESWG**
  - PS MINEDUC, DFID + UNICEF

- **REB**
  - Basic and adult education; Curriculum; ICT; Textbook and materials development; assessment; teacher development; Digitalization; procurement of school materials and construction materials

- **BESWG**
  - DG REB, DFID + UNICEF

- **MINALOC**
  - Strategy; oversight of decentralization levels

- **DISTRICTS**
  - District planning; coordination; implementation; oversight; school infrastructure

- **SECTOR**
  - Oversight supervision school; Continuous professional development

- **SCHOOLS**
  - Delivery of basic education services; Mentorship programmes; school construction by unconventional programmes
B. Monitoring & Evaluation and Reporting

73. The programme has identified key performance indicators aligned to the programme outcomes and outputs (See Annex the Results Framework in section VI). The indicators will be used to assess the progress of selected interventions and whether the development objective of the programme at the national and district level are being met. Since the programme is implemented through earmarked financial aid relevant structures within the education sector will be used. Under this arrangement, the Directorate General of Education Policy and Planning will have the overall responsibility of monitoring the programme. The directorate will produce the quarterly and annual progress reports as well as the programme completion report in liaison with REB, the implementor. Through the annual Statistical Booklet produced by the directorate, performance of various indicators identified in the programme will be established.

74. Apart from the routine monitoring of the progress made in implementing the programme by the Directorate General of Education Policy and Planning Policy, the Education Sector Working Group (ESWG); the Basic Education Sector Working Group (BESWG); and the Joint Review of the Education Sector (JRES) will provide oversight to tracking of programme progress and provide necessary implementation guidance to implementation teams to ensure program objectives are achieved. The Directorate General of Education Policy and Planning Policy will develop a monitoring and evaluation plan, based on the results framework, to guide the content and depth of reporting for annual progress reports. Outside the central administration, the programme will support district education offices to monitor progress of interventions that are implemented in the field offices as well as schools.

75. The sector has made a commitment in the ESSP – under the strategic priority 5 – to strengthen governance and accountability at all levels of education. This includes strengthening of monitoring systems in schools and building collaborative linkages between schools and districts/central administrative offices. On this, the sector has had longstanding reputation of availability of quantitative data generated from schools and the programme has a lot to gain from this attribute. The programme will rely on the Education Management Information System (EMIS) to provide the data and information required for monitoring identified indicators (See Indicator Description in Section VI for data required and data sources with respect to selected indicators). In addition, the programme will support targeted studies/evaluation including independent verification of results aligned to the variable tranche of the programme to facilitate disbursement of agreed funds. This is in line with the guidelines and requirements of the GPE.

76. The Programme will not require a separate monitoring mechanism for its interventions. The current existing system in the structure of the GoR at the central and decentralized levels will be used for monitoring activities of the Programme.

C. Sustainability

77. The programme design has taken into account the need to ensure the support does not cause unnecessary burden to the system and that interventions that have pilot designs can be scaled up in future with limited adjustments to the sector. The following mechanisms are inbuilt in the programme and will be observed to guarantee sustainability:

78. Implementing the programme interventions in existing institutional arrangement. This will ensure that Government does not go out of its way to create additional implementation structures just for the sake of the programme. The programme activities are within ESSP
and aligned to existing structures creating ownership among the offices involved;

a. The School Based Mentorship program will ensure that local teachers are trained to assume the role of mentors as opposed to relying on foreign teachers from the region. This will not only reduce the cost of improving English proficiency but also ensure ownership;

b. Equipping TTCs and the UR-CE with multipurpose libraries will ensure that teacher trainees graduate with better English competency complementing the in-service support through the SBM;

c. The textbook development and production plan will ensure the sector has medium/long term vision of teaching and learning resources required at various levels of education;

d. Supporting in-house development and production of teaching and learning materials will not only reduce the cost of delivering curriculum support materials but will also ensure capacity is built within the country to satisfy the much needed demand for educational materials;

e. Use of local materials in the development of science kits will not only reduce the cost of providing such materials to schools but will also enhance the experience learners will have with them as there will be a continuum from schools to home environment of the learners where the materials will have been obtained.

f. Classroom construction will be based on the unconventional system which is not only less costly but also ensures community participation in education development.
IV. KEY RISKS

79. The Overall Risk Rating for the Programme is Moderate as summarized in the table and detailed out in the sections below.

Overall, the programme risk has been rated as moderate and the level of risk is judged to be acceptable given the risk mitigation measures that will be in place and the opportunity the programme presents to contribute to overall ESSP delivery.

Table 3: Risk Matrix

<table>
<thead>
<tr>
<th>Risk category</th>
<th>Risk</th>
<th>Probability</th>
<th>Impact</th>
<th>Mitigation</th>
<th>Residual risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>• Poor political and governance environment</td>
<td>Possible</td>
<td>Moderate</td>
<td>None- Rwanda has experienced political stability under a strong central government since the genocide of 1994</td>
<td>Moderate</td>
</tr>
<tr>
<td>Context</td>
<td>• Poor macro-economic environment</td>
<td>Possible</td>
<td>Moderate</td>
<td>None- Rwanda has shown a positive economic growth trajectory since 2014</td>
<td>Moderate</td>
</tr>
<tr>
<td>Context</td>
<td>• Inadequate Sector Strategies and Policies</td>
<td>Possible</td>
<td>Moderate</td>
<td>Evidence based reviews of strategies and Policies</td>
<td>Moderate</td>
</tr>
<tr>
<td>Context</td>
<td>• Inappropriate Technical Design of Programme</td>
<td>Possible</td>
<td>Moderate</td>
<td>Regular monitoring and evaluation and review</td>
<td>Moderate</td>
</tr>
<tr>
<td>Context</td>
<td>• Inadequate Institutional Capacity for Implementation and Sustainability</td>
<td>Possible</td>
<td>Moderate</td>
<td>• Reviews and building of capacity • TA in the short term</td>
<td>Moderate</td>
</tr>
<tr>
<td>Context</td>
<td>• Decisions on prioritization of investments in light of constrained resources are politically driven rather than evidence driven.</td>
<td>Possible</td>
<td>Major</td>
<td>Availability of evidence, including value for money</td>
<td>Moderate</td>
</tr>
<tr>
<td>Context</td>
<td>• Inadequate ESSP financing to meet the existing and growing needs of the sector.</td>
<td>Likely</td>
<td>Major</td>
<td>• Evidence based prioritization of financing within available funding to maximize value for money in the sector</td>
<td>Major</td>
</tr>
<tr>
<td>Risk category</td>
<td>Risk</td>
<td>Probability</td>
<td>Impact</td>
<td>Mitigation</td>
<td>Residual risk</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
| Delivery      | • Insufficient financial resources to provide and maintain investments  
• Risk that high costs of ICT squeeze out other resources and investment fails to result in improved learning  
• Failure to protect assets  
• Schools unable to meet recurrent costs of ICT investments, e.g. electricity, Internet charges, disposables, repairs and upgrades, and consumables for science kits and laboratories | Possible    | Moderate | • Equitable financial distribution and sound prioritization  
• Ensure effective initial and ongoing (CPD) training and support  
• Maintain feasible proportion in budget  
• Establish rigorous M&E, and respond to evidence  
• Institutions have asset management programmes and recurrent budgets for maintenance  
• Private/community partnerships support schools  
• Provide guidelines on the use of capitation grants as source of consumables | Moderate     |
| Delivery      | • Low levels of motivation and remuneration of primary/pre-primary teachers affect the program | Likely      | Major   | • Relevant policies for teacher motivation and incentives developed and implemented | Major         |
| Delivery      | • MINEDUC and REB are unable to mobilize required personnel for delivery | Possible    | Major   | • Technical support to enhance capacity through the grant | Major         |
| Delivery      | • Inadequate time for set aside for implementation of SBM at school level  
• Lack of intrinsic motivation of improve English proficiency among teachers | Likely      | Major   | • Enforce implementation SBM framework  
• Introduce a blended self-learning programme | Major         |
<p>| Operational   | • Limited coordination of development partner activities | Possible    | Major   | • Close coordination of development partners' inputs allows for improved coverage and overall effectiveness | Moderate      |</p>
<table>
<thead>
<tr>
<th>Risk category</th>
<th>Risk</th>
<th>Probability</th>
<th>Impact</th>
<th>Mitigation</th>
<th>Residual risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>District Development Plans do not align with the ESSP</td>
<td>Possible</td>
<td>Major</td>
<td>• Improved communication of ESSP, including redacted versions specifically addressing district-level issues. Improved liaison between MINEDUC and MINALOC. DEO training and support in education planning</td>
<td>Major</td>
</tr>
<tr>
<td>Fiduciary</td>
<td>Financial mismanagement and corruption</td>
<td>Possible</td>
<td>Major</td>
<td>• REB &amp; MINEDUC OAG audits and District annual audits to increase accountability</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
| Safeguarding/Environment| Failure to reach the most marginalized through the ICT support  
• Classroom construction negatively affect surrounding communities | Possible    | Moderate | • Monitor alternative ICT interventions targeting schools without grid electricity supply the programme will pilot the use of technologies  
• Safe guard and environmental risk assessment done, and mitigation measures developed before construction starts | Moderate      |
V. PROGRAMME APPRAISAL SUMMARY

A. Economic and Financial analysis:

80. The areas of focus for the programme are selected from the nine priority areas identified in the ESSP 2018-2023 which are in turn aligned to the National Strategy for Transformation (NST1) 2018-2024. The four priority areas will have significant contribution to economic development in Rwanda, providing sustainable fundamental skills and competencies required in the labor market.

81. Improving teacher proficiency and competence in English is likely to improve the quality of learning in primary and lower secondary. Together with the drive to digitalize learning, the programme will help push the country higher up the Knowledge Economy Index.

82. The STEM intervention is expected to provide foundation for industrial and manufacturing revolution in the country – exposing young learners to the possibilities of science and mathematics to enhance their problem solving skills. Enhancing proliferation of ICT in the country and specifically integration of ICT in education will provide broad based ICT skills – global requirement for persons joining work force and as an enabler in research. Some activities in the programme will focus on bridging the equity gap by implementing interventions in less privileged districts like supporting construction of classrooms in the poor districts.

B. Financial Management

83. The Programme's financial management will be based on the existing Financial Management System under MINECOFIN. Accountability for donor supported initiatives is high as evidenced by the World Bank report on Transparency and Accountability. The report puts Rwanda among the best countries of low corruption level, and high in best use of donor funds. The programme will potentially make savings out of the strategic choices of using unconventional methods for construction of additional classrooms in primary schools and in-house development of textbooks. This will be complemented by development and use of digital contents. The challenge of possible poor quality of textbooks and low skills in software development is going to be mitigated by strong Capacity development in MINEDUC and agencies.

84. Implementation of the programme will be done through annual work plan as per MINECOFIN guidelines. Procurement plans will be aligned to the work plans to increase harmony in implementing the project interventions.

85. The Fiduciary risks will be mitigated through regular audit by Government Auditor General. The grant is proposed to be disbursed through earmarked financial aid, the DFID funding modality to government. Funds will flow from GPE to DFID who will disburse funds to MINECOFIN main account. MINECOFIN will in turn disburse to REB and MINEDUC against agreed eligible budget lines. The allocations against agreed budget lines will be reflected in the Government – Ministry of Education annual budget for the four years of the grant period. Implementation of the programme will be mainstreamed in the MINEDUC, REB and the MINALOC government structures using the existing institutional establishments at the national, district level and school level. The risk of financial mismanagement and fraud from the outset is moderate. The funding modality and financial risk is within DFID Rwanda’s risk appetite as the Grant Agent.
8. Below are the proposed eligible budget lines to be used as in the Budget Law

<table>
<thead>
<tr>
<th>Component</th>
<th>Agency</th>
<th>Budget sub programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teacher training in curriculum delivery with emphasis on English teaching and teachers proficiency and inclusive education</td>
<td>REB</td>
<td>Teacher Development and Management - Training costs</td>
</tr>
</tbody>
</table>
| 2. Curriculum development and procurement of teaching and learning materials, readers and materials for leaners in pre-primary and upper primary including children for children with special needs education | REB | Curricula and Pedagogical Materials (Component 2.1) 
ICT Integration in Education (Component 2.2) |
| 3. Enhancing STEM in pre-primary, primary and lower secondary | REB | Curricula and Pedagogical Materials |
| 4. School infrastructure in primary | MINEDUC | Education Quality and Standards - Acquisition of structures and buildings |

86. On corruption, the government has created a robust institutional framework to fight corruption aligned to its zero tolerance policy and to this, Rwanda is rated as the third least corrupt country in Africa. The programme will be monitored through the government monitoring systems, including biannual JRES reports and detailed programme specific programme narrative and financial reporting. Office of Auditor General Annual Audit reports for REB and MINEDUC will be used for financial accountability of the grant.

C. Technical assessment

87. This Programme is technically sound and is based on comprehensive review contained in the Education Sector Analysis. The programme addresses three of the biggest challenges identified in the sector analysis: (i) poor capacity of use of English as medium of instruction; (ii) low primary completion and transition to secondary; and (iii) lack of teaching learning materials. The programme focuses on the foundational phase of education as well as the subsequent level which will enhance achievement of better learning outcomes. At secondary, the interventions mean students can exit school with some basic skills to transition into the labor market. In terms of implementation, the structure of MINEDUC has been reviewed and found to be adequate for operationalizing the programme. The Single Project Implementation Unit (SPIU) recently established in MINEDUC is a key institution to oversee smooth implementation of the project. There are several Development Partners supporting interventions at primary level, interventions with similarity to the ones contained in this programme. This means, the sector has good reference points that will be valuable during implementation.

D. Environmental and Social Safeguards

88. The project is classified as Environmental Assessment Category B since it will provide classrooms and special needs education resource rooms using the unconventional
method\textsuperscript{12} in already existing schools. Therefore, the construction will not cause significant social and/or environmental adverse impacts, since potential adverse environmental and social impacts associated with construction is generally small-scale and site specific, thus, manageable to an accepted level. In accordance with OP/BP 8.00 and to guide the environmental assessment and mitigation process, an Environmental and Social Screening and Assessment Framework (ESSAF) will have to be developed and disclosed before construction can start. The ESSAF provides guidance on the approach to be taken during project implementation for the screening and design of sub-projects and planning of mitigation measures. During implementation, Environmental and Social Management Plans (ESMPs) and/or Resettlement Action Plans (RAPs) or Abbreviated Resettlement Action Plans (ARAPs) will be prepared as and when necessary once subproject sites and plans for civil works are finalized.

89. The construction activities may cause environmental impacts such as site contamination from waste materials during construction, disturbances resulting in dust, noise and environmental contamination during operation of the facilities resulting from inadequate sanitation triggering Environmental Assessment OP 4.01. However, given the Rwanda practice of national cleaning every month this level of contamination will not pose any serious risk.

90. The project also triggers OP 4.11 on Physical Cultural Resources, as the proposed activities will include civil works and the location of subprojects is not known at the time of project preparation. The ESSAF will include provisions for the treatment of physical cultural resources discovered during project implementation and operation (also referred to as “chance finds”).

91. Much as the classrooms are being constructed in already existing schools, given the terrain in which the schools are sited there may not be adequate space for the classrooms therefore may require land acquisition, but not likely to trigger Involuntary Resettlement Policy OP 4.12.

1. 

\textsuperscript{12} This is construction that uses local communities, the army and police in construction
### E. Programme Results Framework

<table>
<thead>
<tr>
<th>Indicator Name</th>
<th>Unit of Measure</th>
<th>Baseline (2017/18)</th>
<th>Year 1 (March 2020 to 2020/21)</th>
<th>Year 2 (2021/22)</th>
<th>Year 3 (2022/23)</th>
<th>Year 4 (2023/24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved student performance in Kinyarwanda and Mathematics in P3;</td>
<td>% at or above benchmark</td>
<td>54.4% Kinyarwanda 51.3% Math</td>
<td>60.9% Kinyarwanda 54.9% Math</td>
<td>63.3% Kinyarwanda 58.4% Math</td>
<td>65.5% Kinyarwanda 62% Math</td>
<td>67.9% Kinyarwanda 66% Math</td>
</tr>
<tr>
<td>Improved student performance in Science, Mathematics and English in P6;</td>
<td>% at or above benchmark</td>
<td>56.4% Eng 68.7% Math</td>
<td>65% Eng 72% Math</td>
<td>67.8% Eng 75.2% Math</td>
<td>70.7% Eng 78.5% Math</td>
<td>73.5% Eng 81.0% Math</td>
</tr>
<tr>
<td>Improved student performance in Science, Mathematics and English in S3;</td>
<td>% at or above benchmark</td>
<td>71.3% Eng 84.2% Math</td>
<td>79% Eng 85.9% Math</td>
<td>81.5% Eng 87% Math</td>
<td>84.1% Eng 88.1% Math</td>
<td>86.6% Eng 89.9% Math</td>
</tr>
<tr>
<td>Reduced primary repetition rate</td>
<td>%</td>
<td>16.4%</td>
<td>13%</td>
<td>11%</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Primary Completion Rate</td>
<td>%</td>
<td>79.3%</td>
<td>82.2%</td>
<td>83.8%</td>
<td>85.4%</td>
<td>86.9%</td>
</tr>
<tr>
<td>% of teachers achieving minimum English proficiency in primary and lower secondary</td>
<td>%</td>
<td>TBD</td>
<td>Based on WB Identification of English proficiency framework; develop data collection tools; Establish baseline</td>
<td>Develop and implement English self-learning programme for in-service teachers for primary and lower secondary</td>
<td>Implement English self-learning programme for in-service teachers for primary and lower secondary</td>
<td>Testing of upper primary and lower secondary teachers</td>
</tr>
<tr>
<td>Indicator Name</td>
<td>Unit of Measure</td>
<td>Baseline (2017/18)</td>
<td>Year 1 (March 2020 to 2020/21)</td>
<td>Year 2 (2021/22)</td>
<td>Year 3 (2022/23)</td>
<td>Year 4 (2023/24)</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.6mil textbooks for Science and Mathematics procured for primary schools</td>
<td>#</td>
<td>TBD</td>
<td>Textbooks procurement by REB 1.6mil textbooks of Mathematics and Science subjects printed and delivered for primary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Textbook Ratio in Science in Primary Schools</td>
<td>#</td>
<td>1:5</td>
<td>CBC textbooks procured for primary schools</td>
<td>1:4</td>
<td>1:3</td>
<td>1:1</td>
</tr>
<tr>
<td>Student Textbook Ratio in Mathematics in Primary Schools</td>
<td>#</td>
<td>1:2</td>
<td>CBC textbooks procured for primary schools</td>
<td>1:1</td>
<td>1:1</td>
<td>1:1</td>
</tr>
<tr>
<td>2429 pre-primary schools receiving textbooks &amp; reduction in pupil: textbook ratio</td>
<td>#</td>
<td>1:10 (average)</td>
<td>CBC textbooks procured for pre-primary schools</td>
<td>2429 pre-primary schools with reduced ratio (TBD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of subjects whose content is available in digital format</td>
<td>#</td>
<td>TBD</td>
<td>ICT4E unit equipped with relevant ICT hardware and software xx subjects in primary education digitized into e-PUB</td>
<td>xx subjects in primary education digitized into e-PUB</td>
<td>xx subjects in primary education digitized into e-PUB</td>
<td></td>
</tr>
<tr>
<td>Number of secondary schools receiving smart classroom package</td>
<td>#</td>
<td>TBD</td>
<td>Procurement of smart classrooms 50 schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of pre-primary schools receiving ECD kits – play materials in teaching</td>
<td>#</td>
<td>TBD</td>
<td>Procurement of ECD kits 416 schools (1 per sector)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of primary schools receiving Science kits</td>
<td>#</td>
<td>1065</td>
<td>Procurement of science kits 1500 schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of lower secondary schools receiving lab equipment</td>
<td>#</td>
<td>338</td>
<td>Procurement of lab equipment 121 schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of schools with nine year basic education level</td>
<td>#</td>
<td>P6</td>
<td>Environmental and safe guards assessment done Construction of classrooms 600 classrooms constructed for lower secondary</td>
<td></td>
<td>Number of schools with 9 year basic education</td>
<td></td>
</tr>
<tr>
<td>Indicator Name</td>
<td>Unit of Measure</td>
<td>Baseline (2017/18)</td>
<td>Year 1 (March 2020 to 2020/21)</td>
<td>Year 2 (2021/22)</td>
<td>Year 3 (2022/23)</td>
<td>Year 4 (2023/24)</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Number of special education needs resource rooms constructed and equipped with learning devices</td>
<td>#</td>
<td>TBD</td>
<td>Procurement and construction of classrooms</td>
<td>Procurement and construction of resource rooms and learning devices</td>
<td>Construction of resource rooms</td>
<td>20 resource rooms constructed</td>
</tr>
<tr>
<td>DLI 1: Improvement in student performance in Mathematics in P6 and at P3 in Kinyarwanda</td>
<td>%</td>
<td>P3 Kinyarwanda 54.4% P6 Math 59%</td>
<td>61% P6 students above benchmark in Math</td>
<td></td>
<td></td>
<td>P3 Kinyarwanda improvement 58%</td>
</tr>
<tr>
<td>DLI 2: Increase in enrolment for Learners with Disabilities</td>
<td>#</td>
<td>17,133 in 2018</td>
<td>1000 teachers trained on inclusive and special needs education (government funded)</td>
<td>2000 teachers trained on inclusive and special needs education - cumulative from 2019 (government funded)</td>
<td>3000 teachers trained on inclusive and special needs education - cumulative from 2019 (government funded)</td>
<td>Enrolment of LwD increase by 8% over the 2018 baseline – 17,133 LWD</td>
</tr>
<tr>
<td>DLI 3: Reduction in repetition rate in primary schools</td>
<td>%</td>
<td>16.4%</td>
<td>Orientation on repetition framework in districts with high repetition</td>
<td>Implementation of the repetition framework in at least 90% of schools with high repetition rate</td>
<td>All schools implement the repetition framework ongoing</td>
<td>Repetition rate at 10%</td>
</tr>
</tbody>
</table>
### F. Indicator Description and Reporting

<table>
<thead>
<tr>
<th>Indicator Name</th>
<th>Indicator Description</th>
<th>Frequency of reporting</th>
<th>Data Source</th>
<th>Responsibility for data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Impact Results</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved student performance in Kinyarwanda and Mathematics in P3;</td>
<td>Percentage of students at or above benchmark level in Kinyarwanda and Mathematics in P3</td>
<td>Bi-annually (Every 2 years)</td>
<td>LARS IV &amp; V</td>
<td>Examination and learning achievement data base unit REB</td>
</tr>
<tr>
<td>Improved student performance in Science, Mathematics and English in P6;</td>
<td>Percentage of students at or above benchmark level in Science, English and Mathematics in P6</td>
<td>Bi-annually (Every 2 years)</td>
<td>LARS IV &amp; V</td>
<td>Examination and learning achievement data base unit REB</td>
</tr>
<tr>
<td>Improved student performance in Science, Mathematics and English in S3;</td>
<td>Percentage of students at or above benchmark level in Science, English and Mathematics in S3</td>
<td>Bi-annually (Every 2 years)</td>
<td>LARS IV &amp; V</td>
<td>Examination and learning achievement data base unit REB</td>
</tr>
<tr>
<td>Primary Completion Rate</td>
<td>Proportion of newly enrolled learners in P6 as a percentage of the theoretical population expected to be in P6 (GIR)</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>Reduced primary repetition</td>
<td>Proportion of pupils from a cohort enrolled in a given grade at a given school year of primary who study same grade the following year</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>In-service teachers trained in English through self-learning programme;</td>
<td>Number of in-service trained teachers on English (self-learning)</td>
<td>Bi-annually</td>
<td>Administrative reports/TDM</td>
<td>TDM department</td>
</tr>
<tr>
<td>Teacher trainees trained on the revised compulsory English course;</td>
<td>Number of pre-service teachers trained in compulsory English</td>
<td>Bi-Anually</td>
<td>Administrative reports/TDM</td>
<td>TDM department</td>
</tr>
<tr>
<td>Indicator Name</td>
<td>Indicator Description</td>
<td>Frequency of reporting</td>
<td>Data Source</td>
<td>Responsibility for data collection</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Teachers completing inclusive education training package;</td>
<td>Number of teachers trained on inclusive and special needs education</td>
<td>Bi-Annually</td>
<td>Administrative reports/TDM</td>
<td>TDM department</td>
</tr>
<tr>
<td>1.6mil textbooks of Science and Mathematics procured for primary schools</td>
<td>Number of textbooks printed and distributed to schools</td>
<td>Bi-Annually</td>
<td>Administrative reports/Curriculum</td>
<td>Curriculum development</td>
</tr>
<tr>
<td>Student Textbook Ratio in Science in Primary Schools</td>
<td>The number of textbooks available for students in Science against the number of learners enrolled in primary sub system</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>Student Textbook Ratio in Mathematics in Primary Schools</td>
<td>The number of textbooks available for students in Math against the number of learners enrolled in upper primary sub system</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>2429 pre-primary schools (public, government aided receiving textbooks &amp; reduction in pupil: textbook ratio</td>
<td>The number of textbooks available for pre-primary students against the number of learners enrolled in pre-primary sub system</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>Number of subjects whose content is available in digital format</td>
<td>Number of subject textbooks that have been converted into e-PUB format. Interactive apps loaded on laptops in primary/secondary schools</td>
<td>Annually</td>
<td>Administrative reports/ICT</td>
<td>ICT dpt</td>
</tr>
<tr>
<td>Number of lower secondary schools receiving SMART classroom package</td>
<td>The number of schools with SMART classrooms</td>
<td>Annually</td>
<td>Administrative data</td>
<td>ICT dpt</td>
</tr>
<tr>
<td>Indicator Name</td>
<td>Indicator Description</td>
<td>Frequency of reporting</td>
<td>Data Source</td>
<td>Responsibility for data collection</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------</td>
<td>------------------------</td>
<td>-------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Number pre-primary schools receiving ECD kits-play materials in teaching</td>
<td>The number of schools with ECD kits</td>
<td>Annually</td>
<td>Administrative reports/Curriculum</td>
<td>Curriculum development</td>
</tr>
<tr>
<td>Number primary schools receiving Science kits</td>
<td>The number of schools with science kits</td>
<td>Annually</td>
<td>Administrative reports</td>
<td>Curriculum development</td>
</tr>
<tr>
<td>Number lower secondary schools receiving lab equipment</td>
<td>The number of schools with laboratories</td>
<td>Annually</td>
<td>Administrative reports</td>
<td>Curriculum development</td>
</tr>
<tr>
<td>Number of schools with 9 year basic education</td>
<td>Number of classrooms constructed</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>Number of resource rooms constructed and equipped</td>
<td>Number of resource rooms constructed</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
<tr>
<td>DLI 1: Improvement in student performance in Mathematics in P6</td>
<td>Proportion of learners in P6 who achieve the minimum numeracy competencies as measured by the LARS.</td>
<td>Bi-annually (every 2 years)</td>
<td>LARS</td>
<td>Assessment dpt REB</td>
</tr>
<tr>
<td>DLI 2: # in-service teachers trained in inclusive and special needs education</td>
<td>Serving primary school teachers who are trained on the inclusive and special needs teacher education package</td>
<td>Annually</td>
<td>Administrative reports</td>
<td>TDM dpt</td>
</tr>
<tr>
<td>DLI 3: Repetition rate in primary schools</td>
<td>Proportion of pupils from a cohort enrolled in a given grade at a given schools year of primary who study same grade the following year</td>
<td>Annually</td>
<td>Education Statistics Year book</td>
<td>MINEDUC/EMIS</td>
</tr>
</tbody>
</table>
**G. Disbursement of the Funds Associated with the Variable Part**

<table>
<thead>
<tr>
<th>DLI Theme</th>
<th>DLI #</th>
<th>DLI Linked Result Indicators</th>
<th>Year 1 (2020/21)</th>
<th>Year 2 (2021/22)</th>
<th>Year 3 (2022/23)</th>
<th>Year 4 (2023/24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>DLI 1</td>
<td>Improvement in student performance in Mathematics in P6 and at P3 in Kinyarwanda</td>
<td>DLI Target 1.1: 61% P6 students above benchmark in Math</td>
<td></td>
<td>DLI Target 1.2: P3 Kinyarwanda improvement 58%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Sub Total</strong> $3,080,000</td>
<td>DLI Target 1.1 Value: $1,540,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>DLI 2</td>
<td>Increase in enrolment for Learners with Disabilities</td>
<td>DLI Target 2.1: 3,000 teachers trained on the toolkit cumulative from year 1 (government funded)</td>
<td>DLI Target 2.2: Enrolment of LwD increase by 8% over the 2018 baseline – 17,133 LWD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Sub Total</strong> $3,080,000</td>
<td>DLI Target 2.1 Value: $1,540,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>DLI 3</td>
<td>Reduction in repetition rate in primary schools</td>
<td>Orientation on repetition framework in districts with high repetition</td>
<td>DLI Target 3.1 Implementation of the repetition framework in at least 90% of all schools with high repetition rate</td>
<td>DLI Target 3.2 Repetition rate at 10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Sub Total</strong> $3,080,000</td>
<td>DLI Target 3.1 Value: $1,540,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### H. DLI : Disbursement Protocol

#### DLI 1: Improvement in student performance in Mathematics in P6 and at P3 in Kinyarwanda

<table>
<thead>
<tr>
<th>Disbursement Linked Results</th>
<th>Scalability</th>
<th>Data Source</th>
<th>Reporting and Verification Entity</th>
<th>Disbursement Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DLI Target 1.1:</strong> 61% P6 students at or above benchmark in Math</td>
<td>No</td>
<td>Report from LARS Report of Math</td>
<td>Report by MINEDUC/REB and verification by an Independent Third Party Verification Firm</td>
<td>The MINEDUC/The LARs team prepares the LARs Report and Validated by the BESWG. Independent Third Party Firm verifies the data; Verification report submitted to the DFID for consideration; ESWG reviews and endorses report; DFID releases eligible resources to the MINECOFIN based on verified results.</td>
</tr>
<tr>
<td><strong>DLI Target 1.2:</strong> 58% P3 Students at or above benchmark in Kinyarwanda</td>
<td>Yes</td>
<td>Report from LARS Report of Kinyarwanda</td>
<td>Report by MINEDUC/REB and verification by an Independent Third Party Verification Firm</td>
<td>The MINEDUC/The LARs team prepares the LARs Report and Validated by the BESWG. Independent Third Party Firm verifies the data; Verification report submitted to the DFID for consideration; ESWG reviews and endorses report; DFID releases eligible resources to the MINECOFIN based on verified results.</td>
</tr>
</tbody>
</table>

### I. DLI 2. Disbursement Protocol

#### DLI 2.1: Increase in enrolment for Learners with Disabilities

<table>
<thead>
<tr>
<th>Disbursement Linked Results</th>
<th>Scalability</th>
<th>Data Source</th>
<th>Reporting and Verification Entity</th>
<th>Disbursement Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DLI Target 2.1:</strong> 3,000 teachers trained on the toolkit (government funded)</td>
<td>Yes</td>
<td>REB prepares report on the training of teachers on the tool kit providing statistics of teachers trained and source of funding for the training</td>
<td>Report by REB reviewed by the BESWG and the Grant Agent (DFID)</td>
<td>MINEDUC/Special Needs Unit prepares a training report on the number of teachers trained in inclusive education; ESWG reviews and endorses report; DFID releases eligible resources to the MINECOFIN.</td>
</tr>
</tbody>
</table>
### J. DLI 3 Disbursement Protocol

**DLI 3: Reduction in repetition rate in primary schools**

<table>
<thead>
<tr>
<th>Disbursement Linked Results</th>
<th>Scalability</th>
<th>Data Source</th>
<th>Reporting and Verification Entity</th>
<th>Disbursement Procedure</th>
</tr>
</thead>
</table>
| **DLI 3.1 Target:**
Implementation of the repetition framework in all schools with special focus on the schools with high repetition rate | No | REB prepares report on the training and Implementation of the repetition framework in all schools with special focus on the schools with high repetition rate | Report by MINEDUC/REB/EMIS reviewed by the BESWG and the Grant Agent (DFID) | MINEDUC/REB/EMIS prepares an annual report on the repetition framework implementation in all primary schools; ESWG reviews and endorses report; DFID releases eligible resources to the MINECOFIN based on verified results. |
| **DLI 3.2 Target:**
Repetition rate at 10% | Yes | Administrative data/EMIS; Third Party Verification Data | Report by MINEDUC/REB/EMIS and verification by an Independent Third Party Verification Firm | MINEDUC/REB/EMIS prepares an annual report on the repetition in primary schools; Independent Third Party Firm verifies the data; Verification report submitted to the DFID for consideration; ESWG reviews and endorses report; DFID releases eligible resources to the MINECOFIN based on verified results. |
VII. ANNEX 1: DL1 : Learning: Improvement in student performance in Mathematics in P6 and Kinyarwanda in P3

Rwanda’s Education Sector Strategic Plan lists the improvement of quality education as one of the main priority areas for the education sector, including the development of learning achievement assessments at primary school level. The Education Sector Strategic Plan (ESSP) also states that the basic education system should provide students with foundational skills in literacy and numeracy, as well as transferable skills such as problem solving, communication and ICT.

With these goals in mind, Rwanda developed its first national learning assessment in 2011—Learning Achievements in Rwandan Schools (LARS). The Learning Achievement in Rwandan Schools (LARS) is an educational assessment that aims to study the state of ‘learning’ in Literacy and Numeracy. It is a tool developed by the Rwanda Education Board to monitor the quality and equity of learning in the schooling system.

LARS evaluates learning outcomes based on the criteria and expectations set by the national curriculum. It is designed to assess the performance of the whole education system, rather than the performance of individual children, who are assessed by national leaving examinations at P6, S3 and S6 levels.

LARS aims to improve education quality by:
- Providing policymakers with systematic information about the status of students’ learning outcomes and the extent to which students attain curricular standards and proficiencies in key subjects;
- Identifying areas in the system in need of policy attention;
- Monitoring learning outcomes over time to reflect progress and/or lack thereof on key curricular priorities.

Following the adoption of SDGs by world leaders in September 2015, in February 2016, the Government of Rwanda started the SDG domestication process. The Ministry of Finance (MINECOFIN) with the support from the One UN Rwanda Team conducted SDGs Initial Gap Analysis which highlighted which SDGs indicators were already reflected in the Sector Strategic Plans and other national level Development Frameworks such as EDPRS-2 and Vision 2020. Following from this, National Statistical Institute of Rwanda conducted various workshops with individual government ministries including the Ministry of Education (MINEDUC) where development partners’ representatives and MINEDUC officials mapped out the data sources for tracking the specific education SDG indicators. It was through this exercise that MINEDUC prioritized SDG 4.1.1: Percentage of children/young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics. Disaggregation: sex, location, wealth (and others where data are available). As a result of the changing education environment and emerging priorities, in discussion with Development Partners, the Ministry of Education opted to change the learning assessment in 2016 from P2 and P5 to the following grades: P3, P6, S3 to align with SDG indicators. Through this DLI assessment will be undertaken for grades P3, P6, S3. Improvement in performance is expected at all these levels and priority for the tranche is put on P3 being an early learning grade to ensure learners attain foundational literacy. The second part of this DLI is P6 being the final level of primary to ascertain the quality of children completing primary with particular focus on Math as one of the key subjects for STEM, a high agenda for the Government of Rwanda. Based on LARS III only 54.4% of learners at P3 are at or above the benchmark and this is expected to improve to 58% as a minimum by the fourth year of the programme. For P6 59% of learners are at or above benchmark and this is expected to improve to 61% as a minimum by the second year of the programme.
VIII. ANNEX 2: DLI 2 Equity: Increase in enrolment of students with Disabilities

92. The enrolment of children with disabilities has been established through the Education Sector Analysis to be very low. Learner with disability constituted only 0.55 percent of total pre-school enrolment, 0.68 percent of total enrolment at primary and 0.71 percent at secondary. The number of students with disabilities who were enrolled in primary in 2017 increased from 19,118 in 2016 to 24,980 in 2017. However, the number reduced to 17,133 in 2018. The reduction is due the change in guidelines that define the types of disabilities that are hindering the learning. Disability that does not require any support or any facilitation is no longer counted in the data collection. This has resulted in the counted number of LwD. Measures continue to be taken to ensure more learners with Disabilities are enrolled and retained in schools. Thus, this indicator will constitute a stretch in achieving the set target. In addition to the increase of LwD in the system there is the challenge of the diversity of the needs of these learners. The figure shows the distribution of disability among LwD and SEN. The distribution indicates the challenges that teachers face in teaching these learners in an inclusive environment especially without any training in inclusive education and the requisite tools.

For some learners who manage to access school, their needs are sometimes latent and therefore go undetected and not addressed and they eventually drop out of the system. Even for those whose needs are visible and known the schools have not adequately addressed their needs because of lack of knowledge on how to support these learners. One of the biggest challenges is the limited number of teachers who are trained in inclusive and special needs education.

The 2018 data shows there was an increase in the number of teachers trained in inclusive and special needs education from 3,398 in 2017 to 6,835 indicating an increase of 100 percent, with females at 47.8 percent. The teachers trained in special needs and inclusive education therefore constitute only 9.6 percent of the teaching force. The ESA notes that the issue of learners with disability should be treated as a developmental issue that requires teachers be trained to identify children with disabilities and how to support them in an inclusive environment. This is a first and important step to ensuring that strategies are taken to mitigate the impact on learning and that these learners get the attention they need to enrol and complete their education cycles.

Training in inclusive education has currently focused on pre-service training and not on in-service training to the same extent. The training of teachers in inclusive education will enhance their capacity to handle education for children with special needs and disabilities thereby potentially reducing the gap between the children who find the environment of school conducive for their stay and those who struggle with various challenges to be in school. Equipping teachers with the requisite skills is likely to enhance the learning conditions in schools and offer a great transition from the current status where teachers struggle by themselves to see what is best for children with disabilities.

The ESSP has come up with several strategies to improve the enrolment of LwD and SEN and adoption of inclusive education in the realization of the fact that this is an area of need. It was noted that the output of teachers from the UR-CE and TTCs with inclusive education is very low. Thus, the system cannot rely on newly graduated teachers to improve equity for those children with SEN and must now ensure that those already in service also get trained in inclusive education. This therefore puts the impetus of ensuring that the teachers already in service receive training in inclusive education with the expectation that over time all teachers both old and new are trained in inclusive education. The theory of change on inclusive education makes teachers with inclusive education a key factor in the enrolment and retention and completion rates of learners with disability.
The development of the inclusive education programme and tool kit is therefore a critical part of the ToC that should result in improved indicators for SEN and for LwD. Using the Toolkit and training package on inclusive and special needs education already developed and available in schools, REB will train up to 3000 teachers through government own funding to ensure an increase in number of teachers with skills and knowledge on SEN and inclusive education. Through this intervention among other strategies as stipulated in the newly approved Inclusive and Special needs Education policy, it is expected that the number of learners with disabilities enrolled in primary schools will increase by 8%.
One of the biggest causes of inefficiency in the basic and secondary education sector in Rwanda is the repetition rates at both primary and lower secondary. This is highest at primary more than at lower secondary. High repetition rates affect the internal efficiency of education systems, because of lost learning, and the cost of the extra years that repeaters spend in school to complete the education cycle. Repeaters clog the system and cause overcrowding especially in the lower classes where enrolments in P1, P2 and P3 are much larger than those in P6.

Impact of Repetition on the Education System
The Education Sector Analysis of 2017 noted that Rwanda’s Coefficient of Efficiency for the primary level is 0.27, meaning that it takes 25.5 pupil years to produce one primary-level graduate, compared to the planned six years and 73% of pupil years, or public resources, are wasted on repeated years or pupil years prior to dropout (ESA 2017). The report on “Understanding Dropout and Repetition in Rwanda” also noted that repetition was high at all levels. The study was designed to inform policy on how to increase retention, completion options and the overall efficiency of the education system. The study found that 85 percent of children in the education system would have repeated at least once by the time they reach P6 and that children who repeated at least once in the first 3 years of their education track are much more likely to drop out after their 8th year of education. Both these inefficiencies are linked to absenteeism. Repeated absenteeism inevitably leads to repetition since learners will not have mastered their learning and repeated repetition eventually leads to dropout further exacerbating the inefficiency of the system.

Data from the Education Sector Analysis (ESA) shows that repetition has trended upward from 15.3 percent in 2012 reaching a peak of 20.1 percent in 2014 and then dropping to 18.4 percent in 2016. It further dropped to 13.4 percent in 2018. Primary education completion rate has improved from 65.2% 2016 to 82.9% 2018.

Repetition rates of lower secondary education also increased from 6.2% in 2012 to 11.6% in 2015 and dropped to 7.3% in 2017 and to 6% in 2018. Similarly, the repetition rates of upper secondary education increased from 1.7% in 2012 to 6% in 2015 and dropped to 3.1 percent in 2017 and increased to 6.0 in 2018. The data further shows that boys tend to have higher repetition rates than girls (17.7 percent for boys compared to 15.1 percent for girls in 2017) because more girls tend to enrol at the correct age than boys and repetition is associated with age. The national data of course hides the differences in the repetition by the district and by school. There are also challenges in measuring these indicators and the lack of disaggregation makes it difficult to respond appropriately in a way that addresses the challenges being faced in different environments. Repetition is linked to high absenteeism, as children fall behind and therefore need to repeat hence addressing the causes for absenteeism is a critical step in addressing both repetition and dropout. The Report on Quality Education Enhancement Awareness Campaign-Phase One Conducted of February 2018 of all the education districts showed that there were difference in the repetition rates among the districts.

Figure 1 shows repetition rates for P1 – P6 for 2016
The figure shows that repetition rates are highest in P1 and P5 with the total repetition rates at 24.5 percent and 1.5 percent respectively. The highest repetition rate is in P1, evidenced by high gross intake rate, reflecting the lack of school readiness of the majority of the students who enroll (ESA 2017). The high repetition in P5 is related to a key challenge identified in the ESSP as the pressure for schools to achieve high pass rates in the upper divisions in P6, results in learners being made to repeat P5 to better prepare them for the P6 examination. This creates an unnecessary bottleneck which exacerbates the inefficiencies in the system.

The system has failed to meet the ESSP targets for various indicators such as GER, NER, PTRs etc., as a result of some of these inefficiencies in the system. There is therefore need to improve the efficiency of the system through the reduction of repetition and dropouts. There is also need to improve the data management and putting in place a system of tracking students in order to address those factors that have been identified as contributing to the repetition. Artificial bottle necks such as the repetition on P5 that arise not from educational reasons but from a perception of the performance of learners should also be removed. This calls for an improvement in the assessment of learners to ensure smooth passage of learners through the primary cycle. Since the costing of the ESSP assumes a reduction of both dropout and repetition there is need to address the inefficiencies arising from repetition and dropout.

Supply-Side Causes of Repetition
Some reasons advanced for repetition in several reports including the ESSP include:

a. School readiness in terms of literacy, numeracy and socio-emotional development is a key determinant as to whether learners repeat P1 or drop out of school. Learners that have participated in pre-primary schooling are less likely to repeat than those who have not. Given that the GER and NER for pre-primary stand at 24.4 percent and 20.8 percent respectively this means that many of the learners joining P1 are not well prepared for school and are at risk of repeating and even dropping out;

b. Low quality of education as a result of inadequate resources and poor management of school resources especially teachers results in P1, P2 and P3 having the highest pupil to teacher ratios and overcrowding which both lead to poor learning necessitating learners to repeat or to dropout altogether. Low quality of educational inputs accounts for most of the repetition that occurs in the both the primary and secondary education cycles;

c. Poor teaching and learning techniques in some schools and insufficient learner and teacher contact time mostly arising from double shifting, adversely affect learning outcomes;

d. Local decisions at the school level on repetition and especially in P5 where learners are held back in order to increase their chances of success in the P6 examination which determines entry into lower secondary. The decisions to repeat P5 are driven by the schools rather than by the learners and the parents;

e. Learners’ absenteeism due to different reasons, including school environment (school surrounded by market, bars, betting, mines, plantations, cinema houses, etc.) that distract attention of some students;

f. Big class size in some schools which make it difficult to manage students during the lesson delivery; and

g. Low transition to lower secondary results in learners repeating P6 in order to increase their chance for selection to lower secondary because some of the learners may not have
acquired the necessary numeracy and literacy skills, in particular English to make the transition successfully;

**ESSP Strategies to Address Repetition**

The interventions in Priorities 1 (Enhanced quality of learning outcomes that are relevant to Rwanda’s social and economic development); 2 (Strengthened CPD and management of teachers across all levels of education in Rwanda); 4 (Enhanced use of ICT to transform teaching and learning and support the improvement of quality across all levels of education in Rwanda); 5 (Increased access to education programmes, especially at pre-primary, secondary, TVET and higher education levels, in Rwanda); 6 (Strengthened modern school infrastructure and facilities across all levels of education in Rwanda); 8 (More innovative and responsive research and development in relation to community challenges); and 9 (Strengthened governance and accountability across all levels of education in Rwanda) have the potential to improve learning and reduce repetition in various ways.

A key challenge that remains has to do with lack of policy and guidelines on repetition as noted by the Dropout and Repetition Report. Repetition targets that are set at the national level and then communicated to the school level are translated into school level targets and that the schools implement their own rules to achieve these targets. This means the decision on repetition are left to the schools themselves to determine who repeats and how often they can repeat. Many schools do not have formal rules in place regarding how many times a learner can repeat resulting in different pathways for learners with the similar levels of learning in the different schools. Repetition decisions at P5 are based in the school’s assessment on whether learners are ready to take and pass the P6 examination which has been key to entry into lower secondary. This assumes robust systems of assessment of learner performance which is not necessarily the case.

Establishment of a national framework to guide and address repetition would set internally-consistent national and school level targets on repetition; revise the special needs and inclusive policy to increase promotion rates for such learners; clarify and standardize the rules governing repetition specifying the conditions under which repetition is allowed and the number of times learners can repeat a grade; addressing the bottleneck causing repetition; the strategies that schools should put in place to identify learners at risk and what remedial measures to be taken; examine the merits and demerits of automatic promotion; and an improvement in the assessment of learning outcomes.

This will be accompanied by the strengthening of data collection on repetition at the national, district and school level in order to provide real time data which enable quick decision-making on addressing identified issues. The purpose of the framework will be to guide all key stakeholders in improving grade promotion rates, survival rates and completion rates through substantive reduction of repetition and dropout rates, and particularly for those groups vulnerable to repetition, at all levels of the education system, with the ultimate goal of improving learning outcomes and enhancing the efficiency of the education system in Rwanda. The establishment and implementation of such a framework can be achieved by making this an efficiency related variable tranche indicator with ultimate reduction in repetition rate to 10% in the fourth year of the programme.
Component 1: Teacher training in curriculum delivery with emphasis on English teaching and teachers' English proficiency and Inclusive Education (USD 2.06 million)

**Description**

1. This component is aligned to priority 2 on the ESSP which seeks to strengthen Continuous Professional Development (CPD) and management of teachers across all levels of the education in Rwanda. The programme will focus on improving English proficiency which has been identified as a key challenge at all levels of the education starting from P1 up to University. Visits to education institutions revealed that lecturers at the College of Education, Teacher Training Colleges, officers at district education offices and teachers in schools exhibited low English proficiency in spite of all interventions that have been implemented over the last 10 years. Interventions have focused on improving English proficiency of teachers and on the use of English as a medium of instruction, starting in P4. Currently, there are a number of ongoing initiatives supported by development partners and NGOs. Some of these interventions are the Building Learning Foundations – BLF project supported by the DFID and focusing on English and Mathematics in P1-P5 and Soma Umenye (USAID) focused on P1-P3 Kinyarwanda. Both initiatives are focusing at the school level and the School Based Mentorship (SBM) system. Mastercard Foundation is also supporting both pre-service and in-service programmes aimed at enhancing capacity of both education administrators and teachers. With persistent challenges in English, innovative ways beyond the SBM system, are needed to address this challenge at the school level. While the Programme’s focus is pre-primary, primary and lower secondary, and other interventions will target the higher levels of the education system. The work will be coordinated with the work that is being done under the BLF programme in P1 to P5 and will draw heavily on the best practices under this project.

2. Under the Rwanda Quality Basic Education for Human Capital Development Project (RQBEHCDP) the WB will support the enhancement of English and digital proficiency in all primary and secondary schools including 17 demonstration schools, 16 teacher training colleges and UR-CE. The support will include testing of teachers’ levels of English Proficiency, developing training programmes to improve both English and digital proficiency in the education system based on the results of the testing. The programme will also provide equipment to the UR-CE, all TTCs and the 17 demonstration schools that will be attached to the TTCs and the UR-CE. Implementation of the proficiency programmes will initially start in the TTCs, the demonstration schools and UR-CE for one year as a pilot before it is scaled up to all primary and secondary schools. The training programmes will mostly be delivered on-line with face-to-face elements.

3. This project will therefore strengthen the teaching of English proficiency programme for all students at the UR-CE and 16 TTCs through provision of multi-media equipment and related TLMs. It will also support the delivery of the English proficiency course, developed under RQBEHCDP in all schools, by strengthening the support to the delivery of the on-line learning and the face to face elements of the English course including the formative assessment of this learning as agreed with REB.

4. The support will be coordinated with the work that is being done under the RQBEHCDP and the BLF programme in P1 to P3 and will draw heavily on the best practices under
this programme. It will cater for upper primary and lower secondary, while other
government interventions will target the other levels of the education system.

The Component is divided into the following sub-component with various key interventions:

a) Provision of multi-media equipment to University of Rwanda College of Education
   (UR-CE) and 16 Teacher Training Colleges (TTCs)

Specific Objective

To capacitate the University of Rwanda College of Education (UR-CE) and the 16 TTs in the
teaching of the English programme to all students in their institutions.

Key interventions include:
   a. Assessing the needs of each institution for the media equipment based on the
curriculum to be developed.
   b. Procurement and installation of the equipment in the institutions
   c. Induct lectures in the use and servicing of the equipment.

Responsible unit
   a. The responsible Unit of the activities is UR-CE, staff in TTCs and The Training Unit in
      TDM&CGC/REB and Procurement Unit/REB.
   b. The suppliers of the equipment will install and induct the lecturers in the use of the
      equipment.

Implementation Arrangements
   • The staff at UR-CE and those in the TTCs and the Training Unit in TDM&CGC/REB will
     create a taskforce made up of the relevant departments to identify multi-media needs of
     their laboratories including the specifications of the needs and submit to REB for
     procurement.
   • REB will use the specifications to procure the materials and get them distributed to the
     institutions for installation.
   • The provider will organize workshops for induction to staff in the institutions in the use of
     the equipment before commissioning.
   • Institutions to sign service agreement with the supplier.

b) Strengthening school based mentorship program to support on-line training and
   Face to Face Components of the English Proficiency Course Developed under the
   RQBEHCDP

Specific objectives
   a. To improve teaching methodology using English language,
   b. Support the teachers to take full advantage of the online courses and face to face
      components of the English proficiency course.
   c. To improve ownership and accountability of training conducted at school level.

Key steps/sub-activities
   a. To train head teachers and local trainers (mentor trainers, School Based Mentors) on
      the key elements of the online training course through a series of workshops at the
      sector and district levels.
   b. To conduct a workshop to sensitize all stakeholders, District directors of Education
      District Education Officers, Sector Education Officers and Head Teachers on the
      importance of Continuous Professional Development (CPD) in schools and
      highlighting their roles in supporting CPD activities.
Beneficiary-target groups
- The target groups are District Director of Education, District Education Officers, Head Teachers, Mentor Trainers, School Based Mentors and Teachers.

Responsible unit
- Teacher Training Unit/TDM&CGC

Implementation Arrangements
- Teacher Training Unit will organize a workshop to plan for training of trainers (mentor trainers) and include DPs like IEE/UNICEF, BLF;
- Teacher Training Unit will develop the guidelines to be shared with stakeholders on how to support mentor trainers at sector level as well as teachers on the facilitation on the online courses and face to face elements of the course.
- Teacher Training Unit will conduct a workshop in order to share the developed guidelines with stakeholders of supporting sectors and schools on CPD activities facilitation.

c) Strengthening School Based Mentorship program focusing on self-learning though the online courses and its face-to-face elements;

Specific objectives
a. To improve capacity of Head teachers and SBMs to support the teachers in the use of the English proficiency course developed under RQBEHCDP;
b. To improve effective planning and implementation of CPD activities at the school level by head teachers.

Key steps/sub-activities
a. To conduct a workshop induct head teachers, SMBs and teachers on the online courses and to use for self-learning.
b. Provide the resources required for the online courses and the face-to-face elements of the course.
c. Draw up a programme of support to teachers including time for SMBs to provide support to teachers.
d. To conduct a workshop to develop planning and implementation document of CPD activities to support SBMs;
e. To train head teachers on the planning and implementation document developed.

Beneficiary-target groups
- The target groups are School Based Mentors (SBMs), mentor trainers, head teachers.

Responsible unit
- Teacher Training Unit/TDM&CGC

Implementation Arrangements
- The RQBEHCDP will provide the resources needed for the implementation of the online course.
- REB Teacher Training Unit and Digital Content & Instructional Development Unit in ICT in education will plan and conduct a training in using self-learning materials;
- Teacher Training Unit will organize a workshop and invite other units in TDM&CGC, stakeholders and DPs to monitor the implementation of the course.
d) **Support to the Training Unit of REB and staff at the sector level to develop a training framework to guide the implementation of SBM**

**Specific objectives**
- a. To improve School Based Mentorship Program by empowering mentor trainers at sector level using SBMP framework;
- b. To Ensure SBMP training is effectively implemented and achieves positive results in schools.

**Key steps/sub-activities**
- a. To conduct a pre-test and post-test in the training of mentor trainers, check the SBMP facilitation and select the best performers basing on the results in the training and of English test;
- b. To conduct selection of mentor trainers from the sector;
- c. To conduct a training for mentor trainers to update them on the SBMP framework;
- d. To design monitoring mechanisms software to support reporting CPD activities and trainings conducted at sector and school level.

**Beneficiary-target groups**
- The target groups are mentor trainers, teachers and SBMs who will be selected, conduct test and be selected among the performers basing on the results.

**Responsible unit**
- The responsible unit is Teacher Training Unit which will plan for testing mentor trainers and collect results.

**Implémentation Arrangements**
- Teacher Training Unit will develop pre-test and post-test for mentor trainers, and combine the results of English test which will help in the selection of the best performers who will, in turn train other teachers;
- Teacher training unit will organize a workshop to train Training Unit staff of REB on SBMP framework and update them on the CPD facilitation; this will be done in the support of DPs;
- Teacher Training Unit will organize a workshop to update mentor trainers on SBMP framework and conduct training at sector level;
- Teacher Training Unit, DDEs, DEOs, SEOs and head teachers will select centers with computer rooms to facilitate training on CPD activities;
- Teacher Training Unit will submit terms of references to the Procurement Unit for hiring a consultant who will develop software for reporting trainings and CPD activities conducted at school and sector level.

e) **Support training of teachers in inclusive education in targeted schools.**

**Specific objectives**
- a. To train national teachers and educational practitioners on Inclusive education.

**Key steps/sub-activities**
- a. Induction of 20 special needs education trainer of trainers (SNE TOTs) in inclusive education on the programme for them to train teachers in the schools that will receive special education resources rooms in component 4 of this Programme. The training of trainers will be conducted at UR-CE. Each of the trainers will be assigned to each of the schools so that the training of the teachers will be done at the school level.
- b. Training of 200 teachers in the 20 schools with special needs resource rooms constructed and equipped with learning devices under this programme. The training
will be conducted at the school level by the SNE Special TOTs. This will complement government plans to train 3000 teachers on inclusive and special needs education.

**Beneficiary-target groups**

a. Children with disabilities (LwDs) enrolled in schools  
b. 200 in-service teachers in 20 schools trained on the implementation of IE and the use of IEPs.  
c. In 20 schools, members of school multidisciplinary teams (SMDTs) in charge of assessing children’s learning needs, deciding on pedagogical placement and developing IEPs  
d. 20 District and Sector Education Officers (DEO/SEO)

**Responsible unit:** TDM& CGC, Teacher Training Unit

**Implementation Arrangements**

c. Using already developed training manual TDM will train targeted 20 schools  
d. Monitoring and evaluation of the training: Teacher Training Unit in TDM&CGC will monitor all trainings related to Inclusive education.
**Timeline: Component 1: Teacher training in curriculum delivery with emphasis on English teaching and teachers’ English proficiency and Inclusive Education**

<table>
<thead>
<tr>
<th>Sub-components</th>
<th>Activities</th>
<th>Key steps/Sub-activities</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher training in curriculum delivery with emphasis on English teaching and teachers’ English proficiency and Inclusive Education</td>
<td>Provision of Multi-media Equipment to University of Rwanda College of Education (UR-CE) and 16 Teacher Training Colleges (TTCs)</td>
<td>Assessing the needs of each institution for the media equipment based on the curriculum to be developed.</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Procurement and installation of the equipment in the institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Induct lectures in the use and servicing of the equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthening School Based Mentorship program to support on-line training and Face to Face Components of the English Proficiency Course Developed under the RQBEHCDP</td>
<td>Based on the WB developed materials Training of national trainers on the developed materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training of mentor trainers and School Based Mentors (SBMs) by national trainers and training unit in REB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SBMs and mentor trainers will conduct mass training of all teachers at school level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring and Evaluation of mass training of teachers and report on the feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthening School Based Mentorship program focusing</td>
<td>To train local trainers (mentor trainers, School Based Mentors) on the training facilitation using School Based Continuous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-components</td>
<td>Activities</td>
<td>Key steps/Sub-activities</td>
<td>Year 1</td>
<td>Year 2</td>
<td>Year 3</td>
<td>Year 4</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>on self-learning though the online courses and its face-to-face elements</td>
<td>Professional Development manual with emphasis on English language</td>
<td>Q 4</td>
<td>Q 1</td>
<td>Q 2</td>
<td>Q 3</td>
</tr>
<tr>
<td></td>
<td>d. Strengthening School Based Mentorship program focusing on self-learning based on the WB developed materials</td>
<td>To conduct a workshop to sensitize all stakeholders (DDEs, DEOs, SEOs, HTs) on the importance of Continuous Professional Development (CPD) in schools and highlighting their roles in supporting CPD activities</td>
<td>Q 4</td>
<td>Q 1</td>
<td>Q 2</td>
<td>Q 3</td>
</tr>
<tr>
<td></td>
<td>d. Strengthening School Based Mentorship program focusing on self-learning based on the WB developed materials</td>
<td>To conduct a workshop induct head teachers, SMBs and teachers on the online courses and to use for self-learning.</td>
<td>Q 4</td>
<td>Q 1</td>
<td>Q 2</td>
<td>Q 3</td>
</tr>
<tr>
<td></td>
<td>d. Strengthening School Based Mentorship program focusing on self-learning based on the WB developed materials</td>
<td>Draw up a programme of support to teachers that including the time for teachers and SMBs to provide support to teachers.</td>
<td>Q 4</td>
<td>Q 1</td>
<td>Q 2</td>
<td>Q 3</td>
</tr>
<tr>
<td>Support to the training unit of REB and staff at the sector level to develop a training framework to guide</td>
<td>To conduct a workshop to develop planning and implementation document of CPD activities to support SBMs</td>
<td>Q 4</td>
<td>Q 1</td>
<td>Q 2</td>
<td>Q 3</td>
<td></td>
</tr>
<tr>
<td>Sub-components</td>
<td>Activities</td>
<td>Key steps/Sub-activities</td>
<td>Year 1</td>
<td>Year 2</td>
<td>Year 3</td>
<td>Year 4</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>--------------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To conduct selection of mentor trainers from the sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>To conduct a training for mentor trainers to update them on the SBMP framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>To design monitoring mechanisms software to support reporting CPD activities and trainings conducted at sector and school level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the implementation of SBM</td>
<td></td>
<td>Support training of teachers in inclusive education in targeted schools.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Train teachers and educational practitioners on Inclusive education in 20 targeted schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring and Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Financial Reporting mechanisms

5. A financial report of activities with supporting documents will be prepared and submitted to the concerned levels after the completion of activities. A quarterly financial and activities report will also be submitted taking into consideration of each activity and/or component conducted. Reporting system and standards are highly recommended more specifically financial report for more consistently

Component 2: Curriculum - Development and procurement of teaching and learning materials, readers and materials for learners in pre-primary, and upper primary including for children with special educational needs (USD 7.95 million)

6. This component is aligned to Priority 1 of the ESSP which seeks to enhance the quality of learning outcomes that are relevant to Rwanda’s social and economic development. It will address the challenges that have so far faced the system in the provision of relevant and appropriate teaching and learning materials especially textbooks and digitalized content and materials.

7. The Ministry has in the past procured textbooks and other reading materials from publishers based on the local curriculum. This approach has been fraught with inordinate delays in the provision of textbooks, largely attributed to the publishers. This has adversely affected teaching and learning at all levels of the system. Publishers retain the copyright of the materials thereby constraining the REB from modifying and digitalizing these materials. Arising from these challenges, the Government will now produce textbooks in-house and outsource their printing. Implementation of this policy is already under way with more and more titles being developed using existing capacity within REB and funded by GoR. This approach is expected to reduce the delays in the supply and digitalization of textbooks and other teaching and learning resources, reduce the cost of the textbooks and ensure that the materials are aligned to the culture of Rwanda. The added advantage is that Government will retain the copyright of the materials which should facilitate the digitalization of the materials.

a) Development, printing and distribution of teaching and learning materials and readers with a focus on STEM.

Specific objectives
a. To provide LTM related STEM-textbooks in public and GoR Aided primary schools
b. The enhance the teaching and learning at the pre-primary level
c. Prepare learners in pre-primary for entry into primary

Key steps/sub-activities
a. Print 1,600,000 STEM textbooks using local companies
b. Procure pre-primary teaching and learning materials working closely with UNICEF
c. Distribute pre-primary teaching and learning materials to 2,429 pre-primary schools.
d. Induct head teachers and teachers in the use of the materials.

Beneficiaries
- Pre-primary and primary schools
- Teachers in the pre-schools
- Learners in pre-primary
Responsible Unit
- The curriculum development unit in REB

Implementation Arrangements
- The list of materials have already been approved by REB. So, the procurement department in REB will procure the materials and will distribute the materials to all government and government aided pre-primary schools.
- The Training Unit in REB will organize workshops to induct tutors in pre-primary schools in the use of the materials.
- The Curriculum Development Unit in REB follows to support tutors in the use of the materials.

b) Procurement and distribution of ECD kits for each sector.

Procurement of the ECD kits to be distributed to each of the 416 Sectors

Specific objectives
a. The enhance the teaching and learning at the pre-primary level
b. Prepare learners in pre-primary for entry into primary
c. Build capacity in developing TLMs using local resources in order to reduce their cost

Key Steps/Sub-activities
a. Procure and distribute the materials to the sectors
b. Train teachers in the production of TLMs using local resources

Beneficiaries
- Teachers in the pre-primary schools
- Learners in pre-primary

Responsible Unit
- Curriculum Department of REB
- Procurement unit of REB
- SEOs and DEOs

Implementation Arrangements
- The Curriculum Development of REB working together with UNICEF procure the ECD Kits.
- Procurement Unit arranges for the distribution of the ECD Kits to the 416 Sectors
- The Training Unit of REB works closely with UNICEF and SEOs arrange workshops for the induction of teachers in the use of ECD Kits and how to use local resources to produce similar kits.
- Head teacher organize workshops at school level to induct teachers in the use of the kits and in the production the kits using local resources.

c) Provision of Equipment and Software Required for Digitalization.

This is the equipment that REB needs, to undertake the digitalization of the TLMs needed in the system.

Specific Objectives
a. Capacitate REB in digitalization of the TLMs through provision of the required equipment and software and revamping the multi-media laboratory
b. Build technical expertise in REB to develop digitalized TLMs
c. Support the in-house provision of required textbooks of Sciences, Mathematics and
Computer Science for all concerned levels
d. Make digital content easily accessible through the setting up of a digital library and protocols for access by users

**Key steps/sub-activities**
- Evaluate the equipment and software needs of Curriculum Development Unit;
- Procure both equipment and software and install;
- Enhance capacity of REB staff in TLM development (Design, Elaboration, Printing and distribution)
- Develop a TLM development manual and training manual for authors
- Train REB staff on TLM development
- Produce TLMs for the CBC and distribute to institutions including simulation software, e-books and digital content.;
- Set up a digital library easily accessible to users
- Elaboration of technical specifications for printed textbooks
- Allocate STEM textbooks in schools to come up with the number to be printed
- Identify mode of printing and capable printers
- Supervise the printing process and distribute printed textbooks in schools

**Beneficiary-target groups**
- REB staff and Higher Learning Institutions staff and lecturers
- Science, mathematics and computer science authors (content providers, illustrators, designer)
- Students who learn science and mathematics for levels under the scope of the project
- Pre-primary and primary learners and teachers

**Responsible unit**
- Science and Arts and Education Resources and Training Materials Unit under Curriculum and Teaching and Learning Resources Department (CT&LRD).

**Implementation Arrangements**
- A formal request and the concept note of each or a combined activity of each sub component will be prepared by concerned staff, checked by the Unit Head and approved by the Head of Department, authorized by Chief Budget Manager. The activity will be conducted by the concerned unit under supervision of the Head of Department. A report will be prepared and submitted to all concerned levels. A tender will be prepared and awarded to national printers, the activity of printing will be a task of printers but REB has to supervise every single step of printing and distribution to ensure the conformity of technical specifications provided.

**Financial reporting mechanism**
- A financial report of all activities will be prepared and be submitted with all supporting documents to all concerned levels just after the completion of financed activity. A monthly and quarterly reports will also be prepared and submitted on time by the department. The acceptable standards of reports more specifically financial reports are recommendable and only acceptable.
<table>
<thead>
<tr>
<th>Key steps-Sub-Activity</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q4 Q1</td>
<td>Q2 Q3</td>
<td>Q4 Q1</td>
<td>Q2 Q3</td>
</tr>
<tr>
<td>Procure 3500 TLMs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>packages for 2429</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre-primary schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution of TLMs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to 2,429 pre-primary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>distribution of ECD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kits for each of the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>416 Sectors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction of Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers in the use of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kits and production of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECD kits using local</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resource</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction of teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in the use of ECD kits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and production of ECD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kits using local</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resource</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor and support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teachers in the use of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECD kits and production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of ECD kits using local</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaboration of technical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specifications for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>printed textbooks</td>
<td>Q4 Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key steps-Sub-Activity</td>
<td>Year 1</td>
<td>Year 2</td>
<td>Year 3</td>
<td>Year 4</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Identify equipment and software needed to enhance capacity of REB in digitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish digital library and protocol for accessible users</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allocate STEM textbooks in schools to inform how the composition of the 1.6 mil textbooks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify mode of printing and capable printers (tendering)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervise the printing process and distribute printed textbooks in schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d) Digitalization of learning in primary and lower secondary education

Specific objectives
a. To assess the level of expertise of REB staff and supporting staff in developing digital materials
b. To identify and provide required software
c. To strengthen capacity of staff

Key steps/sub-activities
a. REB will identify a consultant with required expertise to assess the capacity of REB staff and teachers who will be involved in developing digital learning materials and the consultant will develop a training manual based on the findings.
b. REB will identify subjects that need digital content and will identify potential teachers who will assist in the development of the digital materials in their respective subjects.
c. REB will also identify the required software and will purchase licences through normal tender procedures and will install them into the 50 computers.
d. The consultant will train the REB staff and the selected teachers.

Beneficiary-target groups
- Though the developed materials will be used in primary and secondary education, this activity focuses on the REB staff and 50 teachers who will be trained.

Responsible unit
- The unit of Digital Content and Instructional Technology Development is responsible to ensure that REB staff and teachers are well equipped with enough capacity to develop digital learning materials.

Implementation Arrangements
- The unit responsible for this activity will initiate the development of the ToRs for the consultant who will assess the expertise of REB staff and teachers. Teachers to be involved will be selected based on criteria set by REB. The consultant will develop the training manual based on the findings and will share the manual through a workshop for approval and then will train REB staff and selected teachers.
- Through normal tender procedures, REB will provide at least 50 licenses of the required software and will install it prior the training.

e) Develop digital content for the Competence Based Curriculum.

Specific objectives
a. To have CBC aligned digital learning materials that can be used in primary and secondary education based on the available in-house produced textbooks
b. To enhance learning of Math and Science subjects through interactive and simulation activities

Key steps/sub-activities
a. After the training, REB staff and selected teachers will develop digital learning materials for upper primary and lower secondary though a workshop supervised by REB.
b. The developed materials will be shared with selected schools for testing and based on the feedbacks from different schools, the materials will be reviewed and amended accordingly.

Beneficiary-target groups
- Primary and secondary education – teachers and learners
Responsible unit
- The unit of Digital Content and Instructional Technology Development is responsible for the development of digital learning materials.

Implementation Arrangements
- REB will organize a one-month workshop whereby trained staff and teachers will develop the digital learning materials. Before the expected end of the activity, the draft developed materials will be shared and tested to some schools. The schools will provide feedback for amendment and the materials will be reviewed. After revision, REB will approve the final version and will deploy the learning materials to all schools. REB will organize a training of users, to ensure that all teachers are capable of using the materials.

f) Provide smart-classroom equipment to targeted schools in lower secondary schools including provision for alternative technologies in schools without electricity and internet connectivity.

Specific objectives
a. To establish smart classrooms in 50 secondary schools by equipping them with required devices

Key steps/sub-activities
a. To identify 25 secondary schools with electricity and 25 schools without electricity.
b. To provide necessary infrastructure to establish smart classrooms into the 50 schools

Beneficiary-target groups
- 50 secondary schools

Responsible unit
- The unit of Connectivity and Network Development will be responsible for the provision of the internet connectivity at the schools whereas the unit of Learning Devices and Cloud Solutions Technologies will be responsible for the provision of the ICT infrastructure required for the smart classrooms.

Implementation Arrangements
- REB will identify the schools with the basic requirement for the establishment of the smart classrooms

g) Induction of 50 head teachers and teachers responsible for ICT in the effective use of smart classrooms and tablet and smartphone-based technologies. The training will target teachers drawn from schools that will have benefitted from provision of smart classroom packages.

Specific objectives
a. To strengthen the awareness of responsibility of teachers and head teachers in smart classroom implementation

Key steps/sub-activities
a. REB will organize a workshop to increase the awareness of teachers and head teachers on their roles and responsibility in the implementation of smart classrooms.
b. REB will monitor and evaluate the usage of the available ICTs at school level
Beneficiary-target groups
- Teachers and head teachers from the 50 schools

Implementation Arrangements
- REB will allocate a budget for the workshop and for the monitoring and evaluation activities. REB will send invitations to teachers and head teachers and will conduct a workshop to let participants understand their roles and responsibilities in managing the smart classrooms and implementing the use of ICT in teaching and learning.
- REB will design a monitoring tool that will help in assessing the usage of ICT in teaching and learning and the management of the smart classrooms.

Financial reporting mechanisms
- The responsible unit will provide a financial report every quarter. The report will be submitted to the DG/REB office and to the Corporate Service Division office and will be shared with related offices. However, the reporting will not be limited to the quarter because as an activity is completed before the end of the quarter, the responsible unit will submit a financial report related to the completed activity. Also, there will be a final financial report at the completion of the component.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Key input</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen capacity in REB to undertake digitalization</td>
<td>Develop ToR</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td>Assess Capacity of REB staff and teachers</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Development of training manual</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td>Selection of teachers</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td>Training of REB staff and teachers</td>
<td>Q4</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Develop digital content for the Competence Based Curriculum</td>
<td>Development of draft 1 of the digital materials</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing of draft 1</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review of digital materials</td>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deployment of digital learning</td>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training of users</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision and installation of equipment for smart classroom in 50 schools</td>
<td>Identify schools with minimum requirements</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Publish tender for the procurement of the projectors, white board, furniture, internet equipment, the off grid alternative devices.</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distribute procured items to schools.</td>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Install internet connectivity</td>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction of 50 head teachers and teachers responsible for ICT in the effective use of smart classrooms</td>
<td>Send invitations to schools</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conduct the workshop</td>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monitoring and evaluation</td>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reporting</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Component 3: Enhancing STEM in Pre-Primary, Primary and Lower Secondary (USD 5.22 Million)

8. This component is aligned to ESSP Priority 3 on strengthening STEM across all levels of education in Rwanda to increase the relevance of education for urban and rural markets. It is also aligned to Priority 7 which seeks to provide equitable opportunities for all Rwandan children and young people at all levels of education. Rwanda Vision 2020 and Vision 2050 broadly aim at transforming the country into a knowledge based and technology led economy. STEM is acknowledged as critical to laying the foundation for the required human capital for the National Strategy for Transformation (NST1). It is thus identified as one of the key priorities of the ESSP. Despite effort to infuse STEM in the curriculum, the level of adoption is still low. This is because (i) STEM was not prioritized before, (ii) STEM subjects are considered difficult; (iii) a significant number of schools do not have science laboratories, science equipment, science kits, and consumables required for teaching of STEM subjects; and (iv) there is a critical shortage of teachers of STEM subjects.

9. The 2018 data shows that 68.8 percent of secondary schools and 34.3 percent of primary schools had science kits\(^{13}\). The science kits were last provided in 2010. Consumables in most of them have not been replenished thereby limiting their usefulness for teaching. Schools are expected to use part of the Capitation Grants to procure consumables among other quality inputs needed to promote learning. Some schools visited were not able to quantify the amount they are spending on consumables for the science kits. Some teachers interviewed during the field visits indicated they did not know how to use the science kits. This has resulted in science being taught theoretically making it uninteresting and difficult for the learners to fully grasp the concepts. There has been little attempt at using the ICT equipment in those schools that have computers for simulation software, which can provide some experience for learning in the teaching of science.

10. The 2018 data shows that only 338 secondary schools have fully-fledged laboratories for the teaching of STEM constituting 21.6 percent of the total number of secondary schools. MINEDUC intends to construct up to 129 laboratories between 2018/19 and 2020/21. It is expected MINEDUC will, during the period of the Programme construct these laboratories so that they be fully equipped under the Programme.

11. There were in 2018, 17,133 students with disability out of a total enrolment of 2,503,705 constituting about 0.7 percent which is very low. The combined data for primary and secondary students shows that the largest impairment is physical at 36.9 percent followed by visual impairment with 16 percent and learning impairment with 16.5 percent. A comparison of the 2017 and 2018 data reveals that enrolments of students with disability are decreasing in primary with a reduction of over 7,847 students. Steps are being taken to increase the number of children with disability in the school system within the recently approved Inclusive and Special Needs Education Policy.

12. A key strategy adopted in the Revised Special Needs and Inclusive Education Policy (2018) for promoting access, retention and completion of special needs learners is the provision of appropriate special needs and inclusive education facilities in schools through promoting and facilitating resource rooms\(^{14}\) in inclusive and Child-friendly

---

\(^{13}\) There is currently no data on the availability of science kits in pre-primary

\(^{14}\) This is a room in a school for supporting and teaching learners with SEN, equipped with specialised resources, various learning materials and support services. At times it is also used by teachers and other resource personnel, for other activities related to special needs education services.
schools. In addition to this the Policy advocates for the provision of adequate and appropriate special needs and inclusive education instructional resources. It is noted that there are very few resource rooms in the system and those that are in existence are not adequately equipped to address the special needs of students with disability.

a) Procurement of Science kits and laboratory equipment

Key steps/sub-activities
a. Preparation of specifications and tender documents for 1,500 Science kits to 1,500 primary schools and laboratories for 121 labs in lower secondary
b. Selection of schools to be targeted based on need
c. Procurement of science kits and lab equipment distribution to schools

Beneficiaries
- Primary and secondary school leaners and teachers

Responsible Unit
- Science and Arts and Education Resources and Training Materials Unit under Curriculum and Teaching and Learning Resources Department (CT&LRD).

b) Provision of materials for leaners with disabilities in 20 schools

Key steps/sub-activities
- Preparation of specifications for the learning devices for the targeted 20 schools with resource rooms
- Selection of schools to be targeted based on predefined criteria.
- Procurement of the learning devices distribution to schools

Beneficiaries
- Primary and secondary school learners with disability and teachers

Responsible Unit
- Science and Arts and Education Resources and Training Materials Unit under Curriculum and Teaching and Learning Resources Department (CT&LRD).

c) Build capacity of head teachers and teachers in the effective use of the science kits and how to use local resources to augment the kits in the teaching of science

Specific objectives
a. To improve the competences of head teachers and teachers on the usage of science kits:
b. To acquire skills of effective improvisation in teaching and learning process in science.

Key steps/sub-activities
a. Prepare a concept note requesting funds
b. Develop training manuals and training guide;
c. Workshop to validate developed training manuals;
d. Selection of national trainers in Science;
e. Training workshop of national trainers in Science;
f. Training of head teachers and science teachers of 1500 primary schools;
g. Monitoring and evaluation on how to use science kits and local resources in classroom.
Beneficiary-target groups

- The beneficiaries are head teachers and science teachers in 1,500 primary schools

Responsible Unit

- Teacher Training Unit

Implementation Arrangements

- Teacher Training Unit will organize a workshop to develop and validate training materials based on the usage of science kits in teaching and learning science in primary levels in collaboration with other departments in REB, DPs and stakeholders (teachers, trainers, Director of Studies, and head teachers);
- DDEs, DEOs, SEOs and HTs with Teacher Training Unit will set criteria for selecting national trainers;
- Teacher Training Unit will invite stakeholders and some DPs to conduct a training of trainers (ToTs) on the use of science kits and local resources;
- Trainers of trainees (ToTs) will conduct mass training of all head teachers and teachers at school level;
- Teacher Training Unit in TDM&CGC will monitor and evaluate mass training of teachers in schools and report on the way forward.
## Timeline

<table>
<thead>
<tr>
<th>Activity</th>
<th>Key steps</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of Science Kits and Lab equipment</td>
<td>Preparation of specifications and tender documents for 1,500 Science kits to 1,500 primary schools and laboratories for 121 labs in lower secondary</td>
<td>Q1</td>
<td>Q2</td>
<td>Q4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selection of schools to be targeted based on need</td>
<td>Q1</td>
<td>Q2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Procurement of science kits and lab equipment distribution to schools</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Build capacity of head teachers and teachers in the effective use of the science kits and how to use local resources to augment the kits in the teaching of science</td>
<td>Develop training manuals and training guide</td>
<td>Q1</td>
<td>Q2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Workshop to validate developed training manual</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Selection of national trainers in Science</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Training workshop of national trainers in Science</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training of head teachers and Science teachers of 1500 primary schools</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Monitoring and evaluation on how to use science kits and local resources in classroom</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
</tbody>
</table>
Component 4: School Infrastructure in Lower Secondary (USD 5.33 Million)

13. This component is aligned to ESSP Priority 6 which seeks to provide sufficient modern infrastructure, facilities and resources to all schools, TVET and higher education institutions. It is also aligned to ESSP Priority 1 which seeks to enhance the quality of learning outcomes in the education system.

The component will construct 600 lower secondary schools and special needs resource rooms in 20 selected schools.

Specific Objectives
a. To increase access to Lower secondary schools
b. To increase access for LwD
c. To improve the teaching learning environment for LwD

Key steps/sub-activities
a. Identify the location of the lower secondary using student’s data and school mapping
b. DEMs and the Infrastructure offices in the districts identify and engage the local teams that will carry out the construction
c. REB procures the building materials needed for the construction of the classrooms and the special needs resource rooms
d. Pay the local constructors who undertake the construction

Beneficiary-target groups
a. Graduates of the P6 seeking places for lower secondary
b. LwD seeking enrolment and quality education in resource rooms
c. Teachers in teaching in schools with resources rooms

Responsible Unit
a. REB Procurement Unit
b. MINEDUC Planning Department
c. District Education Offices

Implementation Arrangements
- MINEDUC identifies schools’ location for the 600 classrooms to be constructed
- MINEDUC working together with the Special Needs Unit identify the 20 schools where the resources rooms will be constructed.
- The District Education office working together with the Army, Police and local communities identify the artisans who will participate in the construction of the infrastructure
- DEMs engineers supervise the construction of the infrastructure
<table>
<thead>
<tr>
<th>Activity</th>
<th>Key steps</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q3</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Construct 600 classrooms in selected junior secondary and resource rooms in selected schools</td>
<td>Identify the location of the Lower secondary and for the targeted 20 schools for the resource rooms using students data and school mapping</td>
<td>Q3</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td>Engage teams to construct the infrastructure</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Procure the materials needed for the construction of the infrastructure</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Carry out the construction of the infrastructure</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Monitor the construction of the infrastructure and pay the constructors</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td></td>
<td>Hand over the infrastructure for use by intended beneficiaries</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
</tbody>
</table>
Component 5: Variable Part/Disbursement Linked Indicators (USD 9.24 Million)

Thirty percent of the total grant allocation will be committed to the variable part of the programme under the new GPE funding model. Disbursement of the variable part will be linked to the achievement of agreed indicators which target the three areas: (i) learning outcomes (DLI1); (ii) equity (DLI2); and (iii) efficiency (DLI3). The indicators are a blend of outcome, output, and process indicators and linked to the interventions outlined in the fixed tranche components of this programme and other on-going interventions by Government and development partners drawn from the ESSP. Linking disbursements to the achievement of tangible and verifiable results will incentivize MINEDUC to achieve key programme results and improve performance and outcomes within the ESSP.

Learning outcomes (DLI1) will require some specific activities as below:

Description

Rwanda’s Education Sector Strategic Plan lists the improvement of quality education as one of the main priority areas for the education sector, including the development of learning achievement assessments at primary school level. The Education Sector Strategic Plan (ESSP) also states that the basic education system should provide students with foundational skills in literacy and numeracy, as well as transferable skills such as problem solving, communication and ICT. With these goals in mind, Rwanda developed its first national learning assessment in 2011—Learning Achievements in Rwandan Schools (LARS). The Learning Achievement in Rwandan Schools (LARS) is an educational assessment that aims to study the state of ‘learning’ in Literacy and Numeracy. It is a tool developed by the Rwanda Education Board to monitor the quality and equity of learning in the schooling system.

LARS evaluates learning outcomes based on the criteria and expectations set by the national curriculum. It is designed to assess the performance of the whole education system, rather than the performance of individual children, who are assessed by national leaving examinations at P6, S3 and S6 levels. LARS aims to improve education quality by:

- Providing policymakers with systematic information about the status of students’ learning outcomes and the extent to which students attain curricular standards and proficiencies in key subjects;
- Identifying areas in the system in need of policy attention;
- Monitoring learning outcomes over time to reflect progress and/or lack thereof on key curricular priorities.

Following the adoption of SDGs by world leaders in September 2015, in February 2016, the Government of Rwanda started the SDG domestication process. The Ministry of Finance (MINECOFIN) with the support from the One UN Rwanda Team conducted SDGs Initial Gap Analysis which highlighted which SDGs indicators were already reflected in the Sector Strategic Plans and other national level Development Frameworks such as EDPRS-2 AND Vision 2020. Following from this, National Statistical Institute of Rwanda conducted various workshops with individual government ministries including the Ministry of Education (MINEDUC) where development partners’ representatives and MINEDUC officials mapped out the data sources for tracking the specific education SDG indicators. It was through this exercise that MINEDUC prioritized SDG 4.1.1:

**Percentage of children/young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics. Disaggregation: sex, location, wealth (and others where data are available).**

As a result of the changing education environment and emerging priorities, within discussion with Development Partners, the Ministry of Education opted to change the learning assessment in 2016 from P2 and P5 to the following grades: P3, P6, S3 to align with SDG indicators.
Specific objectives
In-line with, but building on the first three rounds of LARS, the overall objectives of LARS IV are:
- To measure the level of learner’s learning achievement in language and mathematics competencies in P3 and language, Science and mathematics for P6 and S3;
- To take an in-depth look at Science, literacy and numeracy learning sub-components contributing to overall literacy and numeracy competencies;
- To develop new and improved testing procedures that reflect the move from knowledge acquisition to competency based curriculum;
- To identify factors associated with learner performance;
- To provide policy makers with insights on how to improve the quality of education by:
  - Identifying areas of high learner achievement and progress where policies have shown success;
  - Identifying areas of learners’ underperformance that require more policy attention.
- To build the capacity of REB to develop and administer sample-based learning assessments on a regular basis.

Key steps/sub-activities
1. Review of existing research on learning outcomes
   This will involve a desk review of data sets and reports from previous LARS. It will also entail discussions with partners about the successes and lessons learnt from previous rounds of LARS.

2. Development and piloting of data collection tools
   The development of the test items, and background questionnaires will be led by REB through consultative workshops to be facilitated in close collaboration with a consulting firm. They will be tailored to Science, numeracy and literacy expectations for children in P3, P6 and S3 in the Rwandan Competence-Based Curriculum (CBC).

3. Data collection, entry, cleaning and analysis
   After the validation of the tools, there will be data collection in sampled schools. This will be followed by data entry and cleaning, then actual analysis.

4. Draft and final reports and validation
   A draft report will be made and presented to stakeholders for validation after of which a final report will be made and disseminated.

Beneficiary-target groups
The target groups will be P3, P6 and S3 learners.

Responsible unit
Examination and learning achievement database unit

Implementation Arrangements
The first LARS took place in 2011 (P3 Literacy and Numeracy), the second LARS II took place in 2014 (P2 and P5 Literacy and Numeracy), the third LARS III Phase 2 (P6 and S3 Literacy and Numeracy) took place in 2017 and LARS III Phase 1 (P3 Literacy and Numeracy) took place in 2018. LARS IV is currently underway in 2019 and LARS IIV will be undertaken in 2021/22 and will assess P3, P6 and S3 learners’ levels of understanding in Science, Literacy and Numeracy.

Financial reporting mechanism
Activities will be done and reported on quarterly basis. After the administration of the tools, analysis will be made, and a report will be written.
### Timeline

<table>
<thead>
<tr>
<th>Key Activities</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
</tbody>
</table>

#### Output 1. Developing and designing tools for P3, P6 Literacy & Numeracy & S3 Literacy & Numeracy and Science

- Developing and designing test items
- Pre-testing and validation of pre-tested items
- Review of survey questionnaires
- Sampling schools

#### Output 2. Administration of tools (test items and survey questionnaires) and report writing

- Administration of the test items and survey questionnaires
- Data analysis and report writing
- Validation and sign off
<table>
<thead>
<tr>
<th>S/N</th>
<th>Type</th>
<th>Title of Tender</th>
<th>Estimated Cost</th>
<th>Responsible Department</th>
<th>Source of Funds</th>
<th>Tendering method</th>
<th>Planned Tender Document Preparation Date</th>
<th>Planned Publication Date</th>
<th>Planned Bid Opening Date</th>
<th>Planned Provisional Award Date</th>
<th>Planned Contract Signing Date</th>
<th>Planned Contract Management Closing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C</td>
<td>Multi-media equipment, textbooks, digitized English content</td>
<td>873,800.000</td>
<td>TDM &amp; CGC</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>02/04/2020</td>
<td>16/04/2020</td>
<td>17/06/2020</td>
<td>07/07/2020</td>
<td>07/10/2020</td>
<td>07/19/2020</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>Recruit a consultant to provide TA for production of digitized TLMs and develop capacity in R &amp; E for in-house textbook production for all subjects and all levels of basic education up to lower secondary.</td>
<td>66,630.000</td>
<td>CTRL/ICT</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>04/04/2020</td>
<td>15/04/2020</td>
<td>16/06/2020</td>
<td>07/07/2020</td>
<td>07/10/2020</td>
<td>07/19/2020</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
<td>Provide software for the development of digital content including simulations and examinations</td>
<td>58,220.000</td>
<td>TDM &amp; CGC</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>02/04/2020</td>
<td>16/04/2020</td>
<td>17/06/2020</td>
<td>07/07/2020</td>
<td>07/10/2020</td>
<td>07/19/2020</td>
</tr>
<tr>
<td>4</td>
<td>C</td>
<td>Hire a consultant to develop a Digital library in the form of DSPACE to facilitate easy access to digitized content and also linked to other digital libraries nationally and internationally.</td>
<td>98,600.000</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>4</td>
<td>15/04/2020</td>
<td>16/06/2020</td>
<td>07/07/2020</td>
<td>07/10/2020</td>
<td>07/19/2020</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>G</td>
<td>Provide 3,500 packages of TLMs in 2,429 pre-school centres comprising of (CBG curriculum, scheme of work, CBG teachers guide, Math Guide, Elibrary and Guide, storybooks) in public and religious institutions/churches pre-primary schools</td>
<td>1,776,792.400</td>
<td>TDM/ICT in Education</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>3</td>
<td>25/04/2019</td>
<td>25/05/2019</td>
<td>15/06/2019</td>
<td>20/06/2019</td>
<td>30/06/2019</td>
</tr>
<tr>
<td>6</td>
<td>G</td>
<td>Procurement and distribution of 416 kits 1 per sector</td>
<td>28,600.000</td>
<td>TDM/ICT in Education/CTRL</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>6</td>
<td>25/04/2020</td>
<td>25/05/2020</td>
<td>15/06/2020</td>
<td>20/06/2020</td>
<td>20/06/2020</td>
</tr>
<tr>
<td>7</td>
<td>MC</td>
<td>Printing of 1.6 million textbooks developed in-house for 3 science subjects and mathematics upper primary public and grant aided</td>
<td>4,140,784.000</td>
<td>CTRL</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>7</td>
<td>25/04/2020</td>
<td>25/05/2020</td>
<td>15/06/2020</td>
<td>30/06/2020</td>
<td>30/06/2020</td>
</tr>
<tr>
<td>8</td>
<td>C</td>
<td>Hire a consultant to develop interactive software through 30 day TA to develop interactive software</td>
<td>30,487.000</td>
<td>ICT in Education</td>
<td>GFE</td>
<td>National Competitive Bidding</td>
<td>8</td>
<td>10/06/2020</td>
<td>05/07/2020</td>
<td>15/07/2020</td>
<td>30/07/2020</td>
<td>30/07/2020</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>Description</td>
<td>Amount</td>
<td>Procurement Category</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td></td>
<td></td>
<td>2222.225</td>
<td>ICT in Education</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>----------------------</td>
<td>-------</td>
<td>-------------------------------</td>
<td>---</td>
<td>---</td>
<td>--------------------------</td>
<td>--------------------------</td>
<td>-----</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>G</td>
<td>112 Computers/laptops, 2 projectors, digital content, furniture for 100 learners, 2 interactive white boards, 1 server, local area networks, cloud servers, broadband connectivity and power in 25 schools</td>
<td>977,734,000</td>
<td>ICT in Education</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>9</td>
<td>10/06/2020</td>
<td>05/07/2020</td>
<td>15/07/2020</td>
<td>30/07/2019</td>
<td>30/07/2019</td>
</tr>
<tr>
<td>10</td>
<td>G</td>
<td>Supply of 25 computer screens, tablets and smart phone based technologies and compatible digitalized software (Apps) including solar panels in 25 schools as pilot</td>
<td>17,322,225</td>
<td>ICT in Education</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>10</td>
<td>25/09/2020</td>
<td>25/05/2020</td>
<td>04/04/2020</td>
<td>06/10/2020</td>
<td>06/11/2020</td>
</tr>
<tr>
<td>11</td>
<td>G</td>
<td>Supply of 1,560 Science kits to 1,500 primary schools</td>
<td>1,160,994,000</td>
<td>CTLR</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>11</td>
<td>05/06/2021</td>
<td>15/07/2020</td>
<td>25/07/2020</td>
<td>06/10/2020</td>
<td>06/10/2020</td>
</tr>
<tr>
<td>12</td>
<td>G</td>
<td>Supply of equipment for 121 science laboratories in 121 lower secondary schools</td>
<td>2,841,026,915</td>
<td>CTLR</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>12</td>
<td>15/06/2020</td>
<td>15/07/2020</td>
<td>25/07/2020</td>
<td>06/10/2020</td>
<td>06/10/2020</td>
</tr>
<tr>
<td>13</td>
<td>G</td>
<td>Supply of learning devices and service to support access and learning for LECD and those with Special Education Needs: 20 resource centers</td>
<td>202,800,000</td>
<td>CTLR/ICT in Education</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>13</td>
<td>15/01/2020</td>
<td>15/10/2020</td>
<td>11/04/2020</td>
<td>11/04/2020</td>
<td>11/04/2020</td>
</tr>
<tr>
<td>14</td>
<td>G</td>
<td>Construction of 400 classrooms in lower secondary using unconventional methods</td>
<td>4,797,030,900</td>
<td>MINEDUC/CONS</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>14</td>
<td>05/06/2020</td>
<td>26/07/2020</td>
<td>08/01/2020</td>
<td>08/01/2020</td>
<td>08/01/2020</td>
</tr>
<tr>
<td>15</td>
<td>G</td>
<td>Construction of special education resource room in targeted primary and lower secondary schools using unconventional methods</td>
<td>160,859,432</td>
<td>MINEDUC/CONS</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>15</td>
<td>05/06/2020</td>
<td>05/07/2020</td>
<td>05/07/2020</td>
<td>05/07/2020</td>
<td>05/07/2020</td>
</tr>
<tr>
<td>16</td>
<td>C</td>
<td>Recruit a Consultant to develop an Environmental Safeguard Management Frameworks</td>
<td>4,750,000</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>16</td>
<td>15/04/2020</td>
<td>07/07/2020</td>
<td>07/10/2020</td>
<td>07/10/2020</td>
<td>07/10/2020</td>
<td>30/10/2020</td>
</tr>
<tr>
<td>17</td>
<td>C</td>
<td>Recruit a consultant to conduct Learning Achievement for Rwanda Schools (LARS)</td>
<td>206,676,996</td>
<td>GPE</td>
<td>National Competitive Bidding</td>
<td>17</td>
<td>15/04/2020</td>
<td>07/07/2020</td>
<td>07/10/2020</td>
<td>07/10/2020</td>
<td>07/10/2020</td>
<td>30/10/2020</td>
</tr>
</tbody>
</table>