Program Description

Government plan and strategies

82. The Government program is guided by the 2015-2030 Education Vision whose principles are aligned with a proposed Education Act, under review by Parliament. The Education Strategic Vision 2015-2030: Pour une école de l’équité, de la qualité et de la promotion (ESV15-30) lays the foundations to create a “new Moroccan school”, built around four pillars: (i) Equity and Equal Opportunities, (ii) Quality Education for All, (iii) Promotion of Individual Advancement and Society, and (iv) Leadership and Change Management. The overall ESV15-30 is technically sound and places learning at the center of the system with a focus on quality education for all. The Vision adequately considers the complexity of education reform by addressing both immediate and deeper causes of the learning crisis. It recognizes the importance of early learning for building foundational skills and of modernizing pedagogy and instructional practices to promote inquiry, creativity and innovation. By calling for a wide social mobilization around the education reform, the ESV15-30 factors in the alignment of all stakeholders to remove technical and political barriers and make the whole systems work for learning. The proposed Education Act provides general education reform principles and guidelines for the next 10 years. Its ambition is to improve the organization and performance of the education sector by setting clear commitments, expected results, responsibilities and timeframes.

83. The Government program is operationalized through specific plans developed and executed by the MOE. In line with the ESV15-30 recommendations, several key reforms are underway to develop preprimary education, revamp the teaching profession and improve efficiency of the education system management. The MOE launched in July 2018 an ambitious plan to universalize preprimary education for children aged 4–5 years by 2027. With an estimated cost of US$3.18 billion (MAD 30.2 billion) over ten years, the plan will require construction or rehabilitation of classrooms, upgrading of some existing preprimary schools, teacher training, and the development and implementation of quality standards to allow for the enrollment of 700,000 additional children. The third phase of the National Initiative for Human Development (INDH), launched in September 2019, is expected to contribute financially and operationally to the universalization of preprimary education, especially in rural areas. The ESV15-30 also places a great emphasis on strengthening the teacher profession, as a starting point for quality improvement. In that respect, the MOE launched in September 2018 a revamping of teachers’ pre-service training modalities, plans to restructure in-service training in the coming years, and the implementation of a new teacher professional development model. Finally, the MOE intends to further strengthen the decentralization process initiated in 2002 with the creation of the AREF. This would entail empowering the AREF and the DP and strengthening their capacity for greater accountability for performance and results.

84. The government program is formalized through a three-year program-based budget. The MOE pioneered the use of three-year budgeting in 2018, through the Projet de Performance (PdP) 2019–2021. The PdP includes five programs (P1-5) which correspond to the essence of the ESV15-30. Each program...
has objectives, indicators, and targets focusing on effectiveness, efficiency, and quality of public policies and services.

**PforR description**

**PDO and PDO indicators**

85. The Program Development Objective (PDO) is to establish an enabling environment for quality Early Childhood Education service delivery, support improved teaching practices in primary and secondary education, and strengthen management capacity and accountability along the education service delivery chain in the Program Areas.

86. The PDO indicators are:
   - PDO 1: Number of classrooms for which data on quality of Early Childhood Education environment is collected and published by AREF
   - PDO 2: Improved Teacher Practices in the classroom for all active teachers in primary and secondary education
   - PDO 3: Implementation of performance contracts at AREF and DP level.

**RAs**

87. The PforR will support three RAs. The RAs of the Program are embedded within the government program themes. RA 1 aligns with the quality themes of the government program for preprimary education, RA 2 falls under the quality theme for basic education, while RA 3 aligns with the government priority to support the decentralization process. The Program is expected to deliver the following results after five years:

**Table 1. Summary of Key Results Anticipated by the End of the Program**

<table>
<thead>
<tr>
<th>RA 1</th>
<th>Establish an enabling environment for quality Early Childhood Education service delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>20,000 skilled and qualified preschool educators</td>
</tr>
<tr>
<td>•</td>
<td>A framework and tools for measuring the quality of preschool environment are used by AREF to promote continuous improvement of preschool education</td>
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<tr>
<td>•</td>
<td>Strong and adequate management of preschool education</td>
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</table>

<table>
<thead>
<tr>
<th>RA 2</th>
<th>Support improved teaching practices in primary and secondary education</th>
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<tbody>
<tr>
<td>•</td>
<td>A two-year professional induction program is successfully established</td>
</tr>
<tr>
<td>•</td>
<td>A teacher professional development system is in place</td>
</tr>
<tr>
<td>•</td>
<td>CRMEF and schools have the capacity to coordinate and deliver training to future and in-service teachers</td>
</tr>
<tr>
<td>•</td>
<td>Relevant professional profiles are adequately trained</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RA 3</th>
<th>Strengthen management capacity and accountability along the service delivery chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td>Improved management capacity and accountability along the education service delivery chain</td>
</tr>
<tr>
<td>•</td>
<td>Schools are evaluated against the implementation of 3-year school improvement projects.</td>
</tr>
<tr>
<td>•</td>
<td>School principals improve their leadership capabilities</td>
</tr>
</tbody>
</table>
88. To support Program implementation and improve the sustainability of results, change management activities will be mainstreamed across the three RAs with support of the World Bank. To the extent that the reforms supported by the Program call for individual, team and organizational changes, change management tools will be integrated across all Program RAs, including initiatives such as coalition building, individual coaching and rapid results initiative coaching.

Program Strategic Relevance and Technical Soundness

89. For Morocco to propel toward a trajectory of faster growth and improved opportunities for all, achieving stronger human capital outcomes will be key. Human capital in Morocco is estimated to contribute 41 percent to wealth per capita, a level substantially lower than in countries with a similar level of development\(^1\). Indeed, weak human capital outcomes are hindering productivity— with a Human Capital Index (HCI) of 0.5, Moroccans born today will only reach fifty percent of their productivity potential. Large inequalities in early childhood outcomes, including a high level of stunting in rural areas, and low learning outcomes contribute to hampered human capital accumulation. For most women and youth, weaknesses in human capital formation are compounded by the existing limitations on returns to human capital in the labor market. Youth unemployment is high, averaging 22 percent for men and 27 percent for women, and, while women tend to score better on the HCI, their economic participation remains severely constrained.\(^2\) Morocco’s future social and economic trajectory is therefore conditioned by its ability to accelerate progress in human capital accumulation and distribution.

Technical soundness

Major sector challenges

90. The story of education in Morocco over the last two decades is that of a rapid expansion not matched with quality. Since 2000, the country made tremendous progress towards universal basic education. While age-specific enrollment rates were below 80 percent for 6-11 and 60 percent for age 12-14, the country has now achieved universal access to primary education for girls and boys. Significant progress was achieved in promoting gender equality. Age-specific enrollment rates (ASER)\(^3\) rose – between 2000 and 2017 – from 79.1 to 99.1 percent for age 6-11 (primary), from 58.1 to 87.6 percent for age 12-14 (lower secondary), and from 35.4 to 66.6 percent for age 15-17 (upper secondary). In 2017, the index of gender parity reached 94 and 88 percent, respectively, for primary and lower secondary school. Over the same period, the basic education completion rate progressed from 51.4 to 63.5 percent, with a noticeable improvement from 53.6 to 72.6 percent for girls.


\(^2\) The female labor force participation (as a percentage of total labor force participation) is 27 percent in Morocco. Source: The World Bank, World Development Indicators (2018). Labor Force Participation Rate (percent of female population ages 15-64). Retrieved from https://data.worldbank.org/indicator/SL.TLF.ACTI.FE.ZS

\(^3\) Most government reports use the age-specific enrollment rate (ASER) as main indicator for access to education. The ASER measures the enrollment of a specific single age enrolled, irrespective of the level of education, as a percentage of the population of the same age. More common indicators used internationally are the gross enrolment rate (GER) and the net enrolment rate (NER). NER rose – between 2000 and 2017 – from 79 to 98.7 percent in primary, from 26.6 to 58.1 percent in lower secondary, and from 11.2 to 33 percent in upper secondary education.
91. This remarkable expansion was achieved thanks to strong and consistent political commitment, backed by massive public investments, since 2000. Over the last twenty years, continuous political commitment to education has been provided at the highest level of the state. King Mohammed VI reaffirms regularly the urgency to reform the education system so that it can respond to youth aspirations and the country’s development needs. Commitment to education translated into substantial public funding for the sector. Between 2001 and 2015, the GOM allocated, on average, about 30.4 percent of its total budget—6.4 percent of GDP—to education and training. Today, the Moroccan education system operates with an annual budget of MAD 50.3 billion (US$5 billion) a year, about 25 percent of total public expenditure and 5 percent of GDP. In sum, the development of the education system in Morocco has been guided by consistent policies and strategies and has enjoyed high-level political commitment backed up by substantial public funding.

92. The rapid progress hides however an unequal distribution of outcomes. Illiteracy has been reduced by two-thirds over half a century but remains high with 32 percent of adults being illiterate in 2014. The proportion is larger among women (42 percent) and rural population (47.7 percent). Inequality in opportunities starts early: in 2017, there was 24.5 percentage points difference in enrolment rates of the 4-5 years old children between rural and urban areas (35.7 and 60.2 percent, respectively) and only 26.4 percent of rural girls attended preschool. Inequality of access to primary education has reduced thanks to the government massive investments including the flagship Conditional Cash Transfer program “Tayssir”. However, the gap reappears again at the lower secondary level with more than a 38 points difference in Net Enrolment Rate (NER) in rural areas compared with the NER in urban areas (74.9 and 36.8 percent in 2017, respectively).

93. Moreover, Morocco’s educational achievement remain low. The results of the 2015 TIMSS and 2016 PIRLS surveys show that Morocco made relative progress in terms of student learning outcomes but the country is still far below the international average of 500 points and ranks among the bottom three countries in all subjects. Results from the 2008 National Learning Assessment Program (PNEA) revealed a picture of an average primary school student not reaching any of the country’s benchmarks in math, science, and basic languages at any of the key cycles of education. More recently, the PNEA 2016 showed that 10th grade students have not acquired basic knowledge as intended in the primary and lower secondary school national curricula. The 2016 SDI survey revealed that only 47 percent of 4th Grade students could read a simple sentence in French and 64.5 percent in Arabic. In mathematics, 67 percent could solve a double-digit addition, 41 percent could solve a double-digit subtraction, and 30.8 percent could do a single-digit multiplication. Children who do not acquire these skills early on will have difficulty catching up later and are likely to drop out.

94. The main determinants of the learning crisis in Morocco include lack of school readiness among children and suboptimal process for teaching and learning. In absence of prepared learners and well-equipped teachers, the Moroccan education system currently lacks the most fundamental ingredients of learning.

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5 Between 2011 and 2015, the average TIMSS score increased in mathematics from 334 to 377 points for 4th graders and from 371 to 384 points for 8th graders, and in science from 264 to 352 for 4th graders and from 376 to 393 for 8th graders. Between 2010 and 2016, the average PIRLS score in reading increased from 310 to 358 points for 4th graders.
6 Student score very low in the four common core subjects with an average score below 51 percent in all subjects. French is the subject where students are the least performing, with an average score between 19 percent and 42 percent according to the core curriculum. Few students are considered as being performant in Arabic (9 percent in sciences curriculum and 4 percent in humanities curriculum). In mathematics, most students are not able to use basic knowledge they supposedly acquired in primary and lower secondary school, which points to the temporary nature of their learning outcomes.
95. **Many Moroccan children are not prepared to learn when they enter primary school.** This is mainly due to a low and inequitable coverage of ECE services in the country. In 2017, national preschool enrollment for children age 4-5 was 49.5 percent, but the rate decreases to 35.7 percent in rural areas and even 26.4 percent for rural girls, while reaching 61 percent for boys in urban areas. Access to preschool also differs from one region to the other. In 2018, the preschool enrollment rate was 71.3 percent in the AREF of Beni-Mellal-Khenifra, 55 percent in the AREF of Souss-Massa, 41.6 percent in the AREF of Rabat-Salé-Kenitra, and 28.2 percent in the AREF of l’Oriental, for instance. The quality of existing preschool services is also unequal, with multiple providers and supervision entities, and therefore various pedagogical models, different and sometimes conflicting visions, and unequal standards of quality. Lack of school readiness may also come from a lack of early stimulation and poor nutritional status, especially in rural areas, which negatively impact child cognitive development.

96. **The teaching and learning process is undermined by weak teacher preparation and limited professional development support.** Teachers’ qualifications and professionalization are matters of concern in Morocco. Although teachers are required to have a university degree, there has been a continuous concern since the massive recruitments of fresh university graduates in the 2000s about the qualification of many of them in terms of subject matter knowledge, pedagogical skills, practice and work ethics. This situation has been aggravated by considerable numbers of unemployed graduates recruited as teachers in a context of heightened social demands in the wake of the wider changes in the political climate of many Arab countries over the last decade. At the same time, teachers enter the profession in Morocco without a specific period of practical training where professional and behavioral skills in the classroom can be modelled and developed by student teachers. Moreover, in-service teachers lack the necessary support and professional development opportunities to break the professional isolation that has traditionally characterized this profession. The MOE completely phased out a one-time in-service teacher training in 2012 and currently most teachers do not receive more than one supervisor’s visit in five years. Such support is needed to overcome pre-service training gaps, accompany inception of new teachers and assist teachers in the implementation of content and pedagogical reforms.
Despite the Government’s willingness to reform and considerable public investments and sustained efforts to produce reform strategies, progress is hampered by a substantial implementation gap. Despite high-level political commitment and substantial public funding, learning outcomes remain weaker than expected. Various factors explain this disconnect, including insufficient continuity in implementing education reforms, coordination and cooperation challenges among key stakeholders, and weak capacity for implementation.

Rapid and sustainable progress will only be possible if the education system undergoes a deep transformation of its governance principles, to foster responsibility along the delivery chain and promotes a culture of learning and adaptability in the implementation of education reforms. The organizational structure of the MOE was designed around the logistics of expanding access—a structure which has become unfit to support today’s goals of improved quality and enhanced learning. For the past twenty years, the Moroccan education system has been structured to meet the logistical needs required to expand enrollment and achieve universal access to primary education, which it did successfully. However, it has shown little effectiveness in promoting student learning. This is mainly due to the organizational principles of the system, which is centralized, focused on process and inputs, and has limited accountability at all levels. This organization is not adapted to crafting a quality teaching and learning process that revolves around individual and customized interactions. To improve students’ learning, the education system needs to shift its focus from the logistics of service delivery to the quality of service delivery, through the promotion of experimental, adaptive, evidence-based, and locally tailored approaches. This shift has sometimes been described as moving from a Spider structure to a Starfish one. In other words, improving learning in Morocco requires not only resources, but most importantly a deep shift in how the education system operates. This transformation must combine measures to strengthen the capability and accountability of those managing the various processes involved in delivering learning, redefining the way stakeholders interact with each other, and giving more prominence to key actors in the learning process—namely, teachers.

Adequacy of Program structure

The PforR’s design has been adequately structured to help address the challenge of low learning outcomes in Morocco. By focusing on the quality early childhood education (RA1) and teacher training (RA2), the Program directly address the main determinants of the learning crisis in the country which include children’s lack of school-readiness and suboptimal process for teaching and learning. By strengthening management capabilities and accountability along the education service delivery chain (RA3), the PforR also tackles the governance bottleneck that will help accelerating results on the first two RAs. The governance angle of this operation is a unique feature and is designed to support the education system in shifting its focus away from logistics and accounting to performance and accountability, so that it promotes learning outcomes. This means enabling agents, without imposing activities, and providing an efficient framework for accountability (via intermediary outcomes). This shift implies changes on three dimensions: capability, learning and behavior. Systems that work and continuously improve have an intrinsic capability to learn and adjust. Therefore, strengthening capability, supporting learning and changing behaviors (not learning outcomes) is the key output of this operation and results are defined as intermediary outcomes. Each RA is prepared through the lens of that analytical framework.

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7 Between 2001 and 2015, the Government of Morocco (GOM) allocated, on average, about 30.4 percent of its total budget—6.4 percent of GDP—to education and training. Today, the Moroccan education system operates with an annual budget of MAD 48 billion (US$5 billion) a year, about 25 percent of total public expenditure and 5 percent of GDP.
The technical design and focus of the Program draw on strong analytical evidence and recent education and organizational science literature, as summarized in Table 6.

<table>
<thead>
<tr>
<th>Literature</th>
<th>Findings</th>
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<tbody>
<tr>
<td><strong>ECE</strong></td>
<td></td>
</tr>
<tr>
<td>WDR 2019 (World Bank, 2017)</td>
<td>• The acquisition of foundational skills through early stimulation and preprimary education is important for developing advanced skills required in a labor market where increased automation and adoption of new technologies are changing the nature of work and the types of skills required, such as advanced cognitive skills, socio-behavioral skills and adaptability.</td>
</tr>
<tr>
<td>WDR 2018 (World Bank, 2018)</td>
<td>• The lack of prepared and motivated learners is one of the key school-level factors contributing to the learning crisis in the world. ECE programs targeting children ages 3-6 can foster foundational skills, boost children’s ability to learn and make them ready for school.</td>
</tr>
<tr>
<td>2018 MENA Education Flagship Report</td>
<td>• MENA has not invested sufficiently in ECD and many children come to school unprepared to learn. Countries should accelerate expansion of access to high-quality preprimary education and measure child development outcomes and learning environment to identify drivers of ECE quality in their respective contexts.</td>
</tr>
<tr>
<td>(Garcia, Heckman, &amp; Ziff, 2017)</td>
<td>• In some cases, a low-quality preschool is worse for child development than no preschool at all.</td>
</tr>
<tr>
<td>(Kogali &amp; Krafft, 2015)</td>
<td>• Strong inequalities exist in Moroccan children’s chances of healthy early childhood development based on the circumstances of their birth, the most significant determinants being wealth, parents’ education, regional and urban/rural disparities.</td>
</tr>
<tr>
<td>Morocco SDI 2016</td>
<td>• Moroccan children who attended preschool tend to have better learning outcomes in primary school than those children who did not receive preprimary education.</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td></td>
</tr>
<tr>
<td>WDR 2018 (World Bank, 2018)</td>
<td>• Teachers are the most fundamental ingredient of learning, yet, they often lack the necessary skills, support and motivation to teach effectively and promote learning in the classroom.</td>
</tr>
<tr>
<td>Popova, Evans, and Arancibia, 2016 (Popova, Evans, &amp; Arancibia, 2016)</td>
<td>• Teacher training interventions are effective in improving student learning outcomes, if they are individually targeted and repeated, with follow-up coaching, often around a specific pedagogical technique.</td>
</tr>
</tbody>
</table>
| SDI 2016 | • Teachers’ absence rate from school in public schools (4.8 percent) is twice the absence rate in private schools (1.7 percent).  
• The daily effective time of instruction in public schools is 30 minutes below the official time provided by the national curricula, and 90 minutes below the effective time of instruction in private schools.  
• Many teachers do not have the minimum skills and knowledge to teach effectively (0% in French, 3.5% in Arabic and 67.2% in Math) |
| SABER-Teachers 2016 (World Bank, 2016) | • Morocco’s teacher policy is insufficiently developed on the following three goals: (i) matching teachers’ skills with student needs; (ii) leading teachers with strong principals; and (iii) supporting teachers to improve instruction and motivating teachers to perform. |
| **Governance** |          |
| 2018 MENA Education Flagship Report | • Education systems are deeply influenced by the environment in which they operate; including individual behaviors. MENA will realize the potential of education when all stakeholders agree on a common vision for education and jointly take responsibility for its outcomes and are held accountable for their roles, which are clearly defined; and when resources are aligned with priorities. |
| WDR 2018 (World Bank, 2018) | • Better interventions at the school and student levels will sustainably improve learning only if countries tackle the stubborn system-level technical barriers (complexity of the system, large number of actors, interdependence of reforms, slow pace of change in education reforms) and political barriers to change (competing interests, low-quality equilibrium, low-trust environment) |
| WDR 2017 (World Bank, 2017) | • Three core functions of institutions, namely, commitment, coordination and cooperation, are essential to ensure policy effectiveness. To achieve the proposed changes by a specific reform, a
complex array of stakeholders will have to be mobilized to review their assumptions, mental models and modify their behaviors in alignment with reaching the desired state. Ultimately, stakeholders need to be able to see, think, and behave differently.

2015 SABER on School Autonomy and Accountability (World Bank, 2015)
- School autonomy and accountability are key components of an education system that ensure educational quality. The transfer of core managerial responsibilities to schools promotes local accountability; helps reflect local priorities, values, and needs; and gives teachers the opportunity to establish a personal commitment to students and their parents. Benchmarking and monitoring indicators of school autonomy and accountability allows any country to rapidly assess its education system, setting the stage for improving policy planning and implementation.

(Carr-Hill, et al., 2015)
- Better-managed schools are more effective schools. Correlational evidence from within and across countries in the region and globally, coupled with a growing number of impact evaluations, show that higher-skilled managers and the use of more effective management practices can strengthen teaching and learning, even in public systems where school managers have little formal authority over teachers and resources. In addition, strong management at the system level is a prerequisite for raising student learning at scale. School-based management programs improve learning when the community has the capacity to make and implement smarter decisions.

101. Finally, the design of this operation ensures complementarity with ongoing support from other development partners, as summarized in the below table.

<table>
<thead>
<tr>
<th>Partner</th>
<th>Area and objectives</th>
<th>Geographic scope</th>
<th>Type of Support</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>Support to education reform, with focus on equitable access (planning), quality (initial and in-service teacher training, pedagogical model) and governance (managerial capacities, information systems)</td>
<td>National and pilot in 3 AREFs</td>
<td>Budget support (£87.3 million) and Technical Assistance (£4.7 million)</td>
<td>2014-2019</td>
</tr>
<tr>
<td></td>
<td>Support to Morocco’s Literacy strategy</td>
<td>4 AREFs</td>
<td>Budget support (£45 million)</td>
<td>2019-2022</td>
</tr>
<tr>
<td>AFD</td>
<td>Support to Education Sector Strategy 2015-2030, with focus on equitable access, quality of education (curriculum, remediation, teacher training, language of instruction), and AREF governance.</td>
<td>National and 2 AREFs</td>
<td>Budget support (£80 million) and technical assistance (£0.5 million)</td>
<td>2017-2020</td>
</tr>
<tr>
<td>USAID</td>
<td>Reading for Success: National Program for Reading (support to early grade teaching and reading in Arabic)</td>
<td>Pilot in 4 AREFs</td>
<td>Technical assistance (US$19.5 million)</td>
<td>2017-2022</td>
</tr>
<tr>
<td>UNICEF</td>
<td>Early childhood Education (curriculum framework, training of trainers), Inclusive Education, Life and Citizen skills, School remediation, School management, Monitoring and evaluation of learning outcomes</td>
<td>National and pilots in AREFs</td>
<td>Technical assistance (US$10.5 million)</td>
<td>2016-2021</td>
</tr>
<tr>
<td>MCC</td>
<td>Support to access, equity and quality in secondary education (school-based management, assessment of students learning outcomes, EMIS, Care and maintenance of infrastructure)</td>
<td>National and pilot in 100 schools</td>
<td>Technical assistance (US$112.6 million)</td>
<td>2017-2021</td>
</tr>
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</table>

102. Finally, the Program design will benefit from linkages with the ongoing Bank-financed operations in social protection and health sectors. Specifically, the ongoing Identity and Targeting for
Social Protection Project (P155198) helps improve the efficiency of the education CCT program Tayssir by reforming the targeting system to reach the most vulnerable children and prevent school dropout. Furthermore, the Health Support Program-for-Results (P148017) aims at increasing access of children under 5 to a rural primary health care center, which is complementary to the quality early stimulation and learning supported under RA1 in achieving better early childhood development outcomes.

**Description and Rationale for RAs**

103. **The technical design and focus of the Program** draw on strong analytical evidence and considers the sequencing and non-linearity of education progress.

RA 1: Establish an enabling environment for quality ECE service delivery

104. **Global evidence shows that early stimulation activities have a positive and decisive impact on child cognitive development and motivation to learn.** Yet, opportunities for early learning in Morocco are still limited and unequal. Moroccan children who benefitted from preprimary education had indeed significantly better results (10 to 20 percentage point higher on average) in Arabic, French and Mathematics in primary school than children who did not attend preschool (SDI 2016). However, access to early childhood education in Morocco is still limited, especially for disadvantaged rural populations who stand to benefit the most (Kogali and Kraft, 2016; Britto and others, 2016). In 2017-2018, the national enrollment for children aged 4 and 5 was 49.5 percent, but in rural areas, only a third of children benefitted from some form of ECE. Only about a quarter of rural girls’ attend ECE, compared to 61 percent of boys in urban areas. The national averages also mask large regional disparities: in 2018, for example, the southern AREF of Laayoune had a preschool enrollment rate of 94.3 percent against 28.2 percent in the AREF of l’Oriental.

105. **Existing provision of ECE in Morocco is relatively unique in the diversity of providers and corresponding authorities.** According to a 2014 diagnostic study by UNICEF and the MOE’s Department of curriculum (DC), there are currently 5 main types of ECE establishments: (1) traditional koranic centers, which focus on memorization of the Koran and basic principles of the Arabic language; (2) koranic preschool (koranic centers that integrate relatively more modern preschool practices; (3) kindergartens; (4) preschool classrooms attached to public primary schools; and (5) private modern preschools. The different responsible entities include the MOE, the Ministry of Habbous et Islamic Affairs, the Ministry of Family, Solidarity, Equality and Social Development, the Ministry of Youth and Sports, National Mutual Aid (Entraide Nationale), and the Social Service for the Royal Armed Forces. In addition, a range of NGOs, foundations, and religious, social, and civic associations (such as Atfale, FMPS, BMCE, Zakoura, and others) have also shaped the sector substantially, through the provision of financing for infrastructure, direct hiring and payment of educators, and providing training and guidance to ECE providers.

106. **The GOM recognizes the importance of preschool for child development, improved educational achievement, equity, and long-term economic productivity.** They have expressed an ambitious goal to reach 100 percent preschool enrollment by 2027. Under the patronage of King Mohammed VI, the GOM launched a national program for universalization of preschool in July 2018. This program sets out Morocco’s strategic objectives for the sector. These include the integration of preschool into the primary cycle, a focus on rural and periurban areas, improving the level of traditional preschool, development of pre-service and in-service training for preschool teachers, and improving the quality of preschool. This plan ambitions to train 28,000 new educators and 950 “animateurs pédagogique”. They also plan to upskill 27,000 educators currently working in preschool. The aim is to provide access to an additional 700,000
children annually. In this plan, they have identified their needs for the number of classrooms, teachers, and financing in the short- and long-term.

107. As a prerequisite for preschool generalization, the GOM has developed a comprehensive national preschool framework which includes: (1) a curricular framework for preschool, (2) quality standards, (3) new specifications for establishing preschool structures, and (4) a strategy for training preschool educators. The national plan for universalization of preschool also outlines an approach for training the required human resources at different levels: (i) a 3-year university degree program consisting of 6 semesters and a practicum; (ii) a technical qualification as a preschool specialized educator, to be delivered by the office of professional training and the promotion of labor; and (iii) in-service training to be delivered by the CRMEF and provincial preschool resources centers.

108. Mere access to ECE, however, is not a guarantee that children will develop the foundational skills needed to succeed in school. Research shows that only high-quality ECE leads to desired outcomes, with quality being mainly driven by the skills of the preschool educators. Low quality ECE programs have led to worse cognitive and socio-emotional outcomes than no ECE in high, middle, and low-income countries (Bouguen and others 2013; Richter and Samuels, 2017; Wong and others 2013). Strategies to improve the quality of ECE often focus too narrowly on inputs or policy elements of ECE settings (such as infrastructure standards, which are necessary but not sufficient). Assuring the quality of the interactions that children experience in the ECE setting is what ultimately matters for children’s learning outcomes (Phillips and others 2017).

109. Because the sector has grown relatively organically, with limited oversight or coordination thus far, the current ECE landscape is missing key features that support the delivery of high-quality ECE services. The lack of a pedagogical reference combined with the diversity of providers has led to wide inequalities in learning experiences. The curricular reference recently developed by MOE has yet to be fully disseminated and implemented at the regional, provincial and local levels, and translated into practical program and educational packages (mallettes pédagogiques). In addition, there are few structured pre-service and in-service training opportunities for ECE. Existing ECE teachers vary widely in their characteristics, from high school graduates to university-level. Most do not have any basic training in preschool education, and they do not benefit from any in-service continuous professional development. Although different NGOs and associations deliver trainings of various types, there is no common framework, nor is there any kind of quality control of these different offerings. Publicly provided training is almost nonexistent. Finally, the MOE, AREF and DP have very limited institutional and human capacities for management of the preschool subsector and do not have any system for outcomes monitoring, supervision, reporting, and improvement.

110. To meet its goal, the GOM will need to overcome a set of challenges that hinder the path to generalizing quality preschool education: (1) an insufficient quantity of educators with relevant ECE knowledge and skills, (2) the lack of a comprehensive framework and mechanisms to measure the quality of preschool environment, and (3) limited capacity to manage the expansion.

111. The proposed Program and DLIs will incentivize the establishment of an enabling environment for quality ECE service delivery. They are part of the overall government program, and they address key gaps in the governance and service delivery of ECE.

➢ DLI#1: A training program for preschool educators has been established. This DLI will incentivize MOE to ensure that preschool educators benefit from training, in collaboration with the range of
existing training providers. The adoption of a professional competency framework for preschool educators, in alignment with quality standards set in the MOE preschool framework, will directly contribute to the structuring of existing training initiatives and the development of new modules as deemed necessary, to eventually form a cohesive training system with clear expectations in terms of profile and desired skills for preschool educators. This training system, once established and approved by the MOE, will in turn directly contribute to the upskilling of in-service and new preschool educators through the delivery of adequate and relevant training. Official approval of trainings by the MOE will help educators and operators distinguish quality trainings among the wide variety of existing programs and encourage them to enroll in those quality training programs. An increased number of preschool educators completing those programs (target of 20,000 by the end of the Program) will contribute to developing a better skilled workforce for preschool education in Morocco, and therefore participate in the establishment of an enabling environment for quality ECE service delivery in the country.

➢ DLI#2: The framework for measuring the quality of preschool environment has been strengthened. This DLI incentivizes the continuous quality improvements in preschool units through the successful development and implementation of a comprehensive system for measuring the quality of preschool environment. It is expected that the development and piloting of a quality measurement tool for ECE and its implementation by AREF, using MASSAR, will help anchor the measurement of quality in the education system. The measurement of quality will serve policy-makers in assessing the impact of existing ECE services and the needs for adjustment or revision of standards, trainings, curriculum and resource allocation. The measure of quality will also provide useful information to schools and educators to improve pedagogical strategies that foster child development and well-being. Measuring quality is the first step in defining a strategy for improvement both at the individual establishment and at the system level. This will directly contribute to creating an enabling environment for quality ECE service delivery.

➢ DLI#3: The Borrower’s capacity to manage preschool education has been strengthened. This DLI will incentivize improvements in MOE’s capacity to manage preschool education. It is expected that the establishment of administrative structures and project teams with qualified staff responsible of ECE at the central and regional levels will help the MOE in accompanying the development of preschool education with a focus on quality. The teams will manage new activities related to the expansion of quality ECE service, including mobilizing and training preschool educators, support to the quality assurance process, and supervision of preschool units using MASSAR.

RA 2: Support improved teaching practices in primary and secondary education.

112. Teachers are the most fundamental ingredient of learning, but the education system in Morocco offers only limited opportunities to further teachers’ skills and competencies. Many Moroccan teachers do not have the minimum skills and knowledge to teach effectively. As the Education Service Delivery Indicators survey revealed in 2016 (Observatoire National pour le Développement Humain, 2017)⁸, the proportion of tested teachers meeting the minimum requirement was 0 percent in French, 3.5 percent in Arabic and 67.2 percent in Math. Equipping teachers with the skills they need to succeed in the classroom

⁸ Observatoire National pour le Développement Humain. 2017. Enquête sur les indicateurs de prestation de services en éducation (IPSE) au Maroc. Kingdom of Morocco
is crucial. Teachers need subject matter and pedagogic knowledge, as well as classroom management skills and substantial teaching practice to be successful in the classroom.

113. The public education system in Morocco is facing the retirement of an entire generation of teachers and a massive need for new qualified teachers over the next ten years, with a peak expected in the 2019-2023 period. During the national education emergency plan (2009-2012), the Ministry of Education launched the reform of the teacher recruitment and training system which notably included the creation of the CRMEF in 2011. However, this reform was not supported by provisional management of teaching human resources which consequently led the AREFs to recruit 55,000 contract teachers between 2016 and 2018 to meet urgent needs. Those teachers were posted in classrooms with minimal initial training, which negatively impact on the quality and efficiency of their teaching. The need for new qualified teachers entering the system over the next few years is compounded with the endemic challenges of teacher shortages in certain areas and subjects, high turnover of teachers, and the perception of a growing deterioration in the social status and recognition of the teaching profession.

Figure 2. Teacher needs and retirement figures in Morocco

![Teacher needs and retirement figures in Morocco](image)

Source: MOE

114. Support is needed to overcome pre-service training gaps, accompany the inception of new teachers and assist all in-service teachers in the implementation of curriculum reforms and pedagogical innovations. Evidence shows that teacher training interventions are effective in improving student learning outcomes if the trainings are individually targeted and repeated, with follow-up coaching, and often around a specific pedagogical technique rather than general or theoretical approach (Popova, Evans and Arancibia, 2016). However, Moroccan teachers have few professional development opportunities. Moreover, due to insufficient staffing and difficulties of transportation in some areas, most teachers do not receive more than one supervisor’s visit in five years.

115. The MOE recently started a wide-ranging reform to strengthen the teaching profession to address the growing needs for qualified and trained teachers. The government program has three main ingredients: (i) reform both initial and continuous training as a starting point for an ambitious transformation of the teacher professional development (TPD) model; (ii) expand the TPD model to other
key actors (directors, inspectors, accompanying teachers); and (iii) create, develop and disseminate a knowledge base on the teaching profession around applied research and innovation for school improvement and professional development at the local and regional levels, taking advantage of the potentials of digital technologies to diversify the supply of personalized training and professional development. Pre-service or initial training for all teachers – primary and secondary – has been restructured into a three-year undergraduate qualification which was implemented for the first time in the school year 2018-2019. Moreover, to tackle the lack of an appropriate transition from university to the school for beginner teachers, a two-year program of induction has been developed and implemented for the first-time targeting graduates (under still the old university program) in the school year 2018-2019.

116. However, the lack of coordination among different implementation agencies, low capacity and insufficient human and material resources pose significant risks to the quality of implementation of this reform. While the new system of training conceived as a continuum – from access to initial training at universities to opportunities for in-service training at schools, with a period of induction to the teaching profession right in between those two – is in line with international good practice, it still needs to overcome a number of weaknesses mostly due to historical organizational and design gaps in teachers’ trainers qualifications and in the training programs themselves. In this regard, developing the appropriate structures and regulations at the regional level appear to be crucial in the current context of administrative decentralization where the AREFs are already playing the leading role in selecting and recruiting new teachers in addition to other key aspects of teacher policies.

117. In such a context, this RA seeks to support the ongoing efforts to strengthen the teaching profession in Morocco through the implementation of a normative and operational framework for the new TPD model (see Figure 10). The RA focuses on the already existing program for the improvement of pre-service and in-service teacher training, which the GoM strategically sees as the entry point to rethink the teaching profession in Morocco, including teachers ‘selection, recruitment, induction, deployment and the overall teaching career path. More specifically, the program puts the emphasis on the new pre-service training/induction model into the teaching profession and supports the development of a solid, attractive and coherent professional career model.

![Figure 3. New Model for Teacher Professional Development in Morocco](source: WB based on MENFP)

118. The proposed DLIs clearly point to the direction set by the GoM, as they address persistent challenges and gaps in the teaching profession. Thus, the DLIs will support improvements in access to
initial training and induction to the teaching profession and a new model of TPD that responds to the training needs of all teachers in the system in a personalized way and in the context of the specific characteristics of their schools and students.

➢ DLI#4: The model of pre-service training and professional induction of teachers is implemented. This DLI will help strengthen the initial training and induction model to the teaching profession: it will do so by addressing key bottlenecks in terms of capacity, resources and coordination, with special emphasis in the sustainability of the newly created Education 3-year License program (CLE) and capacity building of CRMEF which will assume most of the responsibility in the induction program. During Year 4 and 5 of the Program, it is expected that CLE graduates will start to feed the new recruitment of teachers done by AREFs, turning into teacher quality improvements among the system. It is expected that increased selectivity and better professionalization of teachers-candidates will contribute to make the teacher profession more attractive, which will likely lead to increased enrolment in the new CLE program and hence to a higher level of academic qualification among candidates. In turn, better academic qualifications of teachers-candidates will likely contribute to a more effective professionalization and improve teaching practices in the classroom.

➢ DLI#5: A strategy for in-service teacher training and professional development is implemented. This DLI aims at establishing a coherent, coordinated and comprehensive model that can respond to all teacher training needs on a regular and sustainable basis. It will do so by including coaching support at the school level, the usage of digital technologies to access to better pedagogic and content knowledge and sharing experiences with peers and regular traditional on-site training in CRMEFs. It is expected that the development and adoption by AREFs of regional and national plans for in-service teacher training, aligned with GOM’s quality standards, together with a new information system of teacher training to be in place, will constitute the first step in implementing the reform. Implementation of these plans will contribute to increase the number of active teachers benefiting from coaching and mentoring interventions, new pedagogical and teaching resources, and attending traditional on-site training in CRMEF. An increased proportion of teachers who benefit from effective professional development opportunities will likely lead to improved teaching practices. Finally, jointly with the changes in the induction model, it will help transform teaching into a more desirable and attractive profession.

RA 3: Strengthen management capacity and accountability along the service delivery chain

119. The education system suffers from an unfinished decentralization process limiting the efficiency of sector spending. The spending efficiency of the sector is affected by the insufficiencies in the decentralization of the public financial management system. While AREF oversee a significant share of education spending (nearly 95 percent), recent reports (IMF, 2016)⁹ pointed out that they have limited management capacity due to a lack of qualified accounting, financial management and procurement staff. This is impacting negatively on AREFs capacity to deliver results. Evidence points to: (i) weaknesses in the multiyear planning of AREFs which leads to a misallocation of resources; (ii) the absence of an integrated

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⁹ See IMF 2016 report on efficiency of public spending on education in Morocco, the Court of Account reports on the AREF, as well as the 2017 Court of Account report on the 2016/2017 academic year, and the Court of Account report on the Emergency Education Program (2009-2012). The World Bank fiduciary assessment also includes a recent diagnosis of the management capacity of the AREFs.
financial management systems and the lack of reliable financial information at AREF level hinders the
decision making process and accountability; and (iii) the insufficient capacity to deal with the procurement
activities delaying the school constructions program to comply with the public procurement decree
(Decree No. 2-12-349 of 20 March 2013). Overall, the production of timely and credible financial
information emerges as the most critical issue to strengthen the public financial management system of
the AREFs and ease the decentralization process.

120. The GOM has taken initiatives to improve accountability in the education sector through the
introduction of performance-based contracting. With the objective to improve efficiency of public
spending and accountability for results, the GOM has adopted the LOLF calling for the implementation of
the performance-based contracting along the education service delivery chain. This reform has been
piloted in the MOE since 2015 and deployed across the GOM on January 1, 2018. The annual performance
plan (between the MOF and the MOE) is annexed to the annual budget law adopted by Parliament.
Reporting on the progress and the achievements of this plan is captured in the annual performance report.
These reports include the allocations and execution of the budget appropriations per programs and the
performance indicators associated to each program.

121. International experience indicates the introduction of performance-based contract, while
challenging, strengthens performance and accountability. Analysis of past and existing experiences of
performance-based contracting draw a mixed review of their impact on accountability and improved
service-delivery.10 In Brazil, for example, success was the result of a combination of political commitment
and strong incentives.11 A trusted monitoring and evaluation system, the ability of the system to adapt
through self-evaluation, clear controls, as well as the autonomy granted to the signatories of the
performance agreement contribute to success.

122. The MOE has transferred the financial and human resource management to the AREFs and aims
to reinforce the capacity and autonomy of AREF. To this end several tools were developed such as (i)
administrative status of staff, (ii) organigram chart including internal audit department, (iii) manual of
procedures, and (iv) procurement regulations. However, the enforcement of these tools remains a
challenge because of insufficient qualified staff. In addition, several other tools are not yet in place
including an adequate information management system to produce timely financial information,
multiyear planning instruments and external audit arrangements to increase the accountability
mechanisms.

123. The production of reliable financial information and internal controls are the main weaknesses
identified at the level of AREF. The production of timely and credible financial information will be a key
milestone towards improved performance of AREFs. To this end, the AREFs will need to
operationalize/enforce management tools such as adequate staffing of the organizational chart including
an effective internal audit unit, manual of procedures, procurement regulations, accounting and reporting
arrangements subject to annual external audit, multiyear planning instruments Ultimately, this would
permit a lighter oversight form the MOF and a transition from ex-ante financial controls to ex-post
financial controls or performance–based monitoring. In addition, it will increase accountability by the
publication of the annual audit report and management report. AREFs capacity to meet the seven

11 Do Performance Agreements Help Improve Service Delivery? The Experience of Brazilian States, Lorena Vinuela and Laura Zoratto, World
Bank, July 2015.
management conditions of the Law No. 69-00\textsuperscript{12} on SOEs and parastals will be monitored through the Program Implementation Plan.

\textbf{124. Decentralizing further decision-making to the provincial and school level can also contribute to improving performance.} Since 2015, school principals in Morocco develop school improvement projects (SIP) with a diagnosis of key challenges at school level, annual targets based on a set of indicators, and planned activities. However, in 2017 only 40 percent of schools had a SIP in place, and an even lower share manages to implement them. The school improvement projects are validated by the DP and in theory, schools are supposed to receive support for the implementation of their school improvement projects. In practice, staff at DP level is not sufficiently trained to provide this support and therefore the validation of the school improvement projects remains an administrative process.

\textbf{125. The proposed DLIs address persistent challenges in the decentralization process.} The objective is to formalize and operationalize this fundamental shift through the establishment of performance contracts at various levels of the service delivery chain to link resources to tangible results in the improvement of education outcomes.

\begin{itemize}
  \item \textbf{DLI#6: Performance Contracts are implemented.} Strengthening governance of the education system is amongst the main priorities of the MOE. In the context of advanced regionalization, deconcentrated structures are the key link in an efficient education system. The LOLF calls for the implementation of performance-based contracting along the service delivery chain. AREFs and DPs are therefore expected to manage human and financial resources efficiently in order to bring quality education services to all. This DLI will incentivize the reinforcement of AREFs and DPs accountability and management capacity by supporting the design and implementation of performance contracts between the central structure of the MOE and AREFs; and between AREFs and DPs.
  \item \textbf{DLI #7: School improvement projects are defined and implemented.} This DLI aims at setting up a monitoring and evaluation mechanism to support the successful implementation of SIPs. This is expected to lead to enhanced behaviors and practices of school principals with a focus on improved instruction and student performance, better school climate, motivated teachers, and more collaboration in planning for overall school improvement. It is expected that the monitoring and evaluation of school improvement projects will be facilitated with a module dedicated to those projects in the EMIS.
\end{itemize}

\textbf{Description and Assessment of Program Expenditure Framework}

\textbf{Recent trends in education financing}

\textbf{126. Recent trends show a decade of stable increases in government expenditures.} The general budget of the GOM displays an increase from MAD 90 billion in 2005 to MAD 180 billion in nominal terms. Overall, these increases have been accompanied by relevant increases in the budget devoted to education

\textsuperscript{12} Law No. 69 spells out 7 conditions to be met by the SOEs to be eligible to the ex-post control of the Ministry of Finance. These include the establishment of: (1) HR regulations, (2) organizational chart including internal audit unit, (3) manual of procedures, (4) procurement regulations, (5) accounting and reporting system subject to external audit, (6) multiyear planning, and (7) annual management report. A revision of the Law is underway. The draft revised Law includes the same provisions as the existing one, and an additional condition on the internal control system for the eligibility of the ex post control.
services. The nominal budget has increased from MAD 25.7 to 48.4 billion between 2005 and 2018, with an increase of MAD 4 Billion between 2017 and 2018.

Figure 4. General and Education Budget (real and nominal), in MAD billion

Source: Cours des comptes and WDI.

127. The PdP projects a stable, though modest, increase in government education spending over the Program implementation period. Overall government spending is set to increase in real terms from US$5.08 billion in 2019 to US$5.19 billion in 2023. Increased government education spending is largely driven by increases in government revenues that arise from economic growth. The share of the overall government budget as a proportion of national income and the proportion devoted to education are assumed to remain the same throughout the projection period. Given these assumptions, the share of national income allocated to government spending on education stays relatively constant.

Table 4. Government program over 2019-2023 (US$ million)

<table>
<thead>
<tr>
<th>Program</th>
<th>2018 (executed)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>Total 2019-2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 Steering, Governance and Leadership Strengthening</td>
<td>4,245</td>
<td>4,282</td>
<td>4,324</td>
<td>4,231</td>
<td>4,231</td>
<td>4,231</td>
<td>21,299</td>
</tr>
<tr>
<td>P2 Compulsory Education Ensuring Equity and Quality</td>
<td>390</td>
<td>578</td>
<td>635</td>
<td>698</td>
<td>698</td>
<td>698</td>
<td>3,307</td>
</tr>
<tr>
<td>P3 Upper-Secondary and Post-secondary Education for Individual and Collective Advancement</td>
<td>201</td>
<td>179</td>
<td>197</td>
<td>216</td>
<td>216</td>
<td>216</td>
<td>1,024</td>
</tr>
<tr>
<td>P4 Non-Formal Education</td>
<td>7</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>67</td>
</tr>
<tr>
<td>P5 Literacy</td>
<td>25</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>190</td>
</tr>
<tr>
<td>Tayssir (Conditional Cash Transfer)</td>
<td>125</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>1,150</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,994</td>
<td>5,319</td>
<td>5,437</td>
<td>5,427</td>
<td>5,427</td>
<td>5,427</td>
<td>27,037</td>
</tr>
</tbody>
</table>

13 The 2019 budget projects expenditure over the period 2019-2021. Expenditure over 2023 have been assumed to remain constant in real terms from 2021 to 2023, a conservative assumption given recent trends.
Alignment of the budget with government priorities, classification, sustainability and predictability is adequate:

- **Fiscal sustainability.** In 2013, in response to the external shocks facing the country, Morocco initiated a process of fiscal consolidation and revenue development that allowed it to shrink its fiscal deficit from 6.8 percent of GDP in 2012 to 3.6 percent in 2017. With progress in fiscal consolidation, the debt-to-GDP ratio stabilized at around 65 percent of GDP since 2016. Fiscal space is also eroded by the recurrent cost obligations associated with the infrastructure buildup. Over the medium term, economic performance is expected to improve enabled by sound fiscal and monetary policies, more consistent sector strategies, and an improved investment environment, all of which are aimed at supporting gradual competitiveness gains.

- **Program financial sustainability and funding predictability.** The 2019 Budget Law reflects the Government’s commitment to increase social spending through stronger domestic revenue mobilization. It also plans to increase allocations of corporate and income tax revenues to the regions and increase transfers made to the interregional solidarity fund. Revenue measures to finance this additional spending include: (a) introducing a 2.5 percent solidarity tax on companies earning an annual net profit of over MAD 50 million; (b) privatizing certain government assets/SOEs; (c) increasing consumption taxes, particularly on tobacco; and (d) establishing improved governance systems for SOEs, including a multiannual policy for dividends and other contributions by SOEs to the general budget. The predictability of the Program Expenditure Framework is ensured by the existence of several tools: (1) the Three-year Program Budget for 2019 – 2021, developed in the context of the Public Finance Act; (2) the annual performance project endorsed by the Parliament which describes the key programs, the associated budget and performance indicators; and (3) the annual performance report which summarizes the results achieved and the budget executed for a given year. Overall as per the 2017 PEFA, the predictability of the GoM’s expenditures is robust with the indicator on predictability rated A based on timely release of the budget’s appropriations to the budget holders.

- **Adherence of the budgeted program expenditure and execution to government priorities.** The activities contained in the Program Expenditure Framework are aligned with the priorities set by the Government. Moreover, the Program’s budget structure is clear in terms of sources of funding, budgetary vehicles and categories of expenditures. The Program Expenditure Framework is grounded within the General Budget of the State (Budget Général de l’Etat). All expenses are programmed in line with the Classification of the Functions of Government (COFOG) and will be incurred between 2019 and 2023. Before 2018, TAYSSIR’s execution was undermined by two challenges: (1) resources were insufficient to cover payment requirements (US$52 million compared to US$73 million); and (2) delays in the availability of financial resources. Since the academic year 2018/2019, this issue has been resolved thanks to a strong political commitment to address TAYSSIR execution delays. Thus, the estimated financial resources are sufficient (US$230 million) to cover the execution of the 2018/2019 budget. In addition, the resources were transferred to the MOE on time (January 2019) to facilitate budget execution. It is expected this trend will be maintained throughout the Program implementation period.

- **Efficiency of Program expenditures.** Despite the alignment between the Program Expenditure Framework and government priorities, implementation of this Program could be affected by delays in transferring funds. This risk is mitigated by the strong political backing of Tayssir whose coverage was extended in 2018. An element affecting the efficiency of spending under the Expenditure Framework is related to weaknesses in targeting the most vulnerable. Indeed, currently targeting mechanisms are based on geographical criteria, which results in inclusion and
exclusion errors. The implementation of the Social Registry starting 2020 will greatly improve targeting of Tayssir, enhancing therefore the efficiency of spending.

- **Effectiveness of Program expenditures.** The Program's own fiduciary risk control mechanisms (see Fiduciary Systems Assessment) provide further driver of efficacy of expenditures under the Program. The following measures will contribute to ensure effectiveness of the Program activities: (i) the revision of TAYSSIR’s manual of procedures in January 2019 to better define eligibility criteria, (ii) the upgrade of the information management system and the reconciliation of TAYSSIR’s database with other systems such as RAMED, for medical benefits, and EMIS, to monitor the students, and (iii) the implementation of the Social Registry.

**Program Economic Evaluation**

129. **The Program is expected to produce, over the long term, stronger education outcomes, resulting in improved productivity.** As the HCI for Morocco shows, the productivity of a child born today is expected to be half of what it could have been if she had access to full education and health. The bulk of the losses in terms of productivity is related to weak learning outcomes. Hence, improved learning outcomes are expected to contribute to increasing the HCI and the expected productivity of future children.

130. **Public investment is also justified due to the high social, economic and non-economic rates of return to education, in addition to the market imperfections that preclude the poor from reaping the private returns to education.** In addition to private returns, social returns which occur when private benefits externalize to benefit the society, net of the social costs justify public investment in education. Non-economic returns are manifested in the form of healthier lifestyle, more informed decision-making and personal development, and can extend to social cohesion, civic engagement and democratic participation. From a public economics rationale, the significant positive externalities from education justify government investment in the sector. Even if the magnitude of the economic private returns surpasses the economic social returns, the presence of noneconomic externalities to education coupled with credit market constraints that result in individuals under investing in education, present an economic rationale for some significant degree of public investment, especially at primary level.

131. **Moreover, the Program is expected to have trickle down effects on efficiency and effectiveness of public spending.** This Program does not introduce new government programs, but rather aims at strengthening and supporting ongoing reform efforts. At the system level, the Program aims at strengthening coordination mechanisms and management capacity to deliver quality education for all. In the process of decentralization of management responsibility from the central level to the regional academies (AREFs) and schools, the success of the reforms is tightly linked to the management capacity and coordination mechanisms between different local stakeholders and government agencies. The Program will lead to more efficiency in public investment in the future through a more transparent, autonomous, informed, accountable and decentralized management system. Such investment has no substitute alternative in the private sector, because it is the public sector which regulates, manages and administer most education services.

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14 Noncontributory health insurance, which benefitted about 8.5 million individuals.
15 School Management and information system for monitoring the students.
16 Evidence of the positive impact of education on non-economic dimensions, as well as the powerful externalities of parents schooling are numerous and robust.
132. **Bank support is expected to bring tangible value-added in several key domains.** The Bank’s global knowledge, technical and operational expertise will be critical in providing technical support and consensus-building around system and institutional changes, which are expected to yield economic and social returns in the longer term. The Bank’s comparative advantage in supporting multisector solutions to enhancing education outcomes is especially valued by all stakeholders, and reflected in the proposed approach, which combine education and governance interventions aimed at addressing the current system bottlenecks. In addition, the Bank is well equipped to further support the MOE in shifting focus away from inputs towards increased efficiency of existing expenditures through service delivery improvements. Moreover, given its wide experience with results-based financing in social sectors, including in Morocco, the Bank is also seen as a credible partner that can help institutionalize a results-based development culture.

133. **Economic benefits.** The main benefit of RAs 1 and 2 streams from increased learning outcomes and (implicitly) years of schooling derived from increased teacher practices and higher quantity and quality ECE. Test score increases, and years of schooling would then increment Learning Adjusted Years of Schooling (LAYS) in Morocco, which in turn would increment the expected returns to education in adult life and overall economic growth. A theoretical estimate of individual returns to investment would be \( A = (B + C) \times D \), where:

1. Individual returns to investment in RA 1 and 2 based on LAYS and regular returns to education in the literature.
2. Positive impact of improved ECE services on quality of education (learning outcomes).
3. Positive impact of pre-service and in-service teacher training on quality of education (learning outcomes).
4. Learning Adjusted Years of Schooling in adult life.

134. **An increase in an additional year of LAYS** (Filmer, et al., 2018)\(^{17}\) would then have an impact on individual returns in earnings of the rate of return to another year of schooling, which is 10 percent for the total sample (both men and women) in Morocco (based on 1998 data)\(^{18}\). The current state of Human Capital is the following in Morocco\(^{19}\):

- **Expected Years of School.** In Morocco, a child who starts school at age 4 can expect to complete 10.6 years of school by her 18th birthday.
- **Harmonized Test Scores.** Students in Morocco score 367 on a scale where 625 represents advanced attainment and 300 represents minimum attainment.
- **Learning-adjusted Years of School.** Factoring in what children learn, expected years of school is only 6.2 years.

135. **Regarding early childhood education, this economic analysis relies on metanalyses on the long-term effects of early childhood education to quantify the effects of RA 1 on learning outcomes.** Results in the literature show that attending pre-primary school had a positive effect on subsequent standardized test scores of 0.08 standard deviations. Studies from developed countries that have tracked children into

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adulthood show that healthier and taller children do better on tests of cognitive ability; these children have higher school attainment, grow into taller adults, and earn significantly higher wages.\textsuperscript{20}

\textbf{136. Regarding teaching practices, we use estimates from} (Bold, et al., 2017)\textsuperscript{21} and quantify an increase for each standard deviation of teacher content knowledge and pedagogic skills in increases of 0.37, 0.35 and 0.25 standard deviations for student learning. A baseline estimates of an increase in 0.2 standard deviations at the end of the Program in teacher content knowledge (through the new CLE), pedagogic skills (through the new induction program and professional development) as well as a decrease by 50 percent in absences is expected to generate composite gains of 0.15 standard deviations of student learning, hence 15 points from international testing.\textsuperscript{22}

<table>
<thead>
<tr>
<th>Table 5. Economic Analysis</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Attend quality pre-school</td>
</tr>
<tr>
<td>Teacher content knowledge</td>
</tr>
<tr>
<td>Teacher pedagogical skills</td>
</tr>
<tr>
<td>Teacher absence from class</td>
</tr>
</tbody>
</table>

\textit{Source: The coefficient on quality pre-school is based on} (Berlinski, Galiani, & Gertler, 2009)\textsuperscript{23}. \textit{The teacher indicators and coefficients are based on} (Bold, et al., 2017)\textsuperscript{24}.

\textbf{137. The expected overall learning effect is 0.226 standard deviations.} The expected returns are hence an additional 0.26 years of schooling for all students, and hence expected returns of 2.6 percent for workers over the long term. Based on OECD (2015), this would entail an increase of 4.48 percent in discounted future GDP and an increase of 0.31 percent yearly GDP over the long term.

\textit{Development impact of RA 3}

\textbf{138. The Program expects to strengthen the management capacity and accountability of the education system along the service delivery chain.} The overall objective is to strengthen the education system so that it efficiently delivers better learning outcomes through interrelated mechanisms which connect various parts of the system (governance, management, financing, incentives) and support clear and aligned functions, authority, and relationships of accountability within the system. Upon completion of the Program, AREF will have signed performance contracts with the objective to increase transparency and accountability at the regional level. At a school level, a focus on school principal training (leadership) and setting up mechanisms to incentivize the implementation of school improvement projects aims at enhancing management capacity and accountability.


\textsuperscript{21} Bold, Tessa, Deon Filmer, Gayle Martin, Ezequiel Molina, Christophe Rockmore, Brian Stacy, Jakob Svensson, and Waly Wane. 2017. What Do Teachers Know and Do? Does It Matter?

\textsuperscript{22} Assuming linearity in comparing different international tests.


\textsuperscript{24} Absences are estimated to be 6 percent dividing 11 days of average absence through 180 of school days.
139. The management capacity of decentralized authorities as well as schools is crucial for appropriate system alignment and results delivery\(^{25}\). With respect to the increased transparency and accountability of AREFs as well as the enabling of school principals to act upon their school improvement plan, this RA is well aligned with the WDR 2018 findings on improving systems to achieve learning for all. Virtually any initiative or program, from providing textbooks to coaching classroom teachers to offering school meals, requires both effective management and adequate financing from the public education system to reach most children.

140. Management affects how well every level of an education system functions, from central technical units to individual schools. At the school level, better management can strengthen the daily learning process in the classroom. At the system level, better management can help improve service delivery, like getting teachers to the schools that need them and ensuring that buildings are properly maintained. New theoretical and empirical research explores these channels and starts to identify the role of management in driving differences across school sectors (public and private) and countries.

141. Providing schools and communities with decision-making power and resources can solve two problems. First, by giving local school leaders and parents more direct influence over teachers and other school representatives, it may make teachers more immediately responsive to student needs. This is in contrast with supervision by a MOE representative based far away, who has little ability to bring teachers to account. Second, schools and communities may have better information about the needs of local schools, which, along with access to discretionary resources, means they can more nimbly meet those needs.

142. Better-managed schools are more effective schools. Correlational evidence from within and across countries in the region and globally, coupled with a growing number of impact evaluations, show that higher-skilled managers and the use of more effective management practices can strengthen teaching and learning, even in public systems where school managers have little formal authority over teachers and resources. In addition, strong management at the system level is a prerequisite for raising student learning at scale. School-based management programs improve learning when the community has the capacity to make and implement smarter decisions. (Carr-Hill, et al., 2015)\(^{26}\)

Evaluation of Technical Risk

143. The operation’s overall risk is substantial considering its multidimensional scope, its numerous stakeholders with uneven capacity. Yet, the analytical underpinnings have highlighted the intertwined governance and sectoral challenges affecting the access and quality of education provision. These challenges can thus only be addressed through a holistic and integrated approach, supporting different reform levers and the key actors along the service delivery chain.

144. The 2017 World Development Report on Governance and the 2018 World Development Report on Education highlight the importance of improving education while also addressing the key governance and political economy issues that shape education delivery. For successful education reform in Morocco,


policies must guarantee credible commitment, support coordination, and promote cooperation across the education service delivery chain. This operation faces substantial risks in that regard.

- First, the success of reforms is contingent on the GoM’s ability to secure the commitment of a variety of stakeholders at the central, AREF, DPs and school level (including teachers, school directors, inspectors, parents, and students).

- Second, the success of the Program across the three RAs will hinge on overcoming coordination failures, whether among different governance levels of the Ministry of Education (central government, AREFs, provincial directorates, schools) for RA 3, or among different implementation agencies for RAs 1 and 2. This is particularly the case for the preprimary sector, where various departments are involved in the delivery, including the Ministry of Habous and Islamic Affairs, and the Ministry of Interior through INDH.

- Third, at the AREF and DPs level, the main risk stems from the innovative and systemic changes born by the Program (in RA 3 in particular), namely the deconcentration of decision-making from the central level to the regional level, and from the regional to the provincial level; and the introduction of performance contracting. The unclear division of labor between AREFs and DPs identified in the 2018 Court of Audit Report also poses a risk. The above imply a radical, and disruptive, change in the distribution of responsibilities and resources between the center and the AREFs, and between AREFs and DPs; and are contingent on the strengthening of human, material and financial capacities and resources. At the school level, the low levels of information and participation of parents/citizens, as well as low incentives and capacities to perform of school leadership can threaten the success of school management reform.

- Finally, effective reform adoption and implementation is contingent on smooth cooperation among stakeholders across the education service delivery chain, including between the MEF and the MOE, which has historically proved challenging in a context where trust and motivation tends to be low.

The Program aims at mitigating those risks through a combination of:

- A phased, realistic and context-specific approach to reform. The Program focuses on ambitious yet politically and institutionally feasible goals, that can be achieved in a five-year period and that put in place the building blocks of long-term reform engagement in the education sector. These include better quality standards/frameworks (RA 1), better human resources, notably better trained teachers and principals (RA 2 and 3), and capacities and incentives for better performance at the subnational level, including stronger HR management and PFM capacities to deliver quality services (RA 3) and better frameworks for performance and accountability (through the design and piloting of performance contracts under RA 3)

- A dedicated communication and change management plan to support reform, to increase commitment to reform among relevant stakeholders, and help overcome coordination failures (e.g. between the center and the AREFs under RA 3 or among the various implementing agencies under RA 1).

- The identification of key technical assistance and capacity building activities to accompany the development and implementation of innovative reform efforts

- A deliberate focus on learning and adaptability.

The residual risk remains, however, important and can impact the quality of implementation.
Based on the technical, fiduciary, and environment and social assessments, a Program Action Plan has been developed. The plan consists of a set of actions to strengthen entities involved in Program implementation or oversight to deliver Program results. The actions are also intended to promote a more sustainable system, which will enable these institutions to effectively perform their mandate in the long term. These will be monitored by the World Bank as part of the Program Implementation Support Plan.