



Support for Education Sector Reform I, II, III

(JA-L1002/2074/OC-JA;

JA-L1024/2300/OC-JA;

JA-L1069/2301/OC-JA;

JA-L1033/3560/OC-JA)

Project Completion Report

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Acronyms and Abbreviations

| | |
|-------|--|
| APEX | Alternative Program for Exceptional Students |
| ASEP | Alternative Secondary Education Program |
| ASTEP | Alternative Secondary Transitional Education Program |
| BA | Bachelor's Degree |
| CMU | Change Management Unit |
| CPC | Chief Parliamentary Counsel |
| CSEC | Caribbean Secondary Examination Certificate |
| DSS | Department for School Services |
| EA | Economic Analysis |
| EE | Electronic Link (Spanish acronym) |
| EMIS | Education Management Information System |
| ESTP | Education Sector Transformation Program |
| ETT | Education Transformation Team |
| GCI-9 | Ninth General Increase in the Resources of the Inter-American Development Bank |
| GOJ | Government of Jamaica |
| GSAT | Grade Six Achievement Test |
| HR | Human Resources |
| ICT | Information and Communication Technology |
| IDB | Inter-American Development Bank |
| IMF | International Monetary Fund |
| JTC | Jamaica Teaching Council |
| J-TEC | Jamaica Tertiary Education Commission |
| LSS | Lower Secondary Strategy |
| MOE | Ministry of Education |
| MOFP | Ministry of Finance and Planning |
| NCEL | National College for Educational Leadership |
| NEI | National Education Inspectorate |
| NEPA | National Environmental and Planning Agency |
| NET | National Education Trust |
| NLS | National Literacy Strategy |
| NMS | National Numeracy Strategy |
| NPSC | National Parent Support Commission |
| NPTA | National Parent Teacher Association |
| NPV | Net Present Value |
| NSCL | National School Leaving Certificate |
| OD | Organizational Development |
| PBL | Policy Based Loan |
| PBP | Programmatic Policy Based Loan |
| PCR | Project Completion Report |

| | |
|--------|---|
| PEP | Primary Exit Profile |
| PIOJ | Planning Institute of Jamaica |
| PMAS | Performance Management Appraisal System |
| PMR | Progress Monitoring Report |
| PMU | Project Management Unit |
| POD | Proposal for Operation Development |
| PS | Permanent Secretary |
| PTA | Parent Teacher Association |
| QECs | Quality Education Circles |
| REA | Regional Education Agencies |
| REO | Regional Education Offices |
| RLF | Revolving Loan Fund |
| SAU | Student Assessment Unit |
| S&S | Security and Safety |
| SWPBIS | School Wide Program for Behavior Intervention and Support |
| TA | Technical Assistance |
| TF | Taskforce on Educational Reform |
| TSC | Teachers Service Commission |
| UWI | University of the West Indies |
| WB | World Bank |

Basic Information (US\$ Amount)

| |
|---|
| PROJECT NUMBER (S): JA-L1002; JA-L1024; JA-L1069 ¹ ; JA-L1033 TITLE: SUPPORT FOR EDUCATION SECTOR REFORM I, II, III LENDING INSTRUMENT: POLICY-BASED LOAN (PBL) AND HYBRID (PBL/INVESTMENT) |
| COUNTRY: JAMAICA BORROWER: GOVERNMENT OF JAMAICA LOAN (S): 2074/OC-JA; 2300/OC-JA; 2301/OC-JA; 3560/OC-JA SECTOR/SUBSECTOR: SCL/EDU |
| DATE OF BOARD APPROVAL: DEC-02-2008; FEB-24-2010; FEB-24-2010; OCT-13-2015 DATE OF LOAN CONTRACT EFFECTIVENESS: DEC-05-2008; FEB-25-2010; FEB-25-2010; NOV-25-2015 DATE OF ELIGIBILITY FOR FIRST DISBURSEMENT: DEC-15-2008; FEB-26-2010; JUN-01-2010; DEC-11-2015 |
| <u>LOAN AMOUNT (S)</u> ORIGINAL AMOUNT: 30M; 30M; 15M; 25M CURRENT AMOUNT: 30M; 30M; 13.2M; 25M PARI PASSU: - TOTAL PROJECT COST: 30M; 30M; 13.2M; 25M |
| <u>MONTHS IN EXECUTION</u> FROM APPROVAL:0; 0; 78; 2 FROM CONTRACT EFFECTIVENESS:0; 0; 78; 0 |
| <u>DISBURSEMENTS PERIODS</u> ORIGINAL DATE OF FINAL DISBURSEMENT: DEC-05-2009; FEB-25-2011; FEB-25-2013; NOV-25-2016 CURRENT DATE OF FINAL DISBURSEMENT: DEC-17-2008; MAR-02-2010; JUL-30-2016; DEC-17-2015 CUMULATIVE EXTENSION (MONTHS): SPECIAL EXTENSIONS (MONTHS): |
| <u>DISBURSEMENTS</u> TOTAL AMOUNT OF DISBURSEMENTS TO DATE: 30M; 30M; 13.2M; 25M |
| <u>REDIRECTIONING</u> . HAS THIS PROJECT?: RECEIVED FUNDS FROM ANOTHER PROJECT [No] SENT FUNDS TO ANOTHER PROJECT [No] |
| EX POST ECONOMIC ANALYSIS METHODOLOGY: NOT IMPLEMENTED EX POST EVALUATION METHODOLOGY: NOT IMPLEMENTED DEVELOPMENT EFFECTIVENESS CLASSIFICATION: HIGH ACHIEVEMENT (0.95) |

¹ Operation created in IDB's system (Convergence) for the second loan to differentiate PBL component from investment component.

I. Introduction

This document presents the Project Completion Report (PCR) for three sequential operations of the Program “Support for Education Sector Reform” approved in 2008, 2010 and 2015, respectively, under a programmatic approach (PBP). The first operation (JA-L1002/2074/OC-JA), was a Policy-Based Loan (PBL) for US\$30 million; the second was a hybrid operation with a PBL component (JA-L1024/2300/OC-JA) for US\$30 million and an investment component (JA-L1069/2301/OC-JA) for US\$15 million; and the last operation (JA-L1033/3560/OC-JA) was a PBL for US\$25 million.

Previous to the design of the operation, Jamaica had made significant progress in expanding access to education at different levels. Despite these gains in access and a relatively high budgetary allocation to education, significant proportions of students scored poorly on various learning assessments, indicating that the quality of education was not meeting expectations ([Task Force on Educational Reform Report](#)). In 2004, the Prime Minister appointed a high-level Task Force on Educational Reform (TF) to prepare an action plan to overcome persistent underachievement in student learning and to place Jamaica on the path of creating a world class education system. The TF report identified five obstacles for better student performance: (i) Governance and management of the education sector; (ii) Parental involvement; (iii) Teacher management; (iv) Curriculum and Assessment; and (v) School Infrastructure.

Following this review of the state of the education system, as well as other diagnostic reports and a nation-wide consultation with over 500 stakeholders, in 2005, the Education Transformation Team (ETT) translated the TF’s recommendations into concrete actions in three main areas: (i) Modernization of the Ministry of Education, (ii) Curriculum, teaching and learning, and school management, and (iii) Relationship with communities and stakeholders. The first area included changes to the institutional arrangements of the Ministry of Education (MOE), such as decentralization and the creation of new agencies and increased accountability mechanisms. It was suggested that the existing regional offices be transformed to better support schools in regions with increased autonomy and authority at the regional and school levels, while allowing the MOE to focus more on policy and administrative functions. Key investments in school infrastructure were envisioned as well, and an agency was created to garner nontraditional funding to support infrastructure. The second area included, among other measures, the creation of a system of regular and objective inspections to inform timely improvements at the school level and the establishment of mechanisms to allow teachers to upgrade their qualifications to a first degree program and revisions to the role of the assessment unit to give it more strength and support. The third area focused on encouraging greater involvement of parents in their children’s education.

With this action plan in place, in 2007 the Government of Jamaica (GOJ) requested financial assistance from the Inter-American Development Bank (IDB) and the World Bank (WB) to collaboratively support the design and implementation of the Education System Transformation Program (ESTP). The IDB and the GOJ agreed on a programmatic policy-based operation consisting of three consecutive loans to support the three main areas of the ESTP. The first PBL

established the policy and results matrix, and reflected the initiation of policy changes for the ESTP; the second loan aimed at advancing in their implementation; and the third operation was designed to consolidate policy actions.

Additionally, in 2009, the Planning and Development Division of the MOE performed a space audit that highlighted the need for major upgrading and repair of many of the existing school facilities as well as new schools to reduce overcrowding and expand quality access to secondary school. Cognizant that the traditional MOE budget would not provide sufficient resources to carry out such work and recognizing the need for technical assistance (TA) in some areas, the GOJ asked the Bank to include an investment component in the second PBL, hence the hybrid operation in the second loan.

II. Project Performance

2.1 Effectiveness

a. Statement of objectives

Aligned with Jamaica's education sector diagnosis and analysis, the objectives of the series of loans were to improve the learning outcomes of Jamaican students by supporting the modernization of the MOE, increase the effectiveness of the delivery of the education services, improve the standards and quality of education, raise the level of professionalism of the teaching profession, enhance the accountability of the system, and improve stakeholder and community involvement in education.

The investment component in the hybrid operation had the original objective of providing support to the MOE's policy to provide approximately 2,100 additional secondary school spaces. It later was reformulated to construct one new school, expand two secondary schools, extend the Education Management Information System (EMIS) to connect regional offices and the central MOE, and provide support for the national literacy and numeracy strategies, special education, curriculum and assessment.

b. Analysis of the vertical logic

This section describes the relationships among the needs diagnosed, products, priority areas by the government and reform areas. It also discusses the selection of instruments and institutional arrangements. The next section describes the achievement of outcomes and describes its relationship to products.

At the time of design of the series of PBPs, improving student performance and the quality of the education system were a main concern for the Government of Jamaica. In 2004, less than one third of children entering grade one were ready for primary school,² 30% of primary school leavers were considered illiterate, and only 20% of secondary graduates had the necessary skills for

² Readiness to enter grade 1 is measured with the Grade 1 Readiness Inventory, a test administered to all students in the first school term of Grade 1 to determine student's ability to cope with the primary curriculum.

employment or for entering post-secondary institutions (Ministry of Education, 2004).³ Furthermore, the national mean percentage score for student performance in Math and Language in the Grade Six Achievement Test (GSAT)⁴ was 46%. At the secondary level only 12.5% of students obtained a passing grade both in Mathematics and English Language in the 2006 Caribbean Secondary Examination Certificate (CSEC).

The TF identified five obstacles for better student performance: (i) Governance and management of the education sector; (ii) Parental involvement; (iii) Teacher management; (iv) Curriculum and Assessment; and (v) School Infrastructure. The main problems and causes found to be limiting better student achievement in Jamaica are described in Table 1.

Table 1
Obstacles and causes behind low student learning in Jamaica

| Obstacles | Causes |
|---|--|
| Governance and management of the education sector | <ul style="list-style-type: none"> - The Ministry of Education (MOE) was hierarchical, over centralized, highly bureaucratic and heavily involved in operations, hampering its capacity to provide policy orientation to the sector or quality assurance (Ministry of Education, 2006a; 2006b). There were overlapping functions between divisions of the ministry, and it micro-managed the delivery of education at the local level. The six Regional Education Offices (Ministry of Education, 2006c) had limited technical capacity, autonomy or budgetary resources, and were therefore restricted to carrying out administrative functions, such as systematic monitoring of MOE reporting requirements and proper maintenance of schools. There was also a lack of alignment between the education regions and other administrative regions, namely the Parish boundaries, making it difficult to collaborate with local government entities on related health, social protection and security issues, among others. - The governance system was also found to have a weak financial management and information technology system and its administrative systems were outdated (Ministry of Education, 2006d). Few manuals describing operations and procedures existed; thus, staff had to rely heavily on the experience and knowledge of individual employees which caused bottlenecks in the event of employee absenteeism, illness or other situations. The system was found to have inadequate capacity to monitor and evaluate performance at any level. Over- and under-staffing were prevalent, affecting key functions such as policy and planning. Systems were heavily paper-based and needed updating and modernizing, and clear Human Resources policies were missing. In sum, many systems were outdated, operated manually and required an update in technology, processes and policy. - At the school level, not all schools had established performance targets or used available information to improve. While MOE had a system of school |

³ The skills for entering employment or post-secondary institutions are measured by the percentage of students achieving range I-III in at least four subjects in the Caribbean Secondary Education Certificate (CSEC).

⁴ The GSAT assesses performance on five subject areas (Mathematics, Language Arts, Science, Social Studies and Communications Task) at the primary level. Results show the mean percentage scores for each individual school for each of the five subjects.

| Obstacles | Causes |
|---------------------------|--|
| | <p>inspections in place, it exhibited a number of shortcomings, including limited follow-up and use of findings as well as a perceived lack of objectivity. Visits were scheduled on a seven-year cycle which was clearly insufficient for assessing the strengths, weaknesses and development needs of schools (Ministry of Education, 2006e). In terms of legislation, the Education Act was found to need an update in order to support greater decentralization, to provide regional offices and schools with more autonomy as well as to create new operational agencies.</p> |
| Teacher management | <ul style="list-style-type: none"> - At the time of the sector assessment, no system was in place to ensure the quality of teaching or to streamline registration, licensing and in-service professional development with standards and appraisals. Only 20% of teachers were found to have a Bachelor's degree (first degree) in Education. - Assessments of teacher training programs were rarely done and there was weak alignment of training with the strategic objectives of the Ministry or the needs of the schools. In addition, training facilities, resources and staffing were insufficient. - The Teachers Service Commission (TSC), the institution responsible for appointing teachers, evaluating applications for their registration, maintaining a register of teachers, ensuring appeals by teachers against the decisions of School Boards, and considering and deciding upon applications from teachers for study, vacation, casual or special leave, was perceived as bureaucratic and slow, causing serious delays in ratifying or adjudicating appointments and disciplinary matters (Ministry of Education, 2006f). Its rules were not clearly defined vis-à-vis teacher appointments and disciplinary matters at the regional and school level, and there was an inadequate system in place to effectively measure and monitor teacher performance. Also, teacher contracts were rigid and provided limited opportunities for mobility. As a result, the MOE did not have the authority to redeploy or retrench teachers when enrollments changed. Variation in student/teacher ratios led to inefficient use of resources. |
| Curriculum and Assessment | <ul style="list-style-type: none"> - Lack of coordination hindered MOE's capacity to develop an integrated curriculum and assessment framework to give coherence to the system and to allow for continuous updating and improvement (Ministry of Education, 2006b; 2006g). - Although the Ministry's Student Assessment Unit (SAU) provided assessment services and subsequent individual student data for key tests in schools, the unit was understaffed when compared to its workload and international standards. In countries of similar size, corresponding functions lead to units with double or more the number of staff. The SAU did not have the staff or the Information and Communication Technology (ICT) to undertake full-scale assessments. |

| Obstacles | Causes |
|-----------------------|--|
| School Infrastructure | <ul style="list-style-type: none"> - The MOE reported the need for major upgrading and equipping of much of the existing infrastructure. Low levels of capital spending had led to a deterioration of the physical plant, making it increasingly expensive to upgrade. Nearly all schools were lacking a maintenance plan. The 2001/2002 school census revealed that 46% of primary schools and 61% of secondary schools required major refurbishment. A more recent school planning exercise done by the Planning and Development Division of the MOE (2009) showed that 60% of schools were still in need of repair, 112 operated in double shifts and more than 290 were overcrowded. - Despite a high demand for secondary education, some areas had no facilities available, impeding MOE's goal to have universal access to secondary education. In some areas with limited or no access to secondary schools, students had to travel more than the distance considered acceptable to arrive at schools. - The lack of adequate school infrastructure was further exacerbated by MOE's policy decisions to de-shift schools (moving from double shifts to single shifts) and increase the number of school hours for students. However, many schools still functioned in double shifts, indicating the need for additional schools. |
| Parental Involvement | <ul style="list-style-type: none"> - Lack of parental involvement to support children in schools was identified as an important cause of the low student learning outcomes. Among the key root causes of inadequate parenting support were the breakdown of family structures, feelings of powerlessness among parents, inadequate parenting practices, poverty, low education levels and a tradition among schools of excluding parents (Samms-Vaughan and Tortello, 2014; Daly et al., 2015). - The Jamaican Birth Cohort Studies (1986–2003) and other longitudinal studies demonstrated that low levels of parental education, high levels of parental stress and limited stimulation at home also impacted adversely on cognitive, academic and behavioral outcomes (Samms-Vaughan, 2008). These studies recommended that parenting education should be made a national priority and informed the development of the National Parenting Support Policy as well as parenting programs. |

In response to the problems and causes described above, **the programmatic loans were designed with the overall objective of improving the learning outcomes of Jamaica's students (Result 1)**. The lines of action of the PBPs were organized in the Policy Matrix of all three PBLs around **three reform areas**: (i) ***Modernization of the Ministry of Education***; (ii) ***Curriculum, teaching and learning and school management***; and (iii) ***Relationship with communities and stakeholders and behavior modification***.

Reform Area I. Modernization of the Ministry of Education

This component aimed at transforming the MOE into a policy ministry focused on policy formulation, quality assurance, monitoring and evaluation, standard setting and agency coordination, and to strengthen its operational capacity to support schools and monitor their accountability for improved results. Table 2 shows the results and products for this component.

Table 2
Modernization of the Ministry of Education: Results and Products

| Results | Products |
|--|---|
| <p>Result 2. Modernized central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting, and agencies coordination.</p> | <ul style="list-style-type: none"> - Students benefited by education project. - Functions of the Department for School Services (DSS) and central MOE defined. - Key Human Resources (HR) positions filled. - Business Plan for 2013-2015 and operational plan for 2014-2015 completed. - Job descriptions for National Education Trust (NET) completed. - PPP manager for raising endowments and school construction recruited at NET. - Education Management Information System (EMIS) designed that connected MOE and regional offices. - Space audit of schools and plan for de-shifting secondary schools updated. - Schools de-shifted. - Proposal for legislative changes, including the Education Act and the creation of agencies (National Education Inspectorate (NEI), Jamaica Teaching Council (JTC) and National Education Trust (NET)) drafted. - Consultations on establishment of JTC legislation completed. - Legislation on establishment of JTC drafted by the Chief Parliamentary Counsel (CPC) for submission to Parliament. - Drafting instructions for amendment of Education Act sent to CPC. |
| <p>Result 3. Effective delivery of education through decentralization of functions to the regions.</p> | <ul style="list-style-type: none"> - Low-performing schools administered and supervised through regional offices. - Schools completing school improvement plan. - Schools working with DSS responding to NEI recommendations in school improvement plan. - Quality Education Circles (QECs) established to support all schools in improving performance. |
| <p>Result 4. Improved standards and quality of the education system at all levels.</p> | <ul style="list-style-type: none"> - NEI's framework document developed that identifies role, function and management structure of the agency. - NEI core staff hired. - Chief inspector hired and Performance Agreement signed by him/her and Permanent Secretary (PS). - Schools participating in pilot test for school evaluation. - Guidelines for school self-evaluation developed. - Inspections at schools completed. - NEI Inspection handbook printed. - NEI inspectors for the evaluation of the education system trained. - National Literacy Strategy (NLS) approved by MOE. - National Mathematics Strategy (NMS) approved by MOE. - Underperforming schools in mathematics supported. |

| Results | Products |
|---|---|
| | <ul style="list-style-type: none"> - Database to monitor literacy performance containing benchmarks and targets completed. - All schools informed about their performance. - Schools with Grade 4 Literacy and Numeracy Tests implemented. - Review of transition methodology/GSAT assessment completed. - Proficiency Pathways for primary level students operational. - Method to identify children with special needs operational. - Alternative Program for Exceptional Students (APEX) developed. |
| Result 5. Raised level of professionalism and quality of teaching. | <ul style="list-style-type: none"> - JTC's framework document developed that identifies role, function, budget, and management structure. - Head of JTC hired and Performance Agreement signed by him/her and PS. - Standards for teaching profession developed. - Framework document for teachers' licensing completed. - Teacher licensing regime developed. - Mentors trained for Teacher Mentorship Program. - In-service teacher training program under way. - Revolving Loan Fund to support teachers in attaining graduate status created. |

Reform Area II. Curriculum, Teaching and Learning, and School Management

This reform area intended to improve the quality of education through the implementation of the National Literacy Strategy and the National Mathematics Strategy, enhance accountability of the system through the appraisal of principal, guidance counselors, and teachers, and improve the quality of teaching by supporting continuing education for teachers. Table 3 shows the results and products for this reform area.

Table 3
Curriculum, Teaching and Learning, and School Management: Results and Products

| Results | Products |
|--|---|
| Result 4. Improved standards and quality of education system at all levels. | Development of: <ul style="list-style-type: none"> - National standard curriculum (grades 1 to 9) framework document. - National Comprehensive Literacy Program. - National Literacy Strategy Grades 1-6. - Literacy standards for grades 1 – 6. - National Mathematics Program. - National Mathematics Policy Guidelines. - National school leaving certificate framework document. |
| Result 5. Raised level of professionalism and quality of teaching. | <ul style="list-style-type: none"> - Creation of Teachers' Revolving Loan Fund (RLF) to support teachers in attaining graduate status. - Teachers Unified System of Registration. - Entry-level qualifications to the teaching profession upgraded from a College Diploma to a BA degree. |

| Results | Products |
|---|--|
| | <ul style="list-style-type: none"> - Teacher Training Bachelor's Degree Program offered by the teacher training institutions and awarded in collaboration with the University of the West Indies. |
| Result 6. Enhanced accountability of the system. | <ul style="list-style-type: none"> - Instruments developed to appraise performance of principals, guidance counselors and teachers. - Schools using performance appraisal instruments to evaluate principals, guidance counselors. |

Reform Area III. Relationship with communities and stakeholders and behavior modification

Improved relationships with communities and other stakeholders in the education sector, particularly parents, is an important pillar of the education transformation process. These efforts aim at informing and engaging the community and stakeholders and also improving behavior of youth. Table 4 shows the results and products for this third reform area.

Table 4
Relationship with communities and stakeholders and behavior modification: Results and Products

| Results | Products |
|---|---|
| Result 7. Improved stakeholder and community involvement in education. | <ul style="list-style-type: none"> - Plan for a Community Consultation Program drafted. - Parent mentors trained by the National Parent Support Commission (NPSC) to reach out to parents in the community. - Regional meetings with stakeholders in literacy. - Regional stakeholder consultations in school safety. - Manual for school security and safety completed and distributed. - Ongoing marketing campaign including the distribution of newsletters to all staff and schools and regular TV and radio broadcasts. - School-Wide Program for Behavior Intervention and Support in Schools (SWPBIS) implemented. |

Investment Component

The second operation of the PBPs included an investment component to provide support to activities aligned with the programmatic approach, including: (i) construction and expansion of a limited number of schools; (ii) expansion of IT systems within MOE to improve use of data for policy and decision making; (iii) application of a literacy survey; and (iv) support for special education and curriculum and assessment. Table 5 shows the products for this investment component.

Table 5
Investment Component: Products

| Products |
|--|
| <ul style="list-style-type: none"> - Support the establishment of an EMIS for the Ministry of Education. - Students benefitted from the construction or expansion of schools. - Furniture and equipment installed and schools fully operational. - Alternative curriculum to enhance literacy and open access to all types of learners in an inclusive manner (ASEP/ASTEP) developed. - Revised tests developed and piloted (grade 2, 6 and 9). - Materials to support curriculum for literacy and numeracy developed and distributed. - Special education activities, including Pilot (Child Find) to identify children with special needs carried out in all education regions. - Curriculum development: pilot and revised curriculum guides for Grades 1-9. - Needs assessment of teacher training colleges carried out. - Literacy and numeracy specialists hired to implement program. |

In summary, the main products planned to be financed by the project were achieved and they, in turn, led to the achievement of the results as measured by the outcome indicators. Therefore, the original hypothesis of a time sequential logic between products and results was fulfilled. It should be noted that the current evaluability framework, which only became effective after the design of the third PBL, defines a product indicator as measuring goods or services that are under the control of the implementing agency and an outcome indicator as dimensions determined both by inputs under the control of the implementing agency (supply side) and by inputs outside the control of the implementing agency (demand side)⁵. Therefore, for future PBLs, it is recommended that the classification of products and outcomes follow the guidelines that require evaluating whether the indicator is under the control of the implementing agency.

Selection of the financing instrument and structure. A programmatic series of three policy-based loans was considered an adequate approach to support the Government of Jamaica in this long-term transformation process because: (i) a PBL structure and the accompanying financing arrangement is a flexible and effective mechanism to support complex and long-term reforms that require sequenced actions for implementation (see CS-3633-1); and (ii) this modality allows for learning from implementation experience and to make corresponding adjustments. Since the support to the education reform included complex institutional reforms that required long periods of time and intense negotiations and agreements, this approach provided the framework by which the Bank supported the country in meeting the performance targets defined by the TF to be achieved by 2015. In general terms, the first operation supported the development of the policy and conceptual framework that guided the Program. The second loan was a hybrid operation with a PBL component, aimed to support the first phase of implementation, and an investment component that supported the construction and extension of three schools, expanded the use of IT systems within the MOE, and later added elements to support numeracy and literacy, special

⁵ IDB, 2015 and Gertler et al., 2011.

education and curriculum and assessment. The third PBL operation continued supporting actions leading to the consolidation of the sector reform process and achieved a first set of results.

Institutional arrangements for implementation. For all the operations (2074/OC-JA, 2300/OC-JA, 2301/OC-JA and 3560/OC-JA) the borrower was the GOJ. For the PBL components, the MOE was the Executing Agency and Ministry of Finance and Planning (MOFP) acted as Program Coordinator, assisted by the Planning Institute of Jamaica (PIOJ). As the Executing Agency, the MOE was responsible for: (i) overseeing the actions that led to the compliance of the policy conditions; and (ii) facilitating MOFP's compilation of the means of verification needed for the sole disbursement as well as the information for the indicators of the results matrix. As the Program Coordinator, the MOFP was responsible for: (i) monitoring and coordinating activities to comply with program commitments; (ii) coordinating the submission to the IDB of the required reports to verify compliance with the policy matrix and the indicators of the results matrix to be used to evaluate the program; (iii) facilitating the financial arrangements; and (iv) serving as the liaison with the Bank in all official correspondence related to the operations.

Additionally, in the hybrid operation, the MOE was responsible for: (i) preparing an annual work plan for the investment component; (ii) ensuring the achievement of outcomes through the monitoring of indicators listed in the results framework; (iii) preparing and submitting disbursement requests to the Bank and the corresponding justification of expenses; (iv) preparing the annual financial Program expenses, and the semi-annual Revolving Fund Status Reports; (v) preparing semester project reports; and (vi) maintaining an adequate documentation filing system.

c. Results Achieved

The results of the program and accomplishment of the conditions set forth in the policy matrix are described in this section, detailing the reforms and actions undertaken and the degree of completion of the indicators defined in the results matrix.

It is important to note that throughout the PBL series, 37 adjustments were made to the results matrix, 13 of these were from the first to the second PBL and 19 were made from the second to the third PBL. In general, the first PBL defined clear indicators for that first operation, envisioned some indicators for the consecutive PBLs, and left others to be defined at the design and approval stage of each consecutive loan. Tables 8 to 10 reflect the changes and definition of indicators to the Results Matrix throughout the programmatic series. Since some indicators for the second and third loan were either preliminary or undefined during the design of the first and second operations, respectively, changes were mainly made to define indicators or rephrase result and/or product statements. For the investment component matrix, 5 changes were made, 2 of them were particularly important. The first one was a change made to the target of school construction and expansion. Since the program was designed, population shifts generated greater demand for secondary school places across Jamaica. Consequently, the MOE sought school extensions as a more cost-effective alternative and ended up building one new school and additional classrooms in two existing schools. The second change was to eliminate the implementation of the National Literacy Survey. The reason behind this change was that the estimated cost to perform this activity grew considerably once all the details were fully developed. Instead, the MOE decided to invest

funds in other critical literacy-related and complementary curriculum teaching and learning activities.

Also, during the design of the third PBL (JA-L1033), new guidelines for preparing the results framework were followed leading to a new configuration of the Results Matrix. Note that the Results Matrix for the third PBL also encompassed the previous two and comprehensively captured the project activities, with 19 outcome indicators and 65 product indicators (Table 6). Regarding the means of verification, they include the disbursement documents for the first and second PBL (that in turn included documentation provided by the MOE as means of verification) and, for the third PBL, documents supporting each of the products and letters from MOE authorities verifying the achievements. Note that the units of measure in the results matrix were incorrectly defined during the design; they have been adjusted in the Results Matrix presented in this document.

Table 6
Classification and number of results, outcome and product indicators by area

| Area | Result | Number of Outcome indicators | Number of Product indicators |
|--------------------------|---------------|------------------------------|------------------------------|
| PBL series | Reform area 1 | 1 | 4 |
| | | 2 | 2 |
| | | 3 | 1 |
| | | 4 | 3 |
| | | 5 | 3 |
| | Reform area 2 | 6 | 3 |
| | Reform area 3 | 7 | 3 |
| Investment component | | 0 | 10 |
| Total in four operations | | 19 | 65 |

For the series of PBLs, all product indicators associated to policy objectives achieved its targets. Almost all outcome indicators achieved its targets, with the exception of the targets for outcome on student learning and the percentage of teachers registered in a Unified System of Registration. In the case of student achievement, significant progress has been made and the country is well on its way to reaching the target. In the case of the teacher registration, only 5 percent of teachers have to yet present the documentation necessary for registration; the 100% target of teacher registration is expected to be reached in the near future. As for the investment loan, all products but one achieved their original targets. The only pending product is the revision and piloting of tests for grade 2, 6 and 9 that are expected to be completed shortly. Overall, the targets set forth for products and outcomes seem adequate to reflect the education sector reform. Tables 11 and 12 show the original targets, outcomes and products achieved from 2008 to 2015 for the PBLs and Investment Component respectively.

As mentioned above, the current Bank evaluability framework defines the indicators of products or outcomes based on whether they are completely under the control of the implementing agency or by inputs outside the control of the implementing agency. Note that 5 out of 19 outcome indicators were under the control of the executing agency and should have been classified as products, 2 of the 65 products should have been classified as outcomes, as well as one product from the investment loan (Table 7). The differentiation between results and product indicators as originally designed reflects a time-sequential logic in which outputs are first completed and then outcomes are achieved, rather than the classification under the current Bank's evaluability framework that classifies them according to their control of the implementing agency.

Table 7
Classification of outcomes and products under the current evaluability framework

| Products classified as outcomes | Outcomes classified as products |
|---|---|
| <ol style="list-style-type: none"> 1. Organizational structure developed for a Policy MOE. 2. Number of REAs created aligned with parish boundaries and autonomous providing quality support to schools and better inter-sectoral coordination. 3. NEI's appraisal reports used by the National College for Educational Leadership (NCEL) to target principals training in under performing schools 4. NEI's reports used by JTC to focus in in-service training. 5. National Parent Teacher Association (NPTA) created. | <ol style="list-style-type: none"> 1. Number of students benefitted. 2. Parent mentors trained by NPSC to reach out to parents in the community. 3. Students benefitted from the construction or expansion of schools (JA-L1069, investment loan). |

Result #1. Improved student learning.

Since Jamaica introduced the education reform, student learning outcomes have shown steady progress at all levels of education. Results from the grade 4 numeracy and literacy assessment show an increase in the percentage of students achieving mastery. While in 2004 only 38% of 4th grade students' mastered numeracy, in 2014 this share rose to 58% (Outcome 1). In literacy, the percentage of students mastering the content rose from 57% in 2004 to 77% in 2014 (Outcome 2). Results for 2015, published after the disbursement of the third PBL, show that 67% of grade 4 students mastered numeracy and 86% mastered literacy, surpassing in both cases the original target value (Ministry of Education, 2016). In that same period, the national mean scores for all subjects at the Grade Six Achievement Test (GSAT) increased significantly; nonetheless, the original targets were not met. In The share of students achieving proficiency levels rose from 44% to 63% in math and from 48% to 63% in language, short of the target of 85% (Outcome 3). The Caribbean Secondary Examination Certificate (CSEC) results show important improvements as well, even though the target was not reached. In 2006, the percentage of students attaining passing grades in five CSEC subjects, including language and math, was less than 12.5%. By 2014, it had increased to 38.6%, short of the 60% target (Outcome 4). These improvements can be attributed to the combination of reforms and actions

carried out in the different reform areas as the international evidence of other countries going through similar reforms have shown.

Result #2. Modernized central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting and agencies coordination.

The primary purpose of the transformation and modernization of the MOE was to improve the performance of the education system and establish greater accountability. ***Through the ESTP, the GOJ successfully transformed the organizational structure of the MOE into a Policy Ministry (Outcome 5) focused on policy formulation, quality assurance, monitoring and evaluation, standard setting and agency coordination (Outcome 6), and strengthened its operational capacity to support schools and monitor their accountability for improved results.*** The program's direct beneficiaries comprise nearly 630,000 students (Product 1, reclassified as outcome) currently served by Jamaica's education system as well as approximately 25,000 teachers. These accomplishments were mainly due to the institutional reforms and series of activities that took place in the last eight years, as reflected in the outcome and product indicators for this result presented below.

Blueprint for the Ministry of Education (MOE) and Department of School Services (DSS). A framework for the institutional reforms was created with the aim of improving management and governance of the sector. The framework consisted of organizational structures for the MOE and its main agencies (NEI, NET, JTC), and definition of their mission, mandates and the role to be assumed in the reformed system (Product 2). The MOE has successfully evolved towards policy formulation, monitoring and evaluation, standard setting and agencies coordination. At the same time, the DSS has been designed as an operational arm of the policy ministry to manage the delivery of primary and secondary education island wide in coordination with the regional offices (Outcome 9). The Human Resources (HR) division is being modernized, with three key positions filled (Performance Management Appraisal System (PMAS) director; director of HR, Organizational Development (OD) specialist) (Product 3). The competency framework defining the PMAS was completed and rollout is in progress. The MOE developed a business plan to outline the strategies through which it will achieve its goals and objectives for the years 2013 - 2016. The Business Plan presents an overview of the MOE, its key policy priorities, policies, programs and projects. At the same time, it outlines its objectives and outcomes. The Business Plan is complemented by the Operational Plan 2014 - 2015 that defined the tasks, targets, resources and costs for each of the MOE initiatives (Product 4). In addition, the MOE designed an Educational Management Information System (EMIS) and a Communication Management Plan to collect timely information from schools and regional offices and promote better informed decision making (Product 7).

Educational Agencies. With the first and second loans, the MOE advanced in the development of key operational guidelines and manuals for the different agencies (NET, NEI, JTC, National College of Educational Leadership (NCEL)). They all became operational since the second programmatic loan (Outcomes 7, 9, 10, 11, 14) and the NEI and JTC are working together as planned, monitoring school performance through inspections and using the recommendations to inform teacher training and school improvement plans, while NCEL strengthens school

leadership (Outcomes 15 and 16). The National Education Trust (NET) was created as a GOJ Company limited by guarantee and is the executing agency for the GOJ strategic objectives in enabling and maintaining investments in education. The NET has been operational for three years and as of March 2015, employs 12 staff members, including the PPP manager for raising endowments and school construction (Product 5 and 6). The Functional Profile and a detailed Job Description for all NET positions, a Framework Document and a three-year Business Plan were produced. The NET launched a marketing campaign that has helped raise important donations for school infrastructure through crowd funding. The NET has also provided supervision for construction activities in 19 schools, exceeding the established target of 10 schools (Outcome 7). Additionally, the Jamaica Tertiary Education Commission (J-TEC) was established. This agency implemented a front end analysis and needs assessment not only identified training needs but also critical gaps for an improved internal quality assurance mechanism in the Teachers' Colleges.

Rationalization plan. To improve the efficiency in the use of schools serving small numbers of students, in 2007, the MOE introduced a rationalization program. Approximately 184 schools were defined as small, based on the number of students enrolled, and were earmarked for closing and having its students and staff relocated to other schools. In 2009, the conducted school space audits for primary and secondary schools. The main objectives of the audits were to: (i) identify the school-going population across parishes and regions to facilitate the space rationalization process; (ii) assess the under-utilization of spaces in schools and propose ways to address it; and (iii) determine additional spaces required, including new buildings (Product 8). With this information, the MOE intensified a policy of de-shifting schools (moving from double shifts to single shifts) and increasing the number of school hours for students. Between 2007 and 2015, 30 schools were converted into single shift schools, surpassing the target of 25 schools de-shifted (Product 9).

Consultations on Jamaica Teaching Council (JTC) legislation completed; legislation drafted by the Chief Parliamentary Counsel (CPC) for submission to Parliament. The GOJ has made significant progress in moving forward with the amendments and new legislation needed to operationalize the reform of the Ministry and its main agencies. Consultations on a draft bill to make the JTC operational have been completed and the legislation has been submitted to Parliament by the CPC for (Products 10, 11 and 12).

Education Act Amendment. The MOE conducted an analysis of the existing educational legislation (Education Act dating back to 1965) to ascertain areas in need of amendment in light of the proposed reforms. The analysis showed the Education Act required an amendment to bring about greater decentralization, provide regional offices and schools with more autonomy, and create the new operational agencies. Throughout the course of the programmatic series of loans, all consultations were made, and drafting instructions of the amendments were submitted to the CPC. However, given the recent change in administration, they will be reviewed again and presented to the Minister of Education in July, then to the CPC with the intention of submitting it to both houses of Parliament by early 2017 (Products 10 and 13).

Result #3. Effective delivery of education through decentralization of functions to the regions.

The MOE is effectively delivering education through the Department of School Services (DSS) mandated to provide an effective and efficient school support system and management of educational services delivery at the regional level for improved school performance and accountability. The DSS was designed to provide an effective delivery of primary and secondary education across the country. To this end, the DSS has implemented several activities. For example, at the time of the final disbursement, the DSS was supervising the 204 lowest performing schools (Outcome 9). However, its establishment is pending the classification/valuation of the new jobs defined by the MOFP and the transitioning of staff into these “new” posts. School improvement plans were completed in 100% of these schools, and work had started with 132 schools to include the NEI's recommendations through the Operation Turnaround intervention that provides specific support to these schools in Math and Numeracy; English and Literacy, and Behavior Modification and Social Development (Product 16, 17 and 18). Finally, the DSS established 63 Quality Education Circles, representing clusters of schools, to support ongoing school improvement and collaboration across the education regions of the MOE (Product 19).

With respect to the REAs originally included in the Policy Matrix, in 2008 the MOE considered to transform the existing six Regional Education Offices (REOs) into seven Regional Offices aligned with parish boundaries to provide quality support to schools and better inter-sectoral coordination (Product 14). The blueprint document setting out the operation model was drafted (Product 15). After piloting the concept in two regions, the concept of REAs was abandoned as it was not assessed to be an effective way to organize support to schools. In addition, it created new issues with central coordination and an equitable distribution of resources. Instead, the DSS will serve as the operational arm of the MOE and, with support from the existing regional education offices, will coordinate the allocation of resources to ensure equity.

Result #4. Improved standards and quality of the education system at all levels.

The National Education Inspectorate (NEI) was created to improve the standards and quality of the education system at all levels (Outcome 10). The NEI's mandate is to evaluate the education system, make recommendations for improving the system's effectiveness in delivering education and disseminate its results. In February 2008, NEI's framework document was developed delineating its role, function, budget, and management structure (Product 20). As of May 2015, all key positions including Chief Inspector, Deputy Chief Inspector, Director of Research and three Senior Staff Inspectors were in place and operating (Product 21 and 22). The NEI produced a Handbook for School Inspection to guide inspectors and guidelines for school self-evaluation (Product 24 and 26). During the second operation, NEI field-tested the school self-evaluation materials in 10 schools (Product 23). It also carried out an evaluation of the school inspection process. Together, these efforts have led to the implementation of a rigorous school inspection system. From April 2009 to February 2015, the NEI trained 455 inspectors (Product 27) and completed 954 school self-evaluations at the primary and secondary levels, thus

developing a baseline of school performance for the first time in the country's history (Product 25). Also, the NEI provided policy recommendations and valuable information to support school improvement; all inspection reports have been publicly disclosed on the MOE's website. In addition, all schools are currently using these reports to inform the development of their School Improvement Plans, surpassing the original target of 60%.

Education Quality. For the first programmatic loan, the MOE put in place different strategies aimed at improving student performance. In particular, ***the MOE advanced in the design and subsequent implementation of measures intended to improve the quality of education through better teaching of numeracy and literacy⁶ at the primary level.*** To improve children's mastery of literacy, five important strategies were identified: (a) Integrating the Literacy Program into the National Curriculum using a model that develops competencies by intersecting literacy skills with different subject areas from grades 1 to 6; (b) Defining literacy standards and benchmarks to provide a coherent outline of skills students should demonstrate at varied grade levels; (c) Implementing different approaches to teaching literacy to respond to the way in which students learn at different ages; (d) Setting the Proficiency Pathway to guide instruction ; and (e) Using National Assessments to identify, monitor and provide feedback about children's readiness.

The **National Literacy Program**, approved by the MOE in 2008, speaks to the national goal to raise the level of literacy of all school age children in Jamaica and the strategies employed for its achievement. The Program has resulted in the hiring of literacy specialists who reside in regional offices and support the work of literacy coaches who work to build capacity for the teaching of reading within the schools. Also, materials were developed by the National Literacy Team to raise public awareness about the value of early literacy (Product 28). Similarly, to increase the mastery in numeracy, the MOE developed the **National Mathematics Program** that implements a number of strategies targeted at improving teacher and teaching quality, as well as the culture surrounding mathematics education in Jamaica (Product 29). Some of these strategies consist of adjusting standards for the accreditation of primary teacher education programs and secondary mathematics teacher education programs, providing targeted support to teachers in 244 underperforming schools, training secondary principals and mathematics heads of departments in the leadership of the mathematics curriculum, and increasing the awareness of the importance of mathematics (Product 30). To better track performance by students and schools and to provide the data required to monitor these, the MOE created a database that contains benchmarks and national targets for literacy and numeracy (Product 31). In 2010, Grade 4 Literacy and Numeracy Tests were implemented in 793 schools, and all schools were informed about their performance, allowing for regional and national comparisons (Product 32 and 33). These actions have contributed to the upward trend in student learning outcomes: the Grade 4 Literacy test results indicate that the percentage of students achieving mastery increased from 67% in 2010 to 77% in 2014. Similarly, the percentage of Grade 4 students achieving mastery in Numeracy rose from 41% in 2010 to 58% in 2014.

⁶ Some of these initiatives, such as provision of new and updated curricula and assessments at both the primary and secondary level were, in part, initiated with previous education projects (e.g., Loan 1264/OC-JA).

To give coherence to the system and to allow for continuous updating and improvement, the investment component financed the development of a **National Curriculum Framework**. This document defines the values, principles, competencies and subjects for Grades 1 to 9. The curriculum standards for each subject identify all the attainment targets, contribution to the competencies and the range of activities in which students should participate in each grade. Also, the **National Assessment Program** is progressing steadily towards the alignment with the National Standard Curriculum. To date, the Conceptual Assessment Framework for Grades 2 and 9 tests has been completed, and 60% of the work for the Grade 6 test has been advanced. In the following three years, the MOE will focus on advancing on the assessments design (i.e. revising item specifications, updating curriculum analysis and content specifications, writing and piloting items, building internal capacity for test development and developing a research and evaluation agenda, among others) for grades 2, 6 and 9. The timeframe for completing the design for these three assessments is 2017. Furthermore, the GSAT was revised as some issues related to its difficulty and scoring methodology were reported over the years. A Steering Committee analyzed the issues and formulated recommendations for improving the test (Product 34). A new Primary Exit Profile (PEP) will be introduced in May 2019. The National School Leaving Certificate (NSCL) to be awarded at the end of Grade 11 was also developed. It identifies three levels: NSLC Pass, Certificate with Merit and Certificate with Distinction. For each of these levels, the descriptors for personal and key skills and competencies that students should be able to demonstrate are clearly defined.

A support structure was put in place for low performing students. The MOE established the Proficiency Pathway guidelines to aid school leadership in implementing and maintaining structured instructional and intervention programs based on different student performance levels. Also, it defined the roles and responsibilities of key individuals involved in these intervention programs, including the school leadership team, school-based assessment coordinators, curriculum implementation teams, teaching staff and parents. For the Pathway's implementation and continuous monitoring, the MOE uses different tests throughout the primary level (Grade 1 Individual Learning Profile, Grade 2 Diagnostic, Grade 4 Literacy and Numeracy Tests) to identify performance levels and identify students to receive specific interventions (Product 35).

To help identify children who may have undetected and undiagnosed special needs, a **Child Find Regional Canvass** was performed. The exercise revealed that out of the 7,628 children from 302 schools assessed across Grades 1 to 6, 34% (2,593) were evaluated to be at "Borderline level" (slow learner) and 60% (4,576) were evaluated at "Extremely low intellectual level" (mild to moderate intellectual disability). Given the results, a series of follow-up meetings with parents and schools have been carried out to provide specialized assistance (Product 36). With respect to academically gifted students, the MOE developed a conceptual framework for an **Alternative Program for Exceptional Students (APEX)**. It focuses on the provision of three program options to allow suitable instructional arrangements to accommodate a wide range of interests and abilities. Also, the MOE has been working on developing Alternative Pathways to Secondary Education, where approximately 8,000 students will be given the opportunity to continue enriching and accelerating their abilities (Product 37). These learning pathways will allow for an inclusive

approach in which instruction is based on tailored curricula, enabling each learner to perform to his/her fullest potential based on aptitude, interest and ability.

Result #5. Raised level of professionalism and quality of teaching.

The Jamaica Teaching Council (JTC) was created to raise the level of professionalism and quality of teaching by defining standards, creating registration and licensing procedures for teachers, and providing strategic directions for in-service training (Outcome 11). In February 2008, the JTC framework document defining the role of the JTC including its mission and strategic objectives, functions, management, planning, budgeting and reporting, operational management, staffing and organizational diagram was prepared (Product 38); and by September 2008, the Head of the agency was appointed (Product 39). The JTC has done significant work in developing in-service teacher training opportunities and standards for teaching. The JTC is operational and has achieved the following: (i) developed standards for the teaching profession (Product 40); (ii) developed a framework document for teacher licensing (Product 41); (iii) registered 28,809 teachers (around 95%) in the system on its electronic portal (Outcome 13); (iv) developed a teacher licensing regime that will license teachers once the JTC bill is approved (Product 42); (v) implemented a “Beginning Teacher” mentorship program which attaches a beginning teacher with a trained mentor; 900 mentors were trained for this program (Product 43); (vi) provided support for professional development of teachers through the Quality Education Circles (QECs), meeting the target of 95% of teachers trained; and (vi) administered 28,000 in-service teacher training to teachers (cumulative)(Product 44).

To improve teaching quality, the MOE has undertaken three main actions. First, it raised the entry qualifications into the teaching profession from a College Diploma to a BA degree. For this, the University of the West Indies (UWI) provided quality assurance and certified the Teacher Training Bachelor’s Degree Program. A US\$3.8 million Revolving Loan Fund was created to support teachers in attaining the degree (Product 45). As a result, the percentage of teachers with a BA degree in infant, primary and secondary public schools increased from 49% in 2010 to 62% in 2014, which surpassed the 60% target envisioned originally (Outcome 12). Second, it has supported programs to provide continuing education for teachers. Teachers whose performance needs strengthening are identified through the NEI Inspector’s Report. These teachers can be trained during the DSS’ Summer Training Program and/or throughout the school year on identified training days. Third, the MOE instituted annual awards to recognize outstanding teachers.

Result #6. Enhanced accountability.

The accountability of the system was enhanced through the development and testing of appraisal tools for principals, guidance counselors and teachers, while simultaneously providing more support for improved teaching in 75 schools. These appraisal tools have been useful to evaluate the effectiveness of school leadership and management as well as the level of transparency, democracy, and accountability at schools. Also, 595 Principals and Education Officers participated in NCEL’s Effective Principals Training Program, going beyond the target of 500 set at the beginning of the program. Additionally, NCEL supported the participation and certification of 40 candidates in the Aspiring Principals Training Program

developed and delivered in partnership between NCLE and UWI. In addition, NCEL developed a peer coaching program to improve the performance of school administrators and leadership of mathematics instruction by Principals. As a result of these initiatives, the NCEL was recognized in 2014 by the Canadian Development Office for its innovative programs (Products 46, 47 and 48, Outcome 15 reclassified as product and Outcome 14).

Result #7. Improved stakeholder and community involvement in education.

Building commitment among stakeholders, school community and parents has been essential for the transformation process. For the first programmatic loan, the MOE conducted an internal social marketing campaign to inform MOE's staff about the pending reform and foster ownership and engagement.

Parental involvement. To inform the general public about the planned initiatives, the MOE supported the creation of a National Parent Teacher Association (NPTA) and executed a program of community consultations in two regions of the country (Outcome 17, reclassified as product). Also, after more than three years of consultations with national and community stakeholders and with the support of the second programmatic loan, in January 2011 the MOE established the National Parenting Support Policy (NPSP), detailing the institutional framework, principles, goals, target groups, implementation mechanisms as well as posited the review and action to amend different norms and legislation to its implementation (Outcome 18). In November 13, 2012, the National Parent Support Commission (NPSC) was enacted by the Senate and House of Representatives of Jamaica (Outcome 19). Several programs and activities were put in place by the NPSC to foster parental involvement at home, at school and in the community. They include training parent mentors who then organize "walk throughs" in difficult neighborhoods to target parents who do not typically attend PTAs, running and/or monitoring Parent Places across the country, and counseling for some parents per request (Product 50). Key performance indicators measure and monitor the Commission's achievement of goals and programs; interviews and speaking engagements on radio and TV share parenting issues and build partnerships with the private sector and alliances with local and international organizations to further activities and programs. As well as the involvement of parents, the MOE placed a high premium on community involvement and consultation. To this end, a Plan for Community Consultation Program was developed to organize and conduct regular meetings in the various regions (Product 49).

Outreach to stakeholders. The outreach and involvement of stakeholders remain an important ongoing element of the reform. The MOE through the ESTP developed a Communication Plan to keep stakeholders informed and help promote and socialize the initiatives pursued by the Ministry with the general public, including the National Literacy Strategy (Product 51). The communication strategy involved TV infomercials as well as radio and TV programs highlighting the features of the transformation program, a webpage development, meetings and events with teachers, principals, parents and the general public, issuance of different publications, booklets, and media placements on the overall ESTP and activities of the JTC, the NEI and other agencies working under the program. Two main publications were widely circulated within the MOE and the schools: "Transformation News" issued twice a year and "The Educator" produced and distributed to staff

on a monthly basis. Radio and TV programs ran for the better part of 2014 to educate the general public.

Ownership of the transformation process. To secure ownership and acceptance within the MOE, a Program of Consultations and meetings with staff were carried out throughout the country. Several rounds of staff meetings in all six regions were held to inform and update staff on the progress related to the modernization and transformation of the MOE. Each round consisted of meetings of staff from the MOE's and the new agencies - the JTC, NEI, NCEL, NET, J-TEC, and NPSC. The MOE also identified "Change Champions", staff within each unit in the Ministry who were trained to share information related to the proposed reform initiatives with their peers (Product 54).

Behavior management. Another goal of this reform area was to improve youth behavior through enhanced relationships with communities and other stakeholders in the education sector, especially parents. In 2008, during the first and second operation and after four internal and external consultations, the manual "Security and Safety (S&S) Policy Guidelines - Promoting a culture of security and safety in schools" was developed by the Special Committee on S&S in schools. Around 2,000 copies were distributed in primary and junior high schools (Product 52 and 53). In the third PBL, the MOE developed the School-Wide Program for Behavior Intervention and Support (SWPBIS) which consists of a compilation of practices, interventions and systems that have been proven to be effective in addressing behavioral issues in students. Its implementation requires long-term investment and will take three to four years to fully reach all schools (Product 55).

Products for the Investment Component of the Second Operation

The Program addressed the space shortage and need of quality school places through the construction and expansion of public institutions. Works were completed on three schools, including the construction of Cedar Grove Academy in St. Catherine and the addition of classroom blocks at BB Coke and Balaclava High Schools in St. Elizabeth, benefitting 1969 students (Product 57, reclassified as outcome). These additional classroom blocks have allowed the schools to eliminate the double shift, providing a longer school day to those students. All new spaces were furnished and equipped and are fully operational (Product 58). The MOE adopted some energy-efficient features in the school construction, such as water harvesting from the roof for non-potable water needs (e.g. toilets) and installation of faucets with an automatic shut-off feature to reduce water consumption.

The MOE improved the analysis of data for policy and decision making. The investment component built on the design of an Educational Management Information System (EMIS) (a policy condition of the PBL component) and provided the MOE with additional software and hardware, including Orange HR software to improve the efficiency of Human Resource administration and Xythos software to improve document management. A Wide Area Network was set up to link the MOE's three main offices to all the regional offices (Product 56).

The investment component (complemented by Technical Cooperation funds (JA-T1028 -ATN/OC-12450-JA) also supported curriculum development activities. ***The operation achieved a comprehensive curriculum framework to guide all compulsory subject areas at the primary and secondary levels (Grades 1-9), with standards, attainment targets and teachers' guides (Product 63).*** The draft National School Leaving Certificate and Grade 2, 6 and 9 test blueprints were developed, as well as a plan for piloting the assessments. The revision of the GSAT led to the development of the Primary Exit Profile, which is a new primary exit assessment expected to roll out and replace GSAT in 2017/2018 (Product 60). Other activities to support curriculum teaching and learning and improve education quality, in lieu of the literacy survey, included: (i) the procurement of Literacy 1-2-3 Grade one books, (ii) materials to support the National Comprehensive Numeracy program (Product 61), and (iii) salaries and training for literacy and numeracy coaches and specialists (Product 65).

A number of initiatives were adopted to offer alternatives to students with different learning needs, such as: (i) Child Find to identify students with special needs, with over 7,000 assessed from across the country (Product 62); (ii) development of curriculum for the ASTEP and alternative pathways program at the secondary level (Product 59); and (iii) a needs assessment and front-end analysis of teacher training institutions to identify needs and means for improving teaching quality (Product 64). Note that the Results Matrix in Convergence mistakenly added values entered in 2012 to reflect the partial completion of the indicators of Products 60, 61 and 63.

Table 8
Changes to the Results' Matrix (JA-L1002 vs JA-L1024)

| Section of the Results Matrix where change took place | Name of the change: JA-L1002 ⁷ | Name of the change: JA-L1024 | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|--|--|--|---|--|----------------|---|
| Result #1: Improved student learning | | | | | | |
| Outcome | Increase from 69% to 82% of students achieving mastery in Grade 4 literacy test. | (i) Increase from 63.5% in 2007 to 70.1% in 2009 of students achieving mastery in grade 4 literacy test; and (ii) achievement of girls in 4th grade literacy test increases from 63.5% in 2007 to 67% in 2009 compared to boys whose increase is to 43% in 2009. | Changes to data associated to an indicator (baseline value, target) | Progress in literacy mastery in Grade 4 was behind the after 2 nd PBL target (82%), but since scores showed steady increase, achievement of 70.1% was accepted. | Feb-24-2010 | Feb-24-2010 |
| Result #2: Modernized Central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting and agencies coordination | | | | | | |
| Product | Organizational structure in place and in operation. | National Education Trust (NET) created; (ii) legislation pertaining to school improvement Act; (iii) creation of the National Education Inspectorate (NEI); (iv) Jamaica Teaching Council (JTC) drafted. | Changes made to the product statement | Indicators for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |

⁷ Outcomes/products envisioned for 2nd PBL during design of 1st PBL.

| Section of the Results Matrix where change took place | Name of the change: JA-L1002 ⁷ | Name of the change: JA-L1024 | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|--|--|---|---------------------------------------|--|----------------|---|
| Result #3: Effective delivery of education through decentralization of functions to the regions | | | | | | |
| Outcome/Product | Two REAs operational in accordance with Framework Document with indicators and targets accomplished for each of the REAs in accordance to the commitments expressed in the respective Chief Executive Officers' (CEO) Performance Agreement (PA). Indicators: (i) Human Resources (HR) and financial management systems in place; (ii) financial plans being executed according to the submitted REAs budgets; and (iii) HR capacities developed with focus on technical and pedagogical services. | Advances made in the transformation of REOs into Regional Educational Entities (REAs). Indicators: (i) Schedule of activities towards the establishment of two pilot REAs completed; (ii) MOE working group to implement REAs created; and (iii) Human Resources (HR) Policy to define transition from MOE to REAs completed. | Changes made to the outcome statement | Outcomes/products for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |

| Section of the Results Matrix where change took place | Name of the change: JA-L1002 ⁷ | Name of the change: JA-L1024 | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|--|--|---|---|---|----------------|---|
| Result #4: Improved standards and quality of the education system at all levels | | | | | | |
| Product | (i) Inspection Framework Document in place; (ii) draft Act to establish NEI; (iii) contracted staff as Inspectors in post and initially trained according to the PA; and (iv) first school term inspection visits completed. | (i) Remained the same; (ii) was eliminated and substituted by pilot test for pre-inspection school self-evaluation developed and tested in 10 schools; (iii) 20 contract inspectors engaged and trained; and (iv) first school term inspection visits completed in 10 schools. | Changes made to the product statement | Indicators for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |
| Outcome/Product | Targets in curriculum and assessments as established in the Corporate Plan were not determined. Indicators: TBD | Building blocks for an articulated framework for curriculum and assessment completed as outlined in MOE's Corporate Plan. Indicators: (i) Internal audit report of primary curriculum review in five subject areas completed; (ii) grade 7-11 math and English curricula aligned/ articulated; (iii) integrated science and social studies curricula for grades 7-11 developed. | Changes made to the product statement / adding new indicators | Indicators for the second and third PBL were preliminary during first PBL and were further defined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |
| Product | (i) Action Plan approved by MOE to target underperforming schools; (ii) Regional Secondary Coordinators in post. | (i) Pre-CXC (grade 9) diagnostic test completed in 28 secondary schools; and (ii) report on results of review of the transition methodology between primary and secondary school. | Product eliminated and substituted by new product | Indicators for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. The new products better reflect the intervention. | Feb-24-2010 | Feb-24-2010 |

| Section of the Results Matrix where change took place | Name of the change: JA-L1002 ⁷ | Name of the change: JA-L1024 | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|--|--|---|---|----------------|---|
| Result #5: Raised level of professionalism and quality of teaching | | | | | | |
| Product | (i) Start implementing teacher registration; (ii) licensing scheme designed; (iii) marketing strategy and public education program underway; and (iv) teacher demand and supply study completed with recommendations on teacher supply and deployment. | (i) Remained the same; (ii) framework documents for licensing scheme designed and Code of Ethics and Standards Requirements drafted; (iii) was eliminated and substituted by TSC and all its functions transferred to JTC; and (iv) remained the same. | Changes made to the product statement | Indicators for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |
| Outcome | An increase from 20% to 40% of teachers having a B.Ed degree. | An increase from 29.6% in 2006/2007 to 34.2 % in 2008/2009 of teachers having a B.Ed degree. | Changes to data associated to an indicator (baseline value, target) | Outcomes for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |
| Result #7: Improved stakeholder and community involvement in education | | | | | | |
| Product | Indicators: TBD | Indicators: (i) Communication plan completed; (ii) three issues of the newsletter EDUCATOR electronically distributed. | Changes made to the product statement | Indicators for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |
| Product | Stakeholder meetings held in four regions. | Stakeholder meetings held in six regions to inform about literacy initiative. | Changes made to product statement | Indicators for the second and third PBL were preliminary during first PBL and were further redefined during design of second PBL. | Feb-24-2010 | Feb-24-2010 |

| Section of the Results Matrix where change took place | Name of the change: JA-L1002 ⁷ | Name of the change: JA-L1024 | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|---|---|-----------------------|--|----------------|---|
| Objective | - | Behavior Management Strategy | New objective added. | This objective was added during the design of 2nd PBL. Statistics from several agencies and ministries, including Education, Health, and National Security ignited the call for a response to the increased acts of inappropriate/antisocial behaviors among students within the Jamaican school system. | Feb-24-2010 | Feb-24-2010 |
| Outcome | - | Decrease the incidence of violent and disruptive behavior in schools. | New outcome added. | Outcome was added during design of 2 nd PBL. | Feb-24-2010 | Feb-24-2010 |
| Product | - | (i) Manual for school security and safety completed, distributed and being implemented in all secondary schools; (ii) MOE developed strategies for alternative methods of discipline including: Strategy on alternate behavior management; the citizenship education program; and a value-based curriculum guide. | New indicators added. | Indicators were added during design of 2 nd PBL. | Feb-24-2010 | Feb-24-2010 |

Table 9
Changes to the Results' Matrix (JA-L1024 vs JA-L1033)

| Section of the Results Matrix where change took place | Name of the change: JA-L1024 | Name of the change: JA-L1033 ⁸ | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|--|---|---|-----------------------------|--|----------------|---|
| Result #1: Improved student learning | | | | | | |
| Outcome | Progress implementing the LSS and attaining midterm targets consistent with the strategy. | Average percentage score at GSAT for math and language; % of cohort attaining Grades I-III in 5 CSEC subjects including Math and English | Change to outcome statement | Indicators further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Result #2: Modernized central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting and agencies coordination | | | | | | |
| Outcome | Indicators: TBD | Indicators: MOE operating with new roles: policy formulation, monitoring and evaluation, standard setting and agencies coordination. | Indicator added | Indicators for the third PBL were not set during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Product | Indicators: TBD | Indicators: Functions of the DSS and central MOE defined; Key HR positions filled; Business Plan for 2013-2015 and operational plan for 2014-2015 completed; Job descriptions for NET completed; PPP manager for school construction recruited at NET; EMIS designed and connecting MOE with regional offices; Number of schools de-shifted; Drafting | Indicators added | Indicators for the third PBL were not set during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |

⁸ Previous PBLs followed the sequence of Policy Matrix which combined outcomes with products, whereas the Results Matrix for JA-L1033 separated outcomes from products.

| Section of the Results Matrix where change took place | Name of the change: JA-L1024 | Name of the change: JA-L1033 ⁸ | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|--|---|--|--|--|----------------|---|
| | | instructions for amendment of Education Act sent to CPC | | | | |
| Outcome | Indicators: (i) Attaining targets agreed upon in the PA/CEO; (ii) Increase attendance, from 79% to a standard of 85% attendance of students; and (iii) Establishment of a maintenance fund for school infrastructure. | Indicators: DSS operational | Indicators eliminated and adding a new one | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Result #3: Effective delivery of education through decentralization of functions to the regions | | | | | | |
| Product | - | Indicators: Number of schools administered and supervised by DSS through the regional offices; Percentage of schools completing school improvement plan; Number of low-performing schools working with DSS responding to NEI recommendations in school improvement plan; Number of quality education circles established to support all schools in improving performance | Indicators added | Indicators for the third PBL were not set during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Result #4: Improved standards and quality of the education system at all levels | | | | | | |
| Product | - | Students benefited by education project | Indicator added | This indicator is the Corporate Sectoral Indicator (CSI) for the Corporate Results Framework (CRF). | Oct-13-2015 | Oct-13-2015 |

| Section of the Results Matrix where change took place | Name of the change: JA-L1024 | Name of the change: JA-L1033 ⁸ | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|---|--|---------------------------------|--|----------------|---|
| Outcome | Indicators: (i) The NEI converted into a performance based statutory body, accountable to Minister | Indicators: National Education Inspectorate (NEI) operational | Change to the outcome statement | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Product | (ii) School inspection reports available to the public. | Number of schools with inspection completed | Change to the product statement | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Product | - | Indicators: NEI core staff hired; Guidelines for school self-evaluation created; NEI Inspection handbook printed; NEI inspectors for the evaluation of the education system trained | Indicators added | Indicators for the third PBL were not set during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Outcome | Targets in curriculum and assessments as established in the Corporate Plan achieved. Curriculum and assessment framework articulated. Indicators: TBD | - | Indicators eliminated | Indicator rephrased and merged in products #14 and 15 for result 4. | Oct-13-2015 | Oct-13-2015 |
| Product | - | Proficiency Pathways for primary level students operational; Method to identify children with special needs operational; Alternative Program for Exceptional Students (APEX) developed | Indicators added | Indicators further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Result #5: Raised level of professionalism and quality of teaching | | | | | | |

| Section of the Results Matrix where change took place | Name of the change: JA-L1024 | Name of the change: JA-L1033 ⁸ | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|---|--|------------------|--|----------------|---|
| Outcome | Indicators: (i) Code of regulations (standards) for teaching profession; (ii) licensing scheme and % of teachers registered according to PA; and (iii) plan to manage the distribution of teachers implemented. | Indicators: Jamaica Teaching Council (JTC) operational; % of teachers registered in an Unified System of Registration; NEI's appraisal reports used by JTC to focus in-service training | Indicators added | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Product | - | Indicators: Consultations on establishment of JTC legislation completed; Legislation on establishment of JTC drafted by CPC for submission to Parliament; Standards for teaching profession developed; Teacher licensing regime developed; Number of mentors trained for the Teacher Mentorship Program; In-service teacher training program under way | Indicators added | Indicators further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Result #6: Enhanced accountability of the system | | | | | | |
| Outcome | - | National College of Educational Leadership (NCEL) operational; NEI's appraisal reports used by NCEL to target principals training in under performing schools | Indicators added | Indicators further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |

| Section of the Results Matrix where change took place | Name of the change: JA-L1024 | Name of the change: JA-L1033 ⁸ | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|--|---|---------------------------------|--|----------------|---|
| Product | New instruments applied to 100% of Principals, Guidance Counselors and Teachers. | Performance appraisal instruments in use for Principals and Guidance Counselors | Change to the product statement | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Result #7: Improved stakeholder and community involvement in education | | | | | | |
| Product | Indicators: TBD | Marketing campaign ongoing including the distribution of Newsletters to all staff and schools and regular TV and radio broadcasts | Indicator added | Indicators for the third PBL were not set during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Outcome | National Parenting Policy in place. Indicators to be defined. | National Parenting Policy legislation approved; National Parenting Support Commission operational | Indicators added | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Product | - | Parent mentors trained by NPSC to reach out to parents in the community | Indicators added | Indicators further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |
| Product | Money for school security and safety used in about 40% of primary schools; Preliminary results showing decline in disruptive and violent behavior in schools. Detailed indicators TBD. | School Wide Program for Behavior Intervention and Support in Schools (SWPBIS) implemented | Indicators added | Indicators for the third PBL were preliminary during first and second PBL and were further defined during design of third PBL. | Oct-13-2015 | Oct-13-2015 |

Table 10
Changes to the Results' Matrix for the Investment Component

| Section of the Results Matrix where change took place | Name of the change | | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|---|--|-----------------------------------|--|----------------|---|
| | Original | Final | | | | |
| Product | New data mining software packages installed and used by 80 MOE officials/departments. | Support for establishment of an EMIS for MOE | Changes made to product statement | Product redefined to better reflect the reality | Jan-30-2013 | July-03-2013 |
| Product | Construction of 2 secondary schools | Construction of one new school and classroom buildings in two existing schools | Changes to target | Since the Program was designed, population shifts have created greater demand for secondary school places across the country. As such, the MOE has sought classroom building as a more cost-effective alternative. | Jan-30-2013 | July-03-2013 |
| Product | National literacy survey completed and results available | - | Product eliminated | The estimated cost to implement the national survey grew considerably once all the details were fully understood. Indicator eliminated as MOE decided to invest the funds in other more critical literacy-related and complimentary curriculum teaching and learning activities. | Oct-2010 | Oct-2010 |
| Product | - | Alternative curriculum to enhance literacy (ASEP/ASTEP) developed | Product added | New product aimed to support literacy performance | Oct-2010 | Oct-2010 |
| Product | - | (i) Revised tests developed and piloted (grades 2, 6 and 9); (ii) Materials to support curriculum for literacy and numeracy developed and distributed; (iii) Special education activities, including pilot to identify children with | Indicators added | New indicators to support complimentary curriculum teaching and learning activities | Oct-2010 | Oct-2010 |

| Section of the Results Matrix where change took place | Name of the change | | Type of change | Reasons for change | Date of change | Date of change agreed with Executing Agency |
|---|--------------------|--|----------------|--------------------|----------------|---|
| | Original | Final | | | | |
| | | special needs carried out in education regions; (iv) Curriculum development – pilot and revised curriculum guides for Grades 1-9; (v) Needs assessment of teacher training colleges carried out; and (vi) Literacy and numeracy specialists hired to implement program | | | | |

Table 11
Results Achieved Matrix

| Results and Outcome Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|---|---|----------------------------|---------------|--|--------------------------------|----------------------------|-------------------------------|
| Result #1: Improved student learning | | | | | | | |
| <u>Outcome 1</u> % of students with proficiency in grade 4 math | Grade 4 students with proficiency in math / Total number of Grade 4 students | 38% | 2004 | Report on Test results, MOE, 2015 | Original Target value | 60% | 2014 |
| | | | | | Actual amount achieved | 58% | |
| <u>Outcome 2</u> % of students with proficiency in grade 4 language | Grade 4 students with proficiency in language / Total number of Grade 4 students | 57% | 2004 | Report on Test results, MOE, 2015 | Original Target value | 85% | 2014 |
| | | | | | Actual amount achieved | 77% | |
| <u>Outcome 3</u> Average percentage score at GSAT for math and language | Mean percentage GSAT scores for each individual school for math and language. | Math: 44% Language: 48% | 2004 | Report on Test results, MOE, 2015 | Original Target value | 85% | 2014 |
| | | | | | Actual amount achieved | Math: 63% Language: 63% | |
| <u>Outcome 4</u> % of cohort attaining Grades I-III in 5 CSEC subjects including Math and English | Grade 11 students attaining Grades I-III in 5 CSEC subjects / Total number of Grade 11 students | 12.5% | 2006 | Report on Test results, MOE, 2015 | Original Target value | 60% | 2014 |
| | | | | | Actual amount achieved | 38.6% | |
| Result #2: Modernized central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting and agencies coordination | | | | | | | |
| <u>Outcome 5</u> Organizational structure of a policy MOE developed | Document | 0 | 2008 | Loan disbursement document (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Outcome 6</u> MOE operating with new roles: policy formulation, monitoring and evaluation, standard setting and agencies coordination | Document | 0 | 2008 | Functional profile document and operational manuals, MOE, 2013 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |

| Results and Outcome Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|---|----------------|---------------|---|--------------------------------|------|-------------------------------|
| <u>Outcome 7</u> National Education Trust (NET) operational | Document | 0 | 2008 | Loan disbursement document (JA-L1024), IDB, 2010 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |
| Result #3: Effective delivery of education through decentralization of functions to the regions | | | | | | | |
| <u>Outcome 8</u> Number of REAS created aligned with parish boundaries and autonomous providing quality support to schools and better inter-sectoral coordination | REAS | 0 | 2008 | Loan disbursement documents (JA-L1002 and JA-L1024), IDB, 2008 and 2010 | Original Target value | 5 | 2010 |
| | | | | | Actual amount achieved | 7 | |
| <u>Outcome 9</u> DSS operational | Document | 0 | 2008 | Letter from PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| Result #4: Improved standards and quality of the education system at all levels | | | | | | | |
| <u>Outcome 10</u> National Education Inspectorate (NEI) operational | Document | 0 | 2008 | Letter from PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| Result #5: Raised level of professionalism and quality of teaching | | | | | | | |
| <u>Outcome 11</u> Jamaica Teaching Council (JTC) operational | Document | 0 | 2008 | Letter from PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Outcome 12</u> % of teachers with BA | Number of teachers with BA / Total number of teachers | 30% | 2006 | Loan disbursement document (JA-L1002 and JA-L1024), IDB, 2008 and 2010, and Letter from the PS, MOE, 2015 | Original Target value | 60% | 2015 |
| | | | | | Actual amount achieved | 62% | |
| <u>Outcome 13</u> % of teachers registered in a Unified System of Registration | Number of teachers registered in Unified System of Registration / | 0% | 2008 | Letter from PS, MOE, 2015 | Original Target value | 100% | 2015 |
| | | | | | Actual amount achieved | 95% | |

| Results and Outcome Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|---|--------------------------|----------------|---------------|---|--------------------------------|---|-------------------------------|
| | Total number of teachers | | | | | | |
| Result #6: Enhanced accountability of the system | | | | | | | |
| <u>Outcome 14</u> National College of Educational Leadership (NCEL) operational | Document | 0 | 2008 | Letter from PS noting Cabinet decision, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Outcome 15</u> NEI's appraisal reports used by NCEL to target principals training in under performing schools | Report | 0 | 2008 | Letter from the PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Outcome 16</u> NEI's appraisal reports used by JTC to focus in-service training | Report | 0 | 2008 | Letter from the PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| Result #7: Improved stakeholder and community involvement in education | | | | | | | |
| <u>Outcome 17</u> National Parent Teacher Association (NPTA) created | Document | 0 | 2008 | Loan disbursement document (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Outcome 18</u> National Parenting Policy legislation approved | Legislation document | 0 | 2008 | Copy of Legislation, MOE, 2012 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Outcome 19</u> National Parenting Support Commission operational | Document | 0 | 2008 | Letter from the PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|----------------------------|----------------|---------------|---|--------------------------------|---|-------------------------------|
| Products for Result #2: Modernized central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting and agencies coordination | | | | | | | |
| <u>Product 1</u> Students benefited by education project ⁹ | Students | 0 | 2008 | Education Statistics Report, MOE, 2015 | Original Target value | 630,000 | 2015 |
| | | | | | Actual amount achieved | 630,000 316,000 (Male) 314,000 (Female) 132,000 (preprimary) 257,000 (primary) 240,000 (secondary) | |
| <u>Product 2</u> Functions of the DSS and central MOE defined | Manuals | 0 | 2008 | Functional profile document and operational manuals, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 3</u> Key HR positions filled | Number of positions filled | 0 | 2008 | Letter from the PS indicating key positions, MOE, 2015 | Original Target value | 3 | 2015 |
| | | | | | Actual amount achieved | 3 | |
| <u>Product 4</u> Business Plan for 2013-2015 and operational plan for 2014-2015 completed | Documents | 0 | 2008 | Document of business and operational plan, MOE, 2013 | Original Target value | 2 | 2015 |
| | | | | | Actual amount achieved | 2 | |
| <u>Product 5</u> Job descriptions for NET completed | Job description document | 0 | 2008 | NET's framework document, functional profile and business plan, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |

⁹ This indicator is the Corporate Sectoral Indicator (CSI) for the Corporate Results Framework (CRF).

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|-------------------|----------------|---------------|--|--------------------------------|----|-------------------------------|
| <u>Product 6</u> PPP manager for school construction recruited at NET | PPP manager | 0 | 2008 | NET's framework document, functional profile and business plan, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 7</u> EMIS designed and connecting MOE with regional offices | Document | 0 | 2008 | EMIS framework document, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 8</u> Space audit of school updated for de-shifting of secondary schools | Report | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 9</u> Number of schools de-shifted | Number of schools | 0 | 2008 | Summary document with rationalization plan including number of schools de-shifted, MOE, 2015 | Original Target value | 25 | 2015 |
| | | | | | Actual amount achieved | 30 | |
| <u>Product 10</u> Proposal for legislative changes, including the Education Act and the creation of agencies (NEI, JTC and NET) drafted | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 11</u> Consultations on establishment of JTC legislation completed | Document | 0 | 2008 | Consultation reports on JTC bill, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 12</u> Legislation on establishment of JTC drafted by CPC for submission to Parliament | Document | 0 | 2008 | Consultation report on JTC, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 13</u> | Document | 0 | 2008 | Letter from the PS indicating the drafting | Original Target value | 1 | 2015 |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|---|--|----------------|---------------|--|--------------------------------|------|-------------------------------|
| Drafting instructions for amendment of Education Act sent to CPC | | | | instructions for amendments of Education Act were sent to the CPC, MOE, 2015 | Actual amount achieved | 1 | |
| Products for Result #3: Effective delivery of education through decentralization of functions to the regions | | | | | | | |
| <u>Product 14</u> Ministerial decision to create REAS aligned with parish boundaries to provide quality support to schools | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 15</u> Blueprint for REA operations drafted | Document | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2008 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 16</u> Number of low-performing schools administered and supervised by DSS through regional offices | Number of schools | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010, and PS report, MOE, 2015 | Original Target value | 204 | 2015 |
| | | | | | Actual amount achieved | 204 | |
| <u>Product 17</u> Percentage of schools completing school improvement plan | Schools completing school improvement plan / Total number of schools | 0 | 2008 | School improvement plan summary report, MOE, 2015 | Original Target value | 100% | 2015 |
| | | | | | Actual amount achieved | 100% | |
| <u>Product 18</u> Number of schools working with DSS responding to NEI recommendations in school improvement plan. | Number of schools | 0 | 2008 | DSS Operation Turnaround report, MOE, 2015 | Original Target value | 132 | 2015 |
| | | | | | Actual amount achieved | 132 | |
| <u>Product 19</u> | Number of schools | 0 | 2008 | Letter from PS with copy of map showing | Original Target value | 63 | 2015 |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|-----------------------|----------------|---------------|---|--------------------------------|-----|-------------------------------|
| Number of quality education circles established to support all schools in improving performance | | | | location of QECs, MOE, 2015 | Actual amount achieved | 63 | |
| Products for Result #4: Improved standards and quality of the education system at all levels | | | | | | | |
| <u>Product 20</u> NEI's framework document containing role, function & management structure of the agency | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 21</u> NEI core staff hired | Number of staff hired | 0 | 2008 | PS letter and description of the 6 positions hired, MOE, 2015 | Original Target value | 6 | 2015 |
| | | | | | Actual amount achieved | 6 | |
| <u>Product 22</u> Chief Inspector hired and Performance Agreement signed by him/her and PS | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 23</u> Number of schools participating in the pilot test for school evaluation | Number of schools | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 10 | 2010 |
| | | | | | Actual amount achieved | 10 | |
| <u>Product 24</u> Guidelines for school self-evaluation created | Guidelines | 0 | 2008 | Guidelines for Self-Evaluation and PS Letter, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 25</u> Number of schools with inspection completed | Number of schools | 0 | 2008 | NEI Report, MOE, 2015 | Original Target value | 954 | 2015 |
| | | | | | Actual amount achieved | 954 | |
| <u>Product 26</u> NEI Inspection handbook printed | Handbook | 0 | 2008 | Inspection Handbook, MOE, 2012 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 27</u> | Number of inspectors | 0 | 2008 | Letter from the PS stating the number of | Original Target value | 455 | 2015 |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|---|--|----------------|---------------|---|--------------------------------|------|-------------------------------|
| NEI inspectors for the evaluation of the education system trained | | | | inspector s trained, MOE, 2015, | Actual amount achieved | 455 | |
| <u>Product 28</u> National Literacy Strategy (NLS) approved by MOE | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 29</u> National Mathematics Strategy (NMS) approved by MOE | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 30</u> Number of underperforming schools in mathematics supported | Number of schools | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 244 | 2008 |
| | | | | | Actual amount achieved | 244 | |
| <u>Product 31</u> Database to monitor literacy performance containing benchmarks and targets completed | Database | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 32</u> All schools informed about their performance | Schools informed about their performance / Total number of schools | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 100% | 2010 |
| | | | | | Actual amount achieved | 100% | |
| <u>Product 33</u> Number of schools with Grade 4 Literacy and Numeracy Tests implemented | Number of schools | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 793 | 2010 |
| | | | | | Actual amount achieved | 793 | |
| <u>Product 34</u> Review of transition methodology/assessment GSAT completed | Document | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|---|-----------------|----------------|---------------|---|--------------------------------|---|-------------------------------|
| <u>Product 35</u> Proficiency Pathways for primary level students operational | Handbook | 0 | 2008 | Handbook and charts of Proficiency Pathway program, MOE, 2013 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 36</u> Method to identify children with special needs operational | Report | 0 | 2008 | Child find report, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 37</u> Alternative Program for Exceptional Students (APEX) developed | Document | 0 | 2008 | Program's Concept Document, MOE, 2013 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| Products for Result #5: Raised level of professionalism and quality of teaching | | | | | | | |
| <u>Product 38</u> JTC's framework document containing role, function, budget, and management structure prepared. | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 39</u> Head of JTC hired and Performance Agreement signed by him/her and PS | Document | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 40</u> Standards for teaching profession developed | Booklet | 0 | 2008 | Booklet of standards, MOE, 2011 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 41</u> Framework document for teachers' licensing completed | Document | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|-------------------|----------------|---------------|--|--------------------------------|-----|-------------------------------|
| <u>Product 42</u> Teacher licensing regime developed | Manual | 0 | 2008 | Manual for teacher licensing regime, MOE, 2014 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 43</u> Number of mentors trained for the Teacher Mentorship Program | Number of mentors | 0 | 2008 | Mentoring program handbook, MOE, 2015 | Original Target value | 900 | 2015 |
| | | | | | Actual amount achieved | 900 | |
| <u>Product 44</u> In-service teacher training program under way | Report | 0 | 2008 | Report of in service teacher training program, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 45</u> Revolving Loan Fund to support teachers in attaining graduate status created | Report | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| Products for Result #6: Enhanced accountability of the system | | | | | | | |
| <u>Product 46</u> Instrument to appraise performance of principals, guidance counselors and teachers created | Instrument | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 47</u> Number of schools using performance appraisal instruments to evaluate principals, guidance counselors | Number of schools | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 75 | 2010 |
| | | | | | Actual amount achieved | 75 | |
| <u>Product 48</u> Performance appraisal instruments in use for Principals and Guidance Counselors | Document | 0 | 2008 | Performance appraisal documents, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|--------------------------|----------------|---------------|---|--------------------------------|----|-------------------------------|
| Products for Result #7: Improved stakeholder and community involvement in education | | | | | | | |
| <i>Product 49</i> Plan of a Community Consultation Program drafted | Plan | 0 | 2008 | Loan disbursement documents (JA-L1002), IDB, 2008 | Original Target value | 1 | 2008 |
| | | | | | Actual amount achieved | 1 | |
| <i>Product 50</i> Parent mentors trained by NPSC to reach out to parents in the community | Number of parent mentors | 0 | 2008 | Report on parents mentor program, MOE, 2015 | Original Target value | 70 | 2015 |
| | | | | | Actual amount achieved | 70 | |
| <i>Product 51</i> Number of regional meetings with stakeholders in Literacy | Number of meetings | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 6 | 2010 |
| | | | | | Actual amount achieved | 6 | |
| <i>Product 52</i> Number of regional stakeholder consultations in school safety | Number of consultations | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 4 | 2010 |
| | | | | | Actual amount achieved | 4 | |
| <i>Product 53</i> Manual for school security and safety completed and distributed | Manual | 0 | 2008 | Loan disbursement documents (JA-L1024), IDB, 2010 | Original Target value | 1 | 2010 |
| | | | | | Actual amount achieved | 1 | |
| <i>Product 54</i> Marketing campaign ongoing including the distribution of Newsletters to all staff and schools and regular TV and radio broadcasts | Marketing campaign | 0 | 2008 | Letter from the PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |
| <i>Product 55</i> School Wide Program for Behavior Intervention and Support in Schools (SWPBIS) implemented | Document | 0 | 2008 | Letter from the PS, MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Actual amount achieved | 1 | |

Table 12
Results Achieved Matrix for the Investment Component

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|----------------------------|----------------|---------------|-----------------------|--------------------------------|------------------|-------------------------------|
| <u>Product 56</u> Support for establishment of an EMIS for Ministry of Education | Technology system | 0 | 2008 | MOE, 2015 | Original Target value | 80 ¹⁰ | 2014 |
| | | | | | Revised Target Value | 1 | |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 57</u> Students benefited from the construction or expansion of schools | Students | | 2008 | MOE, 2015 | Original Target value | 2,100 | 2015 |
| | | | | | Revised target value | 1,929 | |
| | | | | | Actual amount achieved | 1,969 | |
| <u>Product 58</u> Furniture and equipment installed in new schools | Number of schools equipped | 0 | 2008 | MOE, 2015 | Original Target value | 2 | 2015 |
| | | | | | Revised target value | 3 | |
| | | | | | Actual amount achieved | 3 | |
| <u>Product 59</u> Alternative curriculum to enhance literacy (ASEP/ASTEP) developed (Years 1 and 2) | Curriculum | 0 | 2008 | MOE, 2015 | Original Target value | 1 | 2015 |
| | | | | | Revised target value | 2 | |
| | | | | | Actual amount achieved | 3 | |
| <u>Product 60</u> Revised tests developed and piloted (grades 2, 6 and 9) | Number of diagnostic tests | 0 | 2008 | MOE, 2015 | Original Target value | 2 | 2015 |
| | | | | | Revised target value | 3.5 | |

¹⁰ The indicator was changed; see Table 10 Product 1.

| Product Indicators | Unit of Measure | Baseline value | Baseline year | Means of verification | Targets and Actual Achievement | | Date when target was achieved |
|--|-----------------------------|----------------|---------------|-----------------------|--------------------------------|-------------------|-------------------------------|
| | | | | | Actual amount achieved | 3.5 ¹¹ | |
| <u>Product 61</u> Materials to support curriculum for literacy and numeracy developed and distributed. | Materials | 0 | 2008 | MOE, 2013 | Original Target value | 1 | 2013 |
| | | | | | Revised target value | 1.5 | |
| | | | | | Actual amount achieved | 1.5 ¹² | |
| <u>Product 62</u> Special education activities, including pilot to identify children with special needs carried out in education regions. | Number of regions | 0 | 2008 | MOE, 2014 | Original Target value | 0 | 2014 |
| | | | | | Revised target value | 6 | |
| | | | | | Actual amount achieved | 6 | |
| <u>Product 63</u> Curriculum development - pilot and revised curriculum guides for Grades 1-9. | Curriculum | 0 | 2008 | MOE, 2015 | Original Target value | 0 | 2014 |
| | | | | | Revised target value | 1 | |
| | | | | | Actual amount achieved | 1.5 ¹³ | |
| <u>Product 64</u> Needs assessment of teacher training colleges carried out. | Document | 0 | 2008 | MOE, 2015 | Original Target value | 0 | 2015 |
| | | | | | Revised target value | 1 | |
| | | | | | Actual amount achieved | 1 | |
| <u>Product 65</u> Literacy and numeracy specialists hired to implement program | Number of specialists hired | 0 | 2008 | MOE, 2015 | Original Target value | 0 | 2014 |
| | | | | | Revised target value | 8 | |
| | | | | | Actual amount achieved | 8 | |

¹¹ Final result in PMR is mistaken given that the value entered in 2012 was thought to reflect partial completion of grade 6 test. Later on, when revision was completed, instead of entering 0.5 to account for the half missing, completion was entered as 1. At the end of project, the system automatically added all the amounts throughout the years causing this error. The correct revised target value and actual amount achieved should be 3.

¹² Idem issue. The correct revised target value and actual amount achieved should be 1.

¹³ Idem issue. The correct revised target value and actual amount achieved should be 1.

d. An analysis of the Results Attribution

Given that this is a programmatic series of policy-based loans, an impact evaluation was not feasible. Even though the improvement in student learning outcomes cannot be empirically attributed to the program, it is expected to be associated to the reforms implemented through the series, as the evidence for countries that have implemented similar reforms has shown. Therefore, an analysis of results attribution will be provided using existing research and evaluations from other countries. The full list of the bibliography cited in this section can be found in this [Reference List](#).

Result #1 – Improved Student Learning.

The objectives of the series of policy-based loans were to improve the learning outcomes of Jamaica's students by supporting the modernization of the MOE, increase the effectiveness of the delivery of the education services, improve the standards and quality of education, raise the level of professionalism of the teaching profession, enhance the accountability of the system and improve stakeholder and community involvement in education. In this sense, the results matrix was organized to reflect improved student learning as the first and ultimate outcome, encompassing all other outcomes. The following presents an analysis of results attribution based on an international and regional review of the literature that shows the relationship between the products, the individual results and ultimately the improvement of student learning. It should be noted that the reform undertaken by Jamaica was very comprehensive and many of the outcomes are intertwined. Therefore, the analysis of results attribution presented below has many cross-references and complementarities.

During the reform time period, other education and social initiatives funded by the IDB and other donors also aimed at improving student learning. For example, the Primary Education Support Project (PESP) and the Youth Development Programme, both funded by the IDB, sought to improve student learning through: (i) the expansion of spaces to provide an adequate learning environment; and (ii) support youth policies and interventions. The World Bank also supported the ESTP, financing key agencies and operation costs of the reform. The IDB also supported conditional cash transfers through the Program of Advancement Through Health and Education (PATH) aimed at keeping children of poor families healthy and in school. The rest of this section discusses the links between the interventions that this series of PBLs funded and improved student performance.

Result #2. Modernized central Ministry of Education focusing on policy formulation, monitoring and evaluation, standard setting and agencies coordination.

This result captures all the activities undertaken to put in place the functions, roles, staff and legislation to allow the MOE to decentralize many of its functions and the agencies to lead their work. The institutional architecture of the education systems and its regulations has an impact on the quality of the education services and student learning outcomes. There are different types of complementary policies that education systems use to organize the provision of education services to students, such as policies to decentralize education management to intermediate

levels and accountability policies. The studies discussed below for Result #3-Effective delivery of education through decentralization of functions to the regions and Result #6-Enhanced accountability of the system highlight the relationship between the products financed and improved student learning.

Result #3. Effective delivery of education through decentralization of functions to the regions.

The institutional architecture and regulations of an education system affect the quality of the education services and establish the foundation to improve student learning. **Mechanisms to decentralize education management** to intermediate levels or even to schools have become a common way to organize the provision of education services to students. These measures follow the logic that local level service provision is more closely aligned with parents' and students' preferences than policy set by central authorities. Decentralization reforms have been introduced in different parts of the developed and developing world (Finland, United States, Canada, China, Israel, Brazil, El Salvador, Mexico, Indonesia, Kenya, and Madagascar among others) as a way to increase autonomy and accountability at the local level and ensure that schools respond to local priorities and values, increasing client satisfaction and establishing the foundation to improve student learning (Fernandez Hermosilla et al., 2014, Barrera-Osorio et al., 2009; Bruns et al., 2011). Finland, one of the highest performing countries of the world in terms of learning, decreased its central steering and increased local decision-making at all levels of education (Knight and Rapley, 2007). Education systems in Ontario and Massachusetts also have local education management units that are responsible for administrative and academic management of groups of schools, and the central Ministry interacts with schools through these intermediary structures. In Latin America, Argentina and Peru transferred the responsibility for preschool and basic education from the central to the provincial governments (with elected governors). Chile decentralized educational services to regional and state offices, while the administration of public schools is entrusted to municipal governments (with elected majors and councilmen). Brazil is moving towards decentralizing the administration of public primary schools of the state level to the municipal level (with elected majors and municipal legislators). Overall, recent evidence suggests that decentralization policies: (i) change the dynamics of the school, mobilizing parents and teachers to get more involved; (ii) have a positive impact in reducing repetition rates, failure rates and to a lesser degree, dropout rates; and (iii) have a positive association to student outcomes in some countries (El Salvador, Kenya, Mexico and Nicaragua) (Bruns et al., 2011).

With respect to Result #6 – Enhanced accountability of the system, the international literature suggests that underperforming schools respond to accountability pressures and improve their student performance (Allen and Burgess, 2012; Rockoff and Turner, 2008; Jacob, 2005). Additionally, research also finds that underperforming schools change their educational and teaching practices and policies significantly when faced with accountability mechanisms (Rouse et al., 2007).

Result #4. Improved standards and quality of the education system at all levels.

Studies of high performing education systems show that they have implemented institutional reforms that affect the roles and responsibilities of education management units at different levels, and also set **well-designed and connected teaching and learning elements to support students in their learning**. Countries such as Finland, Ireland, Netherlands, South Korea and Singapore have moved from a rigid common curriculum to a more flexible one and maintained a strong focus on improving teaching quality (Darling-Hammond, 2010). Despite different cultural and political contexts, these high performing education systems share three characteristics: (i) attract talented individuals into the teaching profession; (ii) develop those individuals into effective teachers; and (iii) put in place systems and targeted support to ensure that every child is able to benefit from excellent instruction. Also, these education systems have put mechanisms in place to ensure that there is adequate student data to inform policy makers and education actors. Such data is geared towards identifying improvement needs in the system and targeting support to those schools that need it the most (Darling-Hammond & Wentworth, 2010). Hong Kong, England, the Netherlands and New Zealand have created independent inspectorates to assess schools' quality. Schools that perform poorly are subject to more intensive scrutiny and more frequent reviews until performance improves.

Setting standards, aligning the curriculum with these standards, implementing evaluations and disseminating their results, making schools accountable, and penalizing schools that consistently perform poorly, while rewarding those that perform well are effective mechanisms for stakeholders (e.g., parents and legislators) to monitor the activity of schools, teachers, and principals and improve performance (Figlio and Loeb, 2011). These policies increase school supervision by parents and government with the aim of raising their quality (Jacob, 2005). Along the same lines, recent studies emphasize the importance of quality assurance systems to provide support to schools that underperform and enable them to comply with student learning standards (Jaimovich, 2016). The analysis of attribution presented for Result #6 - Enhanced accountability of the system further reflects the link between these initiatives and improved student learning.

Result #5. Raised level of professionalism and quality of teaching.

The education literature consistently shows that **teachers are the main factor on the school side in helping improve student achievement**, ensuring equality of learning opportunities, and ultimately, contributing directly to a country's economic growth (Hanushek and Rivkin, 2012; Hanushek 2011; Kane and Staiger, 2008). There is evidence that exposure to a high quality teacher during a school year produces improvements in students' learning of between 0.2 and 0.3 standard deviations (Rivkin, Hanushek and Kain, 2005). Apart from improvements in cognitive skills, exposure to high quality teachers affects children's ability to control their thoughts, actions, and emotions, which is essential for the learning process (Araujo, Carneiro, Cruz-Aguayo and Schady, 2016). Effective teachers also have positive impacts on their students' opportunities to access higher education and even on their future earnings (Chetty, Friedman and Rockoff, 2014; Chetty et al., 2011; Hanushek, 2009). Research has explored the impact of various teaching policies on higher student achievement.

Jamaica has taken initial steps towards raising the level of professionalism and quality of teaching by defining standards, creating registration and licensing procedures for teachers, and providing strategic directions for in-service training. These interventions are aligned with the lessons learned from recent reviews of the evidence on teacher policies (Vegas and Ganimian, 2013) and shed light on next steps to deepen the teacher reforms:

- (i) **Clear goals for teachers.** Top-performing education systems set clear student learning standards or goals to guide teachers on what students should know and be able to do after completing each school grade (Jaimovich, 2016; Barber, Chinezi and Mourshed, 2010). These standards also include the skills that an effective teacher should demonstrate in order to ensure that his or her students learn in the classroom. In this regard, top-performing education systems instruct their teachers on how they can help their students achieve these standards, and give them the tools they need to teach curriculum content. This is the case, for example, of Ontario (Canada), Finland, South Korea, Singapore, and the Commonwealth of Massachusetts (United States). These goals for teachers are aligned with national student learning standards, the school curriculum, and mechanisms for monitoring and evaluation.
- (ii) **Attracting the best into teaching.** Countries that consistently score high in international learning assessments make efforts to attract the best people into teaching, which is one of the factors associated with good teacher performance (McKinsey & Company, 2007). In countries with top-performing education systems, teaching is often regarded as a prestigious profession by society. In South Korea, for example, education majors accept only the top 5% best-performing secondary graduates, and as a prerequisite to work in public schools, they have to pass a national teaching exam after graduating from university (Schwartz and Mehta, 2014). Similarly, in Finland, only one in ten candidates is accepted to teaching courses, and Finnish secondary graduates rate teaching as the country's most admired profession (Sahlberg, 2011).
- (iii) **Preparing teachers with useful training and experience.** Appropriate training, both before entering the classroom and while in service, is important to improve teacher effectiveness (Clotfelter, Ladd, and Vigdor, 2007). At present, there is insufficient evidence to assert that any one type of training is better than another, but it is known that teacher education should entail a balance between pedagogical tools and specific content (Kane, Rockoff, and Staiger, 2006). Induction courses that support new teachers and provide them with mentors to facilitate their transition to the teaching practice have demonstrated to be effective (Glazerman et al., 2010; Papay and Johnson, 2012). Initiatives of this kind include Scotland's teacher induction program, which devotes 30% of a teacher's first year to professional development activities with individual mentors (European Commission, 2010).
- (iv) **Matching teachers' skills with students' needs.** Assigning the best teachers to the schools that serve the most vulnerable population improves students' learning and narrows the achievement gaps by socioeconomic status (Cannata, 2010; Boyd, Lankford, Loeb, and Wyckoff, 2005; Hanushek, Kain and Rivkin, 2004; Ingersoll, 2002). Teachers' skills need to be suited to teaching children with different cultural and linguistic

experiences and diverse skills, ranging from those with special needs, including physical disabilities and learning impairments, to the exceptionally talented.

- (v) **Leading teachers with strong principals.** These studies suggest that school leadership is another important factor that influences student achievement. Consequently, recruiting and retaining high quality principals can have positive impacts on learning (Branch, Hanushek, and Rivkin, 2013; Grissom, Kalogrides, and Loeb, 2012). Good principals tend to attract and retain good teachers, ensure proper compliance with the curriculum, and foster discipline in the school (Christophe, Elacqua, and Martínez, 2015; Boyd et al. 2009; Ingersoll 2001a, 2001b). Moreover, teachers value principals who have classroom experience (Ballou and Podgursky, 1995). Principals can also create a sense of community within the school, making teachers feel valued and relieving their anxiety from external pressures (Mulford, 2006). Successful education systems tend to invest in training programs for principals that enable them to lead processes of school improvement and exercise instructional leadership (Barber, Mourshed and Chinezi, 2010).
- (vi) **Monitoring teaching and learning.** By monitoring educational outcomes, such as student learning, it is possible to identify groups and schools that are not achieving adequate results, so that corrective action can be taken in time. For this reason, successful education systems are able to determine precisely what their students are learning, what their teachers are teaching, and how they are teaching it. Data collection and measurement helps identify flaws within the education system that hinder effective teaching and learning. Additionally, a number of studies have found a positive relationship between the existence of systems to monitor teacher performance and effectiveness, and student performance. For example, a rigorous impact assessment in India found that it is possible to reduce teacher absenteeism using a system that monitors teacher attendance (Duflo, Hanna and Ryan, 2012). One case worth highlighting is the DC Impact Program in Washington, D.C., which established a teacher performance assessment system that encouraged teachers rated as ineffective to leave the district, while those who remained improved their performance (Dee and Wyckoff, 2013). Another study found that teachers change their teaching practices when they face accountability mechanisms, partially explaining improvements in student performance (Rouse, Hannaway, Goldhaber and Figlio, 2013; Elacqua et al., 2015).
- (vii) **Supporting teachers to improve instruction.** Policies that foster “best practices” sharing among teachers and colleagues in the educational community tend to have positive impacts on learning. Other types of professional development, such as mentoring and joining teacher support networks are also positively associated with teacher performance (Rockoff, 2008). In particular, support and guidance is needed to help the less skilled achieve minimum levels of instruction (Ganimian and Murnane, 2016). Similarly, some studies have also shown that offering detailed instructions to teachers (scripted teaching) on how to teach curriculum content has led to improvements in student learning (He, Linden, and MacLeod, 2009; McEwan, Murphy-Graham, Torres Iribarra, Aguilar, and Rápalo, 2015).

Result #6. Enhanced accountability of the system.

There is a growing body of literature on the **effects of accountability reforms on student performance, schools, and teacher behavior**. The evidence suggests that underperforming schools respond to accountability pressures and improve their student performance (for example, Allen and Burgess, 2012; Rockoff and Turner, 2008; Jacob, 2005). Additionally, research also finds that underperforming schools change their educational and teaching practices and policies significantly when faced with accountability mechanisms (Rouse et al., 2007). In Latin America and the Caribbean, the few studies that have analyzed the effect of accountability pressures on the policies and practices of teachers, (Elacqua et al., 2015) show that schools with a high accountability pressure modify some of their internal policies and practices to the point that the changes impact student performance. This observation is consistent with other studies that show that after implementing accountability mechanisms, low performance schools are able to improve (Mizala and Torche, 2013). Most of the top-performing countries have developed monitoring and evaluation systems for education to ensure that there is adequate student data to inform teaching and policy. As a result, in recent decades, there has been an exponential increase in the number of countries that carry out national student learning evaluations and that participate in regional and international exams (Elacqua and Alves, 2014). However, both the implementation and use of these evaluations varies considerably from country to country. In some, student learning evaluations are based on sample populations that consider the quality of the education system as a whole (Argentina, for instance, has an exam that is based on a representative sample). Other countries in the region have implemented survey-based evaluations and publish exam results for each school (Chile, Colombia and Brazil). Even though the use of the information derived from the tests to improve student learning is limited, the growing participation in international tests - including PISA- has enhanced the structure and content of national evaluations. It is also likely that results from these exams shaped the national curriculum in various countries (Ferrer and Fiszbein, 2015). Furthermore, data has also been geared towards identifying improvement needs in the system and targeting support to those schools that need it the most. Hong Kong, England and New Zealand have created independent inspectorates to assess schools' quality. Schools which perform poorly are subject to more intensive scrutiny and more frequent reviews until performance improves (Darling-Hammond and Wentworth, 2010).

With respect to the role of principals, as mentioned in Result #5 - (v) Leading teachers with strong principals -, studies suggest that school leadership is a key factor in student achievement. Consequently, recruiting and retaining high quality principals can have positive impacts on learning (Branch, Hanushek, and Rivkin, 2013; Grissom, Kalogrides, and Loeb, 2012). Good principals tend to attract and retain good teachers, ensure proper compliance with the curriculum, and foster discipline in the school (Christophe, Elacqua, and Martínez, 2015; Boyd et al. 2009; Ingersoll 2001a, 2001b). Successful education systems tend to invest in training programs for principals that enable them to lead processes of school improvement and exercise instructional leadership (Barber, Mourshed and Chinezi, 2010).

Result #7. Improved stakeholder and community involvement in education.

The involvement of all stakeholders is necessary to shape and implement reforms. Research shows that **active parent/family involvement in their children's education and in their**

schools has a significant benefit for the students. Parents can help children with their schoolwork, motivate them to learn, enroll them early in the education system, and encourage them to complete their education. Programs supporting parents to improve the quality of interactions with their children have an impact on children's cognitive and socio-emotional development and help them enter school ready to learn, as well as to obtain greater lifelong educational and economic benefits (Gertler, et al., 2013). Ireland's Home, School, Community Liaison developed a scheme where parental involvement, especially in the areas of economic deprivation, not only benefits the children and school, but also is crucial for lifelong learning. As a result, teachers have reported improved performance by students in class, better attendance, and higher expectations (Knight and Rapley, 2007). Interventions where parents are included and taught how to better stimulate their children could help reduce this gap. In Jamaica, a study that taught mothers to stimulate their children and interact with them in order to improve their socio-emotional and cognitive skills found increases in their income of 50% on average twenty years later (Gertler et al., 2012). Also, offering parents information about the economic returns of high quality education and of the effectiveness of the schools that their children attend along with appropriate practices to support their learning, influences parents' behavior and improves their children's performance (Ganimian and Murnane, 2016). Overall, when schools, families and communities work together, children tend to do better in school, stay in school longer and like school more, and schools do better.

Products for the Investment Component of the Second Operation

Investment in infrastructure is a necessary condition for creating an environment that fosters learning. However, it needs to be accompanied by adequate education policies to make the most of the investment (Glewwe, Hanushek, Humpage, and Ravina, 2011). In developing countries, investments to ensure that schools are equipped and buildings meet minimum conditions for teaching have been found to impact student performance (Glewwe and Muralidharan, 2015; Baker, Goesling, and LeTendre, 2002; Heynemann and Loxley, 1983). The factors that show a significant positive relationship between school infrastructure and educational outcomes (particularly school attendance) include: the availability of teaching support areas (libraries, science labs, etc.), connection to public electricity and telephone services, and the availability of drinking water, sanitation, and an adequate number of restrooms (Cuesta, Glewwe, and Krause, 2015; Duarte, Gargiulo, and Moreno, 2011). Additionally, the quality of schools' walls, floors and roofs can also have a positive impact on school attendance (Cuesta, Glewwe, and Krause, 2015).

Our analysis of results attribution indicates that the reform contributed to the improvement of education quality and improved student learning. While it is not possible to assess the extent to which these improvements are directly attributed to the reform and the investment loan, international evidence suggests that the main elements of the reforms, and the complementarities among these, leads to improved student learning. Thus, the observed gains in outcome indicators can be associated with the reform program .

e. Unanticipated outcomes

During the course of implementation of the education reform, a number of unanticipated outcomes were achieved which enriched the program. For example, the Child Find exercise, originally piloted to identify children with special needs in two parishes, was eventually applied in all parishes (Ministry of Education, 2015a). This led to the design of a competency-based policy and an alternative curriculum for secondary students, the Alternative Pathways for Secondary Education, which reflects a major change in secondary education school opportunities for students who may not attend university ([Ministry of Education](#), 2015b).

Another unanticipated outcome was the revision to the Grade 4 benchmark exam (only changes at grades 2, 6 and 9 were planned). In line with the new curriculum developed and to give equal importance and focus to both math and language, the grade 4 exam will be revised to include only one assessment for math and literacy and focus on improving teaching quality in these subjects.

Finally, the original plan to create the REAs was modified as it was not assessed to be an effective way to organize support to schools and it also raised issues with central coordination and equitable distribution of resources; instead the creation of the DSS will more effectively streamline and manage education resources where need is greatest across the seven regions, and has resulted in an improved approach to the coordination of the work with the regional offices ([Department of School Services Operations Manual](#)).

2.2 Efficiency

To partially assess the efficiency of the Policy-Based Loans, during the design of the third operation a general economic analysis was performed. At the time of the analysis, all policy conditions were achieved and all means of verification were guaranteed. Given the consecutive nature of the policy reforms set forth in the series PBLs, most of the costs and benefits identified in this analysis incorporate the costs of all three PBLs and hold to date. This section summarizes the main results of the Economic Analysis (EA); a full description can be found here ([EER#3](#)).

The general economic analysis identified - and quantified when possible – all costs and benefits associated with the program. Incremental costs are quantified for 14 indicators. For the remainder indicators, the costs are identified but not quantified given that the analysis will be carried out by the existing workforce, namely the Ministry of Education. The Net Present Value (NPV) of the quantified costs at a discount rate of 12% over 20 years amount to US\$18,694,780.

Regarding the benefits, they include the savings rendered by improving the system's internal efficiency assuming that students that improve their performance in national tests are less likely to repeat and drop out of school. Another important benefit accounted for is the benefit to society of having more graduates per year. After completing primary education, students move on to secondary education. The amount gained in the first five years after primary graduation comes from students who are prepared to enter secondary education and who, after completing secondary education, would be ready for the labor market. The NPV of these benefits at a discount rate of 12% yields a benefit stream over 20 years of US\$26,277,230. Benefits to society can grow

even more when we consider that some students after finishing primary and secondary education matriculate in higher education. Additional benefits related to decentralization of key functions, raising the level of professionalism and quality of teaching, enhancing accountability of the system as well as improved stakeholder and community involvement in education have been clearly identified and supported by the relevant literature. The results of the Economic Analysis show that the project was competitive and that investing in these areas of education was profitable. Sensitivity analyses were performed for key benefits showing the project was still profitable under different scenarios and had some margin for changes without significantly affecting the outcomes.

For the investment component, no ex-post economic analysis was carried out. An ex-ante cost-benefit analysis for the school construction activities shows that the main benefits come from Government savings in private school payments for students that currently do not have access to government schools (due to lack of space), decreased repetition and savings in transportation costs. The total benefit per year was calculated at US\$821,521. At the time of design, total school construction costs were estimated at US\$12,927,656. Considering the stream of benefits of the investment made minus its costs, with an end of period salvage value for the construction of 50% (20 years of 40 years life expectancy of construction), the Net Present Value was NPV=6,233,318 with a Benefit-Cost ratio of $B/C = 1.10$. The assumed benefits are still valid and the costs of construction declined to US\$9 million given that only one school was constructed (of the two planned) and two other schools were expanded to house the additional students (Table 13).

Table 13
Costs of the Project¹⁴

| Investment Component | Product | Planned Total Cost (US\$) (2015) | | Revised Total Cost (US\$) (2015) | | Actual Total Cost (US\$) (2015) | |
|-------------------------------------|--|----------------------------------|---------------|----------------------------------|---------------|---------------------------------|---------------|
| | | BID | % | BID | % | BID | % |
| Goods | Support for establishment of an EMIS for MOE | 506,368 | 3.74 | 615,389 | 4.88 | 739,253 | 5.85 |
| | National Literacy survey completed | 250,000 | 1.85 | 134,874 | 1.07 | 51,625 | 0.41 |
| | Alternative curriculum to enhance literacy (ASEP/ASTEP) developed (Years 1 and 2) | 50,000 | 0.37 | 656,650 | 5.20 | 685,302.07 | 5.42 |
| | Revised tests developed and piloted (grade 2, 6, 9) | 70,000 | 0.52 | 144,830 | 1.15 | 440,625 | 3.48 |
| | Materials to support curriculum for literacy and numeracy developed and distributed | 77,597 | 0.57 | 97,041 | 0.77 | 268,739 | 2.12 |
| | Special education activities, including Pilot to identify children with special needs carried out in education regions | 39,793 | 0.29 | 665,146 | 5.27 | 732,259.66 | 5.79 |
| | Curriculum development – pilot and revised curriculum guides for Grades 1-9 | 8,650 | 0.06 | 663,082 | 5.25 | 277,015.54 | 2.19 |
| | Needs assessment of teacher training colleges carried out | 0 | 0.00 | 85,000 | 0.67 | 47,472 | 0.38 |
| Civil Works | Construction or expansion of schools | 11,456,754 | 84.64 | 8,518,202 | 67.50 | 8,765,794 | 69.31 |
| | Furniture and equipment installed in new schools | 888,889 | 6.57 | 237,679.98 | 1.88 | 277,347.98 | 2.19 |
| Technical assistance | Literacy and numeracy specialists hired to implement program | 0 | 0.00 | 562,958 | 4.46 | 129,475.08 | 1.02 |
| Other costs | Project Administration | 188,509 | 1.39 | 239,422.23 | 1.90 | 232,145.50 | 1.84 |
| Total (Investment Component) | | 13,348,051.00 | 100.00 | 12,620,274.21 | 100.00 | 12,647,053.83 | 100.00 |

¹⁴ The costs of the project correspond only to the investment component set in the hybrid operation (JA-L1024 and JA-L1069).

2.3 Relevance

The Government of Jamaica made a long-term commitment to education reform through the ESTP. The institutional changes required to modernize the MOE and decentralize technical support to schools began in 2004 and continued through 2015, the target year. All the targets set for the Program were revised to align with Jamaica's National Education Strategic Plan 2011-2020 (Ministry of Education, 2012). The three operations provided the framework within which the IDB and the World Bank jointly supported the country in meeting most of the 2015 targets defined by the Task Force. Despite the progress made, learning outcomes remain low and further actions are needed. Student learning outcomes, although on an increasing trend, have not yet achieved the levels of achievement envisioned at the onset of the reform. At the time of the original design in 2004, achievement in Grade 4 literacy was 57% and in numeracy from 38%. The targets set for student performance in mastery of the Grade 4 Test for 2015 for literacy and math were 85% and 60%, respectively. As of the 2013/2014 academic year, they were 77% and 58%, respectively. Therefore, the initial conditions that justified the programmatic series of PBLs are still valid and interventions led by GOJ since 2008 remain relevant.

The reforms supported by the Program are also aligned with the GOJ's national long-term development plan: [Vision 2030 Jamaica](#). This strategic roadmap to development acknowledges world-class education and training as a key pillar to empower Jamaicans to achieve their fullest potential. The GOJ's commitment to achieve high levels of educational outcomes and equip citizens with educational competencies to compete globally is outlined by strategies aligned to the Program's objectives, ranging from greater access to quality education and skills training programs, to improved teaching standards, student performance and school infrastructure (Planning Institute of Jamaica, 2009).

In addition, the IDB has been a long-term partner to the GOJ in the education sector. The reforms supported throughout the programmatic series are consistent with the priority areas for the Bank's Education Division such as improving learning outcomes through enhanced quality of teachers and learning environments (IADB, 2016). Last, the three operations are consistent with the Bank's strategic priorities and corporate goals at the time of the Program approval.

2.4 Sustainability

In the coming years, it is expected that the GOJ will continue on the path set forth by the reform agenda ([National Education Strategic Plan: 2011-2020](#), [Vision 2030 Jamaica](#)). At the time of design a risk of a change in government that may choose to discontinue or reverse some of the planned initiatives was identified. Fortunately, the MOE is highly committed to the Reform Plan that is now close to completion and has achieved most of its milestones (Ministry of Education, 2016). Many of the team members who participated in the design of the reform have accompanied its activities, giving stability to the Education System Transformation progress over time. Some of those team members are expected to stay in office. Additionally, the reform program has crossed several administrations, and the GOJ has consistently demonstrated support for the long-term reform initiatives, especially the establishment and operation of the various agencies set up to

gain sector efficiencies and improve education quality. At the same time, the reform has established an institutional framework for the delivery of education services, widely accepted among stakeholders, and has advanced towards legislative approval (Ministry of Education, 2016). Furthermore, the improved results in student achievement show that the reform is contributing to raise the quality of education.

Given that Jamaica remains vulnerable to external economic and weather related shocks, at the time of design of the third PBL, a risk of macroeconomic instability in the short to medium-term was identified. Adjustments in the budget that would become necessary under such a scenario could have had an impact on the allocation of resources and may have affected some specific activities of the education reform. Fortunately, Jamaica has successfully completed eight reviews of the EFF program with the IMF, the last one in June 2015, and has made notable reforms in key areas. Thus, the macroeconomic conditions are likely to remain stable, creating an environment conducive to reform continuity.

At the time of design of the third PBL, an identified development risk was that the agreement with the IMF may have shifted the focus of GOJ's legislative priorities away from the reform. Although negotiations with the IMF have resulted in that the education legislation reforms have taken longer than planned, there are clear indications that education reform legislation is continuing and key legislations are slated for the 2016/2017 legislative agenda.

Relationship to other Bank operations and operations of other international financial institutions. The IDB has supported the education sector over the past 7 years, through the Primary Education Support Project (PESP) (Loan 1264/OC-JA), a Supplemental to the PESP (Loan 2100/OC-JA), the Youth Development Programme (Loan 2039/OC-JA) and the three ESTP program-based loan series with. The ESTP has received parallel financing from the World Bank, as well as inputs from local foundations. The international development partners (IDPs) have worked in close technical collaboration, including in the conceptualization of the policy matrix, which the MOE used to lead the dialogue with all the IDPs. The World Bank specifically financed the operationalization of the key agencies to monitor progress and improve accountability and quality, namely the National Education Inspectorate, Jamaica Teaching Council, and Regional Education Authorities (now the DSS); provided support for the establishment and operations of NCEL; supported the implementation of a marketing strategy to mobilize resources for the NET; and also supported the implementation of a strategic communications strategy, and the staffing and operating costs for the MOE's Change Management Unit responsible for overseeing implementation of the ESTP.

III. Non-Core Criteria

3.1 Contribution to the Bank's Strategic Development Objectives

This Program contributes to the Bank's Strategic Development Objectives. First, it contributes to the lending program priorities of the Ninth General Increase in the Resources of the Inter-American Development Bank (AB-2764) (GCI-9) by supporting small and vulnerable countries and reducing poverty and inequity through education interventions that enhance the

educational outcomes of Jamaica's youth and, in turn, increase their labor perspectives and income. Second, it contributes to the regional development goal of increasing the proportion of 15- to 19-year olds that complete 9th grade by improving learning among all students and leading to reduced dropout rates. Third, the Program has benefited 630,000 students from preprimary, primary and secondary education, thus adding to the Bank Output Contribution as defined by the Corporate Results Framework. Fourth, the project is also aligned with the Strategy for "Institutions for Growth and Social Welfare" (GN-2587-2) which recognizes the need for strengthening the institutional capacity of countries in the region, and with the Strategy on Social Policy for Equity and Productivity (GN-2588-4), which promotes interventions that increase human capital as key for economic growth and development. Finally, it is also fully consistent with the Sector Framework Document for Education and Early Childhood Development (GN-2708-2) as it focuses on improving student learning and skills.

3.2 Contribution to Country Strategy Development Objectives

The program is aligned with the IDB's Country Strategy with Jamaica, 2013-2014 (GN-2694-2), which focuses on supporting efforts to re-establish fiscal sustainability, maintain social stability, and promote private sector-led growth. The Education Reform Program supports the Country Strategy in the second area, particularly on the focus to improve Grade 4 proficiency in literacy and numeracy. During the life of the program, achievement in Grade 4 literacy improved from 57% in 2004 to 77% in 2014, and in numeracy from 38% to 58% in the same time period. This remains as an ongoing priority area in the forthcoming IDB Country Strategy with Jamaica 2016-2021 in the proposed area of human capital development and poverty alleviation.

3.3 Monitoring and Evaluation

As it had prior experience with the Bank in designing, coordinating and executing both PBL and investment loans, PIOJ was responsible for monitoring the progress and completion of the commitments of the Program during the first two operations.. For the third operation, MOFP was the Program Coordinator responsible for: (i) monitoring and coordinating activities to comply with program commitments; (ii) coordinating the submission to the IDB of the required reports to verify compliance with the policy matrix; and (iii) coordinating with the MOE the submission of the information on indicators of the results matrix to be used to evaluate the program. The IDB was responsible for reviewing compliance with the policy conditions as well as preparing reports of compliance with conditions.

Arrangements for monitoring and evaluating results were defined along the design of the three loans. The Policy Matrix and Results Matrix showed selected preliminary indicators for monitoring and evaluating the scope of the Program objectives. However, for the second and third loan, more detailed monitoring and evaluation plans were established ([Monitoring and Evaluation Plan JA-L1024](#), [Monitoring and Evaluation Plan JA-L1033](#)). The third and final operations of the series included an ex-post cost-benefit analysis comprehensive for the three PBL components. The indicators selected in the Results Matrix properly reflect the products and outcomes of the reform supported by the PBL. As mentioned above, a handful of product and outcome indicators were reclassified following the evaluability guidelines using the principle of control of implementing agency to assign a product or an outcome, therefore, we recommend following the criteria set

forth there to classify the indicators. The PBL program had planned two evaluations: (1) an ex post cost-benefit analysis will be conducted for the main measurable benefits and costs; and (2) a “before-after” that will compare the value of the main results before the launch of the first operation and the value after completing the third operation. These evaluations were not carried out for lack of resources associated to the evaluations. A recommendation is to assign funds to ex post evaluations after a series of PBLs to properly assess results and processes.

For the investment component, the MOE was responsible for: (i) preparing an annual work plan; (ii) ensuring the achievement of outcomes through the monitoring of indicators listed in the results framework; (iii) preparing and submitting disbursement requests to the Bank and the corresponding justification of expenses; (iv) preparing the annual financial Program expenses, and the semi-annual Revolving Fund Status Reports; (v) preparing semester project reports; and (vi) maintaining an adequate documentation filing system. Additionally, through accompanying Technical Cooperation funds (JA-T1028), a set of indicators were developed to measure progress (and eventual impact) of all the inputs to the education reform program. These were made available to other donors, and were used by all funding agencies. Additionally, an ex-ante cost-benefit analysis for the school infrastructure subcomponent was developed ([Cost-Benefit Analysis JA-L1024](#)). The indicators included in the Results Matrix properly reflect the products of the component. The data was collected to verify achievement was appropriate and allowed for proper tracking of execution and adjustments when needed. No ex-post evaluation for the investment component was planned.

3.4 Use of Country Systems

Special efforts were made to harmonize management of the IDB-financed components with those financed by the World Bank. Both projects were overseen by the same Change Management Unit (CMU) at the MOE using IDB’s procurement and financial systems. They shared an Operations Manual for the Investment Loan, and, taking advantage of the GOJ’s established procedures, they adopted the same financial management system. The IDB provided technical assistance to strengthen the capacity of Jamaica’s Auditor General’s team, and from 2013 forward, the AG’s services were used to conduct the annual audit of the investment loan. In the final year of the project, two audit reports were submitted: one for IDB and another for World Bank.

In terms of non-fiduciary systems, the IDB supported the strengthening of an Education Management Information System (EMIS), adding the dashboard and the web-based modalities to connect the three MOE offices and regional offices. However, because the full EMIS was not completed before the project closed, it was not possible to use it to access sector data.

3.5 Environmental and Social Safeguards

Given that the first and third operations are PBLs, there were no associated environmental or social risks. In accordance with the Directive B.13 of the Bank’s Environment and Safeguards Compliance Policy (GN-2208-20 and OP-703), no ex-ante environmental impact classification was required.

However, since the second operation was a hybrid with both a PBL component and an investment component, the classification for environmental and social safeguard was “C”. The Program net environmental and social impacts were positive for communities within the catchment area that benefited from new secondary schools. Care was taken during construction of the school facilities to ensure that all national and IDB environmental guidelines were followed. The guidelines set by the Jamaica’s National Environment and Planning Agency (NEPA)¹⁵ were followed to ensure proper storage, handling, and disposal of any hazardous chemicals during school construction. In the two school expansions, measures were taken to mitigate noise pollution, ensure cordoning of works to avoid hazards to students on the grounds, proper management of solid waste and liquids, and availability of water for human consumption. NEPA’s screening procedures were followed in the site selection for the new school, The proposed MOE site was reviewed to ensure that: (i) appropriate buffer zones to water and other resources were respected; (ii) protected areas and/or habitat for endangered species were not affected; (iii) appropriate water and sewerage systems suitable to the soil and water tables in the area were designed; and (iv) cultural and historical properties in the area were not adversely affected by erecting a school in the new location.

IV. Findings and Recommendations

The reform of Jamaica’s education sector supported by the series of PBLs was conceived with a very rigorous diagnostic and needs assessment, and its main interventions were based on the most recent international evidence. The IDB supported both technically and financially a solid education sector reform that is being consolidated and seeing positive results. The objectives of the series of loans were achieved: a modernized MOE contributed to: (i) increase the effectiveness of the delivery of education services, (ii) improve standards and quality of education, (iii) raise the level of professionalism of the teaching profession, (iv) enhance accountability of the system, and (v) improve stakeholder and community involvement in education. As a result, student learning outcomes in math and literacy have shown steady progress. The sustained commitment of the government to the reform is an example for the rest of region. In this section, we examine a series of lessons learned throughout the implementation of the Program and recommendations identified (Table 14).

4.1 Vertical Logic

The reform areas in which the Program was structured provided a comprehensive framework to mobilize the education system, simultaneously and from different fronts, for improving student learning. The results matrix was organized to reflect improved student learning as the first and ultimate outcome, encompassing all other outcomes and the respective products. Furthermore, the indicators included in the results matrix showcase the complementarity among the products related to each outcome as well as the sequential nature of many of the activities. The differentiation between outcome and product indicators reflects a time sequential logic rather than the differentiation under the Bank’s evaluability framework. For future PBLs, it is recommended that products and outcomes are classified by whether the indicator is under the control of the

¹⁵ Responsible for the management, conservation and protection of natural resources in Jamaica.

implementing agency following current IDB guidelines. This would allow adequate attribution under the current evaluability framework.

4.2 Execution and Budget

The flexibility of this financing instrument was very useful for at least three reasons: (i) it allowed further fine-tuning of implementation plans given the complexity and far-reaching nature of the proposed institutional changes; (ii) it enabled the development and implementation of new programs needed, in the course of the reforms, as building blocks to make them operational; and (iii) it maintained the reform priorities throughout government changes. Further, with Bank support, several valuable lessons were learned in the process that facilitated a more effective implementation of the reforms, including: (i) the need for a deep understanding of the challenges facing the sector; (ii) the value of strong leadership and commitment from top management of the MOE; (iii) the importance of high capacity from technical staff designing and advancing the reforms; (iv) the benefit of low rotation of MOE staff through the years of the reform; (v) the importance of continuous stakeholder involvement and allocation of considerable time and effort for discussion about the changes and the creation of ownership among major stakeholders; and (vi) building an appropriate timeframe between operations to allow for the transformation process and the policy reforms to mature.

All PBLs were disbursed soon after they were approved. The set of PBLs were designed based on policy conditions that were already achieved at the time of approval of the operation by the Board. However, according to the ESTP team, it was challenging to execute the funds earmarked for project activities within the required timeframe. Procurement takes a considerable amount of time, which reduces the prescribed time within which the funds are to be spent. The shortened time in which disbursed funds must be spent creates unnecessary pressure and may jeopardize the quality and success of projects and programs. For the investment component of the second PBL, some implementation delays were experienced due to: (i) MOE's changes in civil servants' employment conditions as a result of the decentralization strategy and the fine-tuning of some aspects of its work programs; and (ii) the impact of the economic crisis affected budgetary allocations to the MOE. Therefore, we recommended to include in the design of the investment operation an adequate timeline to account for administrative processes and budgetary allocations.

The IDB has supported the education sector over the past 7 years, through different investment and policy-based operations. At the same time, the ESTP has received financing from the GOJ and World Bank, as well as inputs from local foundations. The collaboration and close coordination among international and local donors can be considered an important factor in the success of the policy reforms and an important recommendation for future PBLs.

Regarding the final evaluation of the series of PBLs, no evaluations were carried out due to lack of resources allocated to this activity. A final recommendation is to properly assign funds to ex-post evaluations after a series of PBLs to properly assess results and processes.

4.3 Overall experience with project management

As previously mentioned, the use of one CMU for the oversight of all the investment resources for the reform program (IDB, World Bank, and GOJ) allowed for certain efficiencies in human resource and fiscal management of the loan operations. The projects shared an overall manager, procurement and financial management specialists, other office staff and office space, as well as the FM systems described above. For future operations with multiple donors, we recommend a single PMU to support a similar set of activities.

4.4 Unresolved issues

The agreement with the IMF shifted the focus of GOJ's legislative priorities on the reform, resulting in a longer education legislation process than originally planned. However, there are clear indications that education reform is slated for the 2016/2017 legislative agenda. Legislation drafting instructions have already been issued, and the policy conditions related to legislation included in the policy matrix for the last operation have already been met. It should be noted that current Bank practices have moved away from including the actual approval of legislation in its policy conditions and only recommend including the advancement of legislation proposals by the sectoral ministry to be considered in the legislative branch.

The MOE is highly committed to the Reform Plan that is now close to completion and has achieved most of its milestones. To continue supporting Jamaica in its education reform the Bank should continue the dialogue with the MOE to find key areas where it can provide technical and financial support to the reform and contribute to sustain the achieved results. The reform program has crossed several administrations and the GOJ has consistently demonstrated non-partisan support for the long-term reform initiatives, especially the establishment and operation of the various agencies set up to gain sector efficiencies and improve education quality. In the coming years, the GOJ is expected to continue supporting the reform activities. For a series of PBLs that support sectoral reforms, the commitment from top management of the sectoral ministries is a critical factor in the sustainability of the reforms.

Table 14
Findings and Recommendations

| Findings | Recommendations |
|--|--|
| Vertical Logic | |
| <p><u>Finding #1:</u> Outcomes and products followed a sequential logic creating some difficulties to clearly identify results attribution under the new evaluability framework.</p> | <p><u>Recommendation #1:</u> the classification of products and outcomes should explicitly include whether the indicator is under the control of the implementing agency. This will allow for proper attribution under the current evaluability framework.</p> |
| Execution and Budget | |
| <p><u>Finding #2:</u> The IDB has supported technically and financially a very solid reform of the sector that is now consolidated and is seeing positive results. The effective implementation of these reforms with the support from the Bank can be attributed to a series of institutional factor that should be considered when supporting long term sectorial reform.</p> | <p><u>Recommendation #2:</u> When supporting long-term sector reforms, it is recommended to have: (i) deep understanding of the challenges facing the sector; (ii) strong leadership and commitment from the top management of the MOE; (iii) high capacity from technical staff designing and advancing the reforms; (iv) low rotation of staff within the MOE through the years of the reform; (v) continuous stakeholder involvement and allocation of considerable time and effort for discussion about the changes and the creation of ownership among major stakeholders; and (vi) appropriate timeframe between operations to allow the transformation process and policy reforms to mature</p> |
| <p><u>Finding #3:</u> Some delays were experienced for executing the investment component of the second operation mainly due to: (i) MOE's changes in employment conditions for civil servants as a result of the decentralization strategy and the fine-tuning of some aspects of its work plans; and (ii) the impact of the economic crisis which affected budgetary allocations to the MOE.</p> | <p><u>Recommendation #3:</u> Include in the design of the investment operation an adequate timeline to account for budgetary allocations.</p> |
| <p><u>Finding #4:</u> The collaboration and close coordination among international and local donors can be considered an important factor to the attainment of the policy reforms</p> | <p><u>Recommendation #4:</u> For sectoral policy reforms, foster close coordination among all donors in order to align initiatives and funding towards a common goal.</p> |
| <p><u>Finding #5. No ex post evaluation was carried out for the series of PBPs</u></p> | <p><u>Recommendation #5:</u> For PBPs, assign funds for ex-post evaluations after a series of PBLs to properly assess results and processes</p> |

| Findings | Recommendations |
|--|---|
| Overall experience with project management | |
| <i><u>Finding #6:</u></i> The use of one CMU for the oversight of all the investment resources for the ESTP allowed for efficiencies in human resources and fiscal management of the loan operations. | <i><u>Recommendation #6:</u></i> Use a single PMU for multiple donors supporting a similar set of activities. |
| <i><u>Finding #7:</u></i> Stability to the ESTP progress over time mainly due to: (i) Many of the team members who participated in the design of the reform have accompanied its activities; (ii) Consultations and marketing campaigns to build ownership and acceptance of stakeholders, staff and the general public. | <i><u>Recommendation #7:</u></i> Ensure commitment to the reforms from top management of the sectoral ministries to enable sustainability of the reforms. |
| Unresolved issues | |
| <i><u>Finding #8:</u></i> The MOE is highly committed to the reform plan that is now close to completion and has achieved most of its milestones. | <i><u>Recommendation #8:</u></i> Continue the dialogue with the MOE to find key areas where the IDB can provide technical and financial support to the reform and sustain the achieved results. |
| <i><u>Finding #9:</u></i> The agreement with the IMF shifted the focus of GOJ's legislative priorities making the education reform legislations lengthier than planned. | <i><u>Recommendation #9:</u></i> Continue monitoring closely the legislative process. |