

Evaluation Design Report

EX-POST PERFORMANCE EVALUATIONS IN THE EDUCATION SECTOR; PHASE I - NAMIBIA

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ACRONYMS

AEC

Annual Education Census

CoE	Colleges of Education
CPD	Continuous Professional Development (UNAM)
DNEA	Directorate of National Examinations and Assessment
EMIS	Education Management Information System
ETSIP	Education and Training Support Improvement Program
GRN	Government of the Republic of Namibia
IRB	Institutional Review Board
LSM	Learning Support Materials
LSM MIS	Learning Support Materials Management Information System
MEC	Ministry of Education and Culture
MEAC	Ministry of Education, Arts and Culture
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
MoE	Ministry of Education
NCAs	Northern Communal Areas
NIED	National Institute for Educational Development
PPE	Pre-Primary Education
PQA	Programme Quality Assurance (MEAC)
SCMU	Supply Chain Management Unit
TLM	Teaching and Learning Materials
TPR	Textbook: Pupil Ratio
UNAM	University of Namibia

1 INTRODUCTION & BACKGROUND

Country Context

In the years prior to Namibian Independence, education was racially segregated and administered by ten ethnic administrations. The “National” department directly managed selected schools in urban areas and registered private schools. The central government provided a per capita allocation which ethnic authorities could supplement from their own revenues. Given the economic disparities, the ability of most administrations to meaningfully supplement the central government allocation was very limited. Although the curriculum was common to all schools, facilities and teacher competence were highly inequitable.

Following Independence on March 21, 1990, all schools fell under a national Ministry of Education Arts and Culture (MEAC) and the new administration inherited the accumulated inequities. The Ministry committed to “expanded access, the elimination of inequalities and fair treatment throughout the education system, improved quality of instruction and learning, and learning about democracy by practising it.”¹ The new government set a goal that all children would complete basic education and have access to further opportunities for life-long learning. While primary net enrolment ratios were 87 percent - with girls slightly more likely to be in school than boys - quality was low and inequitably distributed. Lower secondary net enrolment rates were under 40 percent and less than 15 percent at the senior secondary level.²

Increasing enrolment required additional facilities. While there were 926 schools offering primary grades, only 59 schools offered Grade 10. The national learner/classroom ratio was 34, but this increased to 43 if “traditional” rooms with inadequate lighting and poor weather-proofing were excluded. In the Ohangwena Region the ratio rose to 71 when traditional structures were excluded. Nationally there were only 282 laboratories and 234 libraries or resource centres. Only 43% of schools had toilet facilities for learners. Nearly two-thirds of the teaching force had either not completed secondary education or lacked a professional qualification in teaching.

¹ Ministry of Education and Culture. Toward education for all: A development brief for education, culture, and training. Windhoek: Gamsberg, 1993, p.44.

² All figures UNESCO 1999

The Government committed a significant share of budgetary resources to education. In the first decade of Independence, education received between 23.15% and 27.5% of the national budget, equivalent to between 7.9% and 10.3% of GDP.³ However, the favourable level of investment was only partially able to address the magnitude of the inherited challenges to meeting the country's ambitious goals.

The Government of the Republic of Namibia (GRN) undertook a three-year consultation over the period 2003 – 2005 as indicated in the *ETSIP: Planning for a Learning Nation*, 2006, and analysis of challenges in the Education Sector. This process culminated in the elaboration of the *Education and Training Sector Improvement Program (ETSIP)*. The ETSIP highlights the low productivity of labour and shortage of skilled labour as important impediments to national development and economic growth and presents a series of strategies and key investments intended to improve the quality of education and training. The Millennium Challenge Account Namibia (here after referred to as MCA Namibia) Compact goals and activities were designed to support the GRN in implementing the ETSIP program.

1.2 Objectives of this Report

This report describes the design for the evaluation of two Education Project activities in the MCA-Namibia Compact; 1) Improving the Quality of Education and 2) Improving Access to and Management of Textbooks. The report begins by summarizing the original design of the activities and their implementation during the Compact period. Subsequently, the report describes the underlying causal logic (theory of change) between the project activities and the planned goals and objectives and reviews the MCC initial and final estimations of economic benefits.

The report then presents the key evaluation questions. In a performance evaluation, the focus of the evaluation questions includes: whether the objectives of the project were achieved; how it has been implemented; how it is perceived and valued; whether expected results are occurring and are sustainable; and other questions pertinent to program design, management and operational decision making.

Finally, the report outlines an overall approach to the evaluation and describes the qualitative and quantitative methodologies to be applied, providing where relevant, the data collection tools, annexed to the report. As the activities to be evaluated were intended

³ Bank of Namibia, Research Department. Public expenditure management in Namibia: Health and education sectors: Preliminary analysis, 2001, p.10.

to provide ongoing benefits, and several important investments were only completed late in the Compact period, the evaluation design by necessity considers the post Compact period (after 2014).

2. OVERVIEW OF THE COMPACT AND THE INTERVENTIONS EVALUATED

2.1 Overview of the project and implementation plan

The Millennium Challenge Account (MCA) Namibia Compact was signed on 28 July 2008. The five-year agreement between the Republic of Namibia and the United States (US) Government, acting through the Millennium Challenge Corporation (MCC), provided grant funding for public investments in Education, Tourism and Agriculture (livestock and indigenous natural products). An amount of US\$304.5 million was allocated for investment in the target sectors. The Compact Goal was to reduce poverty in the Republic of Namibia through economic growth. The project was implemented by MCA-Namibia working under the auspices of the Namibia National Planning Commission (NPC).

The development of the MCA-Namibia Compact Education Project activities drew on priorities and plans established in the consultative processes culminating in the Government of the Republic of Namibia Education and Training Sector Improvement Plan (ETSIP). In the ETSIP, General Education is seen as the essential foundation of human resource development for the country. Other education investments in skills development and higher education and training build on this foundation. To meet ETSIP priorities the MCA-Namibia Compact Education Project implemented four activities:

- 1) Improving the Quality of Education;
- 2) Expanding Vocational and Skills Training;
- 3) Improving Access to and Management of Textbooks and
- 4) Construction and Management of Regional Study and Resource Centres.

In addition to the above activities, MCC has noted that there were two further activities, related to tertiary finance and cross-project support.

International Solutions Group (ISG), an independent research and performance evaluation firm, has been contracted by MCC to conduct an independent evaluation of two of the activities; Improving the Quality of Education and Improving Access to and Management of Textbooks.

Improving the Quality of Education

The objectives of the Quality of Education Activity (86 million USD), were to improve the quality of primary, junior secondary and senior secondary education and increase the number of learners who participate in senior secondary education. The activity was organized into four sub activities:

- (i) Expanding and renovating up to 47 general education schools,
- (ii) Providing technical assistance to MEAC in improving school maintenance and enhancing school administration at regional and local levels;
- (iii) Providing policy, operational and administrative support for both general schools and the Teacher Training Colleges and
- (iv) Providing needed equipment to the Teacher Colleges.

Renovation/Expansion of School Facilities

While the Quality of Education initiatives were implemented nationally, the investments in improving school facilities prioritized underserved areas of Northern Namibia (see figure 1). The original framework for investments in school facilities utilized the ETSIP implementation plan of adding a fixed number of new classroom blocks to 50 schools selected via MEAC's "needs pyramid" each year of the plan. During the due diligence phase of the Compact, a consulting team visited each of the proposed targeted schools. Given the poor conditions of the schools, the team concluded that adding one or two classroom blocks would have little or no impact on the quality of the programme or the capacity to increase participation in senior secondary education. A more complete works project was then elaborated for each of the schools that included: increasing classroom space in permanent structures (additions and renovations); adding libraries, computer rooms, and laboratories where appropriate; establishing adequate water and sanitation; provision of electricity and equipping the schools with basic furniture, ICT equipment, educational software and laboratory equipment. To attract better qualified teachers that could more fully utilize the new facilities in more remote schools, teacher housing was constructed in more remote sites.

As most schools in the northern region of Namibia are combined schools (primary and secondary), the renovations were intended to improve conditions, relieve overcrowding and provide needed specialized infrastructure (laboratories). In 12 of the MCA supported schools, the new facilities enabled the school to establish a new senior secondary programme. The challenges of managing construction projects in these predominately remote locations meant that most of the projects were only completed in the last 18 months of the Compact. As the Compact period drew to a close, a favourable USD – NAD exchange rate created an opportunity to purchase additional modular classrooms for some of the targeted schools.

Technical assistance to MEAC in improving school maintenance and enhancing school administration

The initial Education Project activity providing leadership training and training to support the implementation of the MEAC minor maintenance policy evolved into a more comprehensive Continuous Professional Development (CPD) initiative. MCA support was

utilized to establish a CPD unit at the University of Namibia, to extend the CPD structure to Regions, circuits and schools and to develop materials for initial training during the Compact period. Training and capacity development initiatives linked to other Education Project components were incorporated into this broader CPD framework. For example, the training required for implementing reforms in the textbook procurement and management process were delivered through this new structure. The MCA-Namibia Post Compact M&E Plan identifies additional support provided under the sub activity; HIV-AIDS training and technical support for MEAC's Standardized School Achievement Test (SAT) development and implementation. A more complete accounting of CPD initiatives during and after the Compact period may be available from the managers of the CPD unit at UNAM. However, due to the decentralized structure of CPD, information on many CPD initiatives will only be available from Regional and circuit level CPD structures. Therefore, ISG shall focus on attending to evaluating CPD in relation to textbooks and school infrastructure and maintenance, and through qualitative and desk research, the functioning of CPD at national/regional level.

Providing needed equipment to the Teacher Colleges

ICT and materials for improving pre-service teachers' capacity in science were provided to Colleges of Education (COE) in the UNAM system. These investments were intended to increase the pool of candidates for hard to fill teaching posts in science and mathematics at the secondary level.

Improved Access to and Management of Textbooks

A priority component within the ETSIP Phase I strategic objective of improving system (Education) quality and relevance is improving access to, procurement and distribution of textbooks for general education (14.6 million USD). The MCA-Namibia Compact Education project provided operational and technical support for the acquisition of Science, Mathematics and English textbooks for grades 5 – 12 on a national level and for developing systems for enhancing the transparency and efficiency of textbook provision and management.

Prior to the commencement of the MCA-Namibia Compact, the procurement and distribution of textbooks was viewed by education officials as driven more by business imperatives of publishers than by the relevant policy priorities regarding curriculum and access to texts established by MEAC. Publishers were permitted to submit new manuscripts for evaluation to the National Institute for Educational Development (NIED) at any time. NIED was obliged to evaluate all new textbook submissions and, if the textbooks passed the evaluation, include the new textbooks in the next edition of the MOE's textbook catalogue. Once a textbook or reader had been included in the textbook catalogue there was no

mechanism for removing titles and all catalogue titles could be purchased with budgetary resources.

As reflected in the MCA – Namibia supported “Textbook Procurement Baseline Study (2010)”, the unwieldy catalogue resulting from the existing practices encouraged schools to compile orders with little thought for building common classroom sets. Prior to the Compact, schools submitted their list of requirements to the MOE, where the publishers consolidated orders. Prior to the reforms introduced by MCA-N the publishers forwarded the confirmed orders to a warehouse in Windhoek. The MOE contracted distributors, usually two, to deliver the textbooks to the schools (NB: These were, in principle, the procedures followed by MCA-N while fulfilling the three MCA-N emergency textbook procurements undertaken under the Education Compact.) Publishers were under no time constraints; consequently, late deliveries were not uncommon. The result of the process was inefficiencies in textbook provision due to duplication, lack of correspondence (correlation) between texts in schools and the national curriculum and significant noncompliance with policies on access to texts (one-to-one provision in most cases).

MCA-Namibia undertook a 2010 ‘emergency’ procurement cycle with the intention of closing the gap between textbook policy benchmarks and provision of Mathematics, Science and English textbooks in all Namibian schools. The procurement incorporated a number of the procedural reforms in developing and selection of texts envisioned by MCA-Namibia and the MEAC.⁴ Schools continued to order texts from the existing Textbook catalogue; however, in the three key subjects of Mathematics, Science and English, schools could only order class sets of a single title in each of these subjects; the MCA-Namibia procurement unit reviewed school orders for compliance. The objective was to ensure that a textbook to pupil ratio of 1:1 in a common text was achieved in those subjects.

MCA-Namibia negotiated discounts from textbook catalogue prices directly with the respective publishers. Schools submitted their orders to the MCA-Namibia procurement section where they were consolidated and then forwarded to the relevant publisher. MCA-Namibia contracted for distribution via a separate tender process. The distributors were responsible for the picking, packing and delivery of the textbooks to the schools. When the

⁴ The MEAC Curriculum Review and Learning Support Materials Review Cycle Policy, implemented after the end of the MCA-N compact, includes Section 6 - Policy Implementation Strategies of which 6.4 deals with Special Needs classes, including Sign Language materials; Braille materials; and Learning disabilities. The Invitation & Terms of Reference to Submit TLMs for Evaluation and Approval states that evaluation will include Promotion of Cross-Curricular Issues (ie. Gender; Environment; HIV & AIDS; Popular Education; Human Rights & Democracy; ICT; and Road Safety).

textbooks were delivered to the schools, the latter signed a Confirmed Delivery Note (CDN). Distributors were paid after submitting all the CDNs for their respective schools. Owing to delays related to the implementation of the Curriculum Review Cycle, MCA-Namibia managed two subsequent procurements following similar procedures in 2011/12 and 2013.

In addition to supporting MEAC with the three procurements of textbooks during the Compact period, MCA-Namibia provided technical assistance for reforming the systems for procurement and management of textbooks. Support was provided to NIED for revamping the system for approving textbooks for inclusion in the MEAC textbook catalogue. The reforms included restricting the number of approved textbook series per subject per grade to three and establishing a calendar for submission of prospective titles that was consistent with the curriculum review cycle. Evaluation processes for submitted texts were also strengthened with separate processes for technical review and content review accompanied by new protocols and instruments that ensured a more rigorous assessment and greater transparency in all aspects of the approval process.

To better manage the procurement and management of textbooks and learning support materials, a Supply Chain Management Unit (SCMU) was established in the MEAC. This unit is located in the Programs and Quality Assurance (PQA) directorate of MEAC.

While the Compact anticipated developing and implementing these reforms during the Compact period, delays in the curriculum reform cycle pushed back the first procurement applying the new system for approval and procurement of texts to 2015 when revised books for lower primary were incorporated into the MoE's Approved List of Textbooks catalogue. In 2016, the new system for selection of texts was applied to upper primary (grades 4 to 7). Under the current schedule of curriculum reform and textbook approval, textbooks for all levels and grades will have been subjected to the new protocols of selection and procurement by 2021. Another technical input into reforming textbook procurement and management was the development of a Learning Support Materials MIS (LSM MIS). The system, as designed, would provide decision makers at all levels with an accurate and timely picture of the distribution of textbooks in the system. This system was to support primarily the MEAC PQA directorate (rather than the curriculum focused NIED). The LSM MIS system was used (or trialed) during the MCA-N textbook procurement of 2014; however, it was offline by the time of the 2015 MEAC managed procurement and has remained offline since. There are references in the documents reviewed to indicate that MEAC were requesting further developments/enhancements to the system mid-2015, by which time the MCA-N compact funds had been exhausted.

In 2014 MEAC decentralised procurement and distribution of textbooks to the 14 Regions. Each Region is now responsible for collecting orders from schools, consolidating them by

publisher and for forwarding the orders to the publishers for issuing of a quotation. Once the quotations have been accepted, the publishers are instructed to deliver the textbooks to the distributor in the Region who has been contracted by the regional education authority to undertake the consolidation of the textbooks into school lots and for delivery to the schools.

2.2 Theory of Change

The theory of change below has been developed by ISG as an output of its review of the MCC monitoring and evaluation plan and other project documents, as well as conversations with MCC stakeholders/MCC.

Goal: Reduce poverty in the Republic of Namibia through economic growth

Activities	47 schools renovated	CPD structure established	Procurement of textbooks and reforms to textbook procurement and management system
Outputs	Learners attend renovated schools	Region/Circuit/School CPD committees functioning	Textbooks procured New protocols and systems established
Outcomes medium term	Better qualified teachers attracted to new facilities and to housing	Better qualified teachers and improved instruction	Improved access to textbooks. More efficient procurement and management of texts
Outcomes long term	Improved quality of education at primary, junior primary and senior primary schools	Learner achievement and learner outcomes improve	Blank cell
Basis of comparison	Changes over time at each of 47 schools 6 Compact schools with 6 non-Compact schools visited Compact schools with regional and national averages	Assessment/exam results to be compared for Grades 5, 7, 10 and 12 as information/data availability permits. Gender disaggregation where data permits.	

Objectives: Improve the quality of primary, junior secondary and senior secondary education and increase the number of learners who participate in senior secondary education (to alleviate workforce quality constraints)

The objective of the Compact Education Project described in the Compact M&E Plan was “to alleviate workforce quality constraints to private sector-led growth by enhancing the equity and effectiveness of basic, vocational, and tertiary education”. This objective reflects an abbreviated statement of a more complete rationale for prioritizing the improvement of education quality set out in the ETSIP. The ETSIP document cites stagnating productivity growth and shortages of qualified labor necessary to improve productivity and competitiveness.

The below table presents the project logic for the activities being evaluated. This logic was developed from reviews of the Compact M&E Plan and project description. The activities implemented are linked to improving workforce quality via improvements in the quality of education through investment in enhanced infrastructure, ongoing maintenance, teacher capacity development and increasing access to textbooks.

Outcome measures for each of the activities were identified through a review of project documentation and through interviews with stakeholders during a short Evaluation Design mission.

<p>Outputs</p> <p>Short term outcomes</p>	<p>Planned versus executed infrastructure spending and works</p> <p>Planned versus executed textbook procurement (including selection and delivery)</p> <p>Planned versus delivered training (CPD)</p> <p>Planned systems development (textbooks) versus completed deliverables</p> <p>Change in qualifications of teaching staff in renovated schools relative to changes in regional and national averages</p> <p>Change in amount of in-service training teachers have received (through CPD)</p> <p>Change in textbook ratios in English Science and Mathematics (change in percent of schools in compliance with national textbook policy) For (47 schools, for the years, 2014, 2016) compared to pre Compact years of 2009/2012 as available. Comparisons to be made at the regional level too.</p> <p>Changes in enrolment statistics (pre primary, junior & senior primary and junior & senior secondary)</p> <p>Changes in repetition and drop out rates.</p>
<p>Medium term outcomes</p>	<p>Changes in learning outcomes (renovated schools versus regional and national averages):</p> <p>Changes in pass rates (G10 and G12) in English, Science and Mathematics</p> <p>Changes in Standardized Achievement Test (SAT) results in English, Science and Mathematics in grades 5 and 7 as data availability permits</p> <p>Enrolment rates in Junior Secondary and Senior Secondary schools (in MCA renovated schools relative to regional and national averages)</p> <p>Changes in learning outcomes in English, Science and Mathematics (all schools due to provision of textbooks)</p> <p>Changes in effective cost per textbook available and utilized in a school (unit cost of textbooks adjusted for loss /non-delivery)</p>

2.3 Cost Benefit Analysis & Beneficiary Analysis

MCC estimated rates of return on the infrastructure investment (13.7%), and the support to textbook provision and procurement (114%). The 13.7 percent rate of return estimate for the infrastructure investment was based on the assumption that the new infrastructure in the supported schools would result in a 3 percent annual growth in secondary school enrolment in the supported schools rather than the 2 percent pre - Compact trend.

As part of this evaluation, ISG shall provide an update on the trends for enrolment including a comparison as possible, for pre-compact versus post-compact trends, per region and for each of the MCA-Namibia supported schools. MCC assumed the returns to primary and secondary education would increase by 20 percent and 10 percent respectively for students in MCA-supported schools due to the enhanced quality of schooling. Investment costs included the annualized cost of the new infrastructure investment as well as the annual recurrent costs per year of schooling for the various levels in Namibia.

The MCC-estimated rate of return to support for the Improved Access to and Management of textbooks (114 percent) is based on the assumption that the supported reforms increase the percentage of textbooks procured that reach students 2 percent per year over a 10-year period and that the reforms result in a once-off 2.5 percent reduction in textbook unit prices. As many of the planned procurement and distribution reforms were not implemented (eg. LSM MIS which was central to the reforms; ring fencing of the TLM budget, another key reform; underestimation of the CPD TLM training budget requirements in the Regions; poor implementation of policies at regional level) an assessment of the final ERR is not possible.

2.4 Literature Review

The Theory of Change underlying the infrastructure and textbook activities posits a positive relationship between these Compact investments in educational quality and improvements in learning outcomes. This relationship is reflected in the MCC calculated ERR for the Compact; incorporating the assumption that the improved educational quality (better learning outcomes) will be monetized through an increase in the labor market returns on education.

The infrastructure activity incorporated a number of related investments: additional classrooms, rehabilitation of classrooms, additional school facilities like libraries and laboratories, water and sanitation, electricity, furniture and equipment, ICT infrastructure, instructional and education management software, consumable teaching materials (including laboratory consumables) and teacher housing. There is a well-established research literature examining the relationship between school inputs and outcomes. This

body of literature is often referred to as “education production function research.” While most of this research has been undertaken in developed country contexts, there is a large body of research on the relationship between school inputs and outcomes in developing country systems.

The objective of these studies has been to apply statistical methods to identify the school inputs having the greatest impact on learning outcomes.⁵ Glewwe, Hanushek, Humpage and Ravina reviewed the published research on the relationship between school inputs and education outcomes in developing countries between 1990 and 2010. From the identification of more than 9,000 publications, a successive series of screenings based on relevance and the quality of the methodology reduced the final corpus of studies to 79. In examining the results of the studies, the reviewers further classified the 79 papers into three groups depending on the methodological rigor of the strategies for control for selection bias and omitted variable bias.

The complete set of reviewed studies (79) presented a mixed – but mostly positive - picture of the impact of infrastructure, learning materials and teacher characteristics on learning outcomes. However, many of these positive associations disappeared in the 43 studies that applied more rigorous methods to control for biases. The authors conclude that other than an association between better learning outcomes and schools that are more complete (libraries, permanent classrooms as opposed to makeshift, etc.), empirical evidence for the impact of specific inputs is weak. The authors acknowledge the absence of more definitive results is due in part to the methodological and data quality challenges inherent in production function research. However, the authors go on to observe that local circumstances and capacities are likely to have a significant effect on whether -and to what degree- investment in a given input can be converted into positive impact on learner outcomes.

In the evaluation, the ISG team will examine the relationship between Compact investments in infrastructure and textbooks and learning outcomes. This analysis will be combined with field visits to six of the involved schools in addition to six of the non-MCA-Namibia supported schools that are intended to provide the evaluation team insights into the role of local conditions and capacity in converting these investments into improved results for students.

⁵ As with the proposed methods for this evaluation, outcomes examined in this research include direct measures of learning achievement like exam results as well as the relationship between investments in school inputs and drop-out, repetition and graduation rates.

MCC based the ERR for the MCA-Namibia textbook activity on the assumption that new systems for procuring and managing textbooks developed through Compact investment will improve the efficiency of textbook provision. Available assessments on the effectiveness of these types of initiatives are usually developed by practitioners rather than evaluators or researchers and have a more normative rather than evaluative approach. One source reviewed as part of the Evaluation Design Report development was Tony Read's, *Where have all the textbooks gone? Towards a sustainable provision of teaching and learning materials in Sub-Saharan Africa*. This authoritative review of decades of initiatives in Africa, describes an optimal "TLM chain"⁶; highlighting the various components of the chain and emphasizing the consequences of any missing or weak links. Read describes the links in this chain beginning with links between TLMs and a systematic curriculum and syllabus review process; continuing with the development of specifications for procurement; rights management; production; distribution and storage and finally classroom utilization and conservation. His review also addresses the relationship between policy – in particular policy on financing – and the TLM chain.

The technical support provided to MEAC through the compact was designed to strengthen a number of the links described by Read. The "TLM chain" framework will provide a useful means of interpreting the assessment of the Compact support for textbook procurement and management.

⁶ Textbook and Learning Materials Chain

3. EVALUATION DESIGN

Due to the lack of relevant Education Ministry Information Management Systems (EMIS) data prior to 2012, which had been intended to use to quantify the effect of the infrastructure investments, a qualitative approach will be necessary, as is reflected in ISG's methods below. ISG will primarily, in this (re) design of the evaluation methods, utilize participatory methodologies for engaging stakeholders from different levels and MCA-Namibia schools. These include: Head teachers and school staff, senior students and stakeholders at the national level and regional level officials and publishers and distributors.

The qualitative approach used by the evaluation team for collecting primary information and evidence at the field level will be triangulated with secondary quantitative and qualitative data (i.e. MCC or MCA-Namibia reporting, EMIS and assessment/testing data available from the Ministry of Education Examinations Directorate). Annex 6.4 contains a list of documentation required and requested from the NPC/MCC.

The qualitative tools used for gathering information will be: site visits, focus group discussions and key informant interviews and are designed to:

1. Gather answers to the sub-question in the analytical matrix provided below, from a number of perspectives, to identify any significant patterns for drawing out findings and conclusions; and
2. Explore and prepare comparisons across the various regions, and schools involved (performance, experiences, issues, gaps, and lessons learned).

In addition to visits to schools, ISG will conduct interviews/discussions at three circuit offices and at three or four regional offices to obtain a wider perspective on the extent to which information gleaned during school visits is generally applicable. Even so, the field visits ISG will conduct will not necessarily be representative of the Compact schools *not* visited.

3.1 Evaluation Questions

The evaluation questions are designed to assess the correspondence between project design and implementation, test the project Theory of Change (see section 2.2) and provide lessons learned to MCC and Namibia stakeholders.

It must be noted that much of the documentary evidence listed below is to be obtained from the MCA-Namibia data archived with the Namibian National Planning Commission (NPC). To date the NPC has provided approximately 20 Excel files containing data that *may* be usable, but is attempting to locate other relevant files in its archive. Crucial files (please see Annex 7.5) missing for ISG's review and evaluation are referred to in Table 1 under

issues with access to information. Unless this requested data can be provided, fully responding to the evaluation questions may be compromised, and the robustness of testing of field observations by triangulation with quantitative data will be reduced.

Table 1 Evaluation Framework

Evaluation Question	Key Outcomes	Data source	Information Access Issues
EQ1. Was the Quality of the Education Activity implemented as planned?	<p>Infrastructure spending as % of planned infrastructure spending</p> <p># of schools reporting completed works</p> <p>Increased enrolment</p>	<p>MCA-Namibia records/reporting – information to be provided by the NPC</p> <p>Field observations</p> <p>Key respondent interviews at 3 Regional Offices, 3 Circuit Offices,⁷ and 12 schools.</p> <p>EMIS data</p>	<p>Document/record review</p> <p>[ISG has been able to locate the 49 schools via construction files from NPC, which give cumulative spending to 30 Sept 2014, with monetary amounts (presumed USD) for a total of 47 schools. No breakdown by region or by school. Presume that 47 schools = 49 schools.]</p> <p>There are several years for which EMIS has been unable to provide school level data.</p>
EQ2. Was the improved Access to and Management of Textbooks activity implemented as planned?	<p>Review of documentation of supply chain management unit set up/function/planned versus actual</p> <p>Planned spending versus actual spending for 3 procurements of texts during the compact period.</p>	<p>MCA-Namibia reporting – information to be provided by the NPC</p> <p>Publishers records</p>	<p>ISG suspect the Textbook component was not implemented as originally envisaged by MCA-N. As with the infrastructure aspect, MCA-N may have found things on the ground required a more radical approach, hence the emergency procurements to buy time to prepare the reforms initiated later. ISG will have to make time during the forthcoming data</p>

⁷ For administrative purposes each education region is divided into a number of inspection circuits, each headed by a Circuit Inspector who is responsible for supervising the schools in the circuit.

	<p>Number of texts delivered to schools against planned quantity in three MCA textbook procurements.</p> <p>Change in textbook ratios in English, Science and Mathematics</p> <p>Training in procurement management against planned training – who received training/process information and results (as available or documented)</p> <p>LSM MIS developed and deployed as planned</p> <p>Availability of textbooks at schools visited/ information on use and state of textbooks at schools visited</p>	<p>Distributors records</p> <p>UNAM-CPD records</p> <p>Visits to minimum 6 of the 49 schools and visits to -6 non-compact schools</p> <p>KIIs/FGDs</p> <p>KIIs/FGDs</p>	<p>collection mission for lengthy meetings with SCMU/PQA/ and others (to be identified) to try and ascertain the facts; unless somebody produces reports which document the compact’s thinking at that time.</p> <p>[ISG has located documentation on expenditure budgeted for textbooks before it became “emergency/quick fix” procurements. ISG does not have in possession Invitation for Bids: Tender for the Receiving, Sorting, Packing, Dispatching & Distribution of Textbooks to all Schools in all 13 Regions of Namibia. This IFB, which was for the Phase 3 procurement of textbooks, was probably issued mid to late 2012. We are also lacking the equivalent IFB for the Phase 2 procurement. This was a significantly smaller procurement & distribution than the other two procurements.]</p> <p>[The emphasis of the emergency procurements appears to have been to build class sets in each grade for the three key subjects. Comparison against proposed number of texts procured against actual numbers supplied is not possible. Currently ISG does not possess data on how near schools came to achieving the target TPR of 1:1]</p>
EQ3. Does improved infrastructure impact	Changes in learning outcomes	MEAC Examinations Directorate data (depending on the	School level and individual level quantitative data: [To this date the team has only been able to secure

<p>learner flow and outcomes?</p>	<p>Changes in participation in senior secondary education</p> <p>Improved learner flow</p>	<p>type/level of the school) G10 or G12 exam results for 49 MCA-Namibia supported schools, and possibly Grade 5/7 SAT results in schools provided new infrastructure relative to regional and national averages.</p> <p>EMIS enrolment and learner flow data likely to be for a limited time-frame, 2014-2016, since earlier EMIS data is not available</p> <p>Responses from KIIs with Head Teachers and Management and Senior Students (KIIs/FGDs)</p> <p>EMIS data</p>	<p>exam data in the form of *.rtf text files that summarize results per school by page. In order to submit this data to analysis, hand processing the text data into an excel file is required.</p> <p>There are approximately 450 schools that offer (and test) at grade 10 and about 170 that offer and test at grade 12. ISG shall hand process results for 49 compact schools over a period of 5 years in 3 subjects per school and provide this information for analysis in Microsoft Excel</p> <p>[The SAT results data in ISG’s possession consists of 266 variables and 50,000+ rows of data. The variables (around school ID, region etc.) are mostly numeric or individual letters, therefore ISG requires the code book to process and shall try to obtain this].</p> <p>For 2012 the only school level learner data provided by EMIS was total enrolment by gender.</p>
<p>EQ4. Do improvements in school infrastructure (including teacher housing) attract more qualified teachers?</p>	<p>Change in teacher qualifications in schools receiving infrastructure through MCA-Namibia relative to regional and national averages.</p>	<p>EMIS data 2012-2016</p> <p>Visits to minimum 6 of the 49 schools and visits to 6 non-compact schools</p> <p>Key respondent interviews</p>	<p>School level and individual level quantitative data – this shall include information on available teacher housing before and after the Compact (as possible, given data limitations explained), teacher qualifications changes per the above.</p>

<p>EQ5. What has been the impact of investments in school facilities on programs of study offered and program quality in renovated schools?</p>	<p>Changes in composition/structure of studies in MCA-Namibia supported schools</p> <p>Changes in quality (such as changes in management at schools, e.g. platooning) enabled by improved facilities</p>	<p>MCA-Namibia reporting – as available from NPC</p> <p>Visits to minimum 6 of the 49 schools and visits to 6 non-compact schools</p> <p>Visit to 3 Regional Offices and 3 Circuit Offices.</p> <p>Responses from KIIs with Head Teachers and Management (KIIs/FGDs)</p>	<p>Project reporting on works implemented [MCC Communications: On 16 Sept 2016, a report from Nick on the number of classrooms, laboratories, computer rooms, libraries etc. included in the construction programme, but without indication of what facilities were built and at which school. There is some data on library books provided to 49 schools – presumably Compact schools but lack of information on allocations to individual schools. Failing this information, we shall be able to use only information as provided from regional offices and from schools.]</p> <p>The impact of improved sanitation, disabled access and safety is likely to emerge only from KIIs and FGDs.</p>
<p>EQ6. Have investments in developing a system of Continuous Professional Development (CPD) increased the amount of in-service training received by teachers and/or improved teacher qualifications?</p>	<p>Change in amount and type of teacher in-service provided and changes in qualifications.</p>	<p>MCA-Namibia reporting as available</p> <p>Visits to minimum 6 of the 49 schools and visits to 6 non-compact schools</p> <p>Visit to 3 Regional Offices and 3 Circuit Offices.</p>	<p>Project reporting [Aurecon Inception Report indicates UNAM will not be involved in training on school maintenance. ISG shall approach Aurecon for relevant information on the initial training (which Inception report indicated would be completed by mid-September 2014). ISG shall explore this at the schools and ROs we visit. Any documentary evidence received shall be reviewed. N.B. In late 2015 CPD merged with the UNAM Teaching & Learning Improvement Unit</p>

		<p>UNAM/CPDTL records/reports</p> <p>Head teacher reporting Teacher focus group discussions</p> <p>Quantitative data on teacher qualifications for the years 2012 to 2016 (EMIS)</p>	<p>and is now known as CPDTLI]</p> <p>Where a gender breakdown is available (EMIS), this can be provided. Information on salary ranges is not available.</p>
<p>EQ7. Did the provision of additional textbooks improve learner outcomes in English Science and Mathematics?</p>	<p>Change in learner outcomes in English, Science and Mathematics system wide.</p>	<p>MCA-Namibia reporting on textbook procurement and delivery</p> <p>Exam results (G10 and G12 leaving exams) and potentially SAT, for 49 schools, for the years 2011,2012,2013,2015.2016</p> <p>SAT average scores of learners (Overall Performance - OP), for each grade (G5/ G7) in the following subjects: English as a second language, mathematics and for G7 in addition, Natural Science.</p> <p>Project reporting</p> <p>Individual level learning</p>	

		outcomes, at grade 10 and grade 12 from 49 schools MCA-Namibia supported schools.	
EQ8. Have investments in reforms to systems and protocols for textbook procurement and distribution resulted in efficiency improvements?	Change in cost based on rationalization of textbook catalogues and system reforms available at schools (Estimated narrative: 1. For the 3 procurements undertaken by MCA-Namibia and 2. Using Read's TLM as a tool, financial consequences of MEAC not implementing LMS MIS, Inadequacy of Capitation Fund, etc)	<p>MCA-Namibia reporting</p> <p>MEAC reporting (procurement and distribution contracts)</p> <p>Publishers records</p> <p>Regional records for procurement and distribution</p> <p>School level records (from schools participating in the evaluation, i.e. twelve schools)</p> <p>Interviews with National level and Regional level officials, publishers and distributors</p> <p>Qualitative reporting from interviews with National and Regional level officials.</p> <p>Head teacher reporting</p>	The MCA-N reforms to systems and protocols only really took effect in 2015 and for Grades 4-7 in 2016 with the implementation of the Curriculum Review Cycle Policy. Up to 2014, the pre-compact methodologies applied. The textbook catalogues only started to be revised in 2015 when the new textbooks delivering the Revised Curriculum began to appear.

		Teacher focus group discussions	
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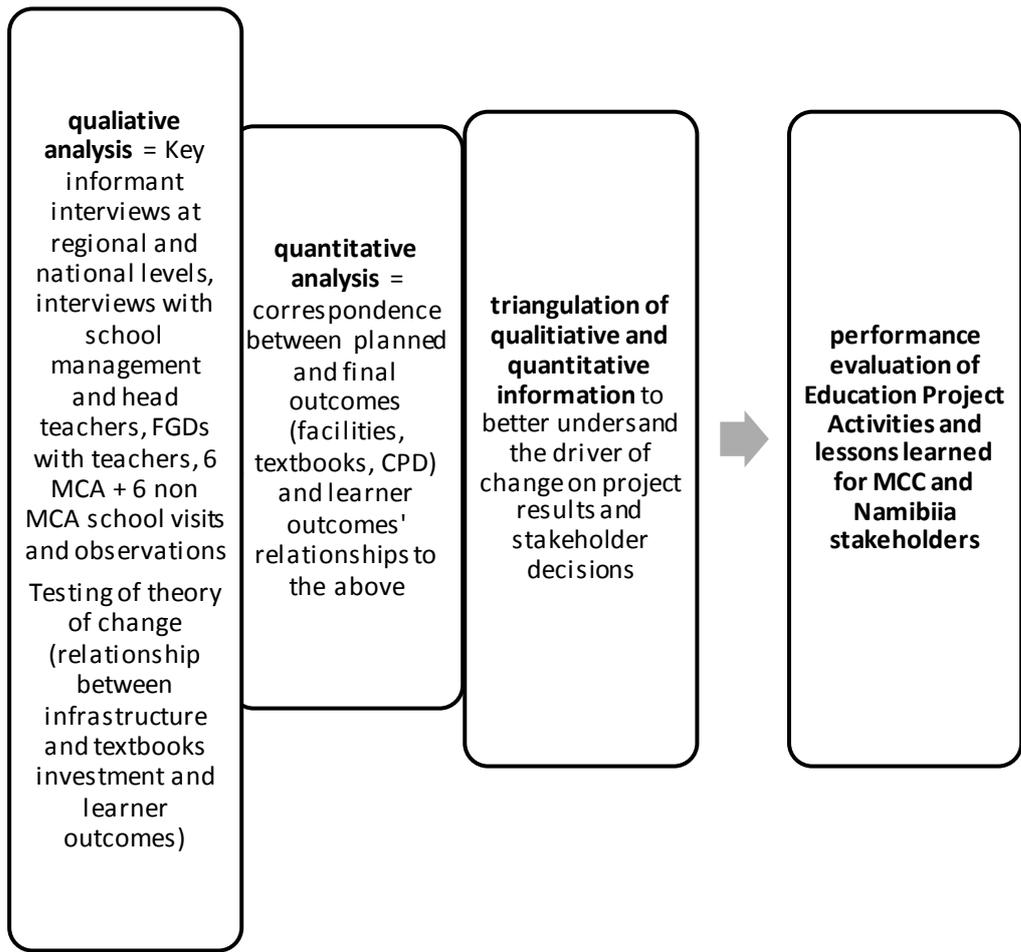
3.2 Evaluation Design Overview

The performance evaluation of the MCA-Namibia Education Project activities will, as noted, be primarily a qualitative evaluation with an emphasis on the use of participatory methods to collect primary data. Quantitative methods will be utilized for simple comparisons of planned numeric data (including, where data are available, those outlined in the Namibia M&E Plan) with reported outputs and for description of or studying of the relationships between project investments and changes in learner outcomes.⁸ Quantitative methods will complement the qualitative analysis providing the evaluation team a framework for interpreting the qualitative results; addressing the “learning” objective of the evaluation of providing MCC and Namibia Stakeholders lessons learned regarding project strategies and operational decision making and their effect on outcomes.

The evaluation will contextualize the findings through a review of the role that context, institutions and individuals played in shaping decision making and impacting the outcomes of reform or development initiatives. The evaluation will assess how these factors influenced project outcomes and the effectiveness of project strategies and operational decisions in addressing challenges in each realm.

Initial results and observations from the desk review, evaluability mission and the quantitative analysis of targets versus outputs, as well as learner outcomes and their relationships to the project, will be used to refine the themes and organization of the planned qualitative field work and the final qualitative evaluation tools the team shall utilize.

⁸ As summarized in the Theory of Change



3.2.1 Quantitative Approaches

The Theory of Change for both project activities being evaluated posits a relationship between investments in quality at the school level and improvements in learner outcomes. There are significant challenges to testing the Theory of Change, as follows:

a) The 49 schools that were chosen by MCC for investments in infrastructure were identified via a needs analysis (needs pyramid) in the ETSIP. While the due diligence exercise verified significant deficiencies at each of the MCA-Namibia supported sites, information about the differences (with respect to infrastructure) between the supported sites and other potential sites was not provided by the NPC/MCC to date. Information is also not readily available on the level of investment in school infrastructure that may have been provided to schools from other sources during the Compact period.

b) Further, data from the education ministry management systems, EMIS, prior to the year 2013 is reportedly corrupted/incorrectly formatted – with this conclusion being made by ISG based on communications and documentation received from EMIS (two data tables only were provided for 2012), and consequently not available or, at least, analyzable. Despite the lack of information on non-MCA Namibia infrastructure investment, the size and comprehensive nature of the MCA-Namibia infrastructure investments (approximately 1 million USD per school) were very unlikely to have been duplicated in schools we intend to use for the comparison with the MCA-Namibia supported schools that will be visited.

c) The provision of additional textbooks (in English, Science and Mathematics) through the three MCA-Namibia implemented procurements was national in scope. As all schools with grades 5 through 12 were included in the provision of additional copies of the existing texts, a comparison group for assessing the effect of the additional texts on learner outcomes is not available. The evaluation will instead examine changes in trends in learner outcomes pre-Compact textbook procurement versus post-Compact outcomes using data available from the examination directorate. In line with the Revised Curriculum Cycle, the phasing in of new texts commenced in 2015 with PPE⁹ and Grades 1-3, followed by Grades 4-7 in 2016 and Grade 8 in 2017¹⁰.

The testing of the relationship between investments in infrastructure and textbooks and learner outcomes will rely on secondary data that is available to ISG. This will include

⁹ Pre-Primary Education

¹⁰Over the period, 2016 through to 2021 many of the textbooks supplied by MCA-Namibia are due to be replaced by new curriculum compliant texts.

administrative data that is available on all schools through the EMIS system between 2013 and 2016. MCA-Namibia activity reporting (works completed at schools, textbooks distributed to schools) and examination and testing data collected for grades 5, 7, 10 and 12. At the time of submitting this EDR, some of the information is unavailable to ISG. However evaluation team members based in Namibia are working closely on the matter.

Methodology

Infrastructure

Project reporting (MCA-Namibia project reports that can be made available via the NPC), will be used to assess planned spending on infrastructure versus final infrastructure spending. Schools supported by MCA-Namibia participating in the site visits (six schools receiving MCA infrastructure support) will also report works completed at the schools against the MCA-Namibia reporting. ISG will verify findings/achievements noted in these reports by school staff in the six school site visits planned in the evaluation. [EQ1] To supplement the quantitative analysis, the evaluation team will conduct key informant interviews (KIIs) and spot checks to ascertain the level of completed works.

EMIS data (as available from 2012-2016), together with assessment data, will be utilized to estimate the relationship between investments in infrastructure and learner outcomes.

The analysis will include three potential measures of learner outcomes depending on the programs offered in the school (level):

- survival rates (measures persistence and grade progress of learners in the school);
- SAT results (grade 5, grade 7 in English and Mathematics) derived from MEAC Examinations Directorate data; and dependent on ISG's success in obtaining SAT results codebooks;
- Grade 10 and grade 12 leaving exam results in English, Mathematics and Science, derived from MEAC Examinations Directorate data.

Provision of textbooks

School staff participating in ISG's primary data collection visit of six MCA-Namibia supported and six non-MCA-Namibia supported schools in total, will report on textbooks received and

textbook ratios in English, Mathematics and Science¹¹[EQ2]. Visits will collect data on the following activities/indicators (at a minimum):

- (i) Progress in achieving TPR of 1:1 in each grade in all three subjects;
- (ii) Criteria used by teachers/schools in selecting textbooks (eg. Syllabus coverage; appropriateness of the content of books; do schools have access to samples of all textbooks prior to placing the school order);
- (iii) Management of Instructional Material (IM) stock in the school (eg. Basic record systems; storage; using IM in the classroom);
- (iv) Conservation and Book repair, and;
- (v) Constraints of the new procedures implemented in textbook management.

The MCA-Namibia provision of textbooks was intended to improve access to textbooks in English, Mathematics and Science to all schools offering grades 5 through 12 in Namibia. The evaluation team will use MEAC Examinations Directorate data (grade 10 and grade 12 leaving exam results English, Mathematics and Science) to assess the relationship between the investment in texts and changes in learner outcomes in the three subjects. The evaluation will compare pre-Compact trends in G10 and G12 leaving exams and potentially SAT results in the three subjects to trends post-Compact provision of texts. [EQ7]

Timeframe for exposure

As discussed in the introduction to this report, some aspects of the MCA-Namibia Compact can only be evaluated by including outcomes in the post-Compact period. In the case of infrastructure and textbooks, some lag between learners having access to these resources and improved results would be expected. Fortunately, the secondary data to be used in the evaluation is regularly collected by MEAC, enabling the evaluation team to incorporate data from the immediate post-Compact period. For EQ3, EQ4 and EQ7 the analysis will include data as recent as 2016.

Although construction of additional facilities commenced in the first quarter of 2011, with 24% of the expenditure for this component disbursed by June 30, 2011, documents have not yet been provided to indicate what facilities were completed at which schools on what

¹¹ Utilizing a sample spot check with respect to grades/subjects.

dates. It is likely that some schools were using new facilities as early as June 2011, while other schools might not have been able to make effective use of the new facilities much before the start of 2015.

All schools, including non-Compact schools, are likely to have benefited from increased accessibility to textbooks at much the same time, with the first deliveries taking place in 2011 using the new Textbook Policy. (As noted elsewhere in this report, the first textbooks to appear following completion of the Curriculum Review Cycle were not available to schools until 2016.)

The evaluation will also seek to take account of these variations in the length of exposure to Compact interventions in the analysis of changes in Grade 10 and Grade 12 examination results.

Study Sample

The data sources described previously are gathered either for all schools (EMIS) or for all learners (achievement testing and leaving exams). The purposive sample proposed by ISG is based on the following criteria:

1. MEAC Examinations Directorate data for 49 compact schools
 - 1.1. Grade 10 leaving exam results English, Mathematics and Science
 - 1.2 Grade 12 leaving exam results English, Mathematics and Science
2. Administrative data gathered on all schools through the EMIS system as possible between 2012-2016 for 49 compact schools
3. SAT results for Grades 5 and/or 7, derived from MEAC Examinations Directorate data for 49 compact schools.

The evaluation will collect, review and analyze the above data for the 49 Compact schools for each of the grades, covering a range of years, both before and after the Compact. The evaluation will also review national/regional level results against the trends developed for the 49 schools to implement a suitable comparison. The planned comparison group of 49 non- MCA-Namibia supported schools cannot be utilized as it is dependent on ISG accessing EMIS raw data prior to the commencement of Compact interventions to outline a 'before' scenario. This information is unavailable at the time of drafting this second draft of the EDR. Therefore, ISG shall implement an analysis of the Grade 10 and 12 leaving examination results, as well as the EMIS indicators for the years this information has been received for the 49 MCA-Namibia supported schools only – and these results shall be compared to available national/regional data.

For the qualitative component of the evaluation, ISG shall still seek to develop a matched sample of six Compact-supported schools, and six non Compact-supported schools among which to implement direct field research. Due to lack of EMIS data from 2012, the evaluation team will derive matched samples using information drawn from the specific regions themselves. ISG shall implement a total of 12 school visits.

Data processing

MCA Namibia records and EMIS data

The primary source of the quantitative data to be used in the evaluation are MCA-Namibia and MCC records including those available from MCC, and from the NPC particularly referencing infrastructure targeting and actual achievements.

As ISG notes above, information on infrastructure thus far provided by the NPC does not include data on individual Compact schools: nor the nature of the facilities added, the date of hand-over, the certifying of remedying of latent defects, nor the expenditure per school (EQ1; EQ5). The evaluation will utilize several years available at the time of preparing this EDR (2014-2016), of the Annual Education Census (AEC) managed by the EMIS Directorate in the Ministry. This information is collected annually from all schools and provides comprehensive information on enrolment, demographics of learners, grade promotion/retention, school infrastructure, the number of teachers, the demographic characteristics of teachers and teacher qualifications/experience.

The EMIS data, managed by MEAC in a database format, is yet to be provided to the evaluation team in the form of Microsoft Excel files extracted from the databases for the years 2012, 2013 and 2016. We have recently received data for 2014, 2015 and 2016 data which represents the post Compact period. Evaluation team member Dr. West (in Namibia) has been in weekly contact to receive specifically requested files extracted from the database. As of December 20, 2017, data from prior to 2014 were not available (with the partial exception of 2012). Despite efforts on the part of EMIS personnel, it has not been possible to extract complete data sets for earlier years. The 2012 data that ISG has received has serious gaps. Total enrolment per school (Male, Female, Total) appears complete. No further learner data could be accessed. MEAC provided no data related to facilities, nor on lowest and highest grade per school.

ISG will reconstruct, clean and analyze available data as of December 2017 (using Microsoft Excel) and provide the final analyzable file as an evaluation deliverable. All personally identifying information will be removed from the source data upon receipt from the MEAC.¹²

Testing and examinations data

In addition to the MEAC EMIS data, the evaluation will also utilize testing and examination data managed by the Examination Directorate. The evaluation will analyze grade 10 and grade 12 leaving examination results. Data for 49 schools will be extracted manually for the years 2011, 2013, 2015, 2016 per school, per subject and for each grade (10 and 12). This information is currently only available to ISG in Microsoft word/rich text formats. The leaving examination data is managed in a database format, while the SAT data is in the form of SPSS data files. The leaving examination data has been provided to the evaluation team in the form of csv text files which include summary data per subject for each school. Therefore, the data must be reformatted in spreadsheet format for analysis. Comparisons of these results shall be offered against regional/circuit level results.

ISG plans to analyze SAT results (grades 5 and 7). ISG has requested the Director of Examinations/NPC to supply this data (in Excel format), with indications of willingness from the Examinations office to extract and supply it. Both the SAT and leaving examinations are administered to the entire population of eligible learners (not sample based).

Neither the SAT data nor the leaving examination data identify individual examinees. Both data sources include school codes that link testing and exam results to specific schools. However the Examinations Directorate does not use the same codes for identifying schools as does EMIS.

MEAC EMIS does not collect information on textbooks from schools. LSM MIS, a core component of the MCA-Namibia textbook management proposal¹³, has not currently been

¹² The EMIS data is public access. The only personally identifying information is the name of the school head and the names of the teachers. This information is not relevant to the analysis and will not be included in the analyzable file provided to MCC and GRN.

¹³ MCA-N driven Textbook Supply Chain Management proposals contain several components (1) Develop Standardised LSM per Capita Allowance Budget (2) Develop Operational Capacity of Supply Chain Management Unit (SCMU) (3) Develop LSM Management Training Interventions in collaboration with CPD Unit (4) Establish Textbook Data Management and Planning Framework (5) Develop a Regional Contract Framework for Textbook Procurement and Distribution (6) Establish Regional Redistribution System.

Item (4) led to the development of LSM MIS, which morphed into a management tool for not only procuring and managing textbooks (including stock control/stock management) but also emulated the components of EMIS and more besides. It is a sophisticated

deployed by MEAC. Consequently, MEAC, the regions and circuit administrators are currently unable to access a central textbook stock control/management information system providing information on the status or adequacy of teaching learning materials at school level.

As with the EMIS data, the evaluation team will use Microsoft Excel to manage the data, construct the appropriate analyzable files and perform the analysis. The analyzable files and any code used for the analysis will be provided as an evaluation deliverable. The evaluation quantitative data will be managed and stored on two stand-alone (non-networked) laptop computers with password protected cloud storage for backup.

Analysis plan

In utilizing quantitative data and methods and analysis plans, we are relying on secondary data that is available from three key sources: the NPC, EMIS and DNEA. It is important to note, that although NPC is technically the custodian of the full MCA-Namibia archive, the M&E Directorate has been able to provide very little from their archive, and maintains that this is the best they can do. ISG will undertake visual trend analysis for comparisons between these three sets of data (for the purpose of descriptive statistical reporting). Tests will not be run on the data because of the variations in the timing and nature of interventions across Compact schools. The following areas of key concern will be studied and will likely be triangulated against the primary qualitative data collection via site visits and interviews. Site visits shall be implemented in twelve schools including six Compact and six non-Compact, matching schools, in three regions.

1. Spending on infrastructure versus final infrastructure spending – via a review and analysis of works completed versus planned. EMIS data (as available from 2014-2016), together with assessment data (see below), will be utilized to estimate the relationship between investments in infrastructure and learner outcomes. The evaluation team shall conduct a study of the files provided by the NPC (currently not in our possession but we continue to seek this information), to assess cumulative spending to 30 Sept 2014, with monetary amounts (presumed USD) for a total of 47 schools. It is important to note that currently, the documentation provided by MCC to ISG, does not provide any indication of what infrastructure was to be added per school, or of what infrastructure was added per

management tool/facility designed with the intention of being accessible to MEAC/SCMU; Regional Directorates; Circuit Inspectors and ultimately individual schools. The system is currently 'offline'.

school. Further there is currently no indication of expenditure on infrastructure per school, intended or actual. The “MCA project description Education” provides no disaggregation. MCA-Namibia Annual Report 2013 reports progress on regions and schools without detailing facilities.

2. Textbook management and planning versus implementation – this aspect shall be assessed via a review of all invitation for bids: Tender for the Receiving, Sorting, Packing, Dispatching & Distribution of Textbooks to all Schools in all 13 Regions of Namibia. Important to note however that ISG has not yet accessed any specific instructions/directions/information provided to schools by MEAC or MCC-N on which textbooks to select and other ordering criteria. The procurements undertaken during the compact were “emergency” in nature and followed the existing (pre-compact) procurement procedures. Without this information ISG’s analysis may be limited to providing information on financial allocation provided for the procurement of textbooks actually spent on textbooks and distribution, as intended.

We shall examine changes in trends in learner outcomes (see below), pre-Compact textbook procurement versus post-Compact outcomes to assess impact. Project reporting will also be used to assess changes in classroom ratios (access) to textbooks in English, Mathematics and Science. In order to test the assumptions in the project’s theory of change that provision of textbooks contributes to improved learning outcomes, the evaluation team will utilize primary data collection implemented through school visits and key informant interviews in conjunction with leaving examination results and/or SAT results at G5 and G7 for the period 2009 – 2016 (further discussed below).

3. Relationship between infrastructure, textbook management against specific indicators - Reviewing the relationship between investments in infrastructure and textbooks and learner outcomes will rely on comparisons made from secondary data, which shall include administrative data that is available on all schools through the EMIS system as possible between 2012 and 2016. While ISG is in possession of the EMIS report for 2012, this does not contain much of the region/circuit/school level specific information required. Specifically ISG shall analyze for descriptive narrative purposes, for each of the years noted above, enrolment statistics (pre-primary, junior & senior primary and junior & senior secondary), total numbers of qualified versus unqualified teachers, total number of classrooms (prefabricated, permanent and traditional), availability and number of laboratories, libraries and special teaching rooms, water supply and toilet units for learners and staff, housing units for teachers and number of disabled learners (disaggregated by type of disability) and the number of orphans and vulnerable children. As noted above, to the extent that EMIS data are available, a year by year descriptive review including graphs to

portray key statistics and a comparison between the 49 compact schools against the above indicators will provide an understanding of pre-and-post-Compact situation and analysis of key relationships. A standardized testing would not be reliable as there are many variables in consideration including the length of time subsequent to an intervention which varies across the compact schools, e.g. additional infrastructure was not handed over at all schools in the same year; thus the impact of the infrastructure on recruitment of qualified teachers and in securing increased enrolment would vary across schools.

For qualitative comparisons ISG will select the six compact schools to be visited (two in each of three regions) on the basis of school characteristics, while the six matching schools to be visited will be selected, if possible, from the same circuits, i.e. this exercise involves 12 schools, through consultations with the regions directly to obtain the critical criteria for the years prior to and post the Compact.

An analysis of the leaving examination results shall be implemented to cover years in the range 2011 to 2016, for which data has been provided to involve 49 MCA-Namibia schools. Where possible, the analysis will be compared to national and regional summaries per year. For the grades G10 and G12, ISG will need to extract the data by year, for each school, for the subjects English as a Second Language, Mathematics, and Science (Physical/Natural Science). Specifically, for Grade 12, ISG will analyze the Ordinary Grade 12 results, however if it seems that there are Compact schools that offer a still higher level that consist of more than a token number of learners then, we may need to consider these as well budget allowing for extraction efforts. ISG will retain technical specialists to conduct the data extraction.

ISG shall also provide an analysis of changes in survival rates at the junior secondary and/or senior secondary level in 49 schools provided new infrastructure relative to similar schools that did not benefit from new facilities, and these shall be compared with regional and national averages. [EQ 3]

Changes in teacher qualifications in schools receiving infrastructure relative to similar schools not provided new infrastructure through MCA –Namibia will provide the basis for results associated to EQ 4 while changes in the amount and type of teacher in-service and training processes (the latter via primary research), will be reviewed against MCC reporting as available.

4. To test the relationship between infrastructure investments, textbook management and learner outcomes ISG shall utilize the following sets of data from DNEA.

- a. G10 and G12 school leaving examination results for 2011-2016 (in ISG's possession), 2011 to most recent available; (disaggregated by gender)
- b. If available, the National Standard Achievement Tests (SATs), SAT G5 and/or G7 for the years 2011 to most recent available; requested from DNEA: Average scores of learners (Overall Performance - OP), for each grade in the following subjects: English as a second language, mathematics and for G7 in addition, Natural Science. (currently not in ISG possession)
- c. SATs for G5 and G7 specifically relating to the 49 schools for each grade.

The evaluation team will include narrative analysis of statistical data, assessing pre-and-post-Compact outcomes in related regions, as compared to the national totals, and these will in turn be compared against the qualitative data from visits to six compact and the six comparison schools. We will attach EMIS codes for the 49 Compact schools, to review correlations between the DNEA data and the EMIS data on school characteristics. Specific comparisons ISG intends to implement among the schools include (but not limited to):

- a. the performance of students at compact schools over time,
- b. comparisons between the two sets of data (compact compared with other schools in the region and six matching non-MCA-Namibia supported schools).

Sufficient evidence (including that from the qualitative research) may be available to draw conclusions on any relationship between changes in compact school education performance and provision of infrastructure.

The analysis will include three potential measures of learner outcomes depending on the programs offered in the school (level):

- Repetition, promotion and drop-out rates provided EMIS provides this data. At the national level, which is the only level for which we currently have year-on-year data from 2005 through 2015, there is no grade level at which steady year-on-year improvement is displayed for these measures.
- SAT results (grade 5, grade 7 in English and Mathematics) derived from MEAC Examinations Directorate data; and dependent on ISG's success in obtaining SAT results codebooks.
- Grade 10 and 12 leaving exam results in English as a Second Language, Mathematics and Science, derived from MEAC Examinations Directorate data.

A comparison of the exam and SAT results will paint a picture of some of the key changes that occurred before and after the compact. The evaluation team will review the secondary quantitative data and primary qualitative data to assess any relationship between Compact investments and education performance changes. We expect a comparison of the national results and the outcomes of the 49 schools will provide a fair indication of the impact of the additional textbooks¹⁴ and we anticipate there will be regional differences. There will be a large number of variables which will have a bearing on the results achieved at national, regional and school level and the impact of these variables will require primary visits and interviews to ascertain (i) which variables apply and (ii) to what extent the variables may be affecting outcomes in the sample schools (i.e. only in those regions in which visits are possible).

Variables which may have a material bearing on outcomes, could be:

A) Quality of school environment (e.g. school discipline; facilities; adequate number of desks and textbooks);

B) School facilities (e.g. school construction; well stocked library; science and computer laboratories; adequate staff facilities; spacious stockrooms; appropriate sanitation and ablution facilities);

C) Quality of trained school teachers (through KIs);

D) Teacher stability (including levels of absenteeism and recruitment issues) and teacher retention;

E) Schools hours identified in the Textbook Procurement Baseline Study prior to the investments being made etc.¹⁵

F) The way in which textbooks are used to promote learning (e.g. only in the classroom; on loan for homework; regular or irregular use).

¹⁴ All schools received additional textbooks. Any greater impact on learner performance at Compact schools will have to be accounted for as a combination of various factors (facilities, textbooks, etc.)

¹⁵ The Study notes that schools remained open in the afternoon after formal lessons ended to enable students to use the school facilities and for doing homework, receive extra tuition.

Through school visits the evaluation team will assess the description of works completed against reports by current school staff, including observations from students, and the evaluation team's field observations. The team's ability to evaluate this aspect of the compact is dependent on the availability of material and project documents from the NPC. [EQ 1]

Project reporting will be used to assess planned spending versus actual spending for three procurements of texts during the compact period, noting that currently, ISG has no information of the planned quantities that were envisaged or any information on the basis the overall budget was allocated to individual schools. [EQ2]

Project reporting will also be used to assess changes in classroom ratios (access) to textbooks in English, Mathematics and Science. With the decentralization of textbook procurement in 2014 and the failure to implement LMS MIS, post -Compact provision of textbooks utilizing the reformed processes for selection, procurement and delivery is only available at the Region and circuit level. At the time of the Evaluation Design Report, the evaluation team does not have sufficient knowledge about how this information is managed to determine how – or whether – it will be possible to examine how the new processes have impacted accessibility of textbooks at schools. [EQ 2]

The Improving Access to and Management of Textbooks activity was implemented nationwide. The three procurements of textbooks managed by MCA-Namibia were intended to improve access (and equity of access to texts) among the entire population of schools in Namibia. In order to test the assumptions in the project TOC that provision of textbooks contributes to improved learning outcomes, the evaluation team will utilize primary data collection implemented through school visits and key informant interviews (further discussed below) in conjunction with leaving examination results and/or SAT results at G5 and G7 for the period 2009 – 2016.

The evaluation will utilize grade 10 and grade 12 results from national examinations managed by the MEAC Directorate of National Examinations and Assessment (DNEA) from the period 2009, 2011, 2013, 2015, and 2016. The examination data will enable the evaluation team to estimate the trends in learner performance pre and post Compact provision of new texts at the junior and senior secondary level. [EQ 7]

An evaluation of the change in cost per textbook available at schools (pre-Compact versus post Compact) may not be possible via MEAC reporting owing to the relevant data not being available - it may be possible to compare the prices of similar titles in the MoE's List of Approved Titles for the various Grades prior to 2009 and 2014 onwards; and publisher records and school level records as available will be used for the review. As decentralization

only came in 2014 regional records for procurement and distribution will not be available prior to 2014. Further comparisons will be limited due to the introduction of completely new textbooks in the three core subjects for Grades 4, 5, 6 & 7 during 2016 and grade 8 in 2017. The most significant cost savings, but largely unmeasurable, will have been the complete overhaul of the textbook selection, introduction of quality controls and approval process carried out by NIED, along with the limit of three titles per subject in the List of Approved Textbooks. Schools should only select one textbook per subject with the aim of building classroom sets in each subject, which should lead to improved TPR in each grade for the three core subjects. [EQ 8]

3.2.2 Qualitative Approaches

The evaluation will implement a qualitative methodology to collect primary data via observations and findings on project delivery and project outcomes. These findings will be triangulated with and interpreted alongside the quantitative data. Using key informant interviews, focus group discussions and school visits, the evaluation team will gather information and stakeholder perspectives on project implementation and project outcomes.

Specific performance indicators that we will seek to establish during school visits may include:

Quality of Education Activity	Access to and Management of Textbooks
<ul style="list-style-type: none">•(1) Existence of infrastructure;•(2) Utilization for intended purpose;•(3) Confirmation of changes in enrolment;•(4) Confirmation of changes in teacher qualifications;• (5) Teacher involvement in CPD;•(6) Student satisfaction with facilities and teaching;•(7) Training in maintenance;•(8) Nature of maintenance undertaken by school; and•(9) Spending on maintenance from the capitation fund.•(10) Changes in school management in connection with improvements in infrastructure	<ul style="list-style-type: none">•(1) Confirmation the provision of additional textbooks achieved a TPR of 1:1;•(2) Confirmation the new textbooks for Grades 4-8 delivered the revised curriculum/syllabus•(3) Confirmation new textbook management procedures resulted in improved textbook selection; comparison with previous system•(4) Improved textbook storage;•(5) That textbooks are being issued to students;•(6) That schools have textbook repair policies in place.

Methodology

The ISG team shall implement a total of 12 school visits involving six schools each, of MCA Namibia supported and non-MCA Namibia supported schools. At each school the evaluation team will utilize four primary tools to elicit qualitative information.

1. Complete a personal observation questionnaire (see Tool 1 for the questionnaire sample) (12 observations completed).
2. Conduct a structured interview with the head teacher (possibly together with other senior staff members) (12 KIIs completed); See Tool 2 for a school staff (head teachers/management/other) interview guide.
3. Conduct a focus group discussion with select school staff (12 FGDs completed); See Tool 3 for a KII/small group discussion question list;
4. Conduct a focus group discussion with a group of senior students (12 FGDs completed). See Tool 4 for a discussion question list with senior students. Please also see Tool 4.1 for specific questions outlined for female members of the Learners' Representative Council.
5. Implement key informant interviews with textbook relevant respondents and end users, to establish and verify preliminary findings from the evaluation design visit. The team will also meet with the Regional Director and related staff who administer and report on a variety of relevant aspects including: school construction and maintenance, staffing of schools, textbook provision, continuous professional development, access to schools for learners, and learner outcomes, (discussion at three regional offices); See Tool 5 for key discussion points at regional office/regional stakeholders.
6. Conduct a circuit level FGD with a key stakeholder group including circuit inspector, principals and advisory teachers. (3 FGDs completed); See Tool 6 for key FGD questions at the circuit level.

Through the collection of primary, qualitative data, the evaluation team will assess the potential impact of systems level reforms supported by the Compact.

7. In addition to key informant interviews and focus group discussions held at the school level, a focus group discussion will also be planned with SCMU and/or PQA CPD. See Tool 7 for a discussion guide.

If the evaluation team can identify and contact textbook distributors, ISG will seek a meeting in Windhoek – noting the potential limitation that post Compact procurement has been decentralised and as such the Regional Directorates presumably hold all the relevant data. In this case, ISG has included in its design, KIIs with regional directorates.

Timeframe of exposure

The activities being evaluated were intended to provide medium term benefits (better learner outcomes and more efficient provision of textbooks) rather than immediate short-term outcomes. The input from stakeholders captured through the key informant interviews and focus group discussions will address both the challenges in project implementation as well as the factors affecting ongoing impact of the project activities. The implementation of an evaluation, post four years from project completion (September 2014), should mean that the timing for an evaluation on intermediate outcomes from the project is appropriate. It may not be possible to use 2017 EMIS or Exam data; 2016 would be the most recent – two years post. Field visits will be three years post. For intermediate results there are pros and cons to both three and five years. Benefits might peak and then tail off after a few years, although the hope would be that improvements are sustained or even increased.

However, the fact that four years have passed has also meant that project files/materials/memory (of archiving/document storage) etc. has also (as outlined above), been difficult for ISG to obtain to implement a more rigorous analysis of those outcomes.

Sampling Plan

The project activities targeted different beneficiary groups. The largest Education Project investment was the provision of enhanced facilities in “47” schools¹⁶. Schools (and learners) benefiting from these investments are found in about one-half of the Regions, but most of the supported schools are in three Regions in northern Namibia. While the proposed quantitative methodology will enable an examination of the project-wide relationship between new/enhanced infrastructure and learner outcomes through analysis of secondary data including MEAC examinations directorate data, the geographical concentration of supported schools and the regional diversity of conditions in Namibia present a challenge for gathering qualitative stakeholder input and perspectives that are representative of project delivery and outcomes across the country.

The textbook activity was intended to have a system-wide impact; improving access to textbooks, improving learner outcomes and promoting greater efficiency in procurement and distribution. However, logistical considerations for the evaluation require concentration on the geographical regions selected for follow-up of infrastructure investments. As textbook procurement and management has been decentralized to the Regions, the three

¹⁶ ISG has been able to locate the 49 schools via construction files received from NPC, which give cumulative spending to 30 Sept 2014, with monetary amounts (presumed USD) for a total of 47 schools. No breakdown by region or by school is available. We presume that 47 schools = 49 schools

Regions selected for Compact school visits will also be used for exploring the implementation of the textbook component.

Oshikoto and Oshana in the North, (at which four of the 17 compact schools will be visited) and the (central) Khomas region (two of the 5 compact schools), included in the proposed qualitative field work may or may not be representative of the post-Compact conditions in Namibia. The reason for their selection is that in 2012, 47 per cent of the school-going population was concentrated in the cluster of regions Oshikoto, Oshana and Omusati, with 34 of the 49 Compact schools in these regions. Of these, Oshikoto was selected for ease of access to schools, and Oshana because it is the only one of these four regions with Compact schools offering Grade 12. Khomas is the most populous region after the northern, largely rural, regions. It is mainly urban, and the seat of the Ministry of Education's head office. In Secondary school leaving examinations, Oshikoto Region is frequently the highest scoring region of the country, while Khomas results are generally mid-level.

To compile a list of matching schools for those to be visited, ISG shall first select six Compact schools, taking into account their locations in the specific regions and circuits, the range of grades offered, and the enrolment numbers in the school. Schools can then be matched on the basis of similar range of grades and enrolment figures, and preferably same circuit or perhaps adjacent circuit. The sample will be based on a combination of purposive considerations. Apart from the criteria already stated, travelling time to the school will be a consideration.

Primary data collection

KIIs and focus group discussions will be led by the evaluation team. The themes of the focus group discussions will include school infrastructure, textbook program delivery and the impact on learner outcomes and lessons learned regarding implementation of quality improvement initiatives.

The proposed field strategy will enable the team to engage with at least (total for three Regions):

- Regional level officials;
- Nine school inspectors;
- Representatives from six MCA Namibia supported schools;
- Representatives from six non-MCA Namibia supported schools;

- Representatives from non Compact-supported schools who are able to attend the meetings;
- School level visits to six Compact and six non Compact-supported schools;
- Representatives of publishers, SCMU and CPD at national level.

Data processing

The team anticipates that the qualitative data collection (focus group discussions and KIIs) will be able to occur in English (which is the official language and the medium of instruction in all content subjects from grade 5 upwards). The discussions will be transcribed by the team members into MS Word in English and provided to each evaluator. KII notes will be transcribed without association of responses/discussions to individuals' names and other personal details. Functions of these individuals will be recorded, as well as location of interview and department/office for internal analysis.

Data Analysis Plan

Due to the nature of the primary data collection, ISG will retain an in-country team of two to four specialists to support the two co-evaluators in primary data collection. Information generated through the discussions and site visits shall be reviewed by the two consultant specialists and results/findings generated from the discussions.

The evaluation team will establish a common procedure for the coding of the qualitative data into meaningful categories prior to the implementation of field work. Coding (using Microsoft excel), will enable the organization of notes and determine themes or patterns common to KIIs. This will include identifying key words and terms from each interview and categorization of responses from each interview/FGD. Respondent information will be confidential, particularly that of students and names and personal information shall not be recorded nor collected. The evaluation team will finalize the analysis of the qualitative data by extracting the meaning and significance of the coded key words/themes and integrating these with the themes, findings and lessons obtained through the other data collection methods discussed below. Deviations from the pattern will also be reviewed, as well as if any, factors that explain them, and if any, interesting stories that emerge from the discussions to help illuminate the central questions will be reviewed. The analysis will lead to sets of findings of stakeholder perspectives on project implementation and project outcomes, that can be triangulated against the quantitative research findings.

Rounds and timing

There will be one round of school/community visits. These activities will take place in February of 2018, more than three years since the end of the MCA-Namibia Compact.

Staff

In addition to the core consultant evaluation team; Keith Burchell and Dr. Robert West, ISG will contract two consultants located in the proposed Regions in Namibia. These local consultants will take part in data collection training provided by Mr. Burchell and Dr. West, preparation of research schedule and implementation of KIIs and FGDs as relevant, at first, shadowing the Lead Evaluators and after, completing the schedules independently. Detailed notes in English shall be provided to the evaluation team for review and coding and analysis.

Dr. West and Keith Burchell, in addition to ISG staff (for support and review), will also be responsible for consolidation of notes and analysis. ISG may also hire a further local consultant based in Nairobi, to support the extraction of specific data from the MEAC Examinations Directorate data, specifically the G10 and G12 results for the 49 compact schools.

Summary Workplan

The table notes key data preparation, analysis and primary data collection tasks covered through to the end of data collection. The start date of the first task, quantitative analysis and desk review are established to begin during December 2017, once ISG has received and finalized on approval of the EDR. The rescheduling of dates for field work will depend on:

- 1) Allowing sufficient time for the data analysis prior to field work;
- 2) Decision on whether local consultant(s) will be hired or whether the Lead Evaluators implement data collection directly (the latter being the preferred approach);
- 3) Dates of school mid-term breaks etc in relation to the number of days required for field work.

Post Initial Approval of EDR through to March 30, 2018	Suggested Itinerary To be confirmed – likely 04 April – 28 April	Suggested Itinerary To be confirmed – likely 04 April – 28 April
<p>Quantitative Analysis¹⁷</p> <ol style="list-style-type: none"> 1. Project reporting will be used to assess planned spending on infrastructure versus final infrastructure spending. 2. The testing of the relationship between investments in infrastructure and textbooks and learner outcomes will rely on secondary data that is available to ISG. 3. EMIS data (as available from 2012-2016), will be utilized to estimate the relationship 	<p>Qualitative Data Collection</p> <p>Evaluation team member Keith Burchell (KB) arrives in Windhoek 21 Feb (tentative)</p> <p>Day 1: Preparations for field work.</p> <p>Day 2: Meetings in Windhoek: Publishers, etc.</p> <p>(Travel to Ondangwa</p>	<p>Qualitative Data Collection</p> <p>Day 11: School visits, Visits to RO and Circuit (lead consultants)</p> <p>Day 12: School visits (Weekend)</p> <p>Day 13: Visit Omaheke RO</p> <p>Day 14: Allow for write up/debriefing in Windhoek</p>

¹⁷ Please note limitations posed by data and information access noted in table 1.

Post Initial Approval of EDR through to March 30, 2018	Suggested Itinerary To be confirmed – likely 04 April – 28 April	Suggested Itinerary To be confirmed – likely 04 April – 28 April
<p>between investments in infrastructure and learner outcomes.</p> <p>4. Assessment of the relationship between the investment in texts and changes in learner outcomes in the three subjects. Pre-Compact trends in G10 and G12 leaving exams and/or SAT results in the three subjects will be compared to trends post-Compact provision of texts.</p> <p>5. Changes in teacher qualifications in schools receiving infrastructure relative to similar schools not provided new infrastructure through MCA-Namibia will provide the basis for results associated.</p> <p>6. Changes in the amount and type of teacher in-service training provided will be reviewed against MCC reporting as available.</p>	<p>over weekend)</p> <p>Day 3: School visits</p> <p>Day 4: School visits</p> <p>Day 5: School visits</p> <p>Day 6: Travel to Oshana RO and one circuit</p> <p>Day 7: School visits (Weekend)</p> <p>Day 8 School visits</p> <p>Day 9: Travel to Windhoek</p> <p>Day 10 Visit Khomas RO & one Circuit</p>	<p>Day 15: Debriefing in Windhoek (RW and local consultant)</p> <p>Day 16 Meetings in Windhoek</p> <p>Day 17 Departure of Keith Burchell.</p>

3.3 Challenges, Risks and Limitations in Interpreting Evaluation Results

As of July 2017, (per ISG communications with MCC) it became apparent that accurate/complete EMIS data was unavailable prior to 2012. Data received by ISG covering prior to 2012 contained substantial gaps that preclude robust quantitative analysis. The data ISG has received from 2014 shall be cleaned and analyzed by the evaluation team. If the EMIS data from 2014-16 are not sufficiently sensitive to changes over time and differences across schools, or do not capture other relevant information, interpretation of the results will be limited. The quantitative component of the evaluation relies on data gathered by the

project implementers, public access administrative data (EMIS) and on testing and assessment programs implemented by MEAC (grade 10 and 12 leaving examinations and SAT results for grade 5 and grade 7). Further, access to MCA-Namibia records is still required. For example, ISG expects that NPC can provide specific MCA-Namibia records as required, such as the procurement records.

The evaluation of the MCA-Namibia Education Project activities is being implemented approximately four years after the end of the Compact period. The intervening time period presents an opportunity to test the assumptions concerning the investments in educational quality and learning outcomes in the Project TOC.¹⁸ The four-year duration also presents a challenge to accessing detailed information concerning project outputs and implementation/management decisions as the MCA-Namibia no longer functions as the implementing entity and the National Planning Commission has to date been able to provide only a limited range of documents from the MCA-Namibia archive.

Another challenge for interpretation and analysis of information gathered during the evaluation is the mixture of project investments prioritizing a relatively small number of institutions (“47” schools) and other investments intended to improve quality across the entire education system. For logistical reasons, the proposed evaluation field visits will prioritize areas of the country where significant resources were invested in improving school facilities.¹⁹ While the evaluation team will utilize these same field sites to capture stakeholder perspectives regarding the implementation and outcomes from other Compact investments, there is no means of assessing whether the experiences in these sites is representative of project implementation and outcomes in other parts of the country.

Further, given the disparities between regions with respect to the management and documentation around textbook procurement, the evaluation design may not provide an accurate indicator of what is occurring across a broader spectrum of Regions. Therefore, any regional-based findings will require additional interpretation on the basis of qualitative findings, particularly from Central Government and Regional levels.

Finally, the evaluation sampling plan is constrained by the evaluation budget. Of the total of 49 schools involved in the project, ISG’s data collection CLIN for Namibia covers school visits

¹⁸ Improvements in school environments, access to textbooks and enhanced teacher skills would only impact learning outcomes once learners had access to these improvements for some period of time.

¹⁹ Even in areas where the infrastructure investments are concentrated, distances between participating schools may require as much as 3 hours of travel.

to six. A comparison will be conducted with an additional set of visits to six non-MCA Namibia-supported schools. In addition, ISG will devote resources to training local consultants, and meetings on the regional and circuit level, and with stakeholders to inform the evaluation as well as core team management and time. The evaluation design as an ex-post evaluation must rely on these data sources to measure project outcomes and make a reasonable attempt to frame results which can be connected to the Compact to have contributed to.

4. ADMINISTRATIVE

4.1 Summary of IRB requirements and clearances

ISG works through a small team of professionals and requires all research involving human subjects, including this evaluation, to be reviewed and approved by its Principal and Head of Programs. Given the participatory and qualitative nature of parts of this research and the involvement of human subjects, the study will utilize the ethical principles of the London School of Hygiene and Tropical Medicine (LSHTM) which have their basis in the Belmont Report²⁰. LSHTM's ethical principles center around three basic principles: respect for persons (including informed consent), beneficence, and justice. Therefore, an internal IRB shall be carried out at ISG.

The quantitative analysis will not require the collection of primary data as noted above. The data ISG shall utilize is archived MCA-Namibia Compact reporting such as annual reports, and data that is publicly accessible from MEAC; specifically EMIS data and assessment/examination data. Therefore, ISG's quantitative evaluation methodology does not involve the participation of human subjects, and as such ISG does not need to produce primary data collection tools as part of its quantitative data component.

ISG, in its methodology section above provides for IRB review, a discussion on the planned methods for conducting quantitative analysis based on this publicly available EMIS data. Individual identifying information available via EMIS is limited to the names of teachers in the EMIS data. As noted above the testing and assessment programs implemented by MEAC results will be accessed (grade 10 and 12 leaving examinations and as planned, SAT results for grade 5 and grade 7). Individual teacher identities will not be used in the analysis and the analyzable files provided as evaluation deliverables will exclude this information. School names, Regions and circuits are information in the public domain already and important for

²⁰ <https://web.archive.org/web/20040405065531/http://ohsr.od.nih.gov/guidelines/belmont.html>

the analysis of how project outcomes may differ by level of project activity. Assessment and examination data – while individual – does not include individual identifiers.

Qualitative data will be captured through site visits to MCA-Namibia supported and non-MCA Namibia-supported schools. In raw notes participants will be identified by their function rather than name. Information included with the final deliverable, the Evaluation Report will include the raw and coded set of qualitative findings, available in Microsoft Word and Excel spread sheet format. Thus, the individual questions to be posed as part of the FGDs and KIIs are submitted in the Annexes below for IRB review and feedback. This information (the microdata sets), will be provided as csv data files for replicating the analysis to upload, once approved and reviewed by the IRB to the MCC Meta Data software if requested/relevant. Generating and testing replication of the analyzable file(s) will not be undertaken unless a supplementary request for additional level of effort is made of ISG.

See Annex 6.3 for a draft copy of the informed consent form the team shall use during the implementation of the KIIs and FGDs.

Country Clearance

Prior to travelling Namibia, the evaluation team members will secure Namibia country clearance from the US Embassy in coordination with MCC. ISG will submit the required information (i.e. full itinerary, passport details, etc.) for this clearance to MCC along with the Travel SOW (above section for projected dates). The evaluation data collection mission is scheduled to take place April 2018 based on some crucial factors, including the availability of ISG's consultants, sufficient time to prepare the planned quantitative analysis prior to primary data collection and the school year timing therefore clearance to travel based on this EDR.

4.2 Data protection

As noted above, the quantitative analysis conducted as part of this evaluation shall depend on publicly available data available through the MOE – mainly education testing and examination results across schools in Namibia as well as data filed by EMIS that is also publicly available. The testing data includes the following variables: year, gender, school name, exam date and subject results. This raw data set over a period from 2009-16, Grade 10 and 12, for males and females received from the MOE, shall undergo further extraction (see example below) of the specifically needed information tailored to the sample of schools and subjects intended to produce aggregate level analysis, noting data extraction would need to take place for the 49 schools specifically as this information is not available in analyzable formats.

Based on the above, ISG does not envisage a requirement for any data protection or privacy as the research process outlined does not involve respondents directly and the data set generated is already publicly available.

Transfer of this data (see sample above), shall occur (once it is all available), through password protected cloud ware and access is available to only the research team (four persons) including ISG project management staff (two persons). Disposal of this data is not required.

The qualitative data sets (notes), shall undergo a de-identification process prior to provision of the information to MCC. As noted, since names and locations shall not be untied as part of this research, the data set is considered to be pre-de identified, that is, ISG shall not collect names, ages, and contact details for the respondents. ISG may consider the removal of functions or locations from the raw qualitative data communicated to MCC, if deemed to be necessary, further limiting the privacy of the FGD or KII respondents. ISG will review the final IRB data files prior to submission to check that all individual identifiers, including names, addresses, telephone numbers, and any other similar variables are not available. Data transfer shall take place via secured cloud ware and the files.

Use of any other non-publicly available resources to include in the abovementioned data analysis plan shall be noted to MCC as the evaluation is conducted and the need is discovered.

4.3 Dissemination Plan

ISG will hold a dissemination workshop of the draft Evaluation Report in June/July 2018 where Co-Evaluator, Dr. West shall present the draft final evaluation findings to stakeholders in Namibia. Budget allowing, the Textbook Specialist, Mr. Burchell may also travel to Namibia to join the stakeholder meeting in person.

We plan to summarize the draft findings in a concise issue brief format, which will make the findings more readily accessible and usable to stakeholders. Comments and discussion shall be recorded by a Local Consultant supporting Dr. West, and the input from stakeholders at the dissemination workshop be used to produce a finalized Evaluation Report two weeks after the dissemination workshop to MCC for review.

4.4 Evaluation Team Roles and Responsibilities

Mr. Keith Burchell

Mr. Burchell has been an Education Textbook Policy and Distribution

consultant for 20 years. Prior to that, he was an international book supplier with over 25 years' experience in bookselling.

Mr. Burchell's technical support to textbook procurement initiatives include: team leader and acting procurement agent for a DIFID textbook initiative in South Sudan (2011-15), technical support to DIFID for textbook distribution to low-cost primary schools in Kenya (2011), technical support to the Ministry of Education in Liberia in textbook planning and procurement (2007-08) and author of a Case Study Review on textbook activities supported by DIFID as part of the Primary Education Support Programme in Tanzania. Mr. Burchell possesses an Ordinary National Certificate (ONC) in Chemistry and a Diploma in Distributive Management Principles.

Dr. Robert West

Dr. West served as Director of Planning and Development in the Namibian Ministry of Education for seven years. Since retiring from the Civil Service he has worked as an independent consultant, mainly in education planning and finance, for agencies such as UNICEF, the World Bank, the European Union, and the UK Department for International Development, - within Namibia, West Africa, South East Asia, and the Middle East. He has appraised education sector plans for Global Partnership funding for Cambodia, Ghana, five Nigerian states, Liberia and The Gambia.

4.6 Evaluation Timeline and Reporting

	November	December	January - 30 March	March	April	May	June	July-Aug		
	Phase 1	Phase 1	Phase 2							
	Re design of EDR	Feedback review/completion of EDR (budgeted from labor reallocation from ODCs)	Data Review/Analysis	Preparation and Coordination of Field Work Tool finalization	Data Collection + Field Mission and Supervision of Data Collection Mission	Analysis of data, final report preparation	Dissemination (1 day workshop for stakeholder feedback)	Submission of Draft Final Report to MCC, feedback incorporation and submission of final approved final draft and IRB requirements	Total Personnel Days Phase 2	
Education Specialist (Dr. Robert West)	5	2	6	5	16	5	3	2	39	
Textbook Specialist (Keith Burchell)	3	1	4	2	16	5	0	2	30	

Figure 1 Projected timeline, including estimated level of effort of lead consultants based on this EDR.

Workplan

Task		Deliverable	% of Task Completed	Estimated Due Date	Da
Phase 1	Develop Evaluability Assessment	Written assessment of problem diagnostic, program logic, program participants, risks and assumptions, and metrics	100%	4/30/2017	4/
		Develop Evaluation Design Report, V2	Travel SOW and Work Plan with expected deliverables deadlines	100%	3/14/2017
		Trip report	100%	4/30/2017	4/
		Draft Evaluation Design Report, V2	100%	11/2/2017	11
		Local Stakeholder feedback with response; Confirmation of commitment to evaluation design	100%	11/24/2017	12
		MCC feedback with response	100%	12/1/2017	12
		Final Evaluation Design Report (updated as needed)	100%	12/8/2017	12
Phase 2	Obtain and/or Develop Evaluation Data	Travel SOW (as required)	0%	3/1/2018	
		Final English and translated (as required) questionnaires, training manuals	0%	3/1/2018	
		IRB package (research protocol, other documentation, approval/clearances, informed consent statement(s)) <i>if required</i>	100%	12/20/2017	12
		Documentation of local stakeholder and MCC feedback and response	100%	12/20/2017	20
	Develop Draft Evaluation Report and disseminate final results	Draft Evaluation Report ready for presentation to local stakeholders	0%	5/30/2018	
		PPTs for presentations presented to MCC	0%	6/30/2018	
		Travel SOW for mission to Namibia presented to MCC	0%	5/15/2018	
		Agenda, minutes from local stakeholder workshop - Local Stakeholder feedback with response	0%	6/30/2018	
		Final raw and analysis files, anonymized following MCC guidelines; STATA do files (As per Annex J.5 - MCC Data Documentation and Anonymization Requirements.)	0%	8/30/2018	
		Final Evaluation Report; Public Statement of Difference/Support submitted to MCC	0%	6/30/2018	
		MCC feedback with response	0%	7/30/2018	
		Final Evaluation Report, submitted to MCC	0%	8/15/2018	

5. REFERENCES

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6. ANNEXES

6.1. Stakeholder Comments and Evaluator Responses

Attached to this report MCC comments and ISG responses. Stakeholder comments copied to MCC via email during December 2017.

6.2. Evaluation Budget

Please see attached to this report.

Copy of Informed Consent to be used during regional and circuit FGDs and interviews

Note to evaluator or interviewer,

Please read the following paragraphs out to the respondents. Once complete, please have the respondent/s sign the form. Please ensure you carry enough copies of the form to each interview. After each interview, secure the forms and provide to Dr. West.

Prior to each interview/discussion, please read through the following information introducing the assignment.

Introduction of the project team and ISG

International Solutions Group (ISG) is a consulting firm specialising in monitoring and evaluation that has been contracted by Plan International to undertake an ex-post evaluation of MCA-Namibia Compact Education Project. The five-year agreement between the Republic of Namibia and the United States (US) Government, acting through the Millennium Challenge Corporation (MCC), provided grant funding for public investments in Education, Tourism and Agriculture (livestock and indigenous natural products). An amount of US\$304.5 million was allocated for investment in the target sectors. The Compact Goal was to reduce poverty in the Republic of Namibia through economic growth. The project was implemented by MCA-Namibia working under the auspices of the Namibia National Planning Commission (NPC).

Introduction of evaluation assignment and discussion activity

The development of the MCA-Namibia Compact Education Project activities drew on priorities and plans established in the consultative processes culminating in the Government of the Republic of Namibia Education and Training Sector Improvement Plan (ETSIP). To meet ETSIP priorities the MCA-Namibia Compact Education Project implemented four activities: 1) Improving the Quality of Education; 2) Expanding Vocational and Skills Training; 3) Improving Access to and Management of Textbooks and 4) Construction and Management of Regional Study and Resource Centres. ISG has been contracted by MCC to

conduct an independent evaluation of two of the activities; Improving the Quality of Education and Improving Access to and Management of Textbooks.

During our meeting today we shall discuss a number of key areas amongst our team to arrive at a common understanding on each of the issues covered below. The overall conclusions and analysis shall be provided to MCC, but not the individual comments and thoughts you may share as part of this discussion. The results of our discussions will be cross-examined against our statistical findings. Our discussion is to take place over approximately 60 minutes and is held through one on one interview, small group meetings, or a focus group meeting. Any information you provide that can identify you will be kept strictly confidential by the parties conducting this study, including MCC employees, employees of the survey firm, and researchers²¹, to the maximum extent²² permitted by the laws of the United States of America and the laws of Namibia. These users, MCC employees, employees of the survey firm, and licensed researchers) will use data for analytical purposes²³ only.

Your participation is voluntary in this discussion. In other words, you have the alternative to not participate and there will be no consequences for nonparticipation. You may contact Brian O’Callaghan, Director of Programs, at bocallaghan@theisg.com if you have questions, concerns or complaints about the study or your rights as a participant. If you have any questions for me, please feel free to ask at any time.

All the best,

ISG Evaluation Team

Signature of Participant willing to take part in evaluation discussions

Date

²¹ The IRB should review this clause and provide clearance or guidance if this cannot be followed.

²² If requested by stakeholders or respondents, can the IRB and/or MCA provide information on: (i) what specific laws are being referenced, (ii) how they could influence the interviewee, and (iii) where the interviewee could go for additional information?

²³ If this needs to be clarified: Analysis shall provide summaries about the whole sample and about the observations that have been made.

6.5 MCC/NPC–List of Documents Still Required

1. Details of the textbook orders procured by MCA-Namibia for each of the three phases [Phase 1 (2010); Phase 2 (2011/12); Phase 3 (2013)]. To be more specific: the Invitation for Bids (IFB): Schedule of Requirements for each of the three Phases. These IFBs relate to the contracting of Distributors to consolidate and distribute the textbooks direct to the schools. MCC have provided the IFB for 2010 which contains (a) the list of publishers, total value of each of their orders, number of titles per publisher and number of books (b) lists the names of the schools - the Region and the Circuit - to be supplied and number of books per school. (c) Gives details of the 4 x Lots into which the regions/Schools were divided for distribution. We require the relevant IFBs for Phase 2 (2011/12) and Phase 3 (2013). We also require details of whom were awarded the resulting distribution contracts from each of the tendering processes.
2. Details of the discounts negotiated with each of the publishers from whom textbooks were procured for Phases 1; 2; and, 3.
3. Details of the Capitation Fund for the annual procurement of textbooks understood to have been formed circa 2012 and what the Capitation Fund was expected to achieve.
4. Textbook Policy pre-2008/09.
5. Report(s) on the trialling of LMS MIS during the 2013 procurement.
6. Project Completion Report
7. M&E Reports specific to the textbook component implementation.
8. All Final Reports submitted following on training on Textbook Management/Use of Textbooks/Maintenance of textbooks.
9. Sample copies of Textbook Utilization Modules
10. Pedagogy in Namibian Schools Report
11. Needs Assessment Report of Educators
12. Textbook Implementation Plan
 - i. Regional Distribution Plan
 - ii. National Guidance on LSM usage & storage
 - iii. Details of the Regional Distribution Contracts signed by 13 Regions

13. Copy of the “School Textbook Management Handbook (2013)
14. Textbook Inventory Procedure Manual

Item Nos 2 – 14 are all items referenced in Project documents reviewed by the consultant

15. Identification by region of the 49 schools, and details of the approved building and renovation programme at each (including teacher accommodation). Dates of handing over of completed facilities.
16. Final cost per school of construction and furnishing provided under the Compact.
17. Identification by region of the 20 schools at which additional pre-fabricated/modular rooms were to be provided to alleviate overcrowding, with number of rooms to be provided and number actually provided.
18. Details per school of science equipment provided.
19. Report (if possible per region) on the training for teachers provided by the vendors of the science equipment.
20. Reports on in-service training provided by MoE to science teachers at schools receiving science equipment.
21. Information on “splitting” of some Compact schools [which possibly resulted in drop in enrolment].
22. Performance Certificates issued for the 47 schools certifying that building latent defects had been rectified by contractor within 12 months of handing over of facilities.
23. Modifications to policy and guidelines for minor maintenance of schools.
24. Reports on training provided on minor maintenance and cascading of such training.
25. Report on materials for grades 5 and 7 in Maths and English developed by DNEA.