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Report No: PAD863

PROJECT APPRAISAL DOCUMENT

ON A

GLOBAL PARTNERSHIP FOR EDUCATION FUND GRANT

IN THE AMOUNT OF US$88.4 MILLION

TO THE

REPUBLIC OF KENYA

FOR A

PRIMARY EDUCATION DEVELOPMENT PROJECT

May 15, 2015

Education Global Practice
Country Department AFCE2
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2015)

Currency Unit	=	Kenya Shilling (K SH)
K SH 1	=	US$.011
US$	=	K SH 92.4

FISCAL YEAR

January 1	–	December 31

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
ASAL	Arid and Semi-Arid Land
CBK	Central Bank of Kenya
CDD	Community Driven Development
CDE	County Director of Education
CEMASTEA	Centre for Mathematics, Science and Technology Education in Africa
CEB	County Education Board
CEO	Chief Executive Officer
CER	Cost Effective Ratio
CFS	Child-Friendly School
CPS	Country Partnership Strategy
CS	Cabinet Secretary
DA	Designated Account
DFID	Department for International Development
EAC	East Africa Community
EACC	Ethics and Anti-Corruption Commission
EDPCG	Education Development Partner Coordination Group
EFA	Education For All
EFT	Electronic Fund Transfer
EGM	Early Grade Mathematics
EGMA	Early Grade Mathematics Assessment
EGR	Early Grade Reading
EGRA	Early Grade Reading Assessment
EMACK	Education for Marginalized Children in Kenya
EMIS	Education Management Information System
ESMF	Environmental and social Management Framework
ERS	External Resource Section
ESQAC	Education Standard and Quality Assurance Council
ESQAO	Education Standard and Quality Assurance Officer
E&T	Education and Training
FPE	Free Primary Education
FM	Financial Management
GDP	Gross Domestic Product

GER	Gross Enrolment Rate
GNI	Gross National Income
GoK	Government of Kenya
GP	General Purpose
GPA	General Purpose Account
GPE	Global Partnership for Education
GPS	Global Positioning System
GAC	Governance and Accountability
HDI	Human Development Index
IAD	Internal Audit Department
ICB	International Competitive Bidding
ICT	Information Communication Technology
ICR	Implementation Completion and Results Report
IDA	International Development Association
IFMIS	Integrated Financial Management Information System
IFR	Interim Financial Report
INT	Integrity Vice-Presidency
IP	Indigenous People
IPSAS	International Public Sector Accounting Standards
IRR	Internal Rate of Return
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KEMI	Kenya Education Management Institute
KENAO	Kenya National Audit Office
KESSP	Kenya Education Sector Support Program
KICD	Kenya Institute of Curriculum Development
KIHBS	Kenya Integrated Household Budget Survey
Ksh	Kenyan Shilling
KNBS	Kenya National bureau of Statistics
KNEC	Kenya National Examination Council
KSG	Kenya School of Government
KSG-	Kenya School of Government e-Learning and Development center
LCS	Least Cost Selection
LEG	Local education Group
MDG	Millennium Development Goals
MoEST	Ministry of Education, Science and Technology
MTP	Medium Term Plan
NACONEK	National Council For Nomadic Education in Kenya
NASMLA	National Systems for Monitoring Learning Achievements
NCB	National Competitive Bidding
NER	Net Enrolment Rate
NESP	National Education Sector Plan
NPV	Net Present Value
ODA	Official Development Assistance
PCU	Project Coordination Unit
PEFA	Public Expenditure and Financial Accountability

PFM	Public Financial Management
PIM	Project Implementation Manual
PPOA	Public Procurement and Oversight Authority
PRIMR	Primary Math and Reading Initiative
PS	Principal Secretary
PSC	Project Steering Committee
PTE	Primary Teacher Education
PTTC	Primary Teacher Training College
PTR	Pupil-Teacher Ratio
QCBS	Quality and Cost Based Selection
RTI	Research Triangle International
SACMEQ	Southern Africa Consortium for Monitoring Educational Quality
SA	Social Accountability
SAI	Supreme Audit Institution
SBM	School Board of Management
SCOA	Standard Charts of Accounts
SDI	Service Delivery Indicators
SIMBA	School Instructional Material Bank Account
SIP	School Improvement Plan
SOE	Statements of Expenditures
SSA	Sub-Saharan Africa
Std	Standard
STI	Science, Technology and Innovation
SWAp	Sector Wide Approach
TAC	Teacher Advisory
TAD	Teacher Appraisal and Development
TePIK	Teacher Performance and Integrity in Kenya
ToR	Terms of Reference
TPD	Teacher Professional Development
TSC	Teacher Service Commission
TSA	Treasury Single Account
TVET	Technical and Vocational Education and Training
USD	United States Dollar
USAID	United States Agency for International Development
VMG	Vulnerable and Marginalized Group
VMGF	Vulnerable and Marginalized Groups Framework
ZQASO	Zonal quality assurance and standards officers

Regional Vice President:	Makhtar Diop
Country Director:	Diarietou Gaye
Senior Global Practice Director:	Claudia Maria Costin
Practice Manager:	Sajitha Bashir
Task Team Leader:	Nalin Jena

REPUBLIC OF KENYA

KENYA PRIMARY EDUCATION DEVELOPMENT PROJECT

TABLE OF CONTENTS

Page

PAD DATA SHEET

Kenya

Kenya GPE Primary Education Development Project (P146797)

PROJECT APPRAISAL DOCUMENT

AFRICA

Report No.: PAD863

Basic Information		
Project ID P146797	EA Category B - Partial Assessment	Team Leader(s) Nalin Jena
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]	
Project Implementation Start Date 01-Jun-2015	Project Implementation End Date 31-Mar-2019	
Expected Effectiveness Date 01-Jun-2015	Expected Closing Date 31-Mar-2019	
Joint IFC No		

Practice Manager/Manager	Senior Global Practice Director	Country Director	Regional Vice President
Sajitha Bashir	Claudia Maria Costin	Diarietou Gaye	Makhtar Diop

Approval Authority
Approval Authority
RVP Decision
please explain
Global Partnership for Education Grant Trust Fund will be financing this project. The guidelines for trust funded projects are to seek RVP approval.

Borrower: Ministry of Finance			
Responsible Agency: Ministry of Education			
Contact:	Dr. Belio Kipsang	Title:	Principal Secretary
Telephone No.:	(254-20) 240-089	Email:	ps@education.go.ke

Project Financing Data(in USD Million)		
[ ] Loan	[ ] IDA Grant	[ ] Guarantee

[ ]	Credit	[X]	Grant	[ ]	Other

Total Project Cost:	88.40	Total Bank Financing:	0.00
Financing Gap:	0.00		

Financing Source	**Amount**
Borrower	0.00
Education for All Supervising Entity	88.40
Total	88.40

Expected Disbursements (in USD Million)

Fiscal Year	2015	2016	2017	2018	2019					
Annual	5.00	30.00	30.00	20.00	3.40					
Cumulative	5.00	35.00	65.00	85.00	88.40					

Institutional Data

Practice Area (Lead)

Education

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change
[ ] Fragile, Conflict & Violence
[X] Gender
[ ] Jobs
[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Education	Primary education	100		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%

Human development	Education for all	60
Human development	Education for the knowledge economy	40
Total		100

Proposed Development Objective(s)

The project development objectives are to improve early grade mathematics competency and to strengthen management systems at school and national levels.

Components

Component Name	**Cost (USD Millions)**
Improving early grade mathematics competencies	34.50
Strengthening school management and accountability	38.80
Strengthening capacity for evidence-based policy development at national level	10.80
Project coordination, communication, and monitoring and evaluation	4.30

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09		**X**
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10	**X**	
Involuntary Resettlement OP/BP 4.12		**X**
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	Recurrent	Due Date	Frequency
Project Steering Committee (PSC)		01-Sep-2015	

Description of Covenant

The Recipient shall establish, by no later than three months after the Effectiveness date, and maintain thereafter until the completion of the Project, a Project Steering Committee (PSC), with terms of reference satisfactory to the World Bank and with adequate resources to carry out its functions under the Project.

Name	Recurrent	Due Date	Frequency
Project Coordination Unit (PCU)		01-Sep-2015	

Description of Covenant

The Recipient shall: (a) maintain throughout Project implementation, the Project Coordination Unit (PCU) with terms of reference, staffing and other resources satisfactory to the World Bank; and (b) to this end, shall, at all times during Project Implementation assign to the PCU a national Project coordinator, three deputy Project coordinators, Supply Chain Management Officer, Finance Officer, accountant and such other staff as may be agreed with the World Bank with qualifications, experience, and terms of reference satisfactory to the World Bank.

Name	Recurrent	Due Date	Frequency
Project Implementation Manual (PIM)		31-May-2015	

Description of Covenant

Recipient shall prepare, in accordance with terms of reference acceptable to World Bank and furnish to World Bank for review, a Project Implementation Manual (PIM). Recipient shall afford World Bank reasonable opportunity to exchange views on said PIM and thereafter, shall adopt such PIM as shall have been approved by the World Bank.

Name	Recurrent	Due Date	Frequency
Work Plan and Budget	**X**		Yearly

Description of Covenant

Recipient shall prepare and furnish to the World Bank not later than March 31 of each fiscal year during implementation, a work plan and budget containing all activities proposed to be included in the Project during the following fiscal year and a proposed financing plan for expenditures required for such activities.

Name	Recurrent	Due Date	Frequency
Project Progress Reports	**X**		CONTINUOUS

Description of Covenant

Recipient shall monitor and evaluate the progress of the Project and prepare Project Reports in accordance with provisions of Section 2.06 of Standard Conditions and on basis of the indicators acceptable to the World Bank and set forth in the PIM. Each Project Report shall cover period of one semester, and shall be furnished to WB not later than 45 days after end of period covered by report.

Team Composition

Bank Staff

Name	Role	Title	Unit

Nalin Jena	Team Leader (ADM Responsible)	Senior Education Specialist	GEDDR
Joel Buku Munyori	Procurement Specialist	Senior Procurement Specialist	GGODR
Henry Amena Amuguni	Financial Management Specialist	Senior Financial Management Specialist	GGODR
Deborah Newitter Mikesell	Team Member	Senior Operations Officer	GEDDR
Gibwa A. Kajubi	Safeguards Specialist	Senior Social Development Specialist	GSURR
Joyce Cheruto Bett	Team Member	Program Assistant	AFCE2
Kishor Uprety	Counsel	Senior Counsel	LEGAM
Nicholas Meitiaki Soikan	Safeguards Specialist	Social Development Specialist	GCCGT
Rosario Aristorenas	Team Member	Senior Program Assistant	GEDDR
Sophie Nelly Rabuku	Team Member	Team Assistant	AFCE2

Extended Team

Name	**Title**	**Office Phone**	**Location**
Belio Kipsang	Principal Secretary		
Chingboon Lee	Education Consultant		
Carolyn Wangusi	Education Consultant		
Harry Kaane	Education Consultant		

Locations

Country	**First Administrative Division**	**Location**	**Planned**	**Actual**	**Comments**
Kenya	West Pokot	West Pokot District	**X**		
Kenya	Wajir	Wajir District	**X**		
Kenya	Uasin Gishu	Uasin Gishu District	**X**		
Kenya	Turkana	Turkana District	**X**		
Kenya	Trans Nzoia	Trans Nzoia District	**X**		
Kenya	Tharaka District	Tharaka District	**X**		
Kenya	Tana River	Tana River District	**X**		

Kenya	Siaya	Siaya District	**X**		
Kenya	Samburu	Samburu District	**X**		
Kenya	Nairobi Area	Nairobi Province	**X**		
Kenya	Murang'a District	Murang'a District	**X**		
Kenya	Mombasa	Mombasa District	**X**		
Kenya	Meru	Meru Central District	**X**		
Kenya	Marsabit	Marsabit District	**X**		
Kenya	Mandera	Mandera District	**X**		
Kenya	Laikipia District	Laikipia District	**X**		
Kenya	Kwale	Kwale District	**X**		
Kenya	Kitui	Kitui District	**X**		
Kenya	Kisumu	Kisumu District	**X**		
Kenya	Kisii	Kisii District	**X**		
Kenya	Kirinyaga	Kirinyaga District	**X**		
Kenya	Kilifi	Kilifi District	**X**		
Kenya	Kiambu	Kiambu District	**X**		
Kenya	Kericho	Kericho District	**X**		
Kenya	Kakamega	Kakamega District	**X**		
Kenya	Isiolo	Isiolo District	**X**		
Kenya	Garissa	Garissa District	**X**		
Kenya	Embu	Embu District	**X**		
Kenya	Busia	Busia District	**X**		
Kenya	Bungoma	Bungoma District	**X**		
Kenya	Baringo	Baringo District	**X**		
Kenya	Nyandarua	Nyandarua District	**X**		
Kenya	Vihiga	Vihiga District	**X**		
Kenya	Lamu	Lamu	**X**		
Kenya	Machakos	Machakos District	**X**		
Kenya	Makueni	Makueni District	**X**		
Kenya	Marakwet District	Marakwet District	**X**		
Kenya	Taita Taveta	Taita Taveta District	**X**		
Kenya	Kajiado	Kajiado District	**X**		

Kenya	Nyeri	Nyeri District	**X**		
Kenya	Homa Bay	Homa Bay District	**X**		
Kenya	Bomet	Bomet District	**X**		
Kenya	Migori	Migori District	**X**		
Kenya	Nakuru	Nakuru District	**X**		
Kenya	Nyamira District	Nyamira District	**X**		
Kenya	Nyamira District	Nyamira District	**X**		
Kenya	Nandi	Nandi South District	**X**		
Consultants (Will be disclosed in the Monthly Operational Summary)					
Consultants Required	Consulting services will be required				

I. STRATEGIC CONTEXT

A. Country Context

1. **Demography.** Kenya is located within the Great Lakes region of East Africa, covering an area of 582,646 km^2.[1] The Kenyan population is diverse and includes most major ethno-racial and linguistic groups found in Africa with an estimated 42 different communities. The country has an estimated population of 44 million out of which 73 percent are aged 30 years and below. According to the World Development Indicators 2015, Kenya life expectancy at birth has increased in the last two decades from 57.5 years to 61.1 years. The fertility and infant mortality rates have decreased from 5.5 to 4.5 percent and from 68.2 to 48.8 percent respectively.

2. **Kenya achieved lower middle income status in 2014**, according to revised national statistics released on September 30, 2014. The economy is 25 percent larger than earlier estimated, and Kenya is now the ninth largest African country with a Gross Domestic Product (GDP) of US$55.2 billion. The Kenya National Bureau of Statistics (KNBS) revised the economy's growth rate for 2013 to 5.7 percent and the government projects it will be the same in 2014. The World Bank Group (WBG), the International Monetary Fund (IMF) and the African Development Bank (AfDB) provided technical support for the "rebasing" of the national accounts. The WBG's latest analysis attributes the growth to aggregate demand, fueled by strong consumption and investment. Growth is also broad-based, with all sectors making a contribution to GDP, according to the most recent Kenya Economic Update (KEU), released in March 2015. The KEU forecasts a growth rate of 6 percent in 2015, and predicts that the positive trend will continue with the growth rate rising to 6.6 percent in 2016 and 7 percent in 2017. The economy remains resilient and sentiments also remain positive following a successful Eurobond issue in June 2014 which raised US$2 billion. The FY15 budget finalized in June targets a deficit of 4 percent of GDP, and inflation remains largely in check, but rose to 8.4 percent in August 2014, from 6.9 percent in May, due to higher food and energy costs.

3. **Medium-term prospects will depend on macroeconomic stability with credible policies, and increased investments in infrastructure and human capital**. A stronger global economy will revive demand for Kenya's exports and investment flows. The government needs to deal with emerging pressures on GDP growth from drought, insecurity, fiscal expansion, inflationary pressure, high electricity costs, and implementation of devolution.

4. **The population is estimated at 44.4 million and poverty has declined from 46 percent in 2005 to between 34-42 percent within the last ten years**. Inequalities remain high and the national revenue sharing formula includes a weight of 20 percent to poverty incidence. A new survey is needed to update the last 2005-6 household survey to inform the government's poverty reduction strategies. Kenya is moving closer towards achieving the Millennium Development Goals (MDG) targets particularly reduced child mortality, near universal primary school enrolment and narrower gender gaps in school enrolment. Interventions and increased spending on health and education are paying dividends, and HIV/AIDs prevalence has been

[1] From Kenya Facts and Figures 2014, Kenya National Bureau of Statistics.

reduced. Devolved health care and free maternal health care at all public health facilities have the potential to improve health care outcomes and develop a more equitable health care system.

5. **Kenya's net Official Development Assistance (ODA)** as percent of Gross National Income (GNI) is about 6 percent compared to that of the other countries in the East Africa Community (EAC). Given challenges in access to development partner financial support since the 1990s, Kenya's self-reliance on internal revenues helps to maintain a strong revenue performance in the country. Total domestic revenues finance about 80 percent of the annual budget, leaving Kenya in a good position to use fiscal policy for both short and long-term growth objectives and to position the State as a key provider of public services.

6. **Kenya Vision 2030 strategy set the goal to become a newly industrializing, middle-income country by 2030** through the continuous implementation of flagship projects; new investments in roads and energy will reduce domestic transaction costs, making business more profitable. After the peaceful 2013 elections and smooth transition to a new administration, the governance agenda in the 2010 Constitution and the institutional reforms envisaged to be undertaken by the new government underpin the Vision's medium term growth projections. The Government is further committed to achieving international development commitments such as the MDGs and Education for All (EFA). Twenty percent of national revenue will be spent at subnational level which is expected to reduce, if well spent, the administrative share of the budget in favor of spurring growth through investments in human capital and infrastructure.

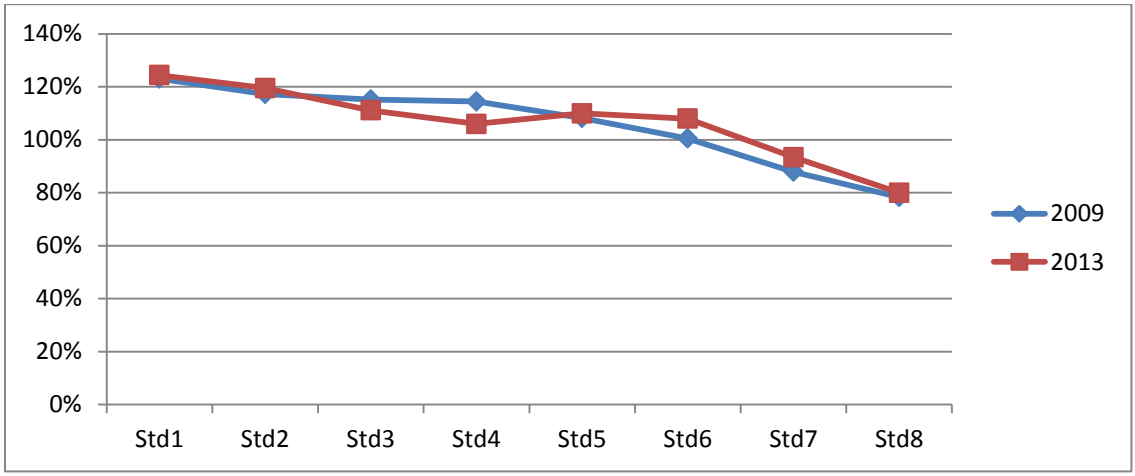
7. **Kenya puts human resource development, particularly education at the center of its development strategy. Despite notable improvements, Kenyans, particularly the poor, still face challenges in getting adequate public services including education and health.** Kenya's Vision 2030 and the related second Medium Term Plan (MTPII) strive to develop a globally competitive quality education, training and research for sustainable development. The social pillar of Vision 2030 has at its core 'investing in the people of Kenya' with a focus on health, education, children, youth and sports, among other welfare improving programs. This includes government's commitment to address access, equity, quality, and relevance of social service delivery, as well as putting great emphasis on the links between education and training, technology and entrepreneurial skill development and the labor market. Vision 2030 targets the creation of 3.5 million jobs and a reduction in the poverty incidence from 46 percent in 2005 to 28 percent in 2030, and an increase in the Human Development Index (HDI) from 0.47 in 2005 to 0.7 in 2030. It places great emphasis on education as the primary means of upward social mobility, national cohesion and socioeconomic development.

B. Sectoral and Institutional Context

8. **School Enrolment, Retention and Completion**. Kenya has made good overall progress in expanding access to education with the introduction of Free Primary Education (FPE) in 2003. The enrolment in primary education increased from 8.99 million in 2009 to 10.18 million in 2013 with 5.03 million and 5.15 million girls and boys respectively. On average, primary education enrolment grew at 4.1 percent and secondary education at 9.4 percent annually from 2009 to 2013. The primary school gross enrolment rate (GER) was 119.6 percent and the net enrolment rate (NER) was 95.9 percent in 2013. Figure 1 presents the national schooling profile in primary education. Despite a slight drop in retention rates between Standard 1 and 4, Kenya

maintains high retention rates up to Standard 6, but experiences significant drop-out rates in Standard 7 and 8. The completion rate for primary schooling is estimated at 76 percent (2012).[2]

Figure 1: Primary Education Schooling Profile



Source: UNICEF estimates based on Economic Survey (2014)

9. **Public and Private Provision**. The provision of basic education is predominantly by the public sector but private schools are increasingly providing alternatives especially in urban areas such as Nairobi and Mombasa. The number of private primary schools has grown rapidly from 1441 in 2002 to 8917 schools in 2014.[3] Net enrollment in private primary schools jumped from 3.8 percent to 8.9 percent between 1997 and 2006.[4] Low cost day and boarding schools are also receiving increased attention.

10. **Changing Institutional Arrangements**. Institutional arrangements in the education sector are changing with the implementation of the Constitution of Kenya, 2010. County governments are now responsible for providing early childhood education and running village polytechnics, while at the national level the Ministry of Education, Science and Technology (MoEST) retains responsibility for education policy, standards, curricula, examinations and the granting of university charters. It also provides basic education, and manages public universities and other institutions of research and higher learning. The Teachers Service Commission (TSC) is now a constitutional commission.

11. **Persisting inequality in education outcomes.** While the growth of the private sector has potentially helped reduce the strain on public resources, it also poses the risk of increasing socio-economic stratification between schools. Kenya has already had a long streak of regional disparities in learning outcomes. Primary completion rates, along with those for enrolment, are much lower in the arid/semi-arid land areas, and other vulnerable areas in coastal regions and urban slums. National and regional assessments including National Systems for Monitoring Learning Achievements (NASMLA) and Southern Africa Consortium for Monitoring Educational Quality (SACMEQ) consistently reveal North Eastern and Western regions as

[2] Kenya Economic Survey 2013 and 2014
[3] Kenya Economic Survey 2006 and 2014.
[4] Bold, Kimenyi, Mwabu and Sandefur (2013).

underperformers over the years (KNEC 2011, 2012). UWEZO[5] results in 2011 show the bottom 5 positions are all taken by the arid counties. At the household level, children from poorer households systematically achieve lower competency levels, on all tests and across all ages (UWEZO 2012, 2013). The top performers in Kenya Certificate of Primary Education (KCPE) have also traditionally been dominated by pupils from high-cost private schools (KNEC 2011-13).

12. **Vulnerable and Marginalized Groups**. It is estimated that Kenya has 1.1 million out-of-school children in basic education (Education for All Global Monitoring Report, Regional Fact sheet 2013). These include children with disabilities and children from hard to reach population. Close to 60 percent of the out-of-school children are found in the hard-to-reach and hard-to-stay counties. There are 14 Arid and Semi-Arid Land (ASAL) counties identified by the Commission on Revenue Allocation (CRA) that have not fully benefited from formal education because of their life style that necessitates mobility. Apart from the low enrollment, these areas are also characterized by high school dropout, early marriages of girls, inadequate teachers, poor road and infrastructure, inadequate hospitals (life expectancy is estimated at 42 years), and very low annual rainfall (less than 200mm). Unless special efforts are made to reach these communities, they will continue to lag behind.

13. **Learning Achievements**. The rapid expansion of the education system is increasingly affecting Kenya's capacity to maintain and improve the quality of education. Challenges include (i) low competency levels in early grade mathematics and reading; and (ii) declining KCPE results in public schools. This is confirmed by UWEZO Kenya's 2011-2012 numeracy and literacy survey findings, which indicate that children in Kenya are not adequately learning due to various factors and that learning levels are poorest in arid and western Kenya counties. Similarly, the Kenya National Examinations Council's (KNEC) assessment of Standard 3 learners in numeracy and literacy (NASMLA) in 2010 reported low attainment. Correspondingly, poor reading proficiency was reported by the Early Grade Reading Assessment (EGRA) study, which found that 14 percent of pupils tested in English, 19 percent in Kiswahili, 15 percent in Gikuyu and 20 percent in Dholuo in their last term of Standard 3 could not read a single word correctly (Piper, 2010).

14. **Low learning achievement in Early Grade Mathematics**. Kenya Vision 2030 places great emphasis on the role of mathematics education. Yet, evidence suggests that Kenyan children are not achieving minimum levels of numeracy. The Early Grade Mathematics Assessment (EGMA) study as part of the Primary Math and Reading Initiative (PRIMR) pilot indicates low levels of competencies. For example, 30 percent of pupils at the beginning of Grade 2 cannot do simple subtraction in the 5 counties that the test was administered to. In a more representative sample, UWEZO survey findings throughout 2009, 2011 and 2012 indicate that less than a third of children enrolled in grade 3 have basic grade 2 level numeracy skills. Furthermore, the learning curve has been flat. Among children approaching the end of the primary school cycle, a significant number still do not possess foundational grade 2 level skills. In 2011, 16 and 11 percent of class 7 and 8 children could not do simple divisions respectively. Perhaps an even more problematic observation is the fact that there are large regional disparities

[5] UWEZO means "Capability" in Kiswahili, an initiative to monitor competencies in literary and numeracy of children 6 to 16 years of age in Kenya, Tanzania and Uganda.

of competency. Both the best and worst performing districts in the East Africa's UWEZO assessments are all in Kenya. In 2011 for example, only 5 out of 10 grade 3 children in North Eastern province could perform grade 2 subtractions, compared to 7 out of 10 in Nairobi and Central provinces. Learning achievement levels shown in the EGMA study also vary significantly between rural and urban counties and between public and private (even low cost private) schools.

15. **Introduction of Free Primary Education (FPE) has improved access.** Evidence suggests that the FPE successfully encouraged pupils from poorer socio-economic groups to enroll in primary schools in general. This has led to increased net enrollment in public schools. FPE has also increased demand for private schools as middle-income households chose to exit the public system.[6] Overall, the increase in access has affected the quality of education, which is evidenced by the gap in last KCPE test scores between public and private schools.

16. **Hindrances to Learning.** Low learning achievement can be traced to several factors:

a) ***Low levels of teacher productivity***: The 2012/13 Service Delivery Indicator (SDI) study found that in Kenya, teacher absenteeism is a serious problem. Based on the representative survey sample, out of every 100 teachers, 16 were absent, 27 were in school but not teaching and 2 were in class and not teaching. As a result, on average only less than half of scheduled class time was actually spent on learning and teaching tasks. Beside the issues of inadequate accountability and incentive mechanisms, gaps in supervision of teachers could be a contributing factor. According to PRIMR field research, Teacher Advisory (TAC) tutors, were not providing adequate professional support to teachers.

b) ***Low teacher pedagogical competency***: While teachers' content knowledge in Mathematics is reasonably adequate, pedagogical knowledge appears much lower. The SDI data shows that 85 percent of teachers possess the minimum knowledge of grade 4 math curriculum (mastered at least 70 percent of the math assessment) but none can do so in the pedagogy assessment. It is also found that a pupil's math learning outcomes are strongly correlated with a teacher's time on task and pedagogy scores but not with a teacher's mathematics score.[7] Echoing this result, according to the UWEZO report (2010), teacher trainers expressed their inadequacies with respect to how to train teachers to teach basic mathematical concepts. Other issues at the teacher preparation stage also include: (i) college lecturers usually come from secondary schools and so are often not trained specifically for primary schools or teacher training; (ii) the Primary Teacher Education (PTE) Curriculum is overloaded leaving little time to focus on pedagogical skills/practicum for teaching language and mathematics; (iii) gaps exist between PTE and the primary school reading and mathematics curricula; and (iv) the current curriculum overly uses a teacher centered approach rather than learner centered approach.

[6] Based on household survey data between 1997 and 2006 (Bold, Kimenyi, Mwabu and Sandefur 2013).
[7] Based on World Bank staff's estimations.

c) ***Insufficient allocation of resources***: Kenya has, since 2003, instituted capitation grants to provide schools with funding for acquiring textbooks and learning materials. The capitation grant has remained constant over the last ten years and was only increased during the FY 2014/2015 from Ksh 1,020 to 1,420 per pupil. Both pupil teacher ratio and pupil textbook ratios show high degree of disparities, and these disparities are significantly higher in rural schools than in urban public schools.

d) ***Inadequate instructional resources***: One of the immediate consequences of the insufficient funding is its impacts on textbook availability. Textbooks, once vetted by the Kenya Institute of Curriculum Development (KICD), are listed in the Orange Book and sold by the publishers directly to schools. In some cases, books are reaching the schools but then are damaged through usage or taken to be sold at the market. With the increasing textbook price, currently the yearly capitation grant can only cover 2 out of 6 required textbooks for primary pupils. Pupils do not have sufficient textbooks and other learning materials to adequately learn in classrooms.

e) ***Inadequate support and accountability at the system level and ineffective management at the school level:*** Curriculum implementation is not carried out adequately across schools, with rural schools suffering most from teachers absent from class teaching. Formally all teachers are civil servants employed by the Teachers Service Commission (TSC) and most of their monetary and non-monetary incentives are decided centrally in spite of one's performance in teaching and the consequent learning achievement thereof. The schools Boards of Management (BoMs) while serving as the local accountability bodies, have weak capacity to monitor the school administration for prudent resource utilization, teacher efforts and pupil learning. Based on SDI data, while most schools have a BoM present, 40 percent have no board meetings that are open to the public to receive complaints and/or feedback from parents, teachers, and community members (25 members in public schools).

f) ***Inadequate systematic data to inform planning, implementation and monitoring:*** Finally, education data which is crucial for resource allocation, accountability and transparency is weak. While education data is collected, the quality and timeliness is highly variable.

17. **Kenya's National Education Sector Plan (2013-2018)**. The National Education Sector Plan (NESP) 2013-2018 has been developed to implement the new policy and legal frameworks published in 2012 and 2013 to align the education sector with the Constitution of Kenya, 2010. The NESP is also the implementation strategy for the education sector's MTP II related to the Vision 2030. The NESP is presented in three volumes. Volume one presents basic education program rationale and approach while volume two presents the basic education Implementation Plan. Volume three is dedicated to Technical and Vocational Education and Training (TVET), university and Science, Technology and Innovation (STI) investment opportunities.

18. The sector plan as set out in NESP emphasizes a holistic and balanced development of the entire education sector. The NESP Implementation Plan focuses on the urgent need to enroll all pupils in basic education, raise literacy and numeracy levels, reduce existing disparities, and improve the quality of education with a focus on teacher quality, school level leadership, more

effective applications of teacher training in the classroom, increasing resources to the education sector, and targeting improvements and monitoring key results. The overarching goal of NESP is to enhance quality of basic education for Kenya's sustainable development. The NESP identifies six priority investment areas. These are: (i) sector governance and accountability; (ii) access to free and compulsory basic education; (iii) education quality; (iv) equity and inclusion; (v) relevance; and (vi) social competencies and values.

19. The proposed Global Partnership for Education (GPE) project has been conceived to support selected key strategy elements of the NESP. Component one of the Project is dedicated to improving the foundations of learning by enhancing early grade mathematics (EGM) competencies – thereby complementing efforts of the GoK through the TUSOME (*Let's Read!*) initiative to improve early grade reading (EGR). Both initiatives together will go a long way to lay the foundation of enhancing quality of basic education, the overarching goal of the NESP. Component two aims at strengthening management and accountability at school level thus contributing to the NESP priority of sector governance and accountability. Component three of the GPE project will strengthen capacity for evidence-based education sector policy development at the national level.

20. **Education Development Partner Coordination Group (EDPCG)**. The EDPCG was formed to support MoEST in the successful implementation of the Education Sector Plan. The main objective of the EDPCG is to ensure that support to the Education and Training Sector in Kenya by the development partners is provided in a predictable and coordinated manner and aligned in support of the Government's overall education and training strategies and policies. Specifically, EDPCG strives to encourage strong government-led donor coordination, promote coordinated policy dialogue and technical support on strategic issues in education with the government, the private sector, and civil society, and to ensure that development partners' support to education is increasingly provided to the GoK in a predictable, harmonized and coordinated manner. A number of development agencies are supporting primary education in Kenya. Details are in Annex 2. Appendix A.

21. **Renewed Operational Engagement**. The Constitution of Kenya, 2010 which has the Bill of Rights at its core, and the longer term Kenya Vision 2030 framework have expressed the need for the education and training sector to create a better fit for purpose. Recent reforms in the education sector are guided by the Sessional Paper No.14 of 2012 entitled 'Reforming Education and Training Sectors in Kenya'; and several new education acts are now in place including the Basic Education Act, the TVET Act, the Universities Act, and the STI Act. Other acts that are pertinent to the sector include the KICD Act, the TSC Act and the Kenya National Examination Council (KNEC) Act. A new five year NESP (2013-2018) has been developed. These initiatives offer directions in modernizing and strengthening the country's education and training system. This coupled with reimbursement of ineligible funds from the earlier fraud and corruption, which in 2010 stopped partner support to the Kenya Education Sector Support Program (KESSP), has opened the path for a fresh period of renewed policy and operational engagement with the Government.

22. **New GPE funding will help Kenya address key challenges in primary education and rebuild the country's relationship with development partners**. The project is intended to provide catalytic funding to help Kenya address areas not yet fully covered by other initiatives,

drawing on the experience and lessons learnt from past projects. Specifically, the GPE project will contribute to:

a) Improving early grade learning competencies by focusing on the scaling up of the EGM intervention piloted under PRIMR. The decision to scale up is based on encouraging evidence from rigorous impact evaluations of the pilot.[8]

b) Strengthening systems (at school and national levels) for improving primary education service delivery. It is expected that well-functioning school BoMs will be able to mobilize and/or utilize resources effectively to improve learning conditions through notably, measures to reduce teacher and pupil absenteeism, thereby increasing teacher-pupil contact time in the classroom. Significant improvement in pupil learning was observed in schools where such measures have emerged from a participatory decision making process, and accountability for the use of resources strengthened through oversight by community stakeholders (village elders, parents, and pupils)[9]. In this component, schools serving vulnerable groups will deliberately be targeted for the project interventions.

23. Extensive consultations with and participation of the Education Development Partners Coordination Group (EDPCG) helped ensure that the project concept and detailed design build on the existing programs and can be implemented in a coordinated manner. Successful implementation of this project will pave the way for the development partners' community to integrate their support using government systems.

C. Higher Level Objectives to which the Project Contributes

24. **The project activities are aligned with the Government's strategic objective of providing quality basic education for Kenya's sustainable development.** Vision 2030 places great emphasis on linking education and labor market. To that end the NESP 2013-2018 focuses on improving the quality of primary education, through: (i) improvement of schooling outcomes and impact of sector investment; (ii) development of relevant skills; (iii) improved learning outcomes; and (iv) improved efficiency and effectiveness in use of available resources. The

[8] The end line evaluation of the USAID funded intervention in 547 low performing rural and peri-urban schools finds that after one year of implementation, test scores across different mathematics subtasks improved by more than 0.2 standard deviations on average. The midterm evaluation of an ongoing DFID funded intervention in another 834 rural schools finds that after only four instructional months, the effect on mathematics performance is very similar to that of the USAID intervention. Notably, assessment of different treatment packages suggests that it is critical to implement the full set of PRIMR elements simultaneously, including teacher training, textbooks provision, instructional support and teachers' guides, in order to have a meaningful impact on student performance. It is estimated that a full-fledged PRIMR is more cost-effective than many other previous pilots in Kenya (Piper and Mugenda 2014a, 2014b).

[9] Randomized, controlled trials in the Gambia (D. Evans, et al, World Bank, 2011) and Uganda (A. Zeitlin, et al, Oxford University, 2011) show statistically significant impacts of school-based management (school management committees, school grant program, capacity building) on reducing student and teacher absenteeism. Evidence from 22 impact evaluations in developing countries ("Making Schools Work", B. Bruns, H. Patrinos, D. Filmer, World Bank, 2011) indicate that three key strategies to strengthen accountability relationships in school systems - information for accountability, school-based management, and teacher incentives - can affect school enrollment, completion, and student learning.

GPE financed project, taking on two result areas of improving early grade learning competencies and strengthening the delivery systems, responds directly to all the NESP target areas.

25. **The project is well aligned with the GPE goals** of: (i) ensuring that all children master basic literacy and numeracy by early grades; and (ii) building national systems that have capacity and integrity to deliver, support and assess education quality. The project is also in line with the GPE focus that resources be targeted to the most marginalized groups, including schools with children with disabilities, schools in rural and nomadic communities in the Arid and Semi-Arid Lands (ASAL) with low female enrolment as well as schools in urban poor settlements.

26. **The project is aligned with the twin goals of the World Bank's strategy on poverty reduction and boosting shared prosperity.** Education builds human capital that directly contributes to enhancing productivity and welfare of the population, especially the poorest strata. Investing in human potential advances many development goals, from health and gender equity to civic engagement and innovation. By unleashing the power of the human mind, education provides individuals with opportunities to improve their own quality of life and allows them to make meaningful contributions to their communities.

27. **The proposed project is also well aligned with the World Bank's Education Strategy – Learning for All (LFA)** which promotes investment in education, early, smartly for all. To achieve Learning for All, the World Bank is working with client countries and development partners to help reform the education systems beyond inputs. While trained teachers, classrooms and textbooks are crucial, education systems deliver better results when standards, rules, responsibilities, financing and incentives are clear and aligned, and outcomes are measured and monitored.

28. **World Bank support to Government's program in education sector is contained in the new Country Partnership Strategy (CPS)** that has recently been approved and launched. The CPS emphasizes importance of: (i) human resource development to help people of Kenya realize their full potential and to live in dignity, reduce inequality and social exclusion to develop shared prosperity; and (ii) improving skills development, notably for young people. The project has special focus on developing foundational skills in numeracy at an early age to enable pupils to continue successfully on their educational path, to be fit for jobs, to be competitive in the labor market, employed, and integrated into the economy. The ultimate outcome is improved livelihoods especially for the disadvantaged groups of the population. The Project focuses on strengthening governance and management systems at the national and school levels, which is aligned with the CPS priorities on linking social accountability with enhanced development outcomes. The CPS highlights the World Bank's support to Kenya in rolling out basic transparency and citizen participation mechanisms in planning, budgeting, and performance management.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

29. The project development objectives are to improve early grade mathematics competency and to strengthen management systems at school and national levels.

B. Project Beneficiaries

- 6 million pupils in grade 1 and 2 will benefit from improved early grade mathematics textbooks
- 40,000 teachers will benefit from new methodologies of early grade mathematics instruction through improved in-service training and regular pedagogical supervision and support
- 1.3 million pupils in participating schools will benefit from more effective and present teachers as well as improved teaching-learning inputs
- Head teachers and BoMs will receive guidance and support in school improvement planning and be empowered to implement plans to improve their school performance
- Parents and Communities whose aspirations will be met through greater information and enhanced voice in school management for improving quality of education
- Education system administrators will benefit from improved information and accountability through up to date Education Management Information System (EMIS) data and school audit

C. PDO level result indicators: the project will monitor the following indicators

- Improvement in basic mathematics competency level of Grade 2 pupils
- Number of participating schools completing top two priorities of School Improvement Plans (SIP)
- EMIS data for primary education published annually from 2016
- NASMLA for standard 3 pupils conducted and disseminated in 2015 and 2018

III. PROJECT DESCRIPTION

A. Project Components

30. The two result areas of the PDO are translated into four main project components. Component 1 focuses on improving early grade mathematics competencies. Component 2 supports the strengthening of school management and accountability. Component 3 aims to build capacity for evidence based policy development at national level. Component 4 covers project coordination, communication, monitoring and evaluation.

31. **Component 1: Improving early grade mathematics competencies (estimated total cost: US$34.5 million).** Component 1 will support the scaling up, across Kenya, of the Early Grade Mathematics (EGM) methodology piloted under the PRIMR supported by USAID and DFID. The focus of the scale up is on schools located in rural areas, pockets of urban poverty and ASAL counties, which tend to be those performing poorly in mathematics. These schools, estimated to comprise about 75 percent of all public primary schools, will adopt the comprehensive EGM methodology and receive the requisite teaching/learning materials as well as training for their Grades 1 and 2 teachers and other concerned personnel. In addition, EGM materials (textbooks and teacher guides) will be made available to about 23,000 public primary schools, benefiting their pupils, teachers, and head teachers. The Schools will be selected based on the average of the KCPE scores for the last three years (2011, 2012 and 2013).

32. Component 1 will cover five sub-components: (i) improving teacher competencies for developing early grade numeracy (Grades 1 and 2); (ii) providing classroom instructional materials; (iii) enhancing teacher pedagogical supervision; (iv) sensitizing pre-service training college leadership and educators to innovative practices in early grade reading and mathematics; and (v) EGM management and coordination.

33. The component will finance the implementation of a comprehensive program to increase teacher competencies for developing early grade numeracy (Grades 1 and 2), provide adequate classroom instructional materials, and enhance teacher pedagogical supervision. In addition, the component will sensitize pre-service training college leadership and educators to innovative practices in early grade reading and mathematics, and support EGM management and coordination. Specific activities include: (i) training of a core group of 60 master trainers (EGM champions), teachers and head teachers in EGM instructional techniques; (ii) training of TAC tutors to undertake enhanced pedagogical supervision of teachers and monitor pupil learning; (iii) procurement of textbooks and teacher guides developed under the PRIMR for distribution to all participating Grade 1 and 2 pupils and teachers; (iv) provision of tablets to TAC tutors for monitoring teacher and pupil performance; and (v) awareness building at the Public Primary Teacher Training Colleges (PTTCs) on new instructional materials and pedagogical practices for EGM.

34. In parallel with EGM roll out, the Government will be undertaking a national program (TUSOME) to scale up the PRIMR's EGR component. Alignment of the two programs is desirable, given that the success of mathematics is linked to the ability to read and have sound literacy skills, and there are efficiency gains from training the same teachers who are involved in both subject areas at the same time. However, full alignment of activities may be difficult due to the TUSOME starting one year ahead of the GPE project. Nonetheless, every effort will be made to align EGM and EGR methodology, enable the EGM team to learn from the EGR experience, and ensure synchronization of implementation at school and county level.

35. The key results of this component include: (i) number of Grade 1 and Grade 2 EGM textbooks distributed to schools; (ii) number of teachers trained in EGM instructional techniques under the Project; and (iii) number of classroom observations conducted by TAC tutors.

36. **Component 2: Strengthening School Management and Accountability (estimated total cost: US$38.8 million).** This component will involve a pilot to improve school performance through strengthened school management and accountability for results in the delivery of primary education. The pilot targets low performing schools (i.e., those schools whose KCPE scores in 2012 and 2013 were below the average of 243 for public primary schools), in each county and ASAL counties in particular. Based on the targeting criteria (detailed in Annex II), about 6,000 schools were identified to be eligible pilot schools. From this pool, about 4,000 schools were randomly selected to be the participating or 'treatment' schools that will benefit from an integrated set of interventions whose impact can be rigorously evaluated at the end of project implementation. The interventions, to be provided under four sub-components, include: (i) school specific analysis of KCPE results to inform planning at the school level; (ii) appraisal of teacher competency in knowledge, pedagogical practice and engagement; (iii) support and capacity building for school improvement planning, with enhanced

participation of community stakeholders; (iv) enhanced financing to schools linked to achievement of management and accountability milestones; (v) strengthening school audit; and (vi) monitoring of pilot results.

37. **The component will cover four sub-components**: The first will assure the provision of KCPE analysis and feedback to each of the participating 4,000 schools in order to help them identify their weaknesses and select appropriate measures to improve their curriculum delivery. The second sub-component will enable participating schools to implement the Teacher Appraisal and Development (TAD) tool developed by the TSC. This is expected to contribute useful feedback for school improvement planning in general, and to teachers specifically, for their professional development. Under the third sub-component, participating schools will be provided with the resources to develop a School Improvement Plan (SIP) to address their key pupil learning challenges, and thereafter carry out the priority actions under this plan, and the fourth sub- component will enable the 4,000 schools participating in the pilot to be audited annually during the project implementation period by the MoEST's School Audit Unit whose capacity will be strengthened to carry out improved financial and system audits as well as risk based assessments.

38. Key results of this component include: (i) number of participating schools receiving KCPE analysis reports; (ii) percentage of teachers in participating schools completing professional competency assessment; (iii) number of participating schools submitting satisfactory SIPs; (iv) number of participating schools receiving annual school grant allocations; and (v) number of participating schools audited.

39. **Component 3: Strengthening Capacity for Evidence-based Policy Development at National Level (estimated total cost: US$10.8 million)**. The activities under this component aim at strengthening capacity for evidence-based (education sector) policy development at national level. Activities include: (i) strengthening the data/EMIS in primary education to make data more available, reliable and integrated; (ii) enhancing the system for monitoring pupil learning achievement, for example through the implementation of two NASMLA for Standard 3pupils during project life and the dissemination of SACMEQ IV results to all counties and sub-counties; and (iii) enhancing the capacity to develop policies with respect to system equity, efficiency and quality at the national level, for example through support to the new Education Standards and Quality Assurance Council (ESQAC) to consolidate all guidelines and regulations on quality standards and assessment procedures. The project will also support the analysis of adequacy and utilization of capitation grants, and teacher productivity. Policy options emerging from the analysis will feed into the preparation of the next five year education sector plan starting 2019.

40. Key results of this component will be (i) the percentage of primary schools submitting EMIS data, (ii) the availability of a sector diagnostic covering access, equity and efficiency, and (iii) the launch of the preparation of the next five year education sector plan.

41. **Component 4: Project Coordination, Communication, and Monitoring and Evaluation (estimated total cost: US$4.3 million)**. This component would involve and finance: (i) management of the project including establishment of Project Coordination Unit (PCU)

within the MoEST to implement and manage the project, as well as implementation units at County levels; (ii) preparation of annual and semi-annual work-plans for project implementation; (iii) monitoring and evaluation under the project including baseline studies, mid and end-term evaluation studies, impact evaluation and documentation of good practices for sharing of lessons; (iv) capacity building for implementing units at all levels; and (v) dissemination of project information on websites at national level and also through other print and electronic media. The MoEST will host County-level information on its website.

42. Sub-components would include: (i) the establishment of the PCU with adequate and appropriate staffing in key areas such as procurement, financial management, EGM, safeguard, monitoring and evaluation, data analysis and teacher training; (ii) the establishment of County level project coordination units; (iii) development of a comprehensive communication strategy and its implementation; (iv) on-the job training for implementing agencies to conduct results based monitoring and evaluation; (v) conduct of baseline, mid-term, and end-term studies, including implementation of EMIS; (vi) impact evaluation under component 2; and (vii) biannual (September and February) joint supervision reviews.

B. Project Cost and Financing

43. The following table presents the project financing and costing by components.

Table 1: Project costs by components

Project Components	Project cost (US$)	GPE Financing	% Financing
1. Improving early grade mathematics competencies	34.5 million	34.5 million	100
2. Strengthening school management & accountability	38.8 million	38.8 million	100
3. Building capacity for policy development at national level	10.8 million	10.8 million	100
4. Project coordination, communication, and monitoring & evaluation	4.3 million	4.3 million	100
GoK Counterpart Funding	8.84 million		0
Total:	97.24 million	88.4 million	

C. Lessons Learned and Reflected in the Project Design

44. The project design is based on lessons learned from impact evaluation of education projects in Africa Region on the whole, and in particular, from implementation of the Kenya Education Sector Support Program (KESSP) (P087479, 2007-2010, $80 million), closed at the end of 2010. Lessons are also drawn from various pilots undertaken by development partners in collaboration with MoEST.

45. As evidenced by a large number of the education projects in Africa, simplicity in project design focusing on a limited number of activities will ensure successful implementation and better results in an environment of low institutional capacity.

46. Lessons from other GPE and basic education projects indicate that a greater impact on learning can be reached provided that the supply of educational inputs (school infrastructure, learning materials, etc.) is enhanced with effectiveness of their utilization.

47. The project has also built on the lessons learned from implementation of the KESSP, a Sector-Wide Approach (SWAp) program using Government systems. Key lessons are:

a) In order to ensure value for money and control corruption risks, the focus needs to be on strengthening Government systems, and particularly on risk based approaches in financial management, procurement and auditing systems;
b) A strong focus on governance and accountability can be achieved by including measures relating to social accountability. To support the government's efforts in strengthening management, governance and accountability in the education sector, school management and oversight need to be enhanced. Key stakeholders such as parents and community need to actively participate in governing the schools with an ultimate goal of improved accountability;
c) A greater involvement on civil society in implementing accountability measures and in monitoring progress in the education sector can contribute to strengthening accountability and ultimately improving service delivery;
d) When programs are intended to be scaled up, it is necessary to reevaluate institutional capacity for fiduciary, technical and implementation risks;
e) Credible, robust and independent information and data should guide the design, implementation and financing of the program; and
f) A regular monitoring mechanism needs to be put in place to inform project implementation and achievement of results.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

48. Project implementation will be mainstreamed into the government education management system. The primary responsibility of project management rests with the MoEST. The TSC will be responsible for the implementation of the teacher appraisal and development sub-component. The Kenya National examination Council (KNEC) will be responsible for the analysis of the KCPE results and the implementation of the national assessments of Grade 2 in mathematics and Grade 3 in core subjects as well as the dissemination of SACMEQ IV. At the apex level, a Project steering Committee (PSC) chaired by the Cabinet Secretary (CS) and coordinated by the MoEST Principal Secretary (PS) and consisting of the TSC and KNEC Chief Executives, National Treasury and other key officials will be responsible for overseeing the progress and effectiveness of the project interventions, approval of work plans and budgets and providing policy direction. The PSC to the satisfaction of the Bank will be constituted by the MoEST within three months of effectiveness and be maintained throughout the Project period. The PSC will meet at least once in a quarter or more frequently as required.

49. The MoEST has established a dedicated PCU with four core full-time personnel to be responsible for the day-to-day project coordination and implementation. The PCU will be headed by a project coordinator, three deputy coordinators, an accountant, a finance officer and a supply chain management officer, and an ICT officer. A secretariat consisting of secretaries, other support staff and a driver shall be established. One deputy coordinator will be in charge of Component 1, the second deputy coordinator will be in charge of Component 2 and the third deputy coordinator will be in charge of Components 3 and part of Component 4, safeguards and fiduciary issues including implementation of social accountability and transparency mechanisms. The PCU with all core officials will be maintained throughout the project period. The details of the implementation arrangements are in Annex 3. Various technical committees will be constituted with specific terms of reference as mentioned in the Project Implementation Manual (PIM) to assist the PCU with implementation of the project activities.

50. The PCU will source and/or hire services of specialists in the areas of, but not limited to, EGM, teacher appraisal and development, monitoring and evaluation, EMIS, communication and any other specialist as and when required.

B. Results Monitoring and Evaluation

51. The project will monitor the results at the intermediate/output and PDO levels. The result targets will be cascaded to the school, county and sub-county level and will be reported by the implementing agencies. The national PCU will consolidate the term and annual project implementation and result reports. These reports will be shared with all counties and will be reviewed by the MoEST PS, PSC, the World Bank, EDPCG and Local Education Group (LEG). At county level, each county will have a designated project coordinator assigned by the County Director of Education (CDE). A committee comprising the CDE, the County Project Coordinator, Sub-county education Officer, Sub-county TSC Directors, a representative from ESQAC and School Audit Unit will support the team.

52. The project uses three major monitoring systems to collect data:

a) Project data including procurement and financial data will feed directly into the project M&E and provide information on several intermediate indicators;
b) Data from an integrated ICT real-time reporting system for both components 1 and 2. For component 1, this includes teacher data collected and submitted by TAC tutors during their training of mathematics teachers as well as schools visits for pedagogical support. For component 2, head teachers of participating schools will be responsible for collecting, maintaining and uploading school-level data on pupils, teachers and resources on a regular basis; and
c) Independent third party monitoring, evaluation, and verification. This includes school visits to collect data on school management practices and teacher appraisal and development, to be used for monitoring both the PDO and intermediate indicators in component 2.

53. Apart from establishing base-line values, two evaluations will be carried out to measure the impacts of Component 1 and Component 2 interventions at two points in the life of the

Project, one at mid-term and the other at end term. The first evaluation will help monitor PDO indicators related to Component 1 by measuring the improvement in mathematics competencies of Grade 2 pupils through a cohort study. A nationally representative sample survey of basic mathematics competencies of Grade 2 pupils will be conducted at the end of the 2015 school year (just before EGM is rolled-out at the start of 2016).

C. Sustainability

54. Overall, the project will use the government systems to ensure the sustainability of the activities beyond the project life. The EGM roll-out is nation-wide, with all public primary schools being exposed to the EGM textbooks and teaching methodology. Capacity building plays a major role in this process, with all Grade 1 and 2 teachers being regularly observed and feedback provided on their teaching practices. For Component 2, capacity building for school improvement planning and strengthened teacher assessment will benefit the schools beyond the effective utilization of the school grants. The school grant amount is relatively small in relation to the government capitation grants, suggesting that if the program is successful, it is within Kenya's fiscal capacity to scale up these interventions. Finally, strengthened EMIS data availability as well regular monitoring of pupil achievement will help improve Kenya's capacity to develop sector policies using sound evidence.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Ratings Summary Table

Risk Category	**Rating**
Stakeholder Risk	Substantial
Implementing Agency Risk	
- Capacity	Substantial
- Governance	High
Project Risk	
- Design	Substantial
- Social and Environmental	Moderate
- Program and Donor	Moderate
- Delivery Monitoring and Sustainability	Substantial
Overall Implementation Risk	Substantial

B. Overall Risk Rating Explanation

55. The Overall risk rating for the project is rated *Substantial*. Annex 4 provides a detailed assessment of the operational risks related to overall project implementation and towards achievement of PDO. The main risks associated with the Project are summarized below:

a) **Stakeholder risk is substantial**. The project is developed in a participatory way to ensure that feedback from all stakeholders is integrated into the project design. The teacher appraisal system will need to be carefully crafted to be fair and supportive of

teacher professional development and career path growth. The communications strategy will be an important element to ensure all stakeholders are aware of the project objectives, the design and their roles in this project. In the course of project implementation the beneficiaries will be kept informed on the project progress in achieving the results.

b) **Capacity risk is substantial.** The project design envisages provision of training for the staff of implementing agencies, and external expertise, as deemed necessary, to reinforce the government capacity. The project components will support : (i) school BoMs and school leadership in school improvement planning and school management; (ii) counties/sub-counties in providing increased number of school audits and timely EMIS data; and (iii) MoEST functional departments in improving accountability and result monitoring. To address the fiduciary risks the project will support; (i) additional accounting staff and enhancement of their skills; (ii) improving budgeting and IFMIS reporting; (iii) strengthening internal controls including social accountability/school-based management; and (iv) introducing additional Financial Management (FM) mechanism/measures for decentralized expenditures including internal and external audits.

c) **Governance challenges are high.** There is a high risk of fragmentation and unclear accountability due to the separation of TSC and MoEST, affecting especially EGM and TAD components. The project design has tried to focus the interventions at the school level, which is the target beneficiary of both MoEST and TSC. The PSC will oversee the project implementation, monitor results, provide policy guidance, and approve annual work-plan and budget. At the sector level, the NESP National Steering Committee would provide oversight of the program and address key policy and operational issues as they may arise. The GPE PSC is chaired by the CS and coordinated by the PS of the MoEST and comprises relevant Directors within the MoEST, TSC and KNEC Chief Executives, National Treasury, other key officials and members of the LEG. The PSC is supported through a Technical Working Group (TWG), which will regularly monitor implementation progress. Embedded in the project design is attention also to the SBoMs and greater involvement of parents/community for oversight of service delivery/social accountability at the schools. The proposed interventions under component 2 aim at building capacity and strengthening school management for improving service delivery and school performance.

d) **Design risk is substantial**. The pilot EGR/M (PRIMR) and the scaling up of EGR (TUSOME) is managed by external agencies and not yet mainstreamed into the education system of Kenya. The EGM textbooks have been vetted and endorsed by KICD. MoEST and partners (USAID, DFID), responsible for piloting EGR/EGM in the country have been involved in this process to ensure that textbooks are available to EGM participating schools for the school year starting January 2016. EGM roll-out is designed in close collaboration with EGR (TUSOME) to ensure alignment of activities, especially at the school and sub-county levels. For Component 2, currently, primary education financing in Kenya is input-based, hence schools/counties/MoEST are not yet familiar with output or result based financing approaches. The World Bank will provide intensive training and

support to ensure that Component 2 implementation will be carried out beyond inputs with a focus on results being delivered at school level.

e) **Delivery monitoring and sustainability risk is substantial.** With the low capacity to collect, analyze and utilize data, it is a risk that adequate monitoring data will not be regularly provided. The project will support the GoK efforts in making the primary education data more available (especially at school level), as well as reliable and integrated. The project result framework will be monitored by the implementing agencies, MoEST and through external evaluation. With the current GoK budgets mostly covering the core regular operations there is a risk that the project activities may be dependent on donor funding. Core activities related to improving foundational numeracy learning and system strengthening (including school BoMs, County Education Boards (CEBs), service delivery to all including disadvantaged groups) are all reflected in the NESP and there is Government commitment to work on these areas. Several donors are working to address the challenges in primary education and there is discussion on how these initiatives can be mainstreamed into the government's relevant programs over the longer term. The aim is to build the system to be more sustainable including attention to policy development, budget utilization, staffing and institutional arrangements.

VI. APPRAISAL SUMMARY

A. Economic Analysis

56. Given the range of project components, different approaches are used to conduct the project economic analysis. A cost-effectiveness analysis is conducted for the first component of the project. The benefit is defined as the gain in pupil's mathematics competency. Incremental cost is estimated to be US$1.41 per pupil, which equal's the difference between the project cost for Component 1 and the MoEST system's cost of mathematics teaching, as estimated by Research Triangle Institute (RTI.)[10] The main cost differences are due to cheaper textbooks but increased teacher training cost under the project. Component 1 is expected to result in a 0.1 standard deviation increase in pupil mathematics test scores. Therefore, the cost effectiveness ratio (CER) is US$2.31 per pupil per 0.1 standard deviation gain in mathematics test scores. While data for alternative interventions to improve EGM competency do not exist, this CER suggests that the PRIMR model is significantly more cost-effective than many other interventions such as textbook and scholarship provisions at improving pupils' overall test scores (see Dhaliwal et al., 2013 for a review).

57. For the second component of the project, a cost-benefit analysis is conducted using the present discounted value method. The intervention package on school management is expected to improve primary completion rates in the targeted schools by 5 percent. This improvement, in turn, is expected to have a positive impact on labor productivity and labor returns. The economic benefits are estimated as the increase in lifetime adult labor earnings while the economic costs are estimated using project investment cost, foregone earnings as well as schooling expenditures, both public and private. To calculate the incremental annual earnings for the additional primary

[10] Data based on the Primary Math and Reading (PRIMR) Initiative End-line Impact Evaluation (Piper and Mugenda 2014a).

school graduates, household survey data from the 2006 Kenya Integrated Household Budget Survey (KIHBS) is used to estimate a wage premium function following Mincer (1974).[11]

58. Using these assumptions in the base scenario, Component 2 yields a Net Present Value (NPV) of US$164.1 million, with a corresponding internal rate of return (IRR) of 32 percent. The benefit cost ratio is 2.69. The net benefits were derived only from those who are assumed to go into private employment. This estimate on one hand underestimates the social benefits often associated with increased education attainment such as reduced fertility, increased women participation in household decision making, intergenerational effects, etc. On the other hand, due to data limitations, we could only estimate the wage premium using data from 2006. Given the increase in primary education enrolment since 2006, the labor market returns might have declined. Sensitivity analysis using more conservative assumptions suggests that the project's economic net benefit is still substantial. Nevertheless, the results are understandably sensitive to changes in the private returns to education, highlighting the importance of demand side policies to maintain the economic benefits of education.

B. Technical

59. The project technical design is informed by multiple sources of evidence (EGRA and EGMA pilots, UWEZO, NASMLA, SACMEQ, SDI) on the key determinants of learning as well as worldwide and Kenya specific impact evaluation studies of school level interventions to improve pupil learning achievement.

60. Component 1 supports the scaling up of an instructional approach for improving early grade numeracy (EGM program) that was successfully piloted in about 1,384 primary schools in Kenya under the PRIMR Initiative. Decision to scale up the program and to focus it on low performing schools across the country, was based on the findings of a rigorous evaluation of the pilot indicating that significant gains in basic mathematics competencies were realized within one year of the intervention, and there was a larger impact on the lower performing pupils. Design of the component has been informed by lessons learnt through the pilot, particularly on the implementation of three integrated strategies: (i) provision of adequate learning resources, specifically low cost books for every pupil; (ii) enhancing teachers' pedagogical capacity to adequately deliver the EGM curriculum; and (iii) provision of regular pedagogical supervision and feedback on teaching and learning processes. The interventions related to these strategies have proven to be simple and cost effective, and the Government will have the advantage of building on the experience and capacity developed under the PRIMR to implement them nationally. Additionally, given that EGM teaching/learning materials have been endorsed by the KICD the program complies with the requirements of the national curriculum.

61. The design of Component 2 is guided by a set of good practices to improve schools' capacity to deliver quality primary education to its pupils. These include: (i) capacity building for school improvement planning; (ii) engagement of community stakeholders in school planning

[11] This is the latest household data available that is nationally representative. The most recent household survey implemented in Kenya is the STEP (Skills Toward Employment and Productivity) Skills Measurement Study in 2012/2013. However, it focuses solely on the urban population, which is less likely to be the population affected by Component 2 of the project.

and oversight of resource use; (ii) development of a feedback loop on pupil learning achievement (provided by school specific KCPE analysis) for more informed school planning; (iii) strengthening evidence based teacher assessment and development; (iv) provision of resources (enhanced school grants) to improve learning conditions and empowering the school community in utilizing these resources; and (v) regular monitoring to ensure that schools implement their action plans. Given that the component will only cover a subset of primary schools, the most disadvantaged schools, primarily those located in poor and ASAL areas will be targeted. As Kenya has a well-established system of capitation grants for schools, the component will adopt the same funds flow and expenditure reporting mechanisms for the school grants. Strengthening of the school audit system will also improve MoEST's internal controls to assure accountability of schools for the use of government as well as project grants. Finally, the disbursement of the school grants in three tranches linked to the achievement of simple, clear cut milestones is a modest first step towards making schools more results focused, which again, reflects best practice.

C. Financial Management

62. A financial management assessment of MoEST was conducted, covering the ministry's headquarters as the primary implementer and KNEC and TSC as the sub-implementers. Since the project funds will also be spent at county and school level, selected schools in the Nairobi City County were also assessed. The objective of the assessment was to determine whether: (a) the MoEST has adequate financial management arrangements to ensure that project funds will be used for the purposes intended in an efficient and economical manner; (b) the project's financial reports will be prepared in an accurate, reliable and timely manner; and (c) the project assets and other resources will be protected. The financial management assessment was carried out in accordance with the financial management practices manual issued by the World Bank's Financial Management Sector Board on November 3, 2005.

63. The World Bank and other donors disengaged from the education sector in 2009 as a result of Governance and Accountability (GAC) concerns flagged in the joint Internal Audit Department/ Integrity Vice-Presidency IAD/INT forensic audit for the KESSP project. The recent financial assessment revealed that there have been significant improvements in the internal control systems at MoEST and Kenya Portfolio-level to address the weaknesses flagged in the KESSP forensic audit as well as in-depth reviews for other decentralized and CDD-type projects. Key areas of risk for such projects included operating costs, workshop/training, vehicle costs, staff allowances, and decentralized expenditures/investments.

64. It was noted that MoEST has substantively implemented the recommendations of the GAC action plan, including refund of ineligible expenditures to the donors, separation of staff implicated in fraud and corruption and having the cases investigated by Ethics and Anti-Corruption Commission (EACC) and taken to court, setting up corruption prevention mechanisms including integrity assurance committees, conducting capacity building training and enhancing the capacity of the school audit unit and converting it into a full-fledged department with better staffing and funding.

65. On the specific FM assessment of the GPE grant, the review covered the six FM elements of budgeting, funds flow, accounting, internal controls, financial reporting and auditing. The

budgeting and financial reporting were assessed as having moderate FM risk, while the funds flow, accounting, internal controls and audit are assessed as having substantial FM risk. The overall FM risk is therefore assessed as substantial. Details are provided in Annex 3 in the FM section.

66. The conclusion of the assessment is that the FM arrangements have an overall residual risk rating of "Substantial", which satisfies the World Bank's minimum requirements under OP/BP10.02, and therefore is adequate to provide, with reasonable assurance, accurate and timely information on the status of the project.

D. Procurement

67. Procurement activities will be carried out by MoEST. An assessment of the capacity of the MoEST to implement procurement actions for the project was carried out by the Procurement Specialist on the team. The assessment reviewed the organizational structure for implementing the project and the interaction between the project's staff responsible for procurement duties and management of their respective agencies. The Supply Chain Management Services Unit at MoEST headquarters has a total of twenty four staff comprising, Head of Supply Chain Management Services, two (2) deputies, four (4) senior supply chain management officers, and seventeen (17) supply chain management assistants. The Head of Supply Chain Management Services and one of the deputies have reasonable experience and knowledge on World Bank financed operations and procurement procedures.

68. The key issues and risks concerning procurement for implementation of the project, which have been identified and require enhancement include systemic weaknesses in the areas of: (i) delays in procurement decisions; (ii) procurement record keeping; (iii) capacity of procurement staff especially on donor funded projects; (iv) procurement planning; (v) procurement process administration including award of contracts; (vi) contract management; and (vii) procurement oversight. The mitigation measures are provided in Annex 3.

69. Based on the procurement capacity assessment carried out in June 2013, and taking cognizance of the experience of the ministry in implementing the KESSP project, the assessment revealed that there have been significant improvements in the internal control systems at MoEST and Kenya Portfolio-level to address the weaknesses flagged in the KESSP forensic audit. The MoEST also learned critical lessons from that project, which is evidenced by the substantive implementation of the recommendations of the GAC action plan, including refund of ineligible expenditures to the donors, separation of staff implicated in fraud and corruption and having the cases investigated by Ethics and Anti-Corruption Commission (EACC) and taken to court, setting up corruption prevention mechanisms including integrity assurance committees and conducting capacity building training. The procurement unit staff's experience on donor funded project especially the Head of Supply Chain Management Services and some of the supply chain management staff is an added strength and therefore the overall project risk for procurement is assessed as "Substantial".

70. Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated January 2011 (revised in July 2014) and "Guidelines: Selection and Employment of Consultants by World

Bank Borrowers" dated January 2011 (revised in July 2014), and the provisions stipulated in the Legal Agreement. For each contract to be financed by the project, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the World Bank in the procurement plan. The procurement plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The Procurement Plan for the first 18 months has been prepared and approved by the Bank. The details on procurement management are provided in Annex 3.

E. Social (including Safeguards)

71. **The project triggered OP4.10; Indigenous Peoples (IPs)** because the project activities will be implemented nation-wide including areas where communities categorized as vulnerable and marginalized exist. To qualify for funding from the Bank and following best practice documented in the World Bank's policy on Indigenous Peoples (OP 4.10), the Government of Kenya has prepared a Vulnerable and Marginalized Groups Framework (VMGF) to ensure that the project design process fully respects the dignity, human rights, economies, and culture of vulnerable and marginalized people and that the project has broad community support from the affected vulnerable and marginalized people. The VMGF has been disclosed by the MoEST. Consultations among the Vulnerable and Marginalized Groups (VMGs) have been conducted in 3 Counties (Narok, Nakuru and West Pokot) among pastoralist groups and hunter/gatherer to get their perspectives and inputs to this project.

72. The proposed Kenya GPE project focusing on primary education will help address barrier to gender equality in education (see Box 1 "Gender Education in Kenya,", in paragraph 56, Annex 3) through: (i) targeted support to schools in ASAL areas where girls' education is lower than that of boys; and (ii) enable community, parents and schools to make informed decision on school improvement, using data on enrolment, attendance, completion and learning achievement which are disaggregated by gender.

73. An Environmental and social Management Framework (ESMF) and VGMF have been prepared in consultation with the key stakeholders and potentially affected social groups. Both ESMSF and VGMF have been reviewed and accepted by the Bank. In accordance with the ESMF and VGMF, strategies for addressing social issues would include:

a) Designing and developing of strategies and activities aimed at increasing social benefits to the vulnerable and marginalized Groups (VMGs);
b) Development of mitigation plans, e.g., Vulnerable and Marginalized Groups Plan among others;
c) Strengthening institutions and ensuring project puts in place institutional arrangements that provide for participation of vulnerable and marginalised people;
d) Implementation of the project in accordance with the provisions of the constitution, which expressly provide for rights of vulnerable and marginalised groups;
e) Initiating activities and implementing actions that strengthen social inclusion;
f) Putting in place measures for social sustainability and ensuring Project is part of a wider development intervention and not a stand-alone by ensuring that project compliments on going interventions;

g) Establishing strong and effective PCU capable of implementing social strategies. Promoting and building local capacities including hiring of untrained teachers to support nomadic education; and
h) Increasing awareness on inclusion of persons with disabilities and encouraging establishment of education centres that takes into account their special needs.

74. The project is expected to make significant contributions to vulnerable and marginalized pupils. Component 1 will provide early grade mathematics support to all public primary schools. Component 2 reaches out to the most disadvantaged schools. Approximately 50 percent of the participating schools come from the ASAL counties where education attainment and achievement are significantly lower than the national average.

F. Environment (including Safeguards)

75. No construction, land acquisition and resettlement activities are envisaged in the project. The school grant sub-component can support minor repairs of the school facilities such as fences and toilets, and these will be carried out on existing sites and structures. An ESMF has been prepared in order to provide guidance and mitigation measures and procedures for adverse impacts that may likely to arise during the construction and or rehabilitation of sanitary facilities. Equally, procurement of electronic equipment e.g., smartphones and tablets will lead to the generation of E-Waste which requires appropriate and sound disposal in order to avoid/mitigate adverse impacts associated with this new emerging and challenging waste stream. The ESMF and VGMF were disclosed by MoEST in Kenya on February 20, 2015 and at Infoshop on February 18, 2015.

G. World Bank Grievance Redress

76. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

ANNEX 1: RESULTS FRAMEWORK AND MONITORING

Kenya: Primary Education Development Project

Project Development Objectives

PDO Statement

The project development objectives are to improve early grade mathematics competency and to strengthen management systems at school and national levels.

These results are at	Project Level

Project Development Objective Indicators

Indicator Name	Baseline	Target Values			
		YR1	YR2	YR3	End Target YR4
Improvement in basic mathematics competency level of Grade 2 pupils (disaggregated by gender) (Percentage)	0				5% over baseline
Number of participating schools completing top two priorities in the School Improvement Plans (Number)	0				4000
EMIS data for primary education published annually from 2016 (Yes/No)	No		Yes	Yes	Yes
National assessment (NASMLA) for Standard 3 students conducted and disseminated in 2015 and 2018 (Yes/No)	No	Yes			Yes

Intermediate Results Indicators

Indicator Name	Baseline	Target Values			
		YR1	YR2	YR3	End Target YR4
Number of EGM textbooks distributed to schools (Number)	0		2080000	2340000	2600000
Number of teachers trained in EGM (Number)	0		40000	40000	40000
Number of classroom observations conducted under the project (Number)	0		100000	100000	100000
Number of participating schools receiving KCPE analysis report (Number)	0	4000	4000	4000	4000
Number of teachers appraised in the participating schools (Number)	0	TSC will provide	TSC will provide	TSC will provide	TSC will provide
Number of participating schools submitting satisfactory school improvement plans (Number)	0	2000	4000	4000	4000
Number of participating schools receiving annual school grant allocation (Number)	0	2000	4000	4000	4000
Number of participating schools being audited (Number)	0				4000
Percentage of primary schools submitting EMIS data (Percentage)	60	85	90	95	98
Sector diagnosis covering access, equity and efficiency (Yes/No)	No				Yes
Preparation of the next five year education sector plan launched (Yes/No)	No				Yes
Direct project beneficiaries (Number) - (Core)	0				6040000
Female beneficiaries (Percentage - Sub-Type: Supplemental) - (Core)	0				40

Indicator Description

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Improvement in basic mathematics competency level of Grade 2 pupils (disaggregated by gender)	The measure of basic mathematics competency will potentially focus on subtraction fluency. This indicator is to be measured by a sample-based national assessment for grade 2 mathematics. The assessment will allow for the pupils' scores to be compared against a benchmark of basic competency, which has been agreed upon by Ministry experts to be 50% correct for subtraction fluency. The indicator is expressed in percentage and is calculated as (P_2018-P_2015)*100/P_2015 where P_2018 and P_2015 are the sample estimates of the percentages of Grade 2 pupils reaching the basic competency benchmark in subtraction fluency in 2018 and 2015, respectively.	At the beginning and end of the project	Sample baseline and endline assessments of Grade 2 students mathematics competency	KNEC
Number of participating schools completing top two priorities in the School Improvement Plans	The assessment of "completing top two priorities" for all participating schools will be based on internal project review which will be reflected in the project reports. In addition, independent third party assessment in a random sample of schools will be used to verify the reports.	Once at project end	The assessment of "completing top two priorities" will be done through project reports and independent third party assessment.	MoEST
EMIS data for primary education published annually from 2016	Primary education statistical abstract using EMIS data published from 2016.	Yearly	Education abstracts	MoEST
National assessment (NASMLA)	This indicator measures system's capacity to	twice during	NASMLA	KNEC

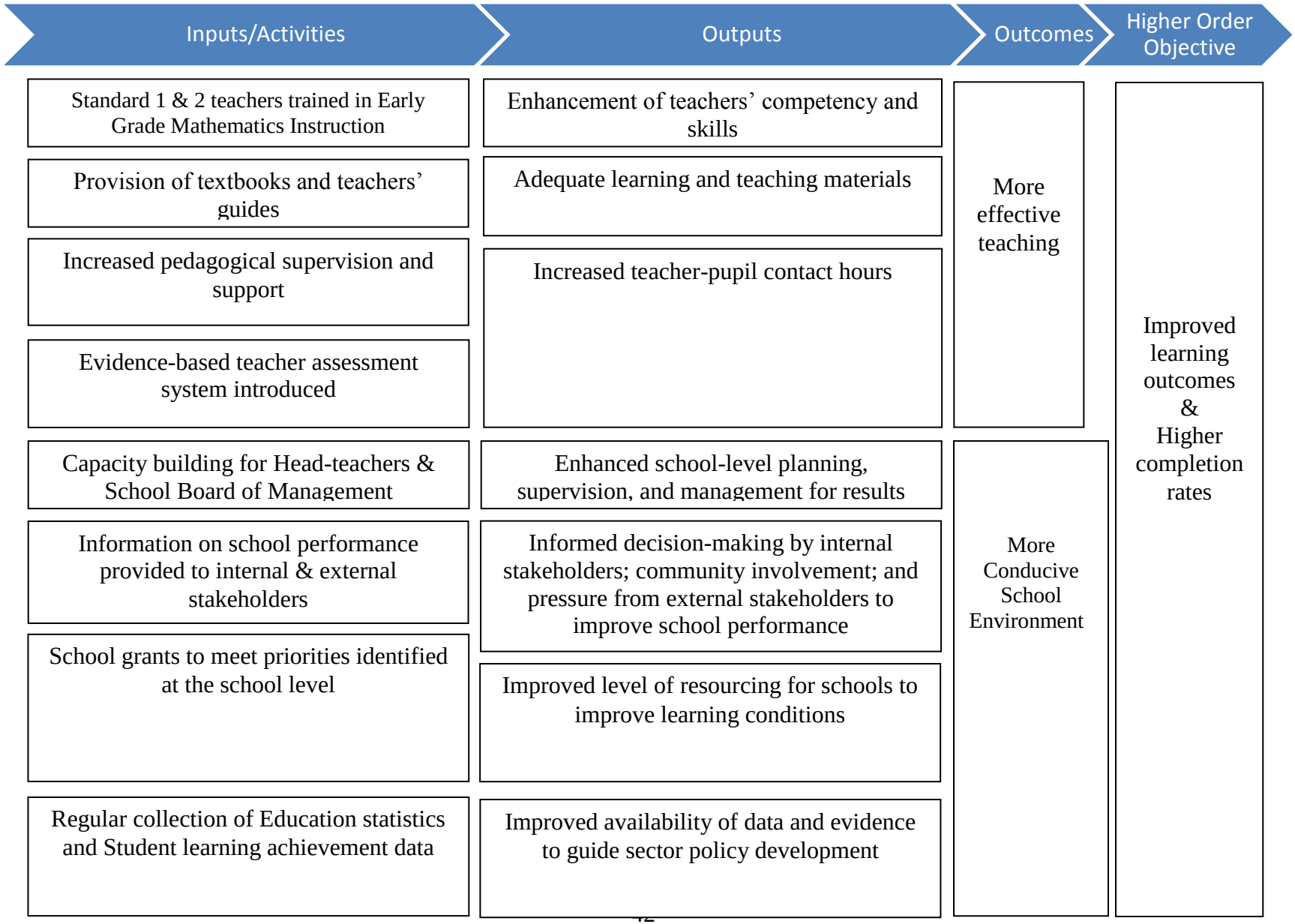
for Standard 3 students conducted and disseminated in 2015 and 2018	collect evidence of student learning	the project, in 2015 and 2018		

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Number of EGM textbooks distributed to schools	Number of EGM textbooks distributed to schools	Yearly	Project reports	Component 1 coordinator
Number of teachers trained in EGM	Number of teachers trained in EGM	Yearly	Project reports	Component 1 coordinator
Number of classroom observations conducted under the project	Number of classroom observations conducted by TAC tutors.	Yearly	Project reports	Component 1 coordinator
Number of participating schools receiving KCPE analysis report	Number of participating school receiving KCPE analysis report	Yearly	KNEC	Component 2/3 coordinator
Number of teachers appraised in the participating schools	Number of teachers appraised in the participating schools	Yearly	Project reports	Component 2/3 coordinator
Number of participating schools submitting satisfactory school improvement plans	Number of participating schools submitting satisfactory school improvement plans	Once end of year 1	Project reports	Component 2/3 coordinator
Number of participating schools receiving annual school grant allocation	Number of participating schools receiving annual school grant allocation	Beginning of year 2 and 3	Project reports	Component 2/3 coordinator
Number of participating schools being audited	Number of participating schools being audited	Twice in second and fourth year	School Audit	Component 2/3 coordinator
Percentage of primary schools submitting EMIS data	Percentage of primary schools submitting EMIS data (in revised format)	Yearly	MoEST	Component 2/3 coordinator
Sector diagnosis covering access, equity and efficiency	Sector diagnosis covering access, equity and efficiency	Once by project end	MoEST	Component 2/3 coordinator

Preparation of the next five year education sector plan launched	Preparation of the next five year education sector plan launched	Once by project end	MoEST	Component 2/3 coordinator
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.	End of project	Project reports	MoEST
Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.	No description provided.	No description provided.	No description provided.

Figure A1.1: Theory of Change / Results Chain



ANNEX 2: DETAILED PROJECT DESCRIPTION

Kenya: Primary Education Development Project

Component 1: Improvement of early grade mathematics competency (estimated total cost: US$34.5 million)

1. Kenyan children are not achieving minimum levels of numeracy as evidenced by UWEZO survey findings indicating that a significant number of children who are reaching the end of their primary school years, still do not possess foundational Grade II level mathematical skills. This poses a challenge to human capital formation because unless children are able to develop a firm grasp of the conceptual understanding and literacy around mathematics in the early grades, they will face great difficulty later in learning more complex operations.

2. To address the above challenge, the objective of this component will be to raise the learning competency of Grade 1 and 2 pupils in mathematics through scaling up of the Early Grade Mathematics pilot under the PRIMR supported by USAID and DFID. The PRIMR[12] is designed to be a cost effective and simple intervention focused primarily on ensuring take up by teachers of a new instructional approach. The encouraging findings from the impact evaluation[13] of the initiative have motivated the Government to expand the approach through a national project called TUSOME for EGR and the GPE Project for EGM. The scale of expansion for TUSOME will be for about 23,000 public primary schools while the GPE Project will focus on the weaker performers in mathematics, estimated to be about 75 percent of this group, located primarily in rural areas, urban poverty pockets and the ASAL. These schools will benefit from the full EGM intervention package while the 25 percent top performing schools in mathematics will be provided with pupil textbooks and teacher guides. The scale up will also benefit 200 PTTC educators, principals and board members from 22 public PTTCs through workshops to introduce the EGMA methodology. While focusing on Grades 1 and 2, it is expected that teachers will continue on with similar methodology in Grade 3 because the same teachers stay with their cohort of pupils for three years.

3. EGM scale up will need to be closely coordinated with the TUSOME. This is partly for efficiency reasons since the same teachers and tutors are involved with both subject areas; and partly since the success of mathematics is linked to the ability to read and have sound literacy skills. However, given that implementation of the TUSOME began in January, 2015 (one year ahead of the GPE project), it will not be possible to align the activities of the two programs. Nonetheless, alignment in methodology vis a vis teachers and schools is expected. At the oversight level, both programs will report to the PS, MoEST. At the implementation level, the

[12] The key elements of the PRIMR interventions are: (i) low cost books provided for every student; (ii) targeted lesson plans for teachers, buttressed by modest instructional aids; (iii) focused training of teachers on lesson delivery; (iv) ongoing instructional support to teachers; and (v) low cost inputs amounting to less than US$2 per subject per child.

[13] RTI International implemented two separate randomized evaluations; the first, funded by USAID covered 547 schools in Nairobi and three counties while the second, funded by DFID covered 834 schools in rural locations in two counties. Findings from the USAID end line evaluation indicate test scores across different mathematics subtasks are 0.2 standard deviation higher on average in treatment schools compared to the control schools. The DFID midterm evaluation showed a modest impact of 0.12 standard deviation for Grade 1 and 0.23 standard deviation for Grade 2 (very similar to the USAID study).

EGM team will join the regular meetings of the TUSOME team to learn from the latter's experience, and ensure that implementation of the two programs is synchronized at the school and county level.

4. To achieve its objective, the component will support a set of interrelated interventions to: (i) improve teacher competencies in mathematics instruction; (ii) strengthen classroom pedagogical support; (iii) provide instructional materials; and (iv) encourage teachers at PTTC to seek more developmentally appropriate mathematics instructional materials and pedagogical techniques.

5. Key results include: (i) number of Grade 1 and Grade 2 EGM textbooks distributed to schools; (ii) number of teachers trained in EGM instructional techniques under the project; and (iii) number of classroom observations conducted by TAC tutors.

6. Key risks might include: (i) challenges to align EGM scale-up with that for EGR (timeline, modality and costs); (ii) limited capacity of MoEST to ensure textbooks and teacher guides are available to participating schools starting January 2016; (iii) reluctance of stakeholder to maintain goodwill including that from the teachers' unions; (iv) delays in getting baseline data by the start of the project; (v) fiduciary risk (procurement, training and operational cost expenditures).

Sub-component 1.1 Improving teacher competencies for developing early grade numeracy (Grades 1 and 2)

7. According to the 2012/13 SDI study, while Kenyan teachers have reasonably adequate content knowledge in mathematics, their pedagogical knowledge appears to be much lower. This finding is consistent with the observation in the 2010 UWEZO report that teacher trainers expressed inadequacies with respect to training teachers to teach basic mathematical concepts. To address this weakness, the sub-component will draw on the model developed under the PRIMR to provide Grade 1 and 2 teachers with: (i) in-service training on instructional techniques for improving the pupil's ability to master the basic numeracy skills under the current mathematics curriculum; (ii) guided lesson plans and other teaching aids; and (iii) regular classroom pedagogical supervision and support.

8. Implementation arrangements: The MoEST will establish a team at the national level to oversee the implementation of EGM scale up. This team, led by an EGM coordinator, and comprising representatives from the TSC, KICD, KNEC and CEMASTEA, will draw on the staff/expertise from different departments in the MoEST, including the offices of the Head of Supply Chain Management Services and Chief Financial Officers. At the county level, there will be an EGM focal point working with county education and county TSC office staff to coordinate the training of TAC tutors, head teachers and teachers. Main responsibilities of the EGM focal point include timely submission of annual training plans to the EGM coordinator, verification of attendance at training sessions, and reporting on implementation progress at county/sub county levels.

9. With respect of sub-component 1.1, specific arrangements include:

(a) Utilization of PRIMR experts to train about 60 master trainers (EGM champions). While it is expected that these champions will assist in training and supporting TAC tutors, where possible, the current PRIMR experts will be used to also initially train the TAC tutors to reduce the risk of dilution of learning/training.

(b) Training of about 1,200 TAC tutors in EGM. Residential trainings could be conducted at the PTTCs to enable teacher educators from those PTTCs to participate. Part of this training will be to familiarize TAC tutors on the use of tablets to provide prompt and accurate feedback on classroom observations (teacher and pupil performance) to a centralized database.

(c) Training of teachers and head teachers in EGM (reaching about 75 percent of public primary schools) in a phased approach coordinated with the timing for TUSOME training (where possible) since the same teachers and TAC tutors are involved with reading and mathematics. The EGM training for teachers/head teachers will be conducted in conjunction with TUSOME every school term. The training will be non-residential for most schools. Cases of more isolated schools within the ASAL regions would be considered for residential training. The training will have a strong emphasis on practice to develop confidence and understanding of the instructional approaches.

(d) Printing of teacher guides/guided lesson plans. Under PRIMR, the teacher guides have been reprinted each year since there were revisions being added based on feedback received. Under the GPE project, it is envisaged that there will be one revision and reprint in Year 3

(e) Support of the roll-out of teacher reflection on pupil learning assessments (and zonal EGM numeracy exhibitions), the EGM methodology and new pedagogical practice to address pupil learning needs. This could be built into the monthly teacher cluster meetings or zonal/county reviews (expected 2 times per year and organized by TAC tutors) to share teaching ideas and discuss classroom management issues.

(g) Conduct base-line (2015), mid-term (2016-2017) and end-line (2018) assessments on pupils' mathematics competency. KNEC will be responsible for developing the appropriate assessment tool (adapting the PRIMR tool as needed) and ensure that it is synergistic with NASMLA and other national assessments at higher grade levels.

Sub-component 1.2 Providing classroom instructional materials

10. The objective of this sub-component is to improve learner access to and utilization of instructional materials for enhanced teaching/learning processes in mathematics. The materials include teacher guides, pupil workbooks, and some other learning aids including flash cards and manipulatives, etc. The use of local materials will be encouraged.

11. Cost: The provision of affordable quality textbooks for each pupil in Kenya remains problematic. The ratio of textbooks to pupils is lower than the expected norm. In terms of textbook availability, there remains wide differences in different counties, and significant gaps in many schools with up to five or more pupils sometimes sharing one subject textbook. Part of the issue could be around the high cost of books and insufficient funding to keep up with the natural

wastage/replacement of books. At present, the cost of mathematics textbooks officially sanctioned by MoEST (as listed in the "Orange Book") for Grade 1 and 2 are each around Ksh 350 (i.e., $4.10).

12. Regulation: There is always need for a mechanism to review and control the quality of learning materials used in classrooms with regard to relevance, content, educational approach and efficacy as well as to ensure that the provision of learning materials reflects government policies. At present, the KICD provides this function. For the EGM scale up, the current books developed through PRIMR have been reviewed and vetted by KICD and approved by the Ministerial Textbook Evaluation Committee to be included in the "Orange Book". At project mid-term, these materials may be reviewed to allow for revisions and improvements to be made during the implementation period.

13. Procurement and Delivery: Procurement of printing services for EGM books and materials will be through an international tendering process managed by the MoEST's Supply Chain Management Services Unit.

14. Specifically, this sub-component will finance the following:

(a) Printing of instructional books for Grades 1-2 in Year 1 in about 23,000 public primary schools. Pupil work books will be printed for each year as they are written in for daily class work. In addition the books will be adapted to Braille to support learners with low/zero vision (about 4000 pupil books/year).

(b) Provision of additional instructional aids for Grades 1 and 2 including Abacus for pupil with visual impairment.

(c) Printing and provision of 10 sets of Grade 1 and 2 instructional materials to the 22 PTTCs for use at the libraries and in classes.

Sub-component 1.3 Enhancing teacher pedagogical supervision

15. The objective of this sub-component is two-fold: (i) to enhance motivation and skill of the TAC tutors to provide regular classroom pedagogical support to teachers and monitor pupil learning as part of the mechanism for teacher accountability and improved practice; and (ii) to enhance motivation and skill of the classroom teachers through this regular classroom pedagogical supervision and mentoring by the TAC Tutors.

16. Following a similar model as successfully adopted under the PRIMR experience, TAC Tutors will have an agreement to visit a certain number of schools per month in their locality. During the school visit, the TAC tutor will conduct classroom observation of EGM practicing teachers and use the tablet to record: (i) the time duration of the lesson; (ii) teacher activities; (iii) pupil activities; and (iv) a sample of at least three pupils' quizzes of the content. This data will be reported to the county and national levels to assist the TSC and MoEST at all levels in better understanding and use of resources. This combination of resources will allow the project test and understand how the materials are being used and provide real time updates about pupil outcomes and instructional support.

17. Based on the proportion of visits made and verified through the Global Positioning System (GPS) on the reporting tablets, reimbursement will be made for travel costs at a set amount. This method will provide (i) increased frequency of visits (at least 1 school visit every 1-2 months); (ii) more efficient information recording and dissemination via tablet programs; and (iii) the creation of feedback loops with teachers and other stakeholders.

18. TAC tutors at the zonal levels will be mobilized to provide pedagogical support for teachers. This will include the following activities:

(a) In Year 1, identify the TAC tutors and their cluster of schools in alignment with TUSOME rollout for the next three years. Expected number of TAC Tutors is around 1,200.

(b) Develop school visits and classroom observation schedule for each TAC tutor and clarify payment amounts for school visits along with conditions of payment, i.e., payment will be made at the end of the month and based on the proportion of expected visits for that month. The tablets which are used for recording teacher and pupil feedback are also GPS coordinated and record whether or not the tutors visited the intended schools.

(c) Familiarization training of about 200 MoEST/TSC/county staff in EGM pedagogical techniques.

Sub-component 1.4 Sensitizing pre service training college leadership and educators to innovative practices in early grade reading and mathematics

19. The objective of this sub-component is to build awareness at the PTTCs on new instructional materials and pedagogical practices for EGM. This will be achieved through the following:

(a) Conduct of a sensitization workshop to build awareness of PTTC principals, BoMs and teacher educators on new instructional materials (teacher guides and pupil materials) and pedagogical practices for EGM with teacher trainees. Teacher educators will be encouraged to embed some of the ideas into their current mathematics course.

(b) Placement of teacher trainees on practicum in schools which are already undertaking EGM. Through supervision visits to these schools, teacher educators will have the opportunity to observe EGM pedagogical techniques in classrooms.

Sub-component 1.5 EGM management and coordination

20. The EGM scale up, unlike the externally managed PRIMR and TUSOME, will be implemented by the MoEST. The sub-component will therefore support the substantial capacity building that is required at central ministry, county and sub county levels to ensure effective management of the nationwide program. Specifically, resources will be provided for technical assistance in the form of international and local consultants when and as required during the project implementation period. The EGM coordinator in MoEST will need the help of short term consultants to put together the training plans for master trainers, PTTCs and other concerned agencies as well as assure the quality of county training plans for TAC tutors and teachers.

External expertise will also be required for the procurement of textbooks and instructional materials, and in the accounting and financial reporting areas. As the EGM methodology is relatively new to MoEST, the role of the international consultant as the technical advisor to the EGM coordinator will be crucial.

21. This sub-component will also measure the improvement in mathematics competencies of Grade 2 pupils as the result of the EGM scale up through a cohort study. A sample survey of mathematics competencies of Grade 2 pupils will be conducted at the end of the 2015 school year (just before EGM is being rolled-out at the start of 2016) to provide baseline data. A second survey will be conducted at the end of 2017 when one cohort of pupils and teachers will have completed the Grade 1 and 2 EGM interventions. The surveys will be nationally representative given the national scope of the intervention. However, to allow for the risk of incomplete rollout, the sampling methodology might need to be adjusted to be representative for both groups of schools with and without the full EGM intervention. In addition, schools which are selected for support under Component 2 might be able to implement EGM more effectively. In order to account for this effect, sampling for the EGM assessment might be stratified by whether or not the schools are selected for the pilot implemented in Component 2, size permitting.

Component 2: Strengthening school management and accountability (**estimated total cost**: **US$ 38.8 million**)

22. Under the ongoing institutional reform of the public education system in Kenya, newly constituted BoMs at the school level are expected to play a substantive role in local governance of schools. In primary education, these boards have the potential to do what the erstwhile school management committees of high performing schools have done to improve school performance by increasing the accountability of service providers for delivery of results. Indeed, international evidence[14] and anecdotal observations in Kenya indicate that well-functioning BoMs have been able to mobilize and/or utilize resources effectively to improve learning conditions through notably, measures to reduce teacher and pupil absenteeism, thereby increasing teacher-pupil contact time in the classroom. Furthermore, in schools where such measures have emerged from a participatory decision making process, and accountability for the use of resources strengthened through oversight by community stakeholders (village elders, parents, and pupils), significant improvement in pupil learning achievement has been observed.[15]

23. The nascent school BoMs in Kenya will require additional financial and technical support to enable them to carry out their governance functions. The current capitation grant to public primary schools (about US$16 per pupil) barely covers the cost of purchasing textbooks. Additional resources that are mobilized locally by schools are used mainly for modest infrastructure improvements. In poor areas, particularly those in the ASAL counties, the limited scope for community fundraising implies that schools have no financial means other than their

[14] Randomized, controlled trials in the Gambia (D. Evans, et al, World Bank, 2011) and Uganda (A. Zeitlin, et al, Oxford University, 2011) show statistically significant impacts of school based management (school management committees, school grant program, capacity building) on reducing student and teacher absenteeism.

[15] Evidence from 22 impact evaluations in developing countries ("Making Schools Work", B. Bruns, H. Patrinos, D. Filmer, World Bank, 2011) indicate that three key strategies to strengthen accountability relationships in school systems - information for accountability, school based management, and teacher incentives - can affect school enrollment, completion, and student learning.

capitation grants. In addition to this resource constraint, the capacity of BoMs, particularly of those schools that are performing poorly and/or located in disadvantaged areas, will need to be strengthened. School BoMs that are currently capable of developing a coherent plan of action to address critical challenges (notably high teacher absenteeism) and managing resources for its implementation are still in the minority. Finally, a strong focus on results, particularly at the school level, will ensure that scarce resources are used cost-effectively for improving primary education outcomes.

24. In light of the above issues, Component 2 will be a pilot to improve school performance in about 4,000 schools through an integrated set of interventions building on Kenya's prior experience on school improvement planning through the EMACK, CFS, DEMA and other projects. These interventions, to be implemented through four sub-components, will strengthen the information base (school specific analysis of KCPE results and teacher appraisal data) for school improvement planning, provide schools with enhanced funding (additional school grants), and improve accountability for resource use (annual school audits).

25. The schools participating in the pilot program are selected with regard to both targeting and evaluation purposes. Therefore, schools are first selected into a pool of around 6,000 low performing schools (those with a KCPE score below the average of 243 for public primary schools in 2012 and 2013), eligible for support by the component. The targeting also focuses on ASAL counties, i.e., given the same performance profile, ASAL schools are disproportionally represented. In the next step, randomization is used to select around 4,000 schools as the participating/beneficiary schools. This method ensures that disadvantaged schools are prioritized. At the same time, randomization allows for a control group of schools with similar characteristics compared to the supported schools in order to have a rigorous impact evaluation of Component 2. Participating schools are significantly disadvantaged along several dimensions: (i) schools in ASAL counties are disproportionately represented; (ii) KCPE scores are significantly lower; and (iii) lower gender parity (girls to boys ratio) particularly in the last two grades in the primary cycle (Grade 7 and 8).

Table A2.1: Characteristics of selected vs. non-selected schools

	Non-selected schools	**Selected schools**	**Difference**
Total number of schools (with KCPE data)	19278	4015	
Number of schools in ASAL	1993	1376	
Percentage of schools in ASAL	10.3	34.27	
Averages (public or ASAL schools only):			
School enrolment 2014	403.57	433.65	30.08***
TSC teachers 2014	9.19	9.60	0.41***
Pupil Teacher Ratio 2014	48.25	46.76	-1.49**
KCPE 2012-2013	253.68	207.38	-46.30***
School gender ratio (TSC 2014)	98.20	94.73	-3.47***
School gender ratio (EMIS 2012)	99.16	97.19	-1.97**
Total (aggregated over all public or ASAL schools):			
Gender ratio in Std 1	98.05	95.31	
Gender ratio in Std 2	98.52	96.96	
Gender ratio in Std 3	99.09	95.87	
Gender ratio in Std 4	98.94	96.14	

Gender ratio in Std 5	99.33	96.70
Gender ratio in Std 6	98.85	96.29
Gender ratio in Std 7	100.00	95.73
Gender ratio in Std 8	97.06	93.08

Note: *** and ** indicate significance at 0.01 and 0.05 levels respectively. Gender ratio reflects number of girls per 100 boys

26. Key results include: (i) number of participating schools receiving KCPE analysis report; (ii) percentage of teachers in participating schools completing professional competency assessment; (iii) number of schools submitting satisfactory school improvement plans; (iv) number of participating schools receiving annual school grant allocation; and (v) number of participating schools being audited.

27. Key risks include: (i) lack of qualified facilitators, particularly in remote sub-counties to help schools develop and implement action plans; (ii) ineffective community oversight of school actions due to elite capture; and (iii) resistance to the TAD process due to perception of teachers/teachers' union that the appraisal system when fully functional, may affect promotion prospects and welfare benefits.

Sub-component 2.1: Provision of KCPE analysis and feedback to schools

28. In sub-component 2.1, the Project will support the KNEC to produce detailed, school level analysis of the KCPE results to be provided to each of the 4,000 participating schools in the form of school specific reports. KCPE is a very important learning achievement milestone at the end of the primary education cycle. Progression from primary to secondary school is made on the basis of performance in KCPE. The examinations cover key competencies such as reading and writing, mathematics and science.

29. The school level KCPE analysis will tabulate the percentage of pupils scoring the test items correctly as well as analyzing the patterns of pupils choosing the distracters, with the aim to reveal pupil knowledge level, their misconceptions and misunderstanding. Profile of pupil cognitive skills (Bloom taxonomy) will be compiled to inform how well the schools provide their pupils with higher order cognitive skills. Finally, the analysis also includes syllabus coverage and feedback on the curriculum delivery at the school level. This analysis is crucial for the schools to identify their weaknesses and select appropriate measures to improve their curriculum delivery. Schools will use this analysis to help teachers address weaknesses in teaching and learning, and in the process, set realistic targets for improvement in test scores as well as modalities for achieving them that are reflected in the school action plan (supported under sub-component 2.3).

30. Implementing arrangements: The KNEC will analyze the KCPE results for all subjects over the most recent three year period (2012, 2013, and 2014) for each of the pilot schools. Following this, a sample school analysis will be provided as a diagnostic tool for school improvement planning beginning in 2015. In support of these activities, the sub-component will finance the cost of consultancy services, software development, report production and printing, and dissemination.

Sub-component 2.2 Teacher Appraisal and Development

31. Under this sub-component, participating schools will assess their teachers using the TAD system piloted in six counties (the TePIK project) with the support of DFID and the British Council. Teachers will be appraised against established professional standards (in knowledge, pedagogical practice, and engagement) at three levels: (i) meeting standards; (ii) transitioning to standards; and (iii) not meeting standards. Potential benefits of this new process includes: (i) increased clarity of teachers' expected tasks; (ii) opportunity for teachers to identify their strengths and areas for further growth; (iii) opportunity for teachers to be in control of their development through self-appraisal, negotiated evaluation and setting of their own targets; (iv) opportunity to replace the current system of teacher assessment through confidential reports with a more transparent and evidence-based system. The ultimate goals are to improve quality of education through improved teacher competencies and accountability.

Table A2.2: Professional Standards for Teacher Appraisal and Development

Domains	**Competencies**	**Sources of Evidence**
Professional knowledge	Know learners and how they learn	**From learners** Exercise books, display of pupils' works, test and exam results, report cards, awards and trophies, feedback from parents etc. **From teachers** Lesson plans, teaching journals, scheme of works, teaching materials and learning aids, test papers, marking schemes, research projects, communication with parents/guardians etc. **From schools** Teacher attendance records (both at school and in class), learners' attendance, retention and drop-out records, communication with parents/guardians/community, classroom observations records, staff meeting minutes etc.
	Know the content and how to teach it	
Pedagogical Practice	Plan for and implement effective teaching and learning	
	Create and maintain a supportive and safe learning environment	
	Assess, provide feedback on and report on learners' learning	
Engagement	Engage in professional learning	
	Engage professionally with colleagues, parents/guardians and community	

32. Appraisal findings will inform participating schools on the areas where teachers are weak and require further in-service training and other professional development support at school, cluster, and zonal levels. The TSC will use appraisal data from the schools to guide the development of advanced teacher professional standards that can be linked to the scheme of service to provide a career ladder for the teaching profession in the future. This will contribute to the development of a well-structured and coordinated teacher professional development system between MoEST and TSC in the future.

33. Implementation arrangements: TSC will mobilize master trainers from the Teachers Performance and Integrity in Kenya (TePIK) project to train county and sub county level teams responsible for orienting school leaders (head teachers and their deputies) and sensitizing school management boards to the TAD system. These teams will also be training TAC tutors to support school leaders who are tasked with training teachers in the appraisal methodology. In addition to being used by participating schools to inform their action plans, the teacher appraisal data will be uploaded by TAC tutors to an online portal for analysis by the TSC. A national team comprising officers from TSC headquarters will visit the participating counties to provide support to the county/sub county teams while a fulltime project manager will coordinate the overall rollout of the TAD system in the participating schools.

34. The sub-component will finance: (i) the training of county/district master trainers and TAC tutors, orientation and sensitization workshops for head teachers/school principals and boards of management; (ii) printing of the standards handbook, TAD and TPD manuals, training materials; (iii) study tour for TSC officers; (iv) software and hardware for data management; and (v) technical assistance.

Sub-component 2.3 School Improvement Program

35. Sub-component 2.3 will support a school improvement program whereby the 4,000 participating schools are provided with the resources to develop and thereafter implement an action plan addressing their key educational challenges. This action plan will comprise three parts: (i) essential education data on the school, a diagnosis of pupil learning challenges, and an analysis of teacher capacity and effort using the feedback from KCPE analysis and teacher assessment; (ii) description of how key stakeholders (pupils, parents, teachers, school leadership, board of management) have participated in the planning; and (iii) priority actions that the school commits to carry out. Schools will be assisted by a facilitator on plan development and community engagement while detailed guidelines on the entire process will be provided in a SIP Manual, which will be prepared by the PCU by August 30, 2015; required training will be provided to the school plan facilitators by February 29, 2016.

36. Each school will receive a grant of US$5,500 in three disbursements linked to the achievement of simple performance milestones. In year one of the Project, schools will receive US$500 when they have selected facilitators from a pool of individuals/firms prequalified by the Office of the CDE. This amount is earmarked for the contracting of a facilitator. Upon submission of a plan that meets the stipulated information requirements, the school will receive $2,500 for implementing its priority actions. The final disbursement of $2,500 will be released to the school in year two of the Project upon satisfactory maintenance of records/data on pupils, teachers and resources (physical and financial assets). Evidence of regular record keeping by the school will be in the form of data uploads to a database system managed by the MoEST, at the beginning of the school year and at the end of each term.

37. At the end of the Project, participating schools are expected to report on the status/progress of plan priorities, documenting in particular, whether their top priorities have been achieved or not. Third party verification of these reports will be conducted on a sample of participating schools.

38. Implementing arrangements: The MoEST, through the PCU will be responsible for outreach/communication to the concerned county/sub-county education offices on the objectives and scope of the sub-component. These offices will, in turn, be tasked with: (i) disseminating the relevant information to the pilot schools; (ii) ensuring that each school receives a SIP manual on time; (iii) conducting orientation workshops for head teachers; (iv) identifying and prequalifying (based on the terms of reference provided in the PIM a pool of facilitators from which schools can draw on, and thereafter assisting schools as needed, to contract the facilitator of their choice; (v) inducting facilitators; and (vi) making regular monitoring visits to observe the work of the facilitators, and assisting where needed, to resolve any conflict that may arise between the school and its facilitator.

39. The participating schools will each open a Project specific account in a commercial bank similar to the SIMBA (textbooks) and General Purpose (GP) accounts under the Government's existing capitation grant system. Disbursement of Project grant resources will be made into this new account from which schools are able to withdraw funds for implementation of its action plan to improve performance. Eligible expenditures, which are similar to those for the SIMBA and GPA grants, are outlined in the SIP manual and include primarily payment for contracted teachers, teacher training, textbooks and learning materials purchase, minor repairs and maintenance of school facilities, and other operating costs. Given the small amount of funding, the Project grant will not cover classroom construction and other substantive civil works. The MoEST, through the PCU and sub county education offices, will be responsible for collecting and verifying information on the milestones (i.e., submission of satisfactory action plans as well as updated education and financial data by pilot schools), and thereafter instructing the Treasury to disburse the appropriate funds into the Project specific accounts of the pilot schools. Schools will be required to present evidence on the receipt of grant funds in years one and two of the Project.

40. Each of the participating schools will be provided with a simple tablet or smart phone with the requisite application for modular data provision and updating. Data to be reported by schools include pupil enrolment and attendance, teacher attendance, textbook and learning materials inventory, receipt of annual grant allocations (digital image of bank statement reflecting the transfers to school accounts), overall school spending (SIMBA, GP and Project grant expenditures), and implementation progress of priority actions outlined in the school action plans. The MoEST will use this data to evaluate the interventions, the results of which are pertinent to the Government's ongoing review of its capitation grant (Ksh 1,420 per pupil recently changed after 10 years). In particular, an analysis of grant expenditures, school size and other characteristics will indicate how these variables impact on pupil performance in the KCPE.

41. Specifically, the sub-component will finance school grants, the costs of printing and distributing SIP manuals, prequalification of school facilitators, induction/orientation workshops for facilitators and head teachers, monitoring visits by sub-county education officers to schools, tablets or smart phones for head teachers of participating schools, data storage and management. In addition, the cost of contracting a third party to conduct an ex post review of the school improvement planning process in a sample of participating schools, will be included.

Sub-component 2.4 Strengthening School Audit

42. The School Audit Unit, reporting to the PS, MoEST, is responsible for auditing, monitoring and evaluating financial management practices in public education institutions. The Unit's scope of work covers about 23,000 public primary schools, 7,000 secondary schools as well as teacher training colleges and youth polytechnics. In total, there are only around 200 school auditors deployed at both national and county/ sub county) levels. Inadequate audit personnel, lack of operational systems and shortage of funding are obstacles to the implementation of the school audit function. Since 2010, only less than half of the schools were audited annually. These audit reports were made available more than one year after the school/financial year ended. Another weakness is that the scope of the audit covered only financial transactions and did not include the audit of physical assets (for example textbooks) inventory and maintenance.

43. In light of the above challenges, sub-component 2.4 will ensure that the School Audit Unit is able to audit participating schools annually during the project implementation period to improve accountability, transparency and efficiency in the utilization of grant resources, and in the process, strengthen its capacity for undertaking financial and risk based system audits.

44. Implementation arrangements: The School Audit Unit will develop an audit plan for the 4,000 participating schools, laying out the audit scope including financial transactions and physical asset inventory and maintenance, the timeline (beginning school year 2016) for school visits and preparation of reports, and the feedback and follow-up mechanism with and by schools. Upon submission of this plan, funding will be provided to the Unit (based on the incremental unit cost for increasing the number of school audits) to implement the plan. Additionally, this sub- component will finance a number of activities to strengthen the capacity of school auditors including: (i) finalization of the system audit manuals certified by the Internal Auditor General; (ii) training in risk-based audit approaches; and (iii) introduction of school auditors' performance appraisal including a performance database and scorecards.

Component 3 Strengthening capacity for evidence-based policy development at national level (estimated total cost: US$10.8 million)

Sub-Component 3.1 Strengthening Data/EMIS in primary education

45. This sub-component aims at improving data collection, availability, integration, access and building capacity of county and sub county education officers to be able to use data in education planning and budgeting in an effort aimed at improving overall efficiency in education service delivery. The sub-component will finance infrastructure, advisory services, technical assistance and capacity-building in support to collecting, processing and using education data for policy formulation, planning, budgeting and decision making.

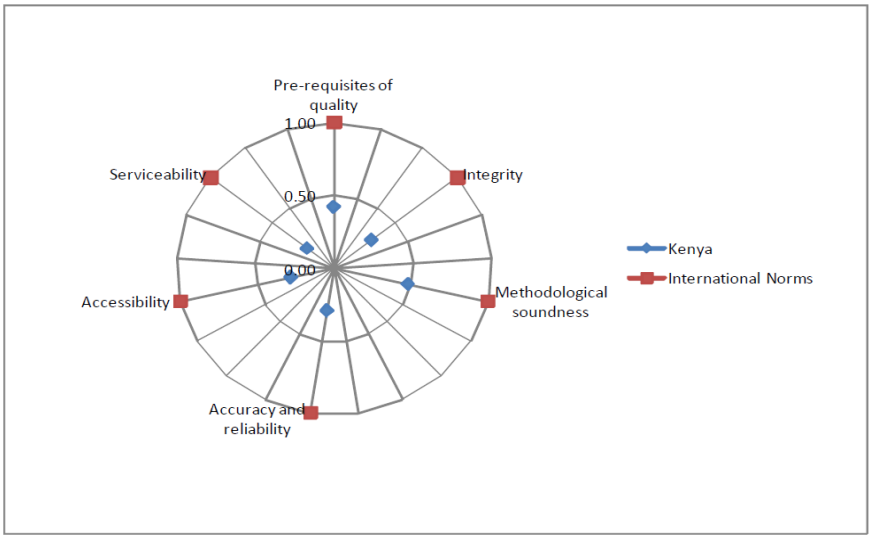
46. Kenya education data collection, analysis, utilization and dissemination is fragmented with several institutions (MoEST, TSC and KNEC) collecting education-related data. Within MoEST, the following units are collecting data from primary schools: (i) Central Planning and Project Management Unit (CPPMU) is responsible for collection of data for policy formulation

and planning; (ii) Directorate of Basic Education is responsible for collecting data on pupil enrolment to serve as the basis for the FPE capital grants as well as school registration; (iii) ESQAC is responsible for collecting information on school infrastructure; and (iv) the ICT unit responsible for operating the ICT-related network. Beyond MoEST, TSC as an autonomous institution responsible for teacher management is also collecting school and teacher-specific data. KNEC as a semi-autonomous institution charged with examination and national assessment of pupil achievement, is collecting school and pupil-specific data for the KCPE and KCSE.

47. An assessment of the quality of educational data conducted by the UNESCO Institute for Statistics for Kenya in 2010 showed significant gaps in terms of quality, serviceability, accessibility, accuracy and reliability, methodological soundness and integrity between Kenyan education data and international norms.

48. The Education Facts and Figures and the Educational Statistical Booklets latest publications were last available in 2008. In subsequent years, data collection coverage ranged from 30 to 80 percent of the schools only. Timeliness of data reporting and dissemination is weak. Schedule for the deadlines for reporting on data collection (completion and return of forms, data capturing and verification etc.) is not always available. Formal timelines for the publication of education statistics and penalties for the non-compliance with such timelines are also not available.

Figure A2.1: Benchmarking Kenya Data



Source: Data Quality Assessment Framework for Kenya – UIS 2010

49. The number of staff and their capacity to perform data management functions differ from agency to agency. For example the EMIS unit of MoEST has only seven staff and borrows clerks from sub-counties within Nairobi and external consultants for data entry and management. At county level, not all EMIS designated staff have sufficient ICT skills for handling data entry and related data management issues. Sub county education ESQAC officers are often the first "line of defense" for EMIS.

50. The Ministry, in the current financial year (2014/15), has begun laying down structures to improve data collection timeliness, reliability and validity. With the help of the technical assistance provided by UNICEF, the Ministry has been able to undertake c*omprehensive cleanup, validation and review of primary schools list.* The EMIS Team worked through all existing databases in the Ministry and has established a list of 31,527 primary schools both public and private which forms the initial database of the Ministry. The EMIS team of the Ministry has further refined the database which will be available in July 2015.

51. In the new project, the objective of the sub-component on data/EMIS (starting 2015) is to facilitate primary schools to make better use of existing data; develop a culture for periodic collection of new data; and build capacity for ongoing data generation, management, and analysis. The specific objectives for this sub-component will include: (i) to establish requisite structures/framework for seamless management of data; (ii) to roll out and institutionalize data collection, analysis and dissemination; and (iii) to establish and operationalize feedback mechanisms to schools, counties, departments, agencies and other stakeholders.

52. Sub-Component Activities will include:

a) Establish necessary structures/framework for seamless management of data.

   i) Setting up the County EMIS centers will include procurement of ICT equipment (a laptop, 10 desktop computers, a printer, a scanner, a UPS, an internet Modem) for each of the 47 counties and networking the equipment for effective usage;

   ii) The Ministry will set up its data management system which will include procuring servers to host and store data generated from annual schools census and EGM Component of the GPE project;

   iii) Carry-out capacity building for the system so that EMIS staff from the sub counties to headquarters will be able to collect and manage data. The EMIS team at the headquarters will also have their capacity developed in education sector diagnosis and analysis so that reports developed by the team will be responsive to diagnostics requirements; and

   iv) Extending the capacity building to data users (headquarter senior management and county directors) so that they will be in a position to appreciate and use data in their planning, designing and monitoring of programs.

53. EMIS Campaign and Reporting: The Ministry will institutionalize annual data collection culture so that progress on education programs might be measured. Under the ongoing activities, the Ministry has designed a one page questionnaire which it plans to use during the life of the project to collect data from schools. Based on the EMIS data, Annual Year Book which will continue beyond the project life will be published. Apart from the book, the Ministry will introduce school report cards published for every school to create an environment of competition among schools. This will also motivate accountability from schools as parents and communities will pay more attention to the performance of schools in their immediate neighborhood.

54. Key results include: (i) Increasing percentage of primary schools submitting annual data; and updated primary education statistics (covering all types of schools) from 2016 onwards; (ii) annual yearbook; and (iii) school report card.

Sub-component 3.2: Monitoring learning achievement

National Assessment System of Monitoring Learner Achievement (NASMLA)

55. Since 2005 under the KESSP, the Ministry of Education set up the NASMLA whose main aim was to provide a structure for monitoring educational quality especially in basic education. NASMLA has been tasked with conducting monitoring of learner achievement at Standard 3 and 6 and Form 2 levels. To date one assessment was done for Standard 3 in 2009 and the report came out in 2010. Assessment of Standard 6 was done as part of SACMEQ, which is a regional study in conjunction with fourteen other African countries.

56. The project will support the implementation of regular Standard 3 national assessments. Two assessments are to be carried out during the project life: one in 2015 and one in 2018. The assessments will cover key subjects such as Language(s) and Mathematics. Testing instruments will be adjusted to incorporate aspects of EGRA and EGMA. Background information on pupils, teachers and schools will also be collected to help identify factors that are associated with pupil learning.

SACMEQ

57. The SACMEQ is a consortium of fifteen African countries that collect information on school-based surveys, including pupils' tests and questionnaires for pupils, teachers and school heads. Kenya has been participating in SACMEQ since 1995 and had conducted four rounds of surveys (SACMEQ I, II, III and IV). In these studies data on a variety of issues such as achievement, personal, home and school characteristics, was collected from Standard 6 pupils, teachers and head teachers.

58. The project will support the dissemination of SACMEQ IV data (collected in 2013) to all stakeholders. The MoEST including its key directorates are responsible for disseminating the study findings to all counties and field offices. The KICD will benefit from the report findings with respect to curriculum development and implementation. Kenya Education Management Institute (KEMI) will benefit from the information related to the impacts of management training provided to school heads and board of management. TSC will find that a significant part of the report is dedicated to analyzing teacher-related issues. Finally parents will find the report as a useful reference to ways to improve parenting and engaging with schools to improve their children learning.

59. Key results include: (i) NASMLA conducted for Standard 3 in 2015 and 2018; and (ii) SACMEQ IV results disseminated to all counties and sub counties

Sub-component 3.3 Policy development

60. In addition to monitoring pupil learning, the project will support the national policy development process with respect to system equity, efficiency and quality. As Kenya NER has been plateauing in the last three years, measures to reach the last ten percent not yet reached in schools will need to be identified. A study of the cost-effective models for the expansion and delivery of primary education to the disadvantaged groups (ASAL and urban slum areas, non-formal education or children with special needs) will be conducted. The study will build on available literature and findings of projects working with these groups. In terms of efficiency, a review of the adequacy and effectiveness of the utilization of the capitation grant will be conducted, drawing on the experience of Component 2. Furthermore, teachers account for the majority of the government resources in primary education, a study to identify measures to improve teachers' utilization will be commissioned. With regards to quality, the project will help strengthen the newly created ESQAC to undertake its mandate for ensuring system quality. Finally, all studies and policy deliberation will feed into the preparation of the next five year education plan from 2018 onwards.

61. Key results include: (i) the availability of sector diagnostics covering access, equity and quality; and (ii) the launch of the preparation for the next five year education sector plan.

62. **Component 4: Project Coordination, Communication, Monitoring and Evaluation (estimated total cost: US$4.30 million)** will cover project management, communication, and result monitoring and evaluation. This component would involve and finance: (i) management of the project including establishment of a PCU within MoEST to implement and manage the project, as well as similar coordination units at County level, (ii) preparation of annual and semi-annual work plans for project implementation; (iii) monitoring and evaluation under the project including baseline studies, mid and end-term evaluation studies, impact evaluation and documentation of good practices for sharing of lessons; (iv) capacity building for implementing units; and (v) dissemination of project information by setting up of project websites at national level and also through other print and electronic media.

63. ***Sub-component 4.1 Project Management and Communication*:** Efficient and effective project management is critical to smooth and speedy implementation of the project leading to achievement of key indicators. The project will be implemented by the MoEST under the oversight of the apex PSC. The MoEST will be supported by a PCU and similar project coordination unit at the County levels. The PCU will be responsible and accountable for the day to day project management and implementation, and communicating the project activities, achievements, lessons, and relevant information to the larger group of stakeholders through various means such as linking the GPE website to the MoEST website, print and electronic media. The PCU will be supported by procurement, FM, safeguards, EGM, teacher training, M&E, EMIS and other technical specialists. This sub-component would finance operational costs, goods, training, short and long-term technical experts, development of communication strategy and all related costs to its implementation.

64. ***Sub-Component 4.2 Project Monitoring and Evaluation:*** This sub-component will support the M&E of project progress and outcomes. The sub-component will support enhancing the capacities for M&E both at national, county, and institutions levels. The primary objective of this sub-component is to provide timely, sufficient, complete, and reliable information to assess whether Kenya Primary Education Development Project is making progress in terms of

achieving the expected results under each component and sub-component. The ultimate goal is to mainstream a robust M&E system in the Kenya education sector, which will help develop evidence-based policies and programs. The sub-component also seeks to build the capacity of counties and participating institutions to do better results-based monitoring and evaluation. The county level teams will be supported with strategic capacity building activities on M&E. The primary responsibility for monitoring and evaluation of the project will be with the M&E Cell of the PCU. The M&E arrangements implemented under the project will monitor and evaluate progress in project specific results. This will be achieved through the following activities:

a) Conduct Base-line, Mid-term, and End-term evaluation studies, including implementation of EMIS;

b) Impact evaluation under Component 2 and documentation of good practices; and

c) Semi-annual Joint Project Reviews by the GoK, the World Bank, and Development Partners.

65. In addition to strengthening the Government's capacity to provide more robust monitoring and evaluation systems, the project would also finance third party monitoring and evaluations. Independent third parties will be hired to conduct base-line, mid-term and end-term evaluation; impact evaluation under Component 2, and various studies required for policy dialogue as mentioned in the Component 3, and as identified by the Joint Review Missions from time to time.

66. The Bank, together with the Implementing Agencies will formally review Project implementation semi-annually (September and February). More frequent visits are expected in the initial two to three years of the Project to initiate the implementation of the key reforms and ensure that the Project is steered in the right direction. The Joint Review Missions will be complemented by regular visits and technical missions from the Bank's Country Office based task team.

Annex 2: Appendix A: Donors' Engagement in Primary Education in Kenya

1. A number of agencies and organizations under the EDPCG (i.e., the LEG) have supported the development of the NESP and the coordination is effective. The group includes United Nations (UN) agencies, multilateral partners, bilateral partners, MoEST, and the Civil Society Organizations under the umbrella body Elimu Yetu Coalition.

Table A2.3: Development Partners Programs in Primary Education in Kenya

Development Partners	Projects	Duration	Scope	Funding
Aga Khan Foundation/ USAID	Education for Marginalized Children in Kenya (EMACK) (*reaching 808 primary schools and Early Grade Development centers*)	2006-2014	Mandera, Wajir, Garissa, Lamu, Kilifi, Mombasa, Kwale, Nairobi counties	US$21,000,000 (USAID 17.8m; AKF 3.2m)
Canada Department of Foreign Affairs, Trade and Development (DFATD)/Aga Khan Foundation	Strengthening Education System in East Africa	2012-2017	Mombasa, Kwale, Kilifi.	US$34,400,000 (DFATD 31.8m AKF 2.6m) Covering the whole East Africa region
DFATD	1.Mainstreaming the Child-Friendly School model (through UNICEF and co-funded with DFID)	2013-2014	Garissa, Turkana, Marsabit, Wajir, Mandera, Tana River, Isiolo and Samburu	US$2,880,000
	2. Expanding access to alternative basic education (through UNICEF/ &Save the Children).	2012-2015	Garissa County (Dadaab Refugee camp, Fafi and Lagdera districts.)	US$5,500,000
	3. Reading Kenya in Kajiado County.	2013-2018	Kajiado County	US$2,980,000
	4. Sustainable school feeding (through World Food Programme).	2012-2014	609,000 school children in the most disadvantaged parts of Kenya's Arid and Semi-Arid land	US$10,000,000
	5. Strengthening child protection systems and ensuring that school communities are safe and secure learning environments for children.		Kwale and Kilifi counties	
DFID	Teacher Performance and Integrity in Kenya (TePIK).	2013-2015	12 districts in 6 counties	£1.8 million
JICA/MoEST (through CEMASTEA)	Strengthening of Mathematics and Science Education (SMASE).	2009-2013	60,000 teachers in class 6, 7 and 8	US$22 million (GoK 14.4m; JICA$7.6 m)
UNICEF	The Northern Kenya girls' scholarship program.	2012-2014	Turkana, West Pokot, Baringo, Marsabit, Samburu, Isiolo, Tana Tiver, Lamu, Garissa,	US$200,000

Development Partners	Projects	Duration	Scope	Funding
			Wajir, Mandera, Narok, Kajiado	
	Improving access and quality education in ASAL.	2012-2014	Garissa, Marsabit, Mandera, Wajir, Tana river, Turkana Counties	US$725,736
	Modeling of Integrated Nomadic Education, Child Friendly Schools, and Water, Sanitation & Hygiene (WASH) Programme in Arid and Semi-Arid Counties of Kenya *(DFID Funded)*	*2013-2015*	Garissa, Turkana, Marsabit, Wajir, Mandera, Tana River, Isiolo and Samburu (355 Low Cost Primary Boarding Schools and NACONEK)	US$5,520,716
	ECD for Children affected by HIV.	2012-2015	Siaya, Homabay, Kisumu, Nairobi	US$1,168,350 and UNICEF Regular Funds
	Quality Education improvement programme. *(UNTFHS Funds)*	2012-2015	Turkana	US$6,170,068
	Promote peace building and social cohesion through sports activities in schools.	2012-2015	Daddab	US$500,000
	Girls Mentorship Programme	2012-2014	Loima, Turkana Central and Garissa.	US$39,000
USAID/DFID	Primary Math and Reading Initiative (PRIMR).	USAID PRIMR: August 2011 to August 2014 DFID PRIMR: December 2012 to February 2015	7 counties, i.e., Nairobi, Nakuru, Kiambu, Kiambu, Kisumu, Bungoma and Machakos. PRIMR covers 84 zones and 1384 schools and has benefitted over 148,000 children.	US$14.5 Million (USAID $8.1 m; DFID $6.6m)
USAID	TUSOME (Early grade reading literacy).	2014 to 2017	Country wide	US$50-55 million

ANNEX 3: IMPLEMENTATION ARRANGEMENTS

Kenya: Primary Education Development Project

1. *Project management.* The project will be managed by MoEST, together with National Treasury, TSC and KNEC. At the apex level, a PSC chaired by the CS and coordinated by the Executive Officers of KNEC and other pertinent senior officials will provide oversight of the project implementation and result monitoring. The PSC will be constituted by the MoEST to the satisfaction of the Bank within three months of effectiveness. The PSC will meet at least once every quarter or more depending on the need. Project implementation will be mainstreamed into the government systems.

2. The PSC will perform the overall governance function of the project and ensure the coherence between this project and other development partners' efforts as well as the NESP. The PSC will include the PS, key MoEST directorates such as Policy, CPPMU, Basic Education, School Audit, ICT, Chief Finance and Head of Supply Chain Management Services, Supply Chain Management Officers, Chief Executive Officers of KNEC and TSC, the National Treasury and other senior officials. The LEG and EDPCG will provide advisory support to the PSC through regular joint meetings.

3. For component 1, at the *national* level the responsibility for overall coordination rests with the Basic Education Directorate. The Head of Supply Chain Management Services will be responsible for ensuring timely and cost-effective procurement and provision of EGM textbooks. CEMASTEA will work closely with the Directorate of Basic Education and TSC to implement the teacher training and pedagogical leadership activities. KNEC will be responsible for the baseline, midterm and end-line evaluation of Component 1 interventions. At *county* level, County Education Office, in coordination with County TSC office, will be responsible for organization of the training for TAC tutors and Grade 1 and 2 teachers. Extensive sensitization program will be provided to head teachers and teachers participating in the program.

4. For component 2, at *national* level the responsibility for overall coordination rests with the Directorate of Basic Education , with technical inputs and implementation support from KNEC (KCPE Data/Test development team) for sub-component 2.1 (School level KCPE analysis and feedback), TSC for sub-component 2.2 (Teacher Appraisal) and School Audit Unit for sub-component 2.4 (School Audit). At the *county* level, the County Technical Committee (CTC) will be responsible for (i) pre-qualification of school improvement planning facilitators; (ii) sensitizing and supporting the School BoM, parents and school leadership to enable them to prepare satisfactory school improvement plans; and (iii) monitoring the implementation of the teacher appraisal, school improvement program and school audits.

5. For component 3, at *national* level the overall coordination rests with the Directorate of Policy. The CPPMU is responsible for sub-component 3.1 (Data/EMIS). The KNEC (National Assessment Center) will be responsible for sub-component 3.2 (Monitoring learning achievement) while several relevant directorates will be responsible for sub-component 3.3 (Policy development). At *county* level, the CTC is responsible for strengthening the Data/EMIS functions at county, sub-county and school levels.

6. A PCU has been established by the CS to manage, coordinate, and monitor the project activities on a day-to-day basis. The PCU will maintained for the whole project period. The PCU is accountable to the CS/PS and will be headed by a full-time Project Coordinator assisted by three Deputy Project Coordinators. The Project Coordinator is responsible for (i) preparing the consolidated project annual implementation plan and budget and present it to the PSC and share it with the Bank for approval; (ii) ensuring that all implementing agencies (at national and local levels) integrate the project result framework into their respective work plans; (iii) ensuring coherence and alignment of project activities across agencies; (iv) ensuring timely and efficient procurement and disbursement; (v) monitoring project implementation progress, identifying bottlenecks and providing solutions to address the challenges; (vi) monitoring the project results (intermediate and PDO indicators) and reporting to the PSC, the World Bank and wider public audience on timely manner; (vii) conduct of joint implementation support and supervision mission every six months and prepare all necessary documents for the mission; (viii) preparation of detailed capacity building/training plan and implementation of the plan in a timely manner; and (ix) implementation of social accountability and transparency mechanisms.

7. The Deputy Coordinator in charge of Component 1 will be responsible for: (i) preparation of the Component 1 annual work plan (at national level and by county); (ii) provision of textbooks and learning materials to participating schools and teachers; (iii) coordination of the training programs (for Mathematics champions, TAC tutors and teachers and PTTC sensitization); (iv) coordinating the pedagogical supervision conducted by TAC tutors using tablets; and (v) reporting on the implementation progress and results. The Deputy Coordinator in charge of Component 2 will be responsible for: (i) reviewing the submissions of school improvement plans from Component 2 participating schools before school grant disbursement; (ii) coordinating with KNEC, TSC and School Audit with respect to their sub-component implementation; (iii) ensuring participating schools maintain proper records; and (iii) monitoring and reporting on the school improvement program implementation. The Deputy Coordinator in charge of component 3 and part of component 4 will be responsible for: (i) preparation of the annual work plan; (ii) monitoring the implementation and reporting on the progress and result of the component; (iii) overall project safeguards and fiduciary issues, including implementation of social accountability and transparency mechanisms; and (iv) consolidating the annual work plan from various implementing agencies.

8. The PCU will be supported by an accountant, a finance officer, a supply chain management officer, and an ICT officer. While using the government systems and human resources for project implementation, it is important that MoEST engages technical assistance for quality assurance and implementation support, and other areas as required. For highly technical areas such as early grade mathematics roll-out or teacher appraisal, international technical assistance is included. For all other project activities and functions, local consultants will be engaged.

9. At county level, each county will have a designated project coordinator assigned by the County Director of Education. A committee comprising the County Director of Education, the County Project Coordinator, Sub-county education Officer, Sub-county TSC Directors, a representative from ESQAC and School Audit Unit will support the team.

10. A communication strategy will be developed to engage all stakeholders on the project intervention, its implementation and result progress. The project will use various communication channels to reach the general public and key stakeholders in education, combining the mass media, print, school and community-based events. At the national level, in addition to the above channels, information of the project objectives, activities and financing will be posted and updated in the MoEST website.

Figure A3.1: Project Implementation Responsibilities

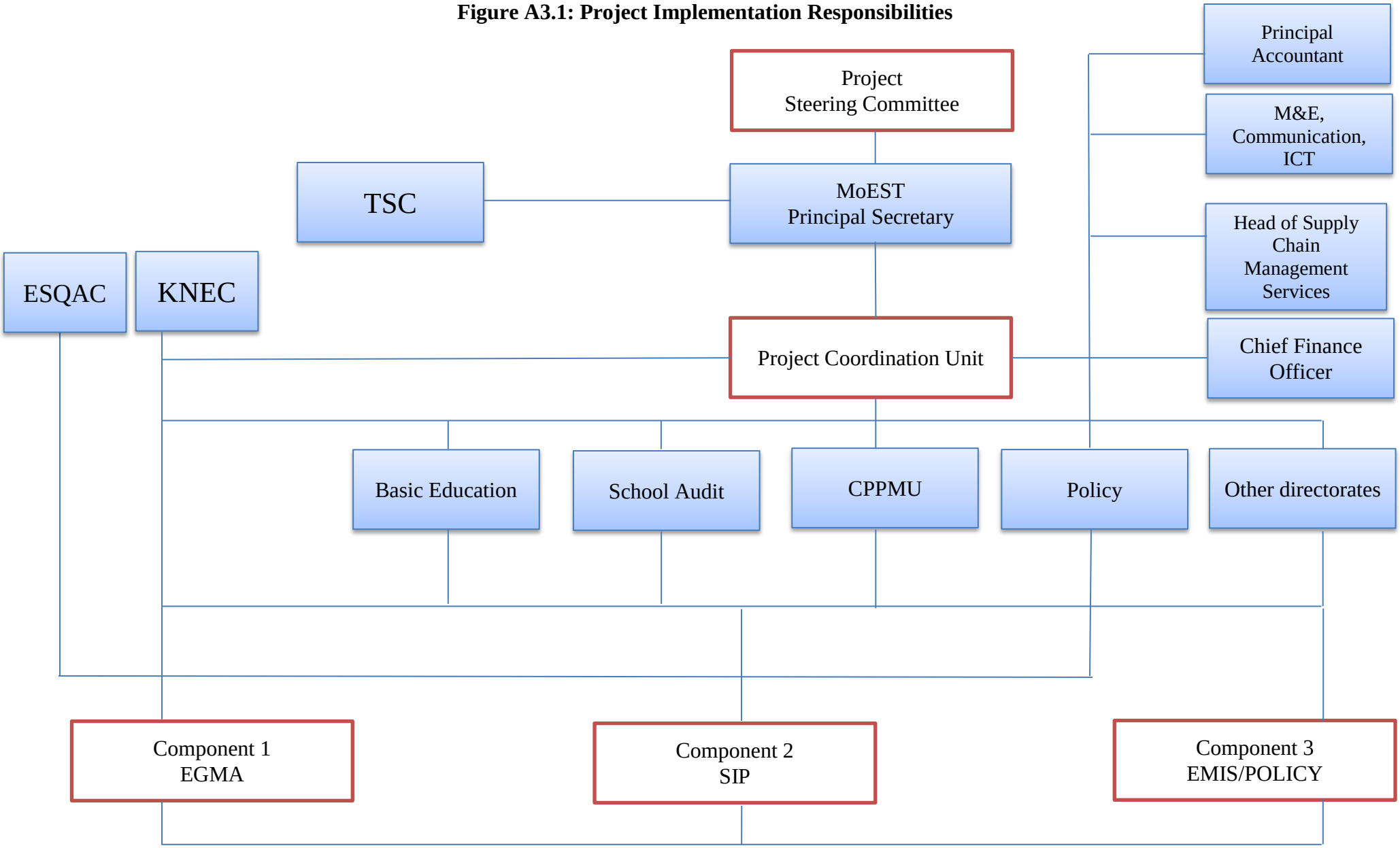


Figure A3.2: National Level Project Institutional and Implementation Arrangements

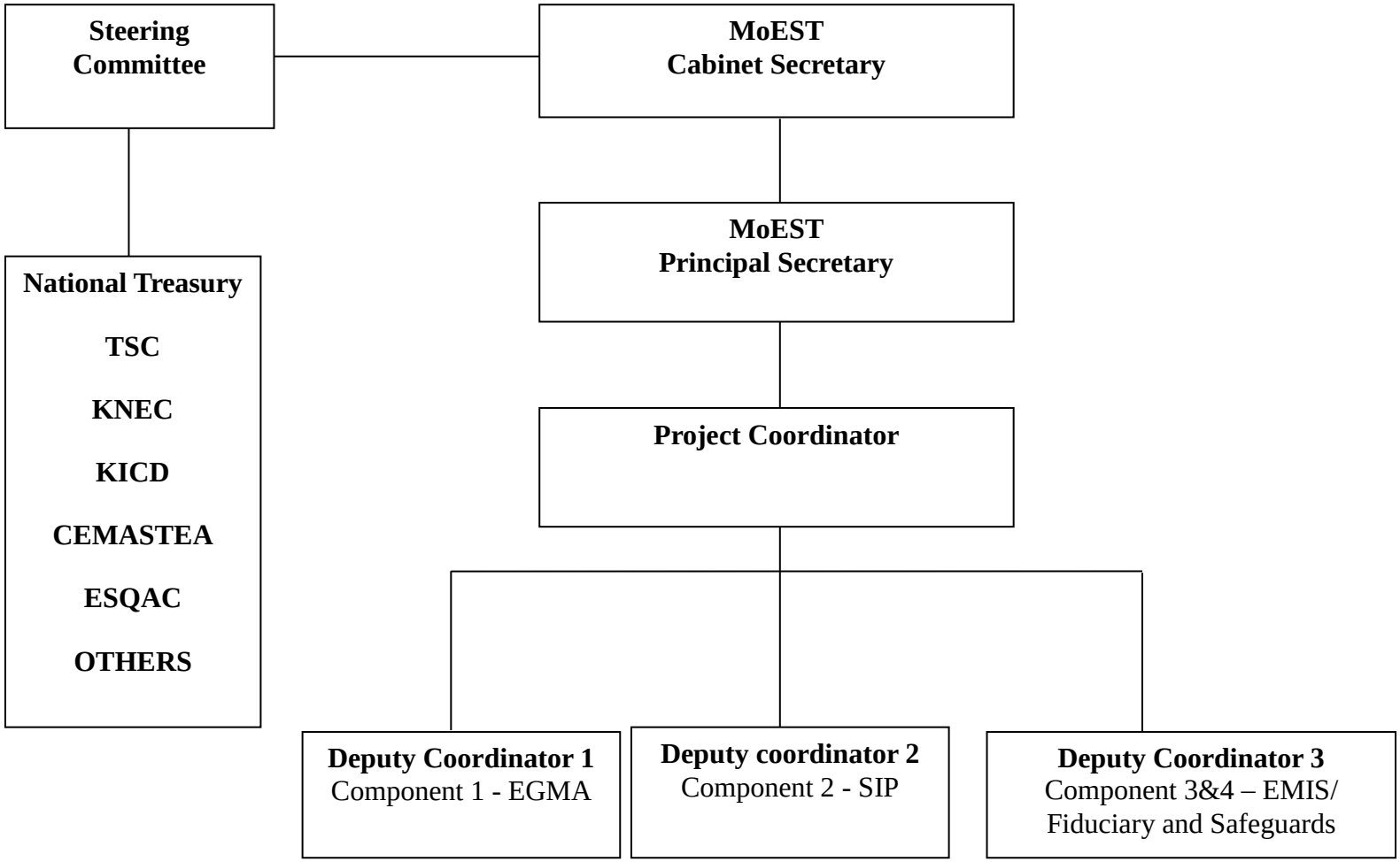
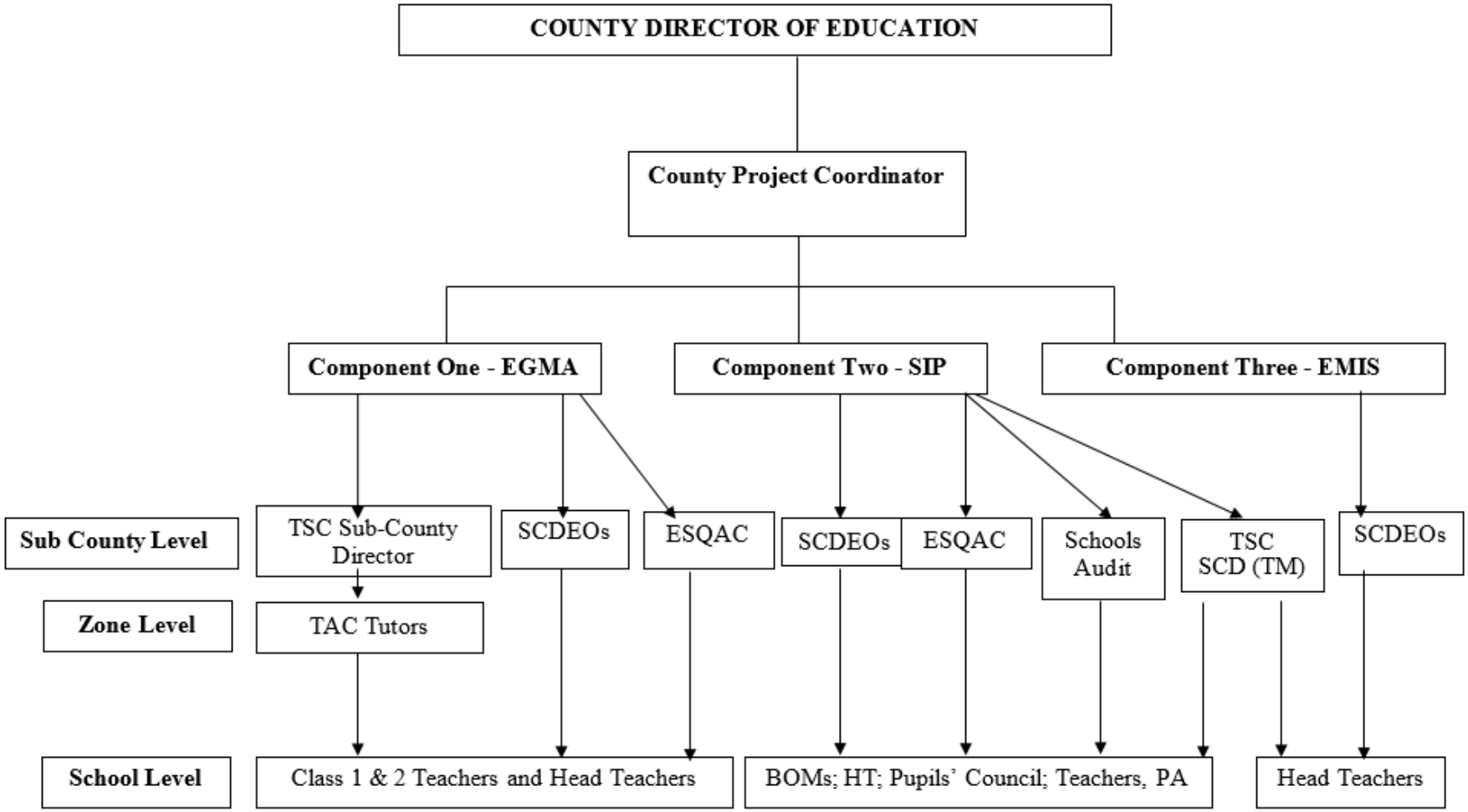


Figure A3.3 County Level Project Institutional and Implementation Arrangements



Financial Management and Disbursement

A. Introduction

11. The World Bank's FM team conducted a financial management assessment of the education sector in May 2014. The FM assessment covered the following agencies: MoEST which is the principal implementing agency and the following sub-implementers; TSC; KNEC; selected schools and counties.

12. The FM assessment was conducted for the GPE which is providing a grant of US$88.4 million to Kenya. The grant will be administered by the World Bank on behalf of the GPE donor partners. The overall project implementation will be done by MoEST, which will have an overall fiduciary responsibility over the project. Other sub implementers will be TSC and KNEC. The Project funds will also be spent in primary schools at County Education Office (CEO) levels. The Project will be implemented by a PCU which will be created within the MoEST. A project accountant has been assigned to provide FM capacity for the project.[i]

13. The objective of the assessment was to determine whether; (a) these implementing entities have adequate financial management arrangements to ensure that the project funds will be used for the purposes intended in an efficient and economical manner; (b) the project's financial reports will be prepared in an accurate, reliable and timely manner; and (c) the project assets and resources will be safeguarded. The financial management assessment was carried out in accordance with the financial management practices manual issued by the World Bank's FM Sector Board on November 3, 2005.

14. At Portfolio/country level, the following measures have been taken by the National Treasury and the World Bank to enhance the fiduciary controls for decentralized and Community Driven Development (CDD) type projects, especially for high risk expenditures.

Table A3.1: Measures undertaken by GoK to enhance Fiduciary Controls

ISSUES OF CONCERN	PROPOSED ACTIONS	MONITORING RESPONSIBILITY	REPORTS TO BE PRODUCED	REPORTS RECEIVED BY	TIME FRAME	STATUS / COMMENTS
1.0 Dealing with ineligible expenditures and suspected fraud and corruption issues arising from the forensic report of 2009	Funds being deemed ineligible were refunded in full and appropriate actions taken against implicated employees	MoE National Treasury	Governance Action Plan	Original report received by January 31st 2010 with subsequent revisions. Latest revision done in June 2014.	January 2010	Substantively addressed

ISSUES OF CONCERN	PROPOSED ACTIONS	MONITORING RESPONSIBILITY	REPORTS TO BE PRODUCED	REPORTS RECEIVED BY	TIME FRAME	STATUS / COMMENTS
2.0 Institutional capacity strengthening by MoE to address the internal control weaknesses	Capacity building on corruption, setting up of corruption prevention mechanisms, enhancing the capacity of the school audit with better staffing and funding, Setting up corruption prevention mechanisms including integrity assurance committees and corruption prevention training to create awareness at community level, and use of red-flags and reporting for district and school level staff. Program to prepare pilot (based on a purposive sample) aged-analysis of the accountability of funds disbursed to schools	MoE, MoHEST,	Annual capacity development report Evaluation report of the findings	MoE, MoHEST, Developme nt Partners CFO and PA, MoEST	FY10/1 1 (June 30, 2011) and July 2014 Each quarter	Work in progress. Much work has been done by MOE but some concerns still remain for instance delays in accounting for imprests/staff advances and slow response to KENAO audit report issues by MOE
3.0 Project/ Program level Capacity building activities	Strengthening sub-county and county level internal auditors, Intensive FM capacity building training for project accountants and coordinators, capacity building on value-for-money audits, transport reimbursement zoning procedures have been developed and are in use.	MoE, MoHEST,	Bi-annual reports		Long term	Work in progress. Being addressed as part of GPE project design. GPE project has robust FM arrangements and the design is simpler than KESSP with no multi-donor pooled funding arrangements and multiple

ISSUES OF CONCERN	PROPOSED ACTIONS	MONITORING RESPONSIBILITY	REPORTS TO BE PRODUCED	REPORTS RECEIVED BY	TIME FRAME	STATUS / COMMENTS
						implementing arrangements. However, comprehensive capacity building training program under the GPE as part of project design
4.0 Portfolio level Risks and Actions	Risk-based annual fiduciary reviews, full-scope audit by the Office of the Auditor General, which includes on-site field audit at district/county and beneficiary level (i.e., school-level), abolishing of group imprest/ advances; As per the recent circular, workshops can be held in both government and private institutions subject to cost comparison and quality of the venue. Requirement for holding of workshop in government institutions only; Abolishment of cash payments to workshop venues; limiting petty cash payments from the standing imprest to not more than Kshs.5,000 (US$60 equivalent); payment to workshop participants to be supported by national identity card numbers and	MoEST, National treasury, National Education Board	Internal approval work plans, procurement plans, budget statements	MoEST	Effected and under implementation Circular No. MOE.GEN/G6/8 of October 9, 2009	Work in progress. Some concerns still with imprests and slow response to KENAO audit report issues by MOE. In addition, Portfolio challenges in in-country funds flow arrangements still noted. Being addressed via country level dialogue between the Bank and GOK.

ISSUES OF CONCERN	PROPOSED ACTIONS	MONITORING RESPONSIBILITY	REPORTS TO BE PRODUCED	REPORTS RECEIVED BY	TIME FRAME	STATUS / COMMENTS
	telephone numbers; Ministerial Audit committee to be reconstituted in line with existing GoK policy					

B. Summary Assessment

15. The World Bank and other donors disengaged from the education sector in the year 2009 as a result of GAC concerns flagged in the KESSP SWaP project. The GAC issues were flagged initially in the Joint Financial Management (FM)/Internal Audit Department (IAD) fiduciary review of January 2009; and quantified in the subsequent FM/IAD in-depth review of June 2009; and the Integrity Vice Presidency (INT) forensic audit of May 2010. The MoEST developed a comprehensive GAC action plan to address the internal control weaknesses raised in the above reports, which has since been implemented. Measures were also taken by the National Treasury to address cross-cutting FM weaknesses to strengthen overall Public Financial Management (PFM) systems on the basis of the KESSP audit reports and the joint FM/IAD Portfolio fiduciary review and funds flow analytical report of 2009.

16. The FM assessment revealed that there have been significant improvements in the internal control systems at MoEST and Kenya Portfolio-level to address the weaknesses flagged in the KESSP forensic audit as well as the in-depth reviews for other decentralized and CDD type projects. Key areas of risk for such projects included operating costs, workshop/training, vehicle costs, staff allowances, and decentralized expenditures/investments.

17. It was noted that MoEST has substantively implemented the recommendations of the GAC action plan, including refund of ineligible expenditures to the donors, separation of staff implicated in fraud and corruption and having the cases investigated by EACC and taken to court, setting up corruption prevention mechanisms including integrity assurance committees, conducting capacity building training and enhancing the capacity of the school audit unit and converting it into a full-fledged department with better staffing and funding. At Portfolio/country level, the following measures have been taken by the National Treasury and the World Bank to enhance the fiduciary controls for decentralized and CDD-type projects, especially for high risk expenditures:

- Risk-based annual fiduciary reviews by the National Treasury IAD.
- Full-scope audit by the Office of the Auditor General, which includes on-site field audit at district/county and beneficiary level (i.e., school-level).
- Annual FM review and in-depth audits by the World Bank, which include detailed transaction reviews and spot checks at national, county/district and beneficiary/school level.

- Rolling out of annual intensive FM capacity building training for project accountants and coordinators at the Kenya School of Government e-learning and development center (KSG-eLDi).

- Having Bank projects designated and project bank accounts to the Central Bank of Kenya (CBK) to avoid commercial bank risks experienced by KESSP and other decentralized projects with high volume cash disbursement, and use of G-pay/T-24 Electronic Fund Transfer (EFT) payment system.

- Putting World Bank projects on the integrated financial management information system (IFMIS) and the Government of Kenya (GoK) standard chart of accounts (SCOA) in order to enhance accounting and financial reporting.

- Setting up of External Resources Sections (ERS) at the ministry and Head of Accounts to be managed by a Chief Accountant to strengthen the accounting capacity for donor projects at ministry level.

- Out-source downstream audit of beneficiaries to private audit firms on Terms of References (ToRs) reviewed and cleared by the World Bank.

- FM reforms directly touching on operating costs include; abolishing of group imprest/advances (taking advances on behalf of other persons), requirement for all staff and vendors to have individual bank accounts to which their advances/payment are made directly through the G-pay system; As per the recent circular, workshops can be held in both government and private institutions subject to cost comparison and quality of the venue. Abolishment of cash payments to workshop venues and payments made directly through G-pay or cheque; limiting petty cash payments to not more than Ksh.5,000 (US$60 equivalent); payment to workshop participants to be supported by national Identity cards number and telephone numbers.

18. On the specific FM assessment for the GPE grant, the assessment covered the 6 FM elements of budgeting, funds flows, accounting, internal controls, financial reporting and auditing. The budgeting and financial reporting were assessed as having moderate/modest FM risk, while funds flows, accounting, internal controls and audit are assessed as having substantial FM risk. *The overall FM risk is therefore assessed as substantial.* Details of the assessment are as follows:

- **Budgeting.** The project will use the government budget system using the GoK SCOA which is deemed to be adequate.

- **Funds flow.** The project will adopt the GoK funds flow system for MoEST for disbursement of funds to schools and to the sub-implementers. However, *separate segregated bank accounts would be opened in TSC, KNEC and each of the primary schools and counties education offices receiving GPE project funds* into which these funds will be deposited and payments made therefrom. The *designated bank account (DA) and the main project bank accounts at MoEST will both be opened in the CBK* in line with the Treasury Single Account (TSA) requirements in accordance with the PFM

Act (2012). The other bank accounts at KNEC, TSC, schools and county education offices will be opened in financial institutions acceptable to the World Bank. Disbursements would be sent to schools and the other sub-implementers using the G-pay EFT system of CBK. One of the challenges noted in the funds flow system is delays of 1-2 months in sending disbursements to schools. This is likely to affect the GPE project unless the MoEST prioritizes the provision of the allocated project counterpart funding in full and on a timely basis. . *The project will adopt the Statement of Expenditure (SOE) method of disbursement* instead of the report-based IFR method, which proved difficult for MoEST to use under KESSP.

- **Accounting.** The MoEST has adequate accounting capacity with over 70 qualified accountants and the accounting system is on IFMIS. At school level, simple accounting records are maintained by the head teachers as primary schools do not have accountants. For the GPE project, schools will submit annual financial returns to MoEST using a simple template developed by MoEST showing the GPE funds received, spent and the closing balance. These returns should be submitted to the MoEST by August 31 every year accompanied by a copy of the Bank Statement for the year. This will form a basis for subsequent disbursement to the school. This arrangement is deemed to be adequate. *However, there will be need for MoEST to conduct regular FM capacity building training for all head teachers in schools receiving GPE funds with refresher courses for any new head teachers subsequently.*

- **Internal controls**. The internal control systems are deemed to be adequate and conform to GoK Financial Regulations and Guidelines under the PFM law. The major area of risk flagged in the audit reports is weak management of staff advances/imprests, which are not surrendered on time. The MoEST has prepared the FM Manual for the GPE which has been reviewed and accepted by the Bank.

- **Social Accountability and transparency arrangements**: The FM design provides for robust social accountability and transparency arrangement at school, county and National levels. At school level, the FM arrangements include the participation of the community through the school BoMs who are signatories to the school bank accounts including the GPE grant account. The GPE grant account will be operated by joint signatories comprised of the head teacher and the chairman of the school board. The schools will continue to disclose the financial information including funds received from various sources, expenditures and closing balances on the noticeboard at places within the schools accessible to the public. Financial information for both the national and county levels will be disclosed on the MoEST website. Disbursement to schools will be posted on MoEST website, with a summary of notification in the newspapers with national circulation. . In line with the World Bank access to information policy, project audit reports will be disclosed to the public and posted on both MoEST and World Bank websites. MoEST will further strengthen the corruption prevention mechanisms by putting in place complaints handling and reporting mechanism through a dedicated toll-free telephone and email address.

- **Financial reporting.** The MoEST is assessed as having adequate capacity to prepare and submit quarterly IFRs and annual financial statements to the World Bank. The school

grants will be captured in the IFR and annual project financial statements at the time of disbursement, while all the other payments will be reported in the quarterly unaudited IFR and annual audited project financial statements at the point of expenditure. The Ministry has been generating monthly financial reports in line with government regulations. *The annual financial statements will be prepared on the basis of International Public Sector Accounting Standards (IPSAS)* cash basis of accounting.

- **Auditing.** The project will be subjected to robust audit arrangement as is the case for decentralized and CDD-type projects in Kenya. *The annual audit of the project will be done by the SAI the Office of the Auditor General (KENAO).* The audit will be a full-scope audit covering all implementers and sub-implementers, including risk-based audits at school and county education offices levels. The school level audits will be on a sample basis. The Basic Education Act (2013) makes it mandatory for school BoMs to hire private auditors to conduct annual audit of school. MoEST will submit to KENAO the status of audit of the benefiting schools under GPE as a baseline. KENAO will conduct a sample risk-based audit of the total number of the beneficiary schools per annum. Thereafter, MoEST will be providing annual status report of the audit of the beneficiary schools showing the number and percentage subjected to annual audit, and the type of audit reports issued (qualified or clean). This status report will form part of the annual audit report by KENAO. The audit report and management letter will be submitted to the World Bank within 6 months after the financial year ends. *The project will also be subjected to in-year annual risk-based fiduciary review by the National Treasury's Internal Audit Department (IAD) on the basis of a ToR to be agreed on with the World Bank.* The fiduciary review will be conducted every January and the report submitted to the World Bank by April 30 every year. The *school audit unit will continue to conduct school audit, which would cover all the 4000 schools receiving the schools' grant. Private audit firms would be hired to complement the school audit* and ensure proper audit coverage on annual basis. *The audit reports by the School Audit Unit and the private auditors will form part of the in-year IAD fiduciary review and the annual KENAO audit.* There would be need to strengthen the capacity of the School Audit Unit to enhance the quality of their audits. This is will be done as part of project implementation.

19. The project FM activities will be undertaken under the ERS set up in the Ministry which is deemed to have adequate capacity to manage the GPE project. The ERS section is headed by a qualified accountant. The ERS will provide support to the PCU in preparation of financial reports and maintenance of project book of accounts and accounting records.

20. The overall FM risk is assessed as Substantial (S) which implies that there are material FM weaknesses identified but these are manageable with the implementation of appropriate mitigation measures.

21. In addition, school grants would be sent to schools that meet the eligibility criteria, (i) the school BoM is constituted in line with the Basic Education Act (2013), (ii) the GPE bank accounts opened with prescribed signatories, (iii) head teachers are trained.

C. Country Financial Management Issues

22. The Kenya Public Expenditure and Financial Accountability (PEFA) assessments have already been done, which have revealed good performance in key indicators. The country has made progress implementation of the new PFM law and strengthening the SAI and setting up of the Office of the Controller of Budget in line with the new Constitution. Major reforms in the Judiciary including the appointment of a new Chief Justice and creation of the Supreme Court are working to address past weaknesses. The government has also rolled out the implementation of IFMIS to all the 47 counties. The EACC has also been entrenched in the new constitution and it is expected to be more robust in the fight against corruption.

D. Project Financial Management Arrangements

23. **Budgeting:** Budgeting process in the education sector is deemed adequate. The GPE project budgeting will be done in line with GoK procedures. The project will be assigned budget codes on the basis of the GoK SCOA under MoEST and captured in the IFMIS.

24. **Accounting System and Capacity:** The Accounting arrangements for the project are deemed adequate. The accounting system is based on GoK Financial Regulations and Guidelines. The MoEST has also developed an FM procedures Manual for the GPE project. The accounting function at the ministry is supported by IFMIS system. The accounting department has about 70 members of staff who are headed by an Assistant Accountant General. About 20 members of staff have completed Certified Public Accountants Examinations final examinations. The ministry has set up the ERS in line with the National Treasury guidelines to enhance the accounting capacity for management of donor projects at ministry level. The ERS is headed by a Chief Accountant and will provide support to the PCU in preparation of financial reports and maintenance of project book of accounts and accounting records. The accounting arrangements are deemed to be adequate. At school level, simple accounting records are maintained by the head teachers as primary schools do not have accountants. This arrangement is deemed to be adequate. For the GPE project, schools will submit annual financial returns to MoEST using a simple template developed by MoEST that shows the GPE funds received, spent and the closing balance. This will form a basis for making subsequent disbursement to the school. However, there will be need for MoEST to conduct regular FM capacity building training for all head teachers in schools receiving GPE funds with refresher courses for any new head teachers subsequently.

25. **Internal Control:** The internal control systems are deemed to be adequate and conform to GoK Financial Regulations and Guidelines under the PFM law. The major area of risk flagged in the audit reports is weak management of staff advances/imprests, which are not surrendered on time. The FM procedures manual which was last updated in the year 2010 has now been revised to take account of the GPE FM arrangements. MoEST is audited by the SAI KENAO and received qualified audit reports for FY11 and FY12 due to various reasons including outstanding staff imprests, over expenditures-unauthorized exchequer issues, errors and omissions in the appropriation accounts, unsupported balances. These remain risk areas and would be closely monitored during project implementation. Other areas of risk include operating costs, motor vehicle expenses, staff allowance and workshops/training.

26. **Funds flow and Disbursement arrangements:** The project will adopt the GoK funds flow system for MoEST for disbursement of funds to schools and the sub-implementers. The implementing agency MoEST will open 2 DAs at Treasury in the CBK. One DA (DA-1) will be for the GPE grant funds while the other (DA-2) will be for the other components/categories. Money from the DA-1 will be transferred to the MoEST school grants project account in CBK and thereafter directly to the school GPE bank accounts opened in a commercial bank. Money from DA-2 will be transferred to the main project account (PA) opened by MoEST at CBK and will be used to make any MoEST related project expenditures and to replenish project accounts opened by TSC and KNEC. Vendors and other project expenses for MoEST will be paid directly from the main project account using the current CBK G-Pay/T-24 system. Separate segregated bank accounts would be opened in TSC, KNEC and each of the primary schools receiving GPE project funds into which these funds will be deposited and payments made therefrom. The Das and the main project bank accounts at MoEST will all be opened in the CBK in line with the TSA requirements in accordance with the PFM Act. The other bank accounts at KNEC, TSC and schools will be opened in financial institutions acceptable to the World Bank. Disbursements would be sent to schools and the other sub-implementers using the G-pay EFT system of CBK. One of the challenges noted in the funds flow system is delays of 1-2 months in sending disbursements to schools. This is likely to affect the GPE project unless the MoEST prioritizes releasing of project counterpart funding on time and in full. The project will adopt the SOE method of disbursement instead of the report-based IFR method, which proved difficult for MoEST to use under KESSP.

27. **Financial Reporting:** The MoEST is assessed as having adequate capacity to prepare and submit quarterly IFRs and annual financial statements to the World Bank. The school grants will be captured in the IFR and annual project financial statements at the time of disbursement while all the other payments will be reported in the quarterly IFR and annual project financial statements at the point of expenditure. The quarterly IFR will be submitted to the World Bank within 45 days after the end of the quarter to which it related. The format of the IFR has been discussed and agreed with MoEST. The Ministry has been generating monthly financial reports in line with government regulations. The annual financial statements will be prepared on the basis of IPSAS cash basis of accounting. The format of the quarterly IFR has been agreed with the MoEST, and the annual financial statements has been agreed with the National Treasury.

28. **Audit arrangements:** The project will be subjected to robust audit arrangement as is the case for decentralized and CDD-type projects in Kenya. *The annual audit of the project will be done by the SAI KENAO*. The audit will be a full-scope audit covering all implementers and sub-implementers, including risk-based audits at school and county education offices levels. The audit ToR will be agreed with the World Bank. The school level audit will be done on sample basis. The audit report and management letter will be submitted to the World Bank within 6 months after the financial year end. *The project will also be subjected to in-year annual risk-based fiduciary review by the National Treasury IAD on the basis of ToR agreed with the World Bank*. The fiduciary review will be conducted every January and the report submitted to the World Bank by April 30 every year. The *school audit unit will continue to conduct school audit which would cover all schools financed under the GPE project*. The school audit unit has 200 auditors based mainly at county level. The number is rather low when compared with the over 40,000 primary and secondary schools that the unit has to cover. *Private audit firms would be hired to complement the school audit* and ensure proper audit coverage on annual basis. The

GPE project would also provide funds under the capacity building component to train the school audit unit staff so as to enhance their technical skills. *The audit reports by the school audit unit and the private auditors will form part of the in-year IAD fiduciary review and the annual KENAO audit.* The capacity of the school audit unit will be strengthened as part of project implementation in order to enhance the quality of their audits.

E. Summary of Strengths and Weaknesses

29. The major strengths of the project financial management system are:

- Budgeting process at MoEST is being undertaken centrally in consultation and with extensive detailed inputs by the respective authority to incur expenditures (AIE) holders both at the Ministry Head-quarters and lower levels.

- The accounting function at the ministry is supported by IFMIS system. There are adequate numbers of qualified accounting staff to manage the project.

- Funds flow arrangements will adopt GoK-G-Pay system whereby vendors, disbursement to schools and other project expenses will be paid directly from the IFMIS System.

- Functions of school audit unit have been mainstreamed in the Ministry through upgrading of the unit as a department within the MoEST.

30. The major weaknesses of the project financial management system are:

- Weak internal audit capacity for the school audits in terms of staff numbers and skills. This will be addressed by providing capacity building of the school audit unit out of project funds and where necessary, using services of private audit firms.

- Delays in sending funds to schools. The delay is caused mainly by limited counterpart funds. This is likely to affect the project as GOK will be contributing 10 percent of the total budget which will be financing some of the operations costs.

- Limited scope of audit for the KENAO annual audit. This is a Portfolio issue for CDD-type and decentralized projects. This has been addressed by the National Treasury which has provided additional resources to KENAO to conduct on-site field audits and where required, out-source some aspects of project audits to private auditors in order to enhance the quality and timeliness of audit.

- Weak school level accounting capacity. Schools have adopted simplified book keeping systems and capacity building training will be given to school heads as a condition for disbursement of funds to the schools.

F. Risk assessment and mitigating measures

Table A3.2: Analysis of the Risk Assessment

Risk	Risk Rating	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk rating
Inherent Risk				
Country Level This is based on the Country Public Financial Management environment and it takes into account relevant governance issues. It also takes into account the current reforms being undertaken in line with the new PFM law.	S	The Government conducting PFM reforms in line with the new Constitution and a revamped implementation of IFMIS. The ongoing reforms in the Judiciary and EACC will also address the governance and corruption issues. A new PFM law has also been enacted.	No	S
Entity Level MoEST has adequate capacity and past experience in managing donor financed projects. However, past GAC challenges resulted in suspension of donor projects in 2009	S	MoEST has substantively implemented the GAC action plan agreed with the donors	No	S
Project Level Project design relatively simple when compared to the KESSP which was a multi-donor SWAp.	M	PCU has adequate FM capacity to implement project.	No	M
Overall Inherent Risks:	**S**			**S**
Planning and budgeting Budget system deemed adequate for purposes of the Project	M	MoEST budget process is in line with country systems.	No	M
Accounting MoEST has adequate accounting capacity headed by a qualified Chief Finance Officer and Assistant Accountant General. The ministry has a specialized unit that is headed by the chief accountant whose role is to account and report on donor funded projects.	M	Arrangements deemed adequate.	No	M
Treasury management and funds flow Funds will flow from the Grant Account at the World Bank through the DA in Treasury to the main PA in MoEST. Delays in funds flows noted	S	Funds flow arrangements will adopt GoK-G-Pay and the IFMIS System.	No	M

Risk	Risk Rating	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk rating
Internal controls Financial management manual revised and updated. Weak capacity of school audit unit. MoEST is audited by the SAI KENAO and received qualified audit reports for FY11 and FY12 reflecting material weaknesses in internal controls. Weak accounting capacity at school level	S	Revised FM manual has enhanced FM procedures for the project. Capacity building training to be done of the school audit unit Schools to send annual financial returns	No	S
Financial Reporting MoEST has capacity of preparing and submitting quarterly IFRs in form and substance acceptable to IDA.	M	SOE method, which is simple to operate to be adopted.	No	M
Auditing Weak audit capacity with KENAO not conducting on-site audits. Delays by MoEST in addressing audit queries	S	KENAO to conduct extended scope audit on basis of ToR agreed with the World Bank	No	S
Overall Control Risk	**S**			**S**
Overall Risk	**S**			**S**

H = High; S = Substantial; M = Moderate; L = Low.

G. Project Cost

Table A3.3: Project costs by categories of expenditures and by components

Categories of expenditures	Component 1	Component 2	Component 3	Component 4	Total
Goods (textbooks and IT related equipment	12.3 million	1.4 million	2 million	0.4 million	16.1 million
Consultancy	2.6 million	2 million	1.3 million	1.5 million	7.4 million
Training/Operating costs	19.6 million	13.4 million	7.5 million	2.4 million	42.9 million
School grants		22 million.			22 million
Total (excluding contingency)	34.5 million	38.8 million	10.8 million	4.3 million	88.4million

Note: The GoK shall contribute 10 percent of the total financing amount that will cover part of the operation cost.

H. Disbursement Arrangements

31. The implementing agency will open 2 DAs at the National Treasury in the CBK. Funds from the DA will be transferred to 2 project accounts (PAs) opened by MoEST at CBK. The

project will adopt the SOE method of disbursement. The sub-implementing agencies will open Subproject Accounts as per the GoK guidelines.

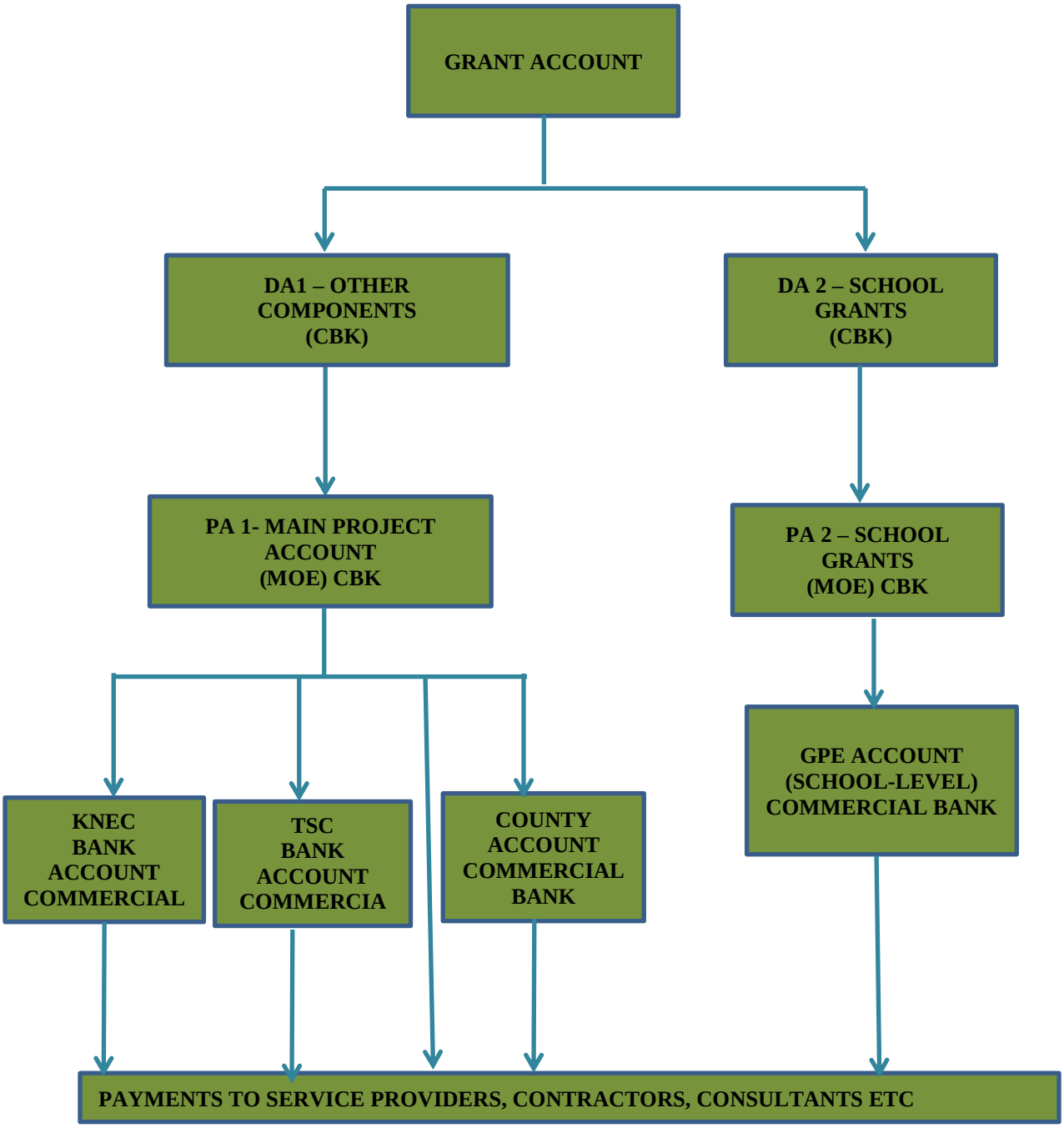
(Withdrawal of the Proceeds of the GPE Financing)

Table A3.4: Project Costs Summary by Category of Expenditure

Category	**Amount of the Financing Allocated (expressed in US $ '000)**	**Percentage of Expenditure to be Financed (Inclusive of Taxes)**
Goods, non-consulting services, consultants' services, training and operating costs under all Parts of the Project (excluding Part B.3) workshops and consultancy services	58,400,000	100%
Sub-Project Grants Under Part B.3 of the Project	30,000,000	100%
TOTAL AMOUNT	**88,400,000**	

I. Fund Flow Chart

Figure A3.4: GPE Funds Flow



32. Based on the outcome of the financial management risk assessment, the following implementation support plan is proposed:

Table A3.5: Implementation Support Plan for Financial Management Risk Assessment

Financial management activity	Frequency	FM Output
Desk reviews		
IFRs review	Quarterly	IFR review reports
Audit report review of the MoEST	Annually	Audit review report
Review of other relevant information such as internal control systems reports	Continuous as they become available	FM review report
Onsite visits		
Review of overall operation of the FM system including internal controls.	Once every 12 months	FM review report
Monitoring of actions taken on issues highlighted in audit reports	As needed	FM review report
Transaction reviews (if needed)	Annually or as needed	FM review report
Capacity building support		
Financial management training sessions	By effectiveness and thereafter as needed	Training sessions held

33. The conclusion of the assessment is that the financial management arrangements have an overall residual risk rating of substantial, which satisfies the World Bank's minimum requirements under OP/BP10.02, and therefore is adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by IDA.

Procurement Arrangements

General

34. Procurement for the proposed project would be carried out in accordance with the World Bank's "*Guidelines: Procurement Under IBRD Loans and IDA Credits*" dated January 2011 and revised in July 2014; and "*Guidelines: Selection and Employment of Consultants by World Bank Borrowers*" dated January 2011 and revised in July 2014, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described below. For each contract to be financed by the GPE Grant, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the procurement plan. The procurement plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The proposed project will carry out implementation in accordance with the "Guidelines on preventing and combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants" dated October 15, 2006 (the Anti-Corruption Guidelines), revised in January 2011 and provisions stipulated in the Grant Agreement.

35. **Use of National Procurement Procedures**: All contracts other than those to be procured on the basis of ICB and consulting services shall follow the procedures set out in the Public Procurement and Disposal Act of 2005. The Public Procurement and Disposal Act of

2005 (PPDA) governs purchase of works, goods and services using public resources by the central government entities, county governments, state corporations, education institutions, and other government institutions. Under the PPDA, the PPOA has been established in addition to the Public Procurement Directorate (PPD) in the National Treasury. The PPDA sets out the rules and procedures of public procurement and provides a mechanism for enforcement of the law. Some provisions of PPDA are not fully consistent with the World Bank procurement guidelines and Consultants Guidelines, and therefore these may not be applied for the implementation of this project without modification. These provisions and their respective modifications are:

(a) PPDA 55(2): instead, the tender submission date shall be set so as to allow a period of at least 30 days from the later of: (i) the date of advertisement, and (ii) the date of availability of the tender documents.

(b) PPDA 4(2) (c): instead, Recipient's government-owned enterprises shall be allowed to participate in the tendering only if they can establish that they are legally and financially autonomous, operate under commercial law and are an independent agency of the recipient's government.

(c) The Borrower shall use, or cause to be used, bidding documents and tender documents (containing, *inter alia*, draft contracts and conditions of contracts, including provisions on fraud and corruption, audit and publication of award) in form and substance satisfactory to the Association.

(d) PPDA 61(4): instead, extension of tender validity shall be allowed once only, and for not more than thirty (30) days, unless otherwise previously agreed in writing by the Association.

(e) PPDA 66(3) (b): instead, evaluation of tenders shall be based on quantifiable criteria expressed in monetary terms as defined in the tender documents. It shall not be based on a merit points system.

(f) PPDA 39: instead, no domestic preference shall be used in the evaluation of tenders. Therefore, as a result of the non-application of PPDA 66(3) (b) and 39, contracts shall be awarded to qualified tenderers having submitted the lowest evaluated substantially responsive tender.

(g) PPDA 67: instead, notification of contract award shall constitute formation of the contract. No negotiation shall be carried out prior to contract award.

(h) PPDA 91: instead, shopping procedure will apply for each low value contracts, in lieu of Direct Procurement except as otherwise previously agreed in writing by the Association.

(i) Regulations 47: instead, the two envelope bid opening procedure shall not apply.

36. Under NCB the Bank's standard bidding documents for goods and works shall be used with appropriate modifications.

37. Procurement of Goods: Goods to be procured under this project would include: Information Communication Technology (ICT) goods (hardware and associated software), motor

vehicles, Math manipulative/teaching aids and office equipment. The procurement will be done using the Bank's Standard Bidding Documents (SBD) for all ICB and NCB contracts. The use of framework agreements may be *u*sed to implement some actions such (a) goods that can be procured off-the-shelf or are common use with standard specifications; (b) non-consulting services that are of a simple and non-complex nature and may be required from time to time by the same agency (ies) of the Borrower; or (c) small value contracts for works under emergency operations. Such arrangements should not restrict foreign competition and should be restricted to a maximum duration of three years. The nature and budget for such goods including the circumstances and justification for its use, the particular approach and model to be adopted, the procedures for selection and award, and the terms and conditions of contracts will be defined and agreed between the Borrower and IDA prior to their inclusion in the updated annual procurement plan.

38. Procurement of non-consulting services: Non-consulting services envisaged under the project include printing and binding of text books, guides, manuals and teacher reference materials. The procurement will be done using the Bank's SBD for all ICB and NCB contracts. The type and budget for such services will be defined and agreed between the Borrower and IDA prior to their inclusion in the updated annual procurement plan.

39. Selection of Consultants: Consulting services to be procured under the project include selection of firms and individuals for the provision of project evaluation, external financial audit contracts and technical assistance (TA) services. All consulting services will be procured using the Bank's Guidelines for Consultant Services.

40. Capacity Building, Training Programs, Workshops, etc.: Training and capacity building activities will take place including developing of capacity in the Supply Chain Management Services Unit and the user departments staff directly involved in the project procurement activities, to enhance their capability to manage the procurement process in compliance with both Bank and GOK procurement guidelines. Training and capacity building activities would include workshops, seminars, conferences, short-term courses and on-the-job training. All training will be carried out on the basis of approved annual programs that would identify the general framework of training activities for the year including; (i) the type of training or workshop; (ii) the personnel to be trained; (iii) the selection methods for the institutions or individuals conducting such training; (iv) the institutions which would conduct the training; (v) justification for the training i.e., how it would lead to effective performance and implementation of the project and or sector; (vi) the duration of the proposed training; and (vii) the cost estimate of the training. Reporting would be required by trainees upon completion of training.

41. Operating Costs: Operating costs for the project management are incremental expenses arising under the project and based on annual work plans and budgeting approved by the Bank. Operating costs comprise the reasonable incremental expenses incurred by the recipient and approved by the Bank attributable to Project implementation, management and monitoring consisting of the following costs: office supplies and consumables; communication; operation and maintenance of office vehicles; per diem and travel costs for project staff; reasonable bank charges; and allowances and salaries of contracted staff (excluding salaries of the recipient's civil servants), and the costs incurred to provide security to the staff visiting sensitive areas for

project activities. These items will be procured using the implementing agencies' administrative procedures, which are reviewed and found acceptable to the Bank.

42. The procurement procedures and SBDs to be used for each procurement method, as well as model contracts for works and goods procured, are presented in the PIM.

43. School Grants: A total of 4,000 selected pilot schools will be provided with $5,500 per school aimed at improving primary education delivery and results. The grants will finance among other activities facilitators, salaries for contracted teachers, teacher training, procurement of textbooks and learning materials, minor repairs and maintenance of school facilities and related operating costs. Construction of classrooms and substantive civil works will not be eligible for financing. Procurement activities to be financed under school grants will be carried out using simplified Bank procurement procedures described in sufficient details in the PIM on the procurement arrangements, methods, procedures and roles, and oversight requirements will be indicated.

Assessment of the agency's capacity to implement procurement

44. Procurement activities will be carried out by the MoEST who will have the primary responsibility of the project management. The project implementation will be mainstreamed into the government education management system. The PCU will be supported by dedicated functions such as accountant, supply chain management, FM/disbursements, Safeguards, ICT, M&E and others. These functions will be carried out by full-time personnel contracted by the MoEST.

45. An assessment of the capacity of the implementing agency to implement procurement actions for the project was carried out by the Procurement Specialist on the team. The assessment reviewed the organizational structure for implementing the project and the interaction between the project's staff responsible for procurement duties and management of their respective agencies. The Supply Chain Management Services Unit at MoEST headquarters has a total of twenty four staff comprising, Head of Supply Chain Management Services, two (2) deputies, four (4) senior supply chain management officers, and seventeen (17) supply chain management assistants. The Head of Supply Chain Management Services and one of the deputies have reasonable experience and knowledge on World Bank financed operations and procurement procedures.

46. The key issues and risks concerning procurement for implementation of the project have been identified and require enhancement include systemic weaknesses in the areas of (i) delays in procurement decisions; (ii) procurement record keeping; (iii) capacity of procurement staff especially on donor funded projects; (iv) procurement planning; (v) procurement process administration including award of contracts; (vi) contract management; and (vii) procurement oversight. The measures which have been agreed are:

(a) Two (2) key staff (Head of Procurement and the Deputy) have been appointed with a clear responsibility for procurement management and capacity development. The two key staff were assessed and found to have adequate qualifications and experience to manage the project procurement activities.

(b) A procurement manual has been prepared that: (i) defines the roles and responsibilities of all offices that will be working in any aspect of procurement implementation of the project; (ii) sets out the sequence and timeframe for the completion of procurement decisions of all individual players as well as for coordination of the contribution of the players in procurement implementation; (iii) establishes service standards for processing of payments to suppliers and service providers; and (iv) has criteria for assessing staff who have received the relevant procurement skills and the appropriate indicators for assessing the skills transfer.

(c) Align the preparation processes of procurement plans, work plans and budget estimates.

(d) Establish separate effective tracking systems of (i) Procurement plan implementation and (ii) processing of payments to suppliers and service providers.

(e) In consultation with the PPOA and KENAO, ensure that procurement audits by PPOA and financial audits by KENAO are conducted jointly.

(f) Prepare a PIM providing for simplified procurement procedures for use by pilot schools in the implementation of procurement activities financed under the School Grants.

47. Based on the procurement capacity assessment carried out in June 2013, and taking cognizance of the experience of the ministry in implementing the KESSP project the assessment revealed that there have been significant improvements in the internal control systems at MOEST and Kenya Portfolio-level to address the weaknesses flagged in the KESSP forensic audit. The MoEST also learned critical lessons from that project which is evidenced by the substantive implementation of the recommendations of the GAC action plan, including refund of ineligible expenditures to the donors, separation of staff implicated on fraud and corruption and having the cases investigated by EACC and taken to court, setting up corruption prevention mechanisms including integrity assurance committees and conducting capacity building training. The Supply Chain Management Services Unit staff's experience on donor funded project especially that of the Head and some of the procurement staff is an added strength and therefore the overall project risk for procurement is assessed as "Substantial".

Procurement Plan and Manual

48. The MoEST has prepared a procurement plan for the first 18 months which provides the basis for the procurement methods. The plan will be posted on the Bank's external website. The procurement plan will be updated in agreement with the Project Team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The review by World Bank of procurement decisions will be provided in the procurement plan. The Manual will serve as the procurement guidelines for the Project.

Frequency of Procurement Supervision

49. In addition to the prior review supervision to be carried out from Bank offices, annual supervision missions will be conducted to carry out post review of procurement actions undertaken.

Details of the Procurement Activities

50. Goods and Non Consulting Services

Table A3.6: List of contract packages to be procured following ICB and NCB procedures

1	2	3	4	5	6	7	8
Ref. No.	**Contract (Description)**	**Estimated Cost (US$)**	**Procurement Method**	**P-Q**	**Domestic Preference (yes/no)**	**Review by Bank(Prior / Post)**	**Expected Bid-Opening Date**
1	Textbooks and teacher guides	11,600,000.00	ICB	No	Y	Prior	June 30, 2015
2	Math Manipulatives /teaching aids	316,000.00	NCB	No	No	Post	June 30, 2015
3	IT Equipment	2,000,000.00	ICB	No	No	Prior	August 31, 2015
4	Office Equipment	215,000.00	NCB	No	No.	Post	June 30, 2015
5	Vehicles	150,000.00	Shopping	No	No	Post	June 30, 2015

51. Consulting Services

Table A3.7: List of consulting assignments

1	2	3	4	5	6
Ref. No.	**Description of Assignment**	**Estimated** Cost (US$)	**Selection Method**	**Review by Bank (Prior / Post)**	**Expected Proposals Submission Date**
1	External Financial Audit	538,000.00	LCS	Prior	October 31, 2015
2	Component 1 technical advisor for EGM (international)	1,110,000.00	Firm/ Individual	Prior	June 30, 2015
3	Component 1 technical assistance (several national)	1,539,000.00	Individual	Post	June 30, 2015
4	Component 2 technical advisor for teacher assessment (international)	500,000.00	Individual	Prior	June 30, 2015
5	Component 2 technical assistance (several national)	782,000.00	Individual	Post	June 30, 2015
6	Component 2 evaluation	700,000.00	Firm	Prior	January 1, 2018

52. Shortlists composed entirely of national consultants and shortlists of consultants for services estimated to cost less than US$300,000 equivalents per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. Consulting firms or individuals can be hired through single source

selection in exceptional cases if the method presents a clear advantage over competition. In all such cases, a sufficiently detailed justification including the rationale for single source selection shall be provided. All TORs for the procurement of consultant services irrespective of the value of the assignment will be subject to prior review by the Bank.

Environmental and Social (including safeguards)

53. The project is classified as a Category B project. The project triggered OP4.10, Indigenous Peoples (IPs) because the project activities will be implemented nation-wide including areas where communities categorized as vulnerable and marginalized exist. To qualify for funding from the Bank and following best practice documented in the World Bank's policy on Indigenous Peoples (OP 4.10), the GoK has prepared a VMGF to ensure that the project design process fully respects the dignity, human rights, economies, and culture of vulnerable and marginalized people and that the project has broad community support from the affected vulnerable and marginalized people.

54. All the interested and affected stakeholders will be identified with specific focus of the vulnerable and marginalized groups and will include an elaboration of a culturally appropriate process for consulting with the VMGs at each stage of project preparation and implementation. A stakeholder mapping exercise will be conducted and the stakeholder mapping process will ensure that all the interested and affected stakeholders are identified and included in the social assessment process including impact identification and mitigation.

55. The project envisions procurement of IT related equipment (tablets and smartphones) for data collection and dissemination and this will lead to generation of electronic waste which is harmful to the environment if disposed inappropriately. The ESMF that has been prepared and disclosed by MoEST will help mitigate and manage potential impacts of sub-components and provide guidance on methodologies, measures and procedures to facilitate environmental management (risk management and impacts) related to investments under the project and whose specific locations are unknown. The ESMF also provides specific measures and procedures for mitigating impacts associated with E-Waste, which will be generated in this program as a result of procurement of tablets and smartphones.

56. Key social issues identified in other World Bank Projects in Kenya that have triggered OP 4.10 are:

i. Gender disparity mainly exacerbated by projects in areas where women are discriminated and miss out on opportunities or loose property and assets due to land acquisition;

ii. Limited participation of stakeholders' especially local communities in Arid and Semi-Arid Areas in project design, planning, preparation and implementation including monitoring and evaluation;

iii. Inadequate institutional structures at the grass root levels to ensure participation of vulnerable and poor;

iv. Social risks due to project activities including the following;

a. Loss of agricultural land and structures (where land acquisition is required); GPE Project is not expected to lead to land acquisition;
b. Loss of livelihoods (where income generating activities are disrupted); GPE project is unlikely to lead to loss of livelihood;
c. Disruption of social networks and linkages;
d. Spread of HIV and AIDS and other communicable diseases;
e. Erosion of culture and tradition caused by in-migration of persons from different communities;
f. Loss of cultural resources ; and
g. Erosion of traditional languages – GPE project will promote use of catchment area languages in pre-primary and lower primary level, as guided by the Nomadic Education Policy and Basic Education Act.

v. Limited capacity to deal with persons with disabilities.

Box 1: Gender Education in Kenya

Kenya recognizes the right to education of all Kenyans at the highest legislative level – Chapter 4 of the Constitution embodies the Bill of Rights which affirms that every child has a right to free and compulsory basic education. The introduction of FPE in 2003 and the FDSE in 2008 helped Kenya to remarkably increase the access to education for both boys and girls. The primary education 2014 GERs for boys and girls were 115 and 114.2percent, almost equal, respectively. The completion rate for girls was 72.8 percent, slightly lower than 74.6 for boys. Learning achievement (EGR assessment or SACMEQ) records equal performance between the two genders. The seemingly gender equality at national level does not reflect challenges in girls education in the poor and remote parts of Kenya. A study on drop out and completion rates in the pastoralist Turkana county pointed to a significant gender gap. Boys had almost double the chance to be enrolled, and the transition rates for girls trailed far behind that of boys (Standard 4 - Girls' 50.5 percent; Boys' 72 percent; Standard 7 – Girls' only 34.4 percent and Boys' 66 percent). Barriers to education are increasing for girls by the time they reach secondary education. The barriers include: (i) schooling is in competition with survival needs; (ii) long distances to schools especially in ASAL areas; (iii) girls being an important source of labor and wealth; (iv) most parents when unable to meet the high direct costs of education would prefer to send the boys and withdraw the girls from schools; (v) early pregnancies, early marriages, female genital mutilation, sexual and physical harassments are persistent in some areas; and (vi) poor school infrastructure and lack of sanitation facilities.

Monitoring & Evaluation

57. The project will monitor the results at the intermediate/output levels and PDO level. The result targets will be cascaded to the school, sub-county and county level and will be reported by the implementing agencies. The national PCU will consolidate the project implementation and result reports every term and at the end of the school year. This report will cover the

implementation progress in terms of the outputs, procurement and disbursement. The report will also cover the actual values of the PDO and intermediate/output indicators. The report will analyze and identify the challenges and measures to address these challenges by each implementing agency and MoEST. This report will be shared with all counties and will be reviewed by the MoEST PS, the PSC and the World Bank. Project Mid-term review will be done no later than March 2017 and the Implementation Completion and result Report (ICR) will be done by September 2019.

58. The project will develop the monitoring capacity using ICT technology, building on the successful experience of PRIMR tablet-based real time monitoring. A central database will be set up and managed by MoEST. The database will contain (i) data on teacher classroom practices and continuous pupil assessment, uploaded by the TAC tutors in Component 1; and (ii) school level data on pupils, teachers and resources from the pilot schools in Component 2. ICT services will be provided to the PCU as well as TAC tutors and head teachers to ensure that real time data is being generated for project monitoring purpose.

59. In general, the project uses three major monitoring systems to gather data for the project indicators:

- Internal project data including procurement data will feed directly into the project M&E and provide information on several project intermediate indicators.

- Data from the integrated ICT real-time reporting system for both components 1 and 2. Teacher and classroom data collected and submitted by TAC tutors during their training of math teachers as well as schools visits for pedagogical support will be used for monitoring Component 1's intermediate indicators. School-level data submitted by head teachers of the targeted schools will be used to monitor several of Component 2's intermediate indicators.

- The project will also support independent third party assessments. This includes school visits to collect data on school management practices, to be used for monitoring both the PDO and intermediate indicators of Component 2.

60. In addition, two evaluations will be carried out to measure the impacts of Component 1 and Component 2 interventions.

61. The first evaluation will measure the improvement in mathematics competencies of Grade 2 pupils as the result - and PDO - of Component 1 through a cohort study. A sample survey of mathematics competencies of Grade 2 pupils will be conducted at the end of the 2015 school year (just before EGM is being rolled-out at the start of 2016) to provide baseline data. An end line survey will be conducted at the end of 2018 when at least one cohort of pupils and teachers will have completed both Grade 1 and 2 EGM interventions. The surveys will be nationally representative given the national scope of the intervention. However, since the intervention will focus on only 75 percent of all schools, the sampling methodology will be adjusted to be representative for both groups of schools with and without the full EGM intervention. In addition, schools which are selected for support under Component 2 might be able to implement EGM more effectively. In order to account for this effect, sampling for the

EGM assessment might also be stratified by whether or not the schools are selected for the pilot implemented in Component 2, cost permitting. Given the variations in project implementation, difference-in-differences analyses can be conducted to study three related questions: (i) Is there an improvement in basic EGM competency level after the intervention? (ii) What is the relative effectiveness of receiving the full intervention compared to receiving textbooks only? (iii) Is EGM more effective together with school management intervention? Unquestionably, the caveat is that the schools are very different in their initial performance so differences in their improvement might not be attributed entirely to the program impact.

62. Besides the national assessment to monitor the PDO outcome indicators relating to Component 1, mathematics outcomes for Grade 3 and Grade 6 will be tracked to understand the impact of the EGM intervention beyond Grade 2. The premise is that improved fundamental math skills in Grade 1 and 2 will have a positive impact on pupils' ability to acquire higher order math competencies later in the primary cycle. Grade 3 assessments in 2015 and 2018 are built in internally in the project as part of Component 3. Meanwhile, SACMEQ IV is under implementation and conceivably in a later year when the cohorts under EGM intervention will have reached Grade 6. Results from these national assessments will allow a more complete picture of the lasting impact of improving EGM competency.

63. The second evaluation will help measure the higher order objectives of Component 2. The primary outcomes to be considered are retention, completion and learning achievement. Two existing administrative data systems, EMIS[16] and KCPE scores, will help measure these outcomes. In addition to evaluating the overall impact of the school management and school grants package, heterogeneous impacts based on the per capita grant amount will also be considered. This result can be used to inform Kenya's policy on what an optimal capitation amount might look like. The impact of the intervention will be assessed by comparing the outcomes among the schools with and without the intervention. The selection strategy of Component 2 allows for a rigorous impact evaluation since low performing and disadvantaged schools are first targeted and then within this pool of targeted schools, schools are randomly selected to receive the project support. Therefore, we have a control group with similar characteristics to the selected schools so that improvements in their outcomes can be credibly attributed to the intervention's impact. In addition, EMIS data available to all schools will include information on school characteristics to be used as control variables. Finally, to supplement the quantitative analysis, a qualitative analysis will also be conducted among the targeted schools to assess how their outcomes might change with the level of stakeholder engagement in decision making and their resource allocation decisions.

64. Below is the targeted and randomized selection of schools to participate in Component 2. A treatment group (4000 schools) is selected from the pool of 5833 low performing schools in all counties. The control group (1800 schools) in this pool is not assigned to receive the project support. The balance tests show that the treatment and control groups are not statistically different with respect to their major characteristics such as school enrolment, pupil-teacher ratio and KCPE score.

[16] It is expected that Component 3 of the project, which supports EMIS data collection and dissemination through a revised EMIS data format will yield significantly higher response rate. Therefore it is expected that EMIS data coverage will become significantly more complete beginning in 2015.

Table A3.8: Targeted and randomized selection of schools to participate in Component 2

	ttest				**Kolmogorov-Smirnov test** p-value(distribution equality test)
	Treated	Control	Difference	p-value	
Enrolment 2014	431.54	434.53	-2.99	0.71	0.71
TSC teachers 2014	9.83	9.74	0.09	0.52	0.78
PTR 2014	45.39	45.65	-0.26	0.69	0.79
KCPE 2012-2013	208.29	209.13	-0.84	0.10	0.16

65. Timing of the interventions: Implementation will commence in 2015. After the preparation, the schools will have 3 full years to implement their School Improvement Plans (SIP) before their performance will be evaluated. The detailed timeline is provided in the PIM.

Appendix 1 to Annex 3: Disclosure Management Framework

I. Introduction, Scope and Purpose

1. The MoEST is fully committed to ensuring transparency and accountability under the Project. The MOEST has developed this Disclosure Management Framework, in consultation with the Association, to enhance transparency and accountability in the implementation of the Project. The key issues and related agreed actions are set out below.

Table A3.9: Disclosure Management Framework

Issues	Agreed Actions	Implementation timeline	Person/Agency Responsible for Implementation
I. Disclosing information and increasing oversight by the civil society	(i) Making the following information publicly available on the MoEST website and on school notice boards as appropriate: (a) information relating to physical and financial progress along with planned delivery period, and statement on quality of products, and the reasons for delay in delivery, if any, under each contract awarded on the basis of ICB/NCB procedures. Such information to be made available within 30 days from the end of each calendar quarter on MOEST website; (b) FM and Procurement information relating to disbursements of school grants to be disclosed on "noticeboards" at school level and on the MoEST website. (c) quarterly interim un-audited financial reports within 45 days from the end of each calendar quarter on MoEST website; (d) all general and specific procurement notices, expressions of interest, requests for proposals, ICB/NCB documents and addenda/corrigenda to bids. All such information to be promptly disclosed in accordance with PPDA and Bank procedures; (e) Annual progress reports (Physical and financial progress) and mid-term review reports to be disclosed on the MoEST website within 30 days after such reports are prepared.	Implementation to start immediately after Project effectiveness	MOEST and other implementers

Issues	Agreed Actions	Implementation timeline	Person/Agency Responsible for Implementation
	(f) Audited financial statements in line with the World Bank Access to Information Policy.		
II. Handling procurement complaints	(ii) Handling complaints relating to procurement, fraud and corruption in accordance with GoK and Bank procedures; (a) A procurement complaints monitoring database shall be maintained and a toll free call-in facility will be established for registering complaints; (b) Disclosing the system pursuant to (a) and (b) above respectively on the website of MoEST; (j) Submitting quarterly reports to the Association on (a) and (b) above.	To be implemented from project effectiveness. To be implemented from project effectiveness To be implemented from project effectiveness Reports to be submitted within 30 days from the end of the quarter.	MoEST/other implementers MoEST/ other implementers MoEST

ANNEX 4: OPERATIONAL RISK ASSESSMENT FRAMEWORK (ORAF)

Kenya: Primary Education Development Project

Risks

Project Stakeholder Risks						
Stakeholder Risk	**Rating**	**Substantial**				
Risk Description: The primary stakeholders are students, teachers, teacher educators, School Management Board and County Education Board members, parents and communities; and other National government counterparts. There is a risk that changes meant to impact these stakeholders (e.g., increased teacher presence and levels of competence, improved classroom practice and learning, increased management oversight for service delivery) may not be fully realized. The education sector is characterized by strong teachers' unions that defend the corporate interest and make reform implementation difficult.	Risk Management: a) The project is developed in a participatory way to ensure that feedback from all stakeholders is integrated into the project design. The teacher appraisal system will be carefully crafted to be fair and supportive of teacher professional development and career path growth. b) The communications strategy will be an important element to ensure all stakeholders are aware of the project objectives, the design and their roles in this. In the course of project implementation the project beneficiaries will be kept informed on the project progress in achieving the results. c) Capacity development at various levels has been prioritized in the project design to ensure quality and timely project implementation. Specialized technical assistance will be provided at national and local levels (county, school, etc.,). d) Other related mitigation measures related to capacity, devolution, governance and operating environment are listed in the various sections below.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent ✓	Due Date:	Frequency CONTINUOUS
Implementing Agency (IA) Risks (including Fiduciary Risks)						
Capacity	**Rating**	**Substantial**				

Risk Description:	Risk Management:					
(a) As project management will be mainstreamed through MoEST, there is a substantial risk that MoEST lacks technical, managerial and M&E to ensure satisfactory project implementation capacity. (b) Capacity at county/sub-county level to oversee schools that will participate in the project is moderate due to logistical and staffing challenges. School level management capacity is weak resulting in challenges to implement school based activities. (c) There is a risk that the fiduciary capacity and oversight functions will not be sufficient. (d) Procurement and Financial Management capacity has been built overtime but remains weak.	(a) In addition to provision of some training for implementing staff, the use of external local consultants when necessary will be used to enhance the capacity within the Ministry and within the program. Provision of technical assistance to human resource requirements will be identified through technical and fiduciary assessments and provided to strengthen key implementing departments in MoEST. Stakeholders' capacity to monitor service delivery, especially pertinent to the project activities, will be enhanced through timely sharing of information and stakeholders' involvement in project monitoring and evaluation. (b) The project components will support building capacity for (i) school board of management and school leadership in strategic planning and management at the school level; (ii) counties/sub-counties in providing increased number of school audits and timely EMIS data; and (iii) MoEST functional departments in improving accountability and result monitoring. (c) A monitoring and evaluation specialist is to be utilized to develop processes for external and internal monitoring, evaluation findings and to implement the monitoring and evaluation framework for the project. (d) Government has introduced new measures including more robust cash controls such as no group imprests, opening of bank accounts by vendors/staff for payments and no cash payment to training venues. The rollout of IFMIS at Ministry and County level has improved financial reporting. The Government has introduced CBK Gpay system with a better audit trail. The integration of school based auditing mechanisms will help to strengthen stakeholder accountability in support of improved education outcomes. The Government has also substantially implemented the Governance and Accountability action plan including some capacity building training, improved records management and some enhanced accounting capacity in the ministry. Further areas to be improved under the project include (i) accounting (MoEST will designate a full-time dedicated qualified and experienced accountant & project assistant for PMU and project accountants for KNEC & TSC), ministry budgeting and financial reporting (SOE method will be used for disbursement of funds); (ii) internal controls including social accountability/school based management, external and internal audits, and funds flow; (iii) introducing additional FM mechanism/ measures for decentralized expenditures (updating FM procedures manuals, development of FM Manual for the Project, capacity building training for school heads, etc.,). (e) A detailed procurement assessment has been undertaken to assess the MoEST's capacity to take on World Bank project requirements and suggest necessary arrangements for project procurement activities, among which are as follows: (i) 2 procurement staff, fully dedicated to Project, to be assigned by MoEST; (ii) Project Procurement Guide developed; (iii) establishment of separate tracking system for Procurement Plan implementation and processing of payments to suppliers and service providers; and (iv) ensuring joint conduct of procurement audits by PPOA and financial audits by KENAO.					
	Resp: Client	Status: In Progress	Stage: Both	Recurrent ✓	Due Date:	Frequency CONTINUOUS
Governance	**Rating**	**High**				

Risk Description:	Risk Management:					
There is a risk that devolution might complicate decision-making and accountability within project activities. While there is a good ownership at the national level within the MOEST, there is a risk of lack of ownership by other institutions and stakeholders. Lack of resources and low capacity for oversight functions by schools.	(a) The project design has tried to focus the interventions at the school level, which is the target audience of both MoEST and TSC. (b) The MoEST Principal Secretary, the CEOs of TSC and KNEC will jointly oversee the project implementation and result monitoring. At the sector level, a NESP Steering Committee chaired by the Cabinet Secretary of the MOEST and comprising relevant Directors within the ministry and members of the local education group has been established to monitor NESP implementation. (c) Other agencies and stakeholders have been involved throughout project preparation to ensure the project design is based on experience and is owned, as much as possible, by all relevant stakeholders. The project will support proactive communications activities to keep all agencies and stakeholders informed and to encourage feedback. (d) Embedded in the project design is attention also to the School BoMs, and greater involvement of parents/ community for oversight of service delivery/social accountability at local schools. The proposed interventions under component 2 aim at building capacity and strengthening school management for improving service delivery and school performance.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent ✔	Due Date:	Frequency CONTINUOUS
	Risk Management: a) Comprehensive FM Analysis and Institutional Assessment have been completed. As part of this work, the team has reviewed what is needed to mitigate the risks of fraud, error and corruption. b) Action plans will be developed to reduce exposure to fraud and corruption by strengthening internal controls with a particular attention to fiduciary risks involved with procurement of books/teaching materials and large scale training and operating expenses related to EGM component. c) The project includes an institutional strengthening component for school administrations. The project will also support social accountability measures through the participation of School Boards of Management to oversee the implementation of the school improvement plans at the school level.					
	Resp: Client	Status: In Progress	Stage: Both	Recurrent ✔	Due Date:	Frequency CONTINUOUS

Project Risks						
Design	**Rating**	**Substantial**				
Risk Description: The pilot EGR/M (PRIMR) and the scaling up of EGR (TUSOME) is managed by external agencies and not yet mainstreamed into the education system of Kenya. Coordination of the TSC's and MoEST's roles in teacher management and professional development, especially with regard to TAC tutors support is unclear and may pose a risk of effective implementation of Component 1. Current system of primary education financing in Kenya is input-based, hence schools/ counties/MoEST are not familiar with result-based financing approach.	Risk Management: a) EGM roll-out is designed in close collaboration with EGR (TUSOME) to ensure alignment of activities, especially at the school and sub-county levels. b) The team, led by EGM Coordinator (TA) and comprising representatives from TSC, CEMASTEA, KICD & KNEC will be set up to oversee the implementation of the EGM scale up. At the county level the EGM Focal Point will be designated to work with county education and county TSC office staff to coordinate the training of TAC tutors, head teachers and teachers. c) The Bank will provide intensive training and support to ensure that Component 2 and 3's implementation will be carried out beyond inputs with a focus on results being delivered at school and national level.					
	Resp: Both	Status: In Progress	Stage: Implementation	Recurrent ✔	Due Date:	Frequency CONTINUOUS
Social and Environmental	**Rating**	**Moderate**				

Risk Description: Inadequate information sharing could lead to a risk of tensions among stakeholders concerned with vulnerable and marginalized groups, thereby affecting project implementation. Given nation-wide implementation of the project activities OP4.10 “Indigenous People” is triggered. The environmental risks associated with the Project are assessed to be low.	Risk Management: a) Regional and national level consultations have driven the project design. Further consultations will continue throughout the project implementation lifetime. A communication strategy will be developed to inform stakeholders of the project objectives, roles and responsibilities of different stakeholders. There will be a provision for addressing complaints or concerns that may arise in a systematic manner through the VMG management framework. Project implementation will build on these arrangements and coordination undertaken among stakeholders particularly through the technical and the steering committees as well as other communication structures which reach out to County and community levels. b) Following best practice documented in the World Bank’s policy on Indigenous Peoples (OP 4.10), the Government of Kenya prepared a Vulnerable and Marginalized Groups Framework (VMGF) to ensure that the project design process fully respects the dignity, human rights, economies, and culture of vulnerable and marginalized people and that the project has broad community support from the affected vulnerable and marginalized people. Furthermore, the Project is expected to make a significant contribution to vulnerable and marginalized groups of students through the interventions targeted at disadvantaged children under Components 1 & 2. c) The Project doesn’t include any civil works and thus no environmental issues are expected. No land acquisition or resettlement activities are envisaged in the Project. However an ESMF has been prepared to mitigate against any issues that may arise from school grants and/or disposal of electronic equipment during implementation.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent ✓	Due Date:	Frequency CONTINUOUS
Program and Donor	**Rating**	**Moderate**				
Risk Description: Although all major development partners support the Project, the division of responsibility and coordination across various initiatives needs regular follow-up to ensure good coordination and synergy and reduce the risk of any duplication or neglect of key areas.	Risk Management: a) The project design has built upon evidence based on the existing ongoing or completed initiatives by the development partners in country. A mapping has taken place of all donor initiatives and this will be updated and discussed at local education group meetings as needed. b) A number of consultations through workshops with participation of the GoK counterparts and development partners have been conducted to scope the details of the project design and ensure coordination and incorporation of lessons learned across various current initiatives, led by the Government and development partners. c) The dialogue between Government and development partners supporting respective projects/pilots is positive enabling informed design of the GPE project to avoid duplication or neglecting the key areas prioritized in NESP. d) Regular coordination led by the LEG Coordinating Partner between education sector donors through regular meetings and sharing information will also help reduce uncoordinated interventions between all partners. The local education group has meetings regularly (i.e., once a month) with a smaller group of the 5 core partners (including WB) meeting as needed to discuss any issues and to ensure harmonization. e) In addition, annual joint sector reviews involving all education donors and the Government will further strengthen donor harmonization and reduce risk.					
	Resp: Both	Status: In Progress	Stage: Both	Recurrent ✓	Due Date:	Frequency CONTINUOUS
Delivery Monitoring and Sustainability	**Rating**	**Substantial**				

Risk Description:	Risk Management:					
(a) With the low capacity to analyze and utilize data, it is a risk that adequate monitoring data will not be regularly provided. (b) With the current GoK budgets mostly covering the core regular operations there is a risk that the project activities may be dependent on donor funding	a) The project will support the GoK efforts in making the primary education data more available (especially at school level), as well as reliable and integrated. The working group has been set up to scope the detailed design of the proposed interventions, building on existing systems and integrating technology and ensuring data coherence and consistency across different GoK stakeholders responsible for collecting, analyzing and processing the data as well as with other levels of education. The project result framework will be monitored by the implementing agencies, MoEST and external evaluation. b) Core activities related to improving foundational numeracy learning and system strengthening (including school management boards, country education boards, service delivery to all including disadvantaged groups) are all reflected in the NESP and there is Government commitment to work on these areas to achieve core results. While donor funding is needed to do some of these additional improvement activities, there are also ongoing discussions to see how these can be mainstreamed into the Government budget over the longer term. The aim is to build the system to be more sustainable including attention to policies needed, budget, staffing and institutional arrangements.					
	Resp: Both	Status: In Progress	Stage: Implementation	Recurrent ✓	Due Date:	Frequency CONTINUOUS

Overall Risk

Implementation Risk Rating: Substantial

Risk Description:

The Substantial rating of implementation risks is based on the following three main risks. First, the education sector is characterized by strong teachers' unions that defend the corporate interest and make reform implementation difficult. Second, capacity at county/sub-county level to oversee schools that will participate in the project is moderate due to logistical and staffing challenges. School level management capacity is also weak resulting in challenges to implement school based activities. Though fiduciary capacity has been built over time, it remains weak. There is also a risk of a lack of capacity in MoEST to ensure satisfactory project implementation. Third, there are risks that ongoing devolution might complicate decision-making and accountability, and lack of resources and low capacity for oversight functions of schools may pose governance risks.

ANNEX 5: IMPLEMENTATION SUPPORT PLAN

Kenya: Primary Education Development Project

Strategy and Approach for Implementation Support

1. The strategy for implementation support (IS) takes into account the varying capacities of the implementing agencies involved, the nature of supported Project activities and the risk profile of the Project. It aims to make the implementation support to the client more flexible and efficient and focuses, in addition to, strong technical support, on the risk mitigation measures defined in the ORAF.

2. Providing adequate support to the client during implementation will form the main thrust of the supervision strategy for the Project. In addition to providing strong technical guidance, this will include a focus on strengthening the monitoring and evaluation systems; including the use of third party monitoring mechanisms. Supervision will include: (i) Joint Review Missions every six months; (ii) regular technical meetings and field visits by the Bank in between formal joint review missions; (iii) Implementing Agency reporting based on internal monitoring; (iv) independent third party verification; and (v) internal audit and FM reporting.

3. The Bank, together with the Implementing Agencies will formally review Project implementation semi-annually (September and February). More frequent visits are expected in the initial two to three years of the Project to first, initiate the implementation of the key reforms and also to ensure that the Project is steered in the right direction. The joint review missions will be complemented by regular visits and technical missions from the Bank's Country Office based task team.

Implementation Support Plan

4. The key members of the Bank task team will be based in the Kenya Country Office. Technical experts with math and pedagogy expertise, implementation experts, monitoring and evaluation experts and EMIS experts will be brought in from time to time.

5. The main focus of implementation support is summarized in Tables A5.1 and A5.2.

Table A5.1: Skills needs for the Project

Time	Focus	Skills Needed	Resource Estimate	Development Partners' Role
First twelve months	Technical support	Numeracy and literacy skills combined with pedagogy skills M&E	Quality and Pedagogy Specialist (10 weeks)	USAID supported TUSOME will provide technical support on pedagogy, TAC Tutors and teachers training.
	FM and Procurement Training	FM and Procurement Specialists	40 weeks	Development Partners will provide support for fiduciary capacity building and monitoring.
	M&E Support	M&E Specialist	M&E Specialist (10 weeks)	UNICEF will provide technical support on M&E.
	Project planning and management	Project planning and management	Implementation Specialist/Operations Officer (20 weeks)	DfID will provide technical support for capacity building on project management.
	Team leader	Team Management	TTL (18 weeks)	
	Safeguard Specialist	Social and environmental knowledge	Safeguard Specialist (2 weeks)	
12-48 months	Technical Support	Quality and pedagogy	Technical experts (30 weeks)	USAID supported TUSOME will provide technical support on pedagogy, TAC Tutors and teachers training.
	Implementation Support	Planning and implementation	Implementation Specialists (45	DfID, AFDB, and DFATD

			weeks)	will provide technical support for capacity building on project management.
	M&E Support	Monitoring and evaluation	M&E Specialist (15 weeks)	UNICEF will provide technical support on M&E.
	Financial management, disbursement and reporting Support	Financial management	FM Specialists (8 weeks)	Development Partners will provide support for fiduciary capacity building and monitoring.
	Procurement Management	Procurement	Procurement Specialist (8 weeks)	AFDB, will provide technical support on procurement
	Team Leadership	Team management	TTL (45 weeks)	
	Safeguard support	Social and environmental	Safeguard Specialist (6 weeks)	

Table A2.2: Summary of Skills Mix Required Annually

Skills Needed	**Number of Staff Weeks**	**Number of Trips**	**Comments**
Task Team Leader	16 weeks	As required	Country Office (CO) based
Implementation Specialist	16 weeks	As required	CO based
Technical Specialists - Education (Mathematics, school-based management, etc.)	10 weeks	As required	International
Procurement	7 weeks	As required	CO based
Financial management	7 weeks	As required	CO based
M&E Specialist	6 weeks	As required	International
Safeguard Specialist	2 weeks	As required	CO based

ANNEX 6: ECONOMIC ANALYSIS

Kenya: Primary Education Development Project

1. This Annex attempts to evaluate the project's development objectives from an economic perspective by addressing these key questions: (i) Do the expected benefits from the project development impact outweigh the project investment costs? (ii) Is public sector financing the appropriate program? (iii) What is the World Bank's value added?

2. The project essentially aims to increase schooling and learning quality from several fronts. The first component directly aims to improve foundational skills in mathematics for early grade pupils. The second and third components target management effectiveness at the school and national levels and are expected to eventually improve school completion and learning achievement. Economic studies have documented that these improvements have the potential to lead to significant individual benefits through higher later life earnings and better social outcomes. Importantly, growing evidence from the literature suggests that it is not education per say but learning and the skills attained that are central to both individual success as well as national economic growth and income distribution (Heckman 2008; Hanushek and Kimko, 2000; Barro, 2001; Jamison et al., 2007; Hanushek and Woessmann, 2008, 2011, 2012).

3. While it is not possible to quantify the true economic values of the project, a more limited analysis with conservative assumptions about its benefits suggests that the project is economically sound. The analysis below first discusses the potential impact of the first component and its cost effectiveness in improving EGM competency, relative to other alternative programs. The second section describes a cost-benefit analysis of Component 2, which focuses largely on labor market benefits due to improved school completion rate. The analysis suggests that the first component yields a CER of $2.31 per 0.1 standard deviation gain in basic math competency. The second component is economically viable based on an estimated NPV of US$164.1 million and an IRR of 32 percent. Sensitivity analysis suggests that Component 2's economic net benefit is still substantial under more conservative assumptions.

4. Public financing is justified on grounds of market failures and equity:

- Education investments are characterized by significant positive externalities. Individual investment decisions do not take into account the wider social benefits such as benefits from lower crime, reduced fertility, more active political participation and the potential to increase the economy's productivity, innovation capacity and long-term economic growth. In addition, credit constraints and lack of information on school quality or returns to schooling can prevent individuals from making even profitable private investments in education.

- In Kenya, public provision of education still plays an important role despite a growing private sector. Education inequality is pervasive, coupled with falling learning achievement in public schools, suggesting the needs for intervention in the public sector. By targeting the lowest performing schools and the most fundamental skills in early grade mathematics, this project is expected to help address this inequality problem directly.

5. The World Bank can add value to the project through long-term engagement in the Kenyan education sector. The current project supports key pillars of the NESP and experiences and lessons learned from implementing this project will be valuable for further formulation and implementation of the next education strategy. The World Bank can also draw on technical knowledge and lessons learnt from similar interventions across the region to support this project (for example, Tanzania and Uganda are on their way to implement similar interventions on EGM and EGR).

Component 1: EGMA cost effectiveness

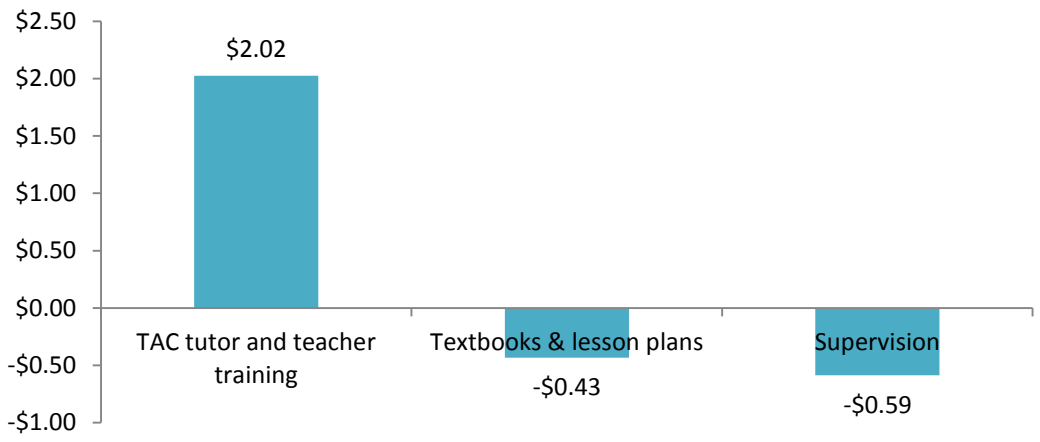
6. The first component of the project aims to improve EGM competency, supporting a key strategy of the NESP to improve foundations of learning. The choice of the PRIMR framework is based on growing evidence that a coherent instructional model, combined with materials, teacher training and in-classroom teacher support, can improve early grade learning in even low performing schools (Friedman at al. 2010, He at al. 2008 and 2009, Piper and Mugenda 2014).

7. In Kenya, there have been various initiatives aiming at improving early grade literacy and numeracy (see the Sectoral Context). However, rigorous evaluations currently exist for only two programs. The first is PRIMR and the second is the "Reading to Learn", RTL, model implemented by the Agha Khan Foundation. RTL has been found to have some modest impact on reading skills but zero impact on numeracy outcomes (Lucas et al. 2013). In contrast, PRIMR appears to have significant positive impact on both reading and mathematics skills even within relatively short timeframes. Given this limited evidence, PRIMR is the preferred model if one's objective is to increase early grade mathematics competency. Moreover, tentative evidence from comparing different components of the PRIMR intervention suggests that the positive gain in learning outcomes requires the full combination of teacher training, pupil books and structured teachers' guides (Piper and Mugenda 2014b).

8. Specifically in mathematics, the PRIMR pilots in two different groups of urban and rural schools are found to increase pupil's test scores by around 0.2 standard deviations within one year of effective implementation (Piper and Mugenda 2014a, 2014b). Since a benchmark for basic math competency is not yet available, we assume that the project will increase pupil performance by 0.1 standard deviations in terms of average test scores for the purpose of estimating a CER. This assumption takes into account implementation difficulties which will reduce the effectiveness observed in the pilot even as we expect three years of EGMA intervention.

9. The project does not work as an add-on to the current MoEST teaching model but rather replaces the system with new textbooks, teaching materials, and teacher training and instruction methods. Therefore, incremental cost per pupil is estimated based on the difference between project investment cost and the MoEST system costs as budgeted in the KESSP and extrapolated from Piper (2013). This assumes that there are no further costs incurred by the pupils, parents or teachers such opportunity costs of meeting time under the program. This is a reasonable assumption since additional teacher's activities are compensated for and there are no requirements on the pupils or parents side. The differences in the main cost components are plotted in Figure 8. The main differences are due to cheaper textbooks and supervision costs but increased teacher training cost under the project. The total incremental cost per pupil is $2.31.

Figure A6.1: Per capita cost differences between EGM intervention and current MoEST's system



10. As a result, the CER of the EGM intervention is $2.31 per pupil per 0.1 standard deviation gain in mathematics test scores. Data do not currently exist for other programs aiming at improving EGM competency in Kenya. Therefore, PRIMR is the only proven model that effectively raises mathematics competency in early grade pupils. Compared to data from other impact evaluation programs, our estimated CER suggests that the PRIMR model is significantly more cost-effective than many alternative interventions such as improved textbook or scholarship provisions at improving pupil overall test scores.[17]

Table A3.1: Comparison of Alternative Interventions

Program	Cost per Additional SD test score
Minimum conditional cash transfers, Malawi	$1,667.43
Girls Scholarships, Kenya	$72.26
Village-based schools, Afghanistan	$47.05
Providing earnings information, Madagascar	$0.85
Textbooks for top quintile, Kenya	$28.06
Read-a-thon ,Philippines	$85.07
Individually-paced computer assisted learning, India	$64.46
Extra contract teacher + streaming, Kenya	$50.74
Remedial education, India	$32.59
Streaming by achievement, Kenya	$2.87
Contract teachers, Kenya	-$334.54
Teacher incentives (year 2), Kenya	$15.90
Camera monitoring, India	$43.90
Electing school cmte & linking to local govt, Indonesia	$7.50
Linking school cmte to local govt, Indonesia	$2.89

Source: Poverty Action Lab, http://www.povertyactionlab.org/policy-lessons/education/pupil-learning?tab=tab-background

[17] These CERs are nevertheless not strictly comparable since the outcomes reported are overall test scores, not EGM scores.

Component 2: NPV from higher primary completion rate

11. Component 2 aims to strengthen governance, management and accountability at the school level through pilot interventions implemented at a selected set of disadvantaged schools. The overarching objective is to improve learning conditions and learning achievement. One expected tangible end result is to increase primary completion rate. Given certain assumptions, a cost benefit analysis can be conducted for this outcome.

12. **Streams of benefits and costs**: Benefits from Component 2 are assumed to come from increased labor productivity, as reflected in earning premium, for those who successfully complete primary school *due to the project*. The costs incurred to produce the increased level of schooling include the project investment cost, public expenditures on education of those staying longer in schools, and the associated private costs which include direct household expenses and the value of pupil's time while going to school. In addition, project implementation and management cost are included proportionally to the investment size of this component.

13. **Benefit assumptions**: We assume that under the project, the PCR among the targeted schools will increase from 75 percent in 2013 to 80 percent in 2018.[18] Since retention rate remains very high until Std 6, we assume that most of the impact in increasing completion rate occurs at Std 7 & 8. That is, we assume the impact of the project is to increase the percentage of primary graduates among those who would have dropped out after Std 6 otherwise. Further, given the timing of the interventions, we assume that this benefit will occur after the end of the project in 2018, and ends 7 years after the project when the last cohort to be affected by the project will have left primary school.

14. Estimations of the private economic returns to primary education are based on household survey data from the 2006 KIHBS. We estimate a Mincerian (1974) wage premium regression of log wage on education levels, controlling for age, gender, and urban/rural indicator. This approach implicitly assumes that wage premium reflects the marginal benefit of increased labor productivity due to education. Therefore, if the labor market is not fully competitive, the premium underestimates the impact of increasing education attainment on labor productivity. The results are presented in Table A6.2. It is estimated that the wage premium associated with primary education is 32.6 percent relative to those who did not complete the primary cycle. These results translate to a relatively low rate of return for those with incomplete primary education. However, additional schooling towards the end of the primary cycle gains a disproportionally higher return rate of 16.3 percent per annum, justifying the need to invest in improving learning achievement and completion rate.

[18] Overall completion rate is 80% in 2013 (official MoEST data). Since these are lower performing schools, we assume completion rate to be 75%. Essentially, our assumption is equivalent to a 5% in PCR and the results are not affected by the baseline PCR.

Table A6.2: Private returns to education

Level of education	Percentage wage increment, relative to incomplete primary education*	Additional years of schooling	Annualized returns
No formal education	-14.8		
Incomplete primary		6	2.5
Primary	32.6	2	16.3
Secondary	76.6	4	11.0
Certificate or diploma**	116.4	2	19.9
University or above**	241.3	4	41.2

Source: KIBHS 2006. (*) Coefficient estimates from Mincerian regressions of log wage on education levels, controlling for age, gender, and urban/rural indicator. (**) Annualized returns relative to secondary

15. Next, aggregate lifetime earnings are estimated as accumulating from age 15 to 64 for those who are employed. We assume that the extra primary graduates would have had the same employment rate as those in the KIHBS 2006 data, which averages 79 percent.

16. Number of beneficiaries: Given near universal access rate to Std 1, we assume that total enrolment in each grade is only affected by the increase in the appropriate school-aged population, which is assumed to be 2.97 percent and retention rate. Further assume that the schools targeted under the project have a similar size to an average school then enrollment in targeted schools is calculated as proportional to total enrollment by grade. The resulting number of additional (privately) employed primary graduates is the product of the number of Std 8 pupils affected by the project, times the increase in completion rate and employment probability.

17. **Cost assumptions:** Besides the project investment and management costs which are calculated based on the allocated budget, opportunity costs associated with increased schooling are assumed to be incurred for an additional 2 years per pupil who continues to stay in school. The specific assumptions for each cost component are as follow:

- Public unit cost of a pupil in primary school is based on MoEST data (Kenya Economic Survey 2014). It is calculated as total government expenditure per primary pupil in 2013/2014. This figure excludes teacher's salary. To supplement this information, teacher salary per pupil is calculated using (i) average monthly teacher salary as surveyed by KNEC[19], (ii) total number of primary school teachers from TSC, and (iii) total number of primary school pupils in public schools in 2013 from County Education Offices[20]. The overall public expenditure per primary pupil is estimated to be US$112.

- Annual household expenditure per child in primary public schools averages US$32 using KIHBS 2006 data.

[19] Bold et al. 2013

[20] Data on number of teachers come from Economic Survey 2014. The County Education Offices report a smaller aggregate number of students compared to the Economic Survey. This number is used to be conservative about the salary cost per pupil.

- Forgone earning: equivalent to annual earnings of an average worker with incomplete primary education, estimated as US$868 using the KIHBS 2006 data.[21]

18. **Net Present Value**: The discounted benefit and cost streams are calculated using a discount rate of 11.4 percent.[22] Table A6.3 presents the summary estimates of the net present values of benefits, the benefit-cost ratio and IRR. The NPV is estimated to be 164.1 million US$. The associated IRR is 32 percent suggesting viability of the project on economic basis.

Table A6.3: Base scenario NPV and Internal Rate of Return

Year	Discounted benefit	Discounted cost	Discounted net benefit
2015	0.0	16.2	-16.2
2016	0.0	13.9	-13.9
2017	0.0	8.8	-8.8
2018	0.0	13.0	-13.0
2019	46.7	9.8	36.9
2020	43.2	9.0	34.1
2021	39.9	8.4	31.5
2022	36.9	7.7	29.1
2023	34.1	7.1	26.9
2024	31.5	3.2	28.2
2025	29.1	0.0	29.1
Total	261.2	97.1	164.1
BCR	2.69		
IRR	32%		
NPV	164.1		

19. **Limitations**: There are several caveats with estimating the economic benefits of Component 2 through an NPV calculation of higher primary completion rate. This result first ignores the social benefits often associated with increased education attainment such as reduced fertility, reduced crime, increased women participation in household decision making, intergenerational effects, etc. Further, as mentioned above, our results underestimate the impact of increased labor productivity if the labor market is not fully competitive. We are also unable to take into account the impact of potential higher learning quality that goes beyond increasing completion rate on labor productivity. On the other hand, due to data availability, we could only estimate the wage premium using data from 2006. Given the potentially higher supply of primary graduates due to increased enrolment since 2006, labor market returns might have declined for this level of education.

[21] This ignores age effect and assumes they are would have been fully employed and therefore likely overestimates actual foregone earnings.

[22] Average inflation rate from 2008-2013. This is a very conservative assumption as the current inflation rate in Kenya is 5.7 and the average is driven by unusually high inflation rate in 2008. It is also higher than the standards of other Bank investment projects and is likely higher than the actual opportunity cost of capital in Kenya.

20. **Sensitivity analysis**: To take into account changing labor market conditions, we test for the sensitivity of our results to different assumptions on the rate of returns to primary education as well as its associated employment probability. The results are summarized in scenarios 1 and 2 in Table A6.4. Next, scenario 3 shows the result under a more conservative assumption on the project's impact on improving primary completion rate. Finally, scenario 4 assumes that schooling expenditures are 100 percent higher than under the base scenario to allow for possible increases in private as well as public costs of education such as teacher salary and capitation amount. The summary results from these scenarios suggest that the project would be still economically viable under substantially more conservative assumptions. However, the project's net benefit and IRR are relatively sensitive to changes in the private returns to education. This result resonates with recent analyses of labor market data in Sub-Saharan Africa, which highlights the importance of demand side policies to maintain the economic benefits of education.

Table A6.4: Sensitivity Analysis

Scenario	Change	NPV ($mil)	IRR
Baseline	PCR increases by 10%, rate of wage employment is 79%, wage premium to primary education is 32.6%	164.1	32%
1. Lower returns to wage employment	Wage premium for primary education is only 16.3%	33.5	9%
2. Lower wage employment rate	Employment rate is only 60%	133.4	28%
3. Less improvement in PCR	PCR increases by only 2.5%	64.3	18%
4. Higher schooling expenditure	Schooling expenditure increases by 100%	155.3	31%