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PROJECT PERFORMANCE ASSESSMENT REPORT

REPUBLIC OF GHANA

eGhana Project

Report No. 108359
NOVEMBER 17, 2016

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PROJECT PERFORMANCE ASSESSMENT REPORT

REPUBLIC OF GHANA

EGHANA PROJECT
(CREDIT NO. IDA-42260, IDA-47730)

November 17, 2016

IEG Human Development and Economic Management Department
Independent Evaluation Group

Currency Equivalents (annual averages)

Currency Unit = Ghanaian Cedi (GH₵)

2005	US$1.00	₵0.90
2006	US$1.00	₵0.91
2007	US$1.00	₵0.93
2008	US$1.00	₵1.05
2009	US$1.00	₵1.40
2010	US$1.00	₵1.43
2011	US$1.00	₵1.51
2012	US$1.00	₵1.79
2013	US$1.00	₵1.95
2014	US$1.00	₵3.21

ABBREVIATIONS AND ACRONYMS

BPO	Business Process Offshoring
CAGD	Controller and Accountant General Department
DANIDA	Danish International Development Agency
DFID	United Kingdom Department for International Development
EU	European Union
GASSCOM	Ghana Association of Software and IT Companies
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GhC	Ghanaian Cedi
GIFMIS	Ghana Integrated Financial Management Information System
GoG	Government of Ghana
GovNet	Government-wide Network
GRA	Ghana Revenue Authority
HRMIS	Human Resources Management Information System
ICR	Implementation Completion and Results Report
ICT	Information and Communication Technology
IDA	International Development Association
IEG	Independent Evaluation Group
IGF	Internally Generated Fund
IPPD	Integrated Personnel Payroll Database
ITES	Information Technology Enabled Services
ITU	Information Technology Union
KBI	Kumasi Business Incubator
KNUST	Kwame Nkrumah University for Science and Technology
M&E	Monitoring and Evaluation
MDAs	Ministries, Departments and Agencies
MMDAs	Metropolitan, Municipal, District Assemblies

MoC	Ministry of Communications
MoF	Ministry of Finance
NCA	National Communications Authority
NITA	National Information Technology Agency
OBI	Open Budget Index
P2P	Procure to pay
PAD	Project Appraisal Document
PEFA	Public Expenditure Financial Accountability
PDO	Project Development Objective
PFM	Public Financial Management
PIU	Project Implementation Unit
PPAR	Project Performance Assessment Report
PPP	Public Private Partnership
RGD	Registrar General's Department
RICs	Regional Innovation Centers
TIN	Tax Identification Number
TSA	Treasury Single Account
TTL	Task Team Leader
TRIPS	Total Revenue Integrated Processing System
WAN	Wide Area Network

Fiscal Year Government January 1 – December 31

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Principal Ratings

eGhana Project

	ICR*	ICR Review*	PPAR
Outcome	Satisfactory	Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Moderate	Moderate	Significant
Bank Performance	Satisfactory	Satisfactory	Moderately Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Moderately Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEGWB product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

eGhana Project

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IEG Mission: Improving World Bank Group development results through excellence in evaluation.

About this Report

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20-25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEG peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEG Rating System for Public Sector Evaluations

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: http://worldbank.org/ieg).

Outcome: The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Risk to Development Outcome: The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Preface

This Project Performance Assessment Report (PPAR) covers an operation implemented over the period FY07-FY15. The eGhana Project was approved by the Board on August 1, 2006, became effective on November 21, 2006 and closed on December 30, 2014. The project's development objectives were to: to generate growth and employment by leveraging information and communication technologies and public-private partnerships to: i) develop the information technology enabled services industry, and ii) contribute to improved efficiency and transparency of selected government functions through electronic government applications.

The Report presents findings based on the review of the Project Appraisal Document (PAD), the Implementation Completion and Results Report (ICR), Implementation Status and Results Reports (ISRs) and other relevant materials. In addition to project documents, information for this assessment was obtained from interviews conducted during an IEG mission in Ghana in June 2016 with officials of the Project Management Team, Ministry of Communication, Ministry of Finance, Ministry of Education, Ministry of Health, and Ministry of Agriculture; National Information Technology Agency, Ghana Revenue Authority, Registrar General's Department, Auditor General's Office, and Public Service Commission; members of the private sector, industry association and academia; and Bank staff. Interviews were also conducted in Washington with Bank staff.

The author would like to acknowledge the cooperation and support provided by staff of Project Implementation Unit, Bank staff in the country office and in Washington, and to all interviewees. Special thanks to Mr. Nelson Osae, Project Coordinator, Mr. Victor Adadjie, Monitoring and Evaluation (M&E) Coordinator, Ms. Veronica Boeteng, ICT Specialist of National Informational Technology Agency (NITA), and Dr. Baah-Adade, Ghana Integrated Financial Management Information System (GIFMIS) Coordinator from the Republic of Ghana for providing valuable information necessary to conduct this assessment. Special thanks also to Mr. Moritz Piatti (IEG) for providing extensive inputs and technical support in evaluating the design and implementation of Integrated Financial Management Information System.

The assessment aims first to serve an accountability purpose by verifying whether the operation achieved its intended outcomes. Second, the report draws lessons that are intended to inform the design and implementation of future operations on eGovernance and public financial management in Ghana and other countries in Sub-Saharan Africa and elsewhere. These lessons are intended to contribute to ongoing Bank efforts to innovate approaches to good governance.

Following standard IEG procedures, the report was sent to the government officials and agencies in the Republic of Ghana for review and comments. Their comments have been received and incorporated in this PPAR.

Summary

This Project Performance Assessment Report (PPAR) reviews the World Bank's eGhana Project, which was approved on August 1, 2006 at an original cost of XDR 26.90 million (US$40.0 million) from International Development Association (IDA) resources. Recipient's expected contribution was US$ 2.00 million. The Project became effective on November 21, 2006 and its expected closing date was March 31, 2012. The Project was restructured on May 27, 2010 for extending the project's closing date to June 30, 2014, and for providing additional financing of US$44.70 million for adding a new component on Ghana Integrated Financial Management Information System (GIFMIS) and to financing the additional needs of other components. The revised cost of the project became XDR 56.50 million (US$84.70 million). Development Partners, notably European Union (EU) and United Kingdom Department for International Development (DFID) also agreed to contribute co-financing of US$27.32 million for the GIFMIS component. The overall project cost, including donor contributions accordingly increased to US$ 113.73 million. There was a second restructuring of the Project done on May 7, 2014 for extending the project closing date to December 31, 2014 for completing unfinished activities. The Project closed on December 30, 2014, while disbursing XDR56.43 million (US$80.25 million) from IDA resources.

The eGhana project responded to the Government's request for support in implementing its agenda for Information and Communication Technology (ICT)-led growth. This project was based on sound analytical work and the Bank's experience in Ghana and elsewhere (including the ICT development project in Sri Lanka). The project development objective (PDO) was to assist the Government of Ghana (GoG) to generate growth and employment by leveraging ICT and public-private partnerships (PPPs) to: i) develop the IT Enabled Services (ITES) industry, and ii) contribute to improved efficiency and transparency of selected government functions through e-government applications. The Project had 4 components, namely: (1) Enabling Environment, (2) Support to Local ICT Businesses and ITES, and (3) e-Government Applications and Government Communications, and (4) GIFMIS.

The review finds that the PDO was highly relevant at the time of both appraisal and closing. At the time of project closing, the Ghana Shared Prosperity and Development Agenda 2014-2017 was in operation, one of the transformative objective of which was to create a significant number of quality jobs including that in ICT services. Under the Country Partnership Strategy (CPS) for fiscal years 2013-2016, one of the CPS outcomes under the pillar of improving economic institutions was to strengthen public financial management and improve eGovernance. The eGhana project objectives continue to be relevant in the preparation and implementation of the follow-on eTransform project and public financial management (PFM) reforms project.

The project's design is rated Modest. In the Project's result-chain, while the development of the ITES industry could have been expected to directly contribute to the objective of growth and employment, the contribution of improved efficiency and transparency of government operations to these objectives could not be expected to be direct and immediate. The results framework did not adequately capture the efficiency and transparency outcomes of funding eGovernment applications in the Ghana Revenue Authority (GRA), Registrar General Department (RGD) and eServices.

The efficacy of the first objective of generating growth and employment by leveraging ICT and PPP's to develop the ITES industry is rated Modest. All planned outputs for creating an enabling

environment for the development of the ICT sector and supporting investments in the ITES by local enterprises were achieved. The 'growth' outcome objective was also achieved. There was 8.1 % average annual growth rate of the Gross Domestic Product (GDP) during the project period in comparison to the 5.8 % baseline, and the average annual growth rate of ICT sector during the same period was 23.3 %. As regards the 'employment' objective, the ICR reported that the revised target value of 7,000 jobs was exceeded, with 8,700 jobs created in the ICT/ITES sector. However, the source of this employment data, Ghana Association of Software and Services Companies (GASSCOM), could not confirm this data.

The efficacy of the second objective of contributing to improved efficiency and transparency of selected government functions through electronic government applications was rated Substantial. The following outcomes were achieved for the selected government functions:

- Ghana Revenue Authority (GRA): The project automated the business processes of the GRA. As a consequence, transparency improved by a substantial increase in automated business registrations (87,900) and Tax-payers Identification Number (TIN) registrations (425,305). As an outcome, there was an increase in new taxpayers (estimated at 400,000) and Revenue collected through the Total Revenue Integrated Processing System (TRIPS) increased from 0 percent of the total tax collection in 2012 to 61.7 percent in 2015. The amount collected in taxes tripled between 2010 and 2015.

- Registrar General Department (RGD): The RGD automation system was established from December 2011 to November 2014 for the management and processing of company registration, Marriage Registration and Estate Administration. There was a quantum 55 % increase in company registration in 2012-13, which signified an increased efficiency of the RGD.

- eServices: The project provided support to the government in setting up different eServices – certified true copy of birth certificate, online marriage registration, company registration, criminal background check, finger print analysis, background check for visa and job applications, and marriage licenses. However, the percentage of beneficiaries using these eServices is very low at below 10 %. This is primarily because of low internet penetration, poor connectivity and lack of awareness among citizens.

- GIFMIS: The Project was successful in implementing GIFMIS covering the GoG funds, which accounts for about 66 % of total public expenditure. It comprehensively covers budget preparation, accounting and reporting of all GoG funds. However, its control feature is limited to expenditure on goods and services, external debt servicing, capital expenditure and other salary expenditure. It does not covers expenditure on wages and salaries (which are covered by the Integrated Personnel Payroll Database [IPPD]) and domestic debt servicing. GIFMIS also does not covers the Internal Generated Funds (IGFs), Statutory Funds, Extra Budgetary Funds and the Donor Funds. GIFMIS has contributed to the improved efficiency of the public financial management (PFM) systems as observed in the timely preparation of monthly financial reports and annual financial statements, effectiveness of expenditure commitment controls, reduction of audit observations, regularity of account reconciliation, effectiveness of payroll controls, and removal of arithmetic errors. On the objective of improving transparency, the Project didn't keep any benchmarks or targets. The review of Open Budget Index (OBI) as well as Public Expenditure Financial Accountability Assessment (PEFA) indicator no. 10 revealed that there was no significant change in transparency of PFM.

The project's efficiency is rated Modest. At appraisal, the project was expected to yield significant economic, social and financial benefits to Ghana. However, a calculation of financial rate of return and economic rate of return was not done at the appraisal stage. The GIFMIS component was added in project restructuring in 2010 but the additional financing paper did not estimate a financial and economic rate of return. There was no economic analysis done in the Implementation Completion and Results Report as well.

The quality of monitoring and evaluation (M&E) is rated Modest. There were significant design gaps. There was no PDO level indicator designed to measure improvement in efficiency and transparency of selected government applications. Internet and broadband penetration was one the binding constraints for the use of eGovernment applications, but it was not included in the Results Framework.

The risk to development outcomes is rated Significant. There is highly inadequate funding for the operation and maintenance of the Government Wide Network (GovNet[1]) and arrears have risen to a very high level. In absence of proper funding, there is a big risk of the GovNet collapsing which will impact all the e-Government applications and the GIFMIS.

The Bank's performance at entry is rated Moderately Satisfactory. The Bank adopted a consultative approach, which was particularly effective in establishing the legal framework for ICT and for charting the course for further development of the legal framework and implementation of e-government applications. The implementation arrangements were well designed and were integrated into the government structure. The deployment of PPPs in e-government was a major strategic decision, which led to efficiency and sustainability of eGovernment applications, besides being able to mobilize additional private sector investments. The Bank did not hold consultations with the private sector in finding out how the project could have helped them in generating higher production and jobs. The project was designed to develop eGovernment applications for the GRA, RGD and other eServices, but there were no PDO indicators to measure their impact on the PDO of improving efficiency and transparency. The M&E design was fraught with errors.

The Bank's performance at supervision is rated Moderately Satisfactory. The Bank supervised the project closely and after the mid-term review and the expansion of the project scale and scope, located the supervision team in Accra. The relocation of the supervision to Accra helped accelerate implementation during a challenging time for the project, in particular after the global crisis and during the contracting for the PPP. The project was successful in leveraging limited IDA resources to mobilize substantial additional resources for the National Data Center; GovNet; PPP for ICT applications; and GIFMIS. However, the supervision did not carefully monitor the development impact of the project. Donors, in particular the EU, were not happy with the implementation of GIFMIS and the Bank's task team. They felt left out by the Bank supervision team while they were the funding and managing partners of GIFMIS.

The Government Performance is rated Moderately Satisfactory. The Government was committed to the project throughout design and implementation. The government mobilized additional funds from other donors such as the Rockefeller Foundation and Google for complementary ICT sector activities. However, there are questions about the sustainability of the GovNet because the Government did not provision funds for its operation and maintenance. The Government also did

[1] GovNet is a Government-wide network covering all Ministries, Departments and Agencies (MDAs)

not consult with the private sector at the design stage and with donors at the implementation stage leading to their dissatisfaction.

The Implementing Agency Performance is rated Satisfactory. There were three implementing agencies, namely the Ministry of Communication (MoC), the Ministry of Finance (MoF) and the Controller and Accountant General Department (CAGD), all of which, were proactive in making course corrections and dealing with day-to-day implementation issues. The continuity of the team, with the key members remaining throughout the project aided in the implementation of the project. The financial management of the implementing agency was deemed to be adequate.

There were following major lessons from this project:

- It is important to include those activities in the project, upfront, which can directly and most effectively contribute to the achievement of project objectives. In the case of this Project, establishing Business Process Offshoring (BPO) centers and Business Incubation activities could have directly contributed to the PDO of growth and employment, and could have been included in the project design at appraisal.
- Although IFMIS is usually implemented as part of larger PFM Reforms Program in a standalone project under the Ministry of Finance, implementing it within an umbrella of an ICT project has distinct advantages of utilizing government's wide area network and technical manpower to initiate the digitization process.
- With projects involving creation of large infrastructure, there must be a commitment taken from the government to provide necessary funding and institutional support for their operation and maintenance. In the absence of this, the sustainability of project investments can be put to high risk. In the case of this Project, a Wide area Network (WAN) was created on which the eServices and GIFMIS operate, but the government did not make adequate budget provisions for its operation and maintenance. This has put on risk the entire WAN, which can collapse in a period of 2-3 years if the funding is not provided.
- The Project design must include activities to address the binding constraints to development objectives and indicators to measure them. In the case of this Project, eServices like birth registration, marriage registration, police verification, and company registration were started but they are being used by less than 10 % of all citizens for lack of internet penetration, connectivity and awareness among citizens.

1. Background and Context

Country Context

1.1 At the time of appraisal, Ghana had just emerged from an economic crisis and was beginning to register an impressive growth rate of 5.8 percent compared to a twenty year average of 4.4 percent. The GoG understood the urgent need to diversify its sources of growth in order to sustain this growth, as well as to reach its goal of middle income status by 2015. The Government's Second Growth and Poverty Reduction Strategy identified three strategic sectors that could transform the country, improve its competitiveness, and further expand its economic base. These included Information and Communication Technologies (ICT)-related services, agri-processing and tourism. The GoG emphasized the importance of ICT in achieving the country's objectives of diversified export-led economic growth, increased competitiveness and transparent, accountable and efficient government.

Project Context

1.2 To support this new growth agenda, the GoG adopted the *Ghana ICT for Accelerated Development Policy* as well as a pro-investment *National Telecommunications Policy*, and prepared laws to strengthen the regulatory body and environment, all of which were intended to make the telecommunications sector more competitive and provide a foundation for a robust knowledge economy. The GoG had got engaged in revamping its telecommunications legislations and had initiated work with the telecom/ICT industry on an e-legislation package with active private sector participation. The GoG recognized that ITES could include services like call centers, data entry operations, medical transcription, claim processing, etc., which could be provided domestically as well as overseas. Since the main opportunity for revenue and employment generation in the long term was in attracting offshore activities, the GoG had set a high aim of making Ghana the most preferred destination for BPO in African continent.

1.3 Despite the positive developments in the telecom/ICT sector, the following constraints held back the development of an IT Industry and prevented the deployment of IT enabled systems in key government services: (i) only 2.7 % of individuals were using internet; (ii) there was only one fixed broadband connection for every 10,000 inhabitants; (iii) the cost of international connectivity was high with an average price of $10,000 for a full circuit to the US or UK; (iv) there was lack of robust fiber network backbone infrastructure with national coverage; (v) the legal and regulatory framework was inadequate to provide confidence for private sector investment in national backbone infrastructure; vi) the country lacked the requisite human and physical infrastructure to promote ITES sector growth which in turn could generate employment; and, v) the government itself lacked technical skills, standards and infrastructure to drive the reform agenda. The GoG had requested support from the World Bank in implementing its agenda for the ICT-led growth.

1.4 The Bank had earlier provided significant technical assistance to the GoG for reforming the telecommunications sector prior to the eGhana project. The Bank's earlier support included: (i) privatizing the incumbent operator and introducing competition into the fixed market; (ii) creating the Regulatory Authority; and (iii) streamlining the licensing framework/validate licenses of operators. The Bank had also worked with GoG to undertake extensive analysis of the telecommunications and ICT sector potential, and identified remaining binding constraints to leveraging ICTs and ITES as potent sources of sustainable growth and transformational service

delivery in Ghana. The eGhana project had responded to the Government's request for support. This project was based on sound analytical work and the Bank's experience in Ghana and elsewhere (including the ICT development project in Sri Lanka).

2. Objectives, Design, and their Relevance

Objectives

2.1 The project development objectives (PDO) according to the Loan Agreement (Schedule 1, page 6) and the PAD, page 8, was "to assist the GoG to generate growth and employment by leveraging ICT and public-private partnerships to: i) develop the Information Technology Enabled Services industry[2], and ii) contribute to improved efficiency and transparency of selected government functions through e-government applications".

Relevance of Objectives

2.2 This objective was consistent with country's current conditions, Government's development plans, and the World Bank Group's country partnership strategy, both at the time of appraisal and at the time of closing. At the time of appraisal, the government's specific priorities regarding the ICT sector, as articulated in the Ghana Information and Communications Technology for Accelerated Development and the National Telecommunications Policy, had identified the need for making the telecommunications sector more competitive, and thereby providing the foundation for a robust knowledge economy. The objectives were consistent with the Country Assistance Strategy for 2004-2007 contributing to increasing income through developing knowledge intensive sectors and the Ghana Joint Assistance Strategy for the 2007-2011 working to create a conducive environment for a competitive ICT sector and lower cost for ICT services.

2.3 At the time of project closing, the Ghana Shared Prosperity and Development Agenda (2014-2017) was in operation. One of its objectives was to create a significant number of quality jobs, including in financial, technical and ICT services. The medium term priorities were set around seven thematic areas including: (i) ensuring and sustaining macro-economic stability, (ii) transparent, responsive and accountable governance. For ensuring and maintaining macro-economic sustainability, strengthening PFM policy was set out as an important action plan. The growth agenda continued and the policy interventions for the development of infrastructure was prioritized, among others, on ICT development. For transparent, responsive and accountable governance, the plan has set out two objectives: strengthen public sector management and oversight and improve the responsiveness of the public sector in service delivery. It envisages establishing a reliable public service-wide Human Resource Management Information System (HRMIS).

2.4 Under the CPS for fiscal years 2013-2016, the WBG supported GoG's efforts to: (1) improve economic institutions; (2) improve competitiveness and job creation; and (3) protect the poor and vulnerable. One of the CPS outcomes under the pillar of improving economic institutions was to strengthen public financial management and improve eGovernance.

2.5 The eGhana project objectives continue to be relevant in the implementation of the follow-on eTransform project and PFM reforms project. The eTransform project supports the next stage for a

[2] IT Enabled Services (ITES) defines that sector of the Information Technology industry which aims at providing various services, through the use of IT (including call centers, data entry operations, medical transcription, claim processing, etc.).

number of eGhana initiatives, including: i) the building of enabling environment for electronic government and business; and ii) scaling up of ICT applications to improve services in priority sectors like e-procurement, e-justice, e-parliament and e-immigration. MoC continues to be the lead GoG agency for the project and the same Project Implementation Unit (PIU) has the responsibility of project management. The PFM reform project is being implemented to follow up GIFMIS achievement and continue to support PFM reform agenda in Ghana. The project will contribute to enhancing fiscal discipline, strategic allocation of resources and service delivery efficiency, through strengthened systems and procedures and targeted capacity building.

2.6 The relevance of objectives is rated **high**.

Design

COMPONENTS

2.7 The Project had the following four components:

- **Component 1: Enabling Environment:** (estimated cost at appraisal: US$9.65 million, estimated additional financing cost US$1.35 million; actual cost at closure US$19.09 million). Activities in this component were planned at creating an enabling environment for the development of the ICT sector.

- **Component 2: Support to local business ICT Businesses and ITES** (estimated cost at appraisal US$9.46 million, estimated additional financing cost US$5.25 million; actual cost at closure US$4.96 million). Activities in this component were planned at encouraging the local IT enterprises to invest in the ITES Industry.

- **Component 3: E- Government Applications and Government Communications** (estimated cost at appraisal US$20.89 million; estimated additional financing cost US$9.66 million; actual cost at closure US$26.38 million). Activities in this component were planned to support the development of ICT in government operations and applications.

- **Component 4: Ghana Integrated Financial Management System (GIFMIS)** – This component was added following the additional financing (estimated cost at appraisal US$0.00 million, estimated additional financing cost US$28.44 million; actual cost at closure US$26.32 million. Estimated co-financing of US$32.14 million by donors; actual cost of co-financing at closure US$25.45 million. Estimated total financing of US$ 60.58 million; actual total cost at closure US$ 51.77 million. Activities in this component were aimed at improving the efficiency and transparency of government financial management functions using ICT based tools.

2.8 The cost allocation among different components changed during implementation, with the GFMIS receiving more than half the funds after the 2010 restructuring (see Appendix B, Table B.1).

IMPLEMENTATION ARRANGEMENTS

2.9 The MoC served as the project executing agency with overall responsibility for project management. The responsible implementing agency for the GIFMIS component, however, was the Ministry of Finance and Economic Planning. The MoC was supported by a PIU, which was led by a

Project Coordinator and comprised of selected MoC officers who were part of the eGhana Management Team. The eGhana Management Team covered functions of monitoring and evaluation, procurement management, financial management, disbursement, progress reporting and communication. For the day-to-day management of the GIFMIS component, a project component management unit was established in the CAGD, which worked under the direction and guidance of the PFM Reforms Steering Committee under the Ministry of Finance (MoF). The component management unit was led by a Component Coordinator and comprised of specialist teams related with Budget, Finance and Accounting, Treasury and Cash Management, Payroll, Technical, M&E, and Legal. The component management unit was supported by an outsourced team of technical and PFM specific consultants, on contractual basis.

MONITORING AND EVALUATION DESIGN

2.10 The PDO indicators at the Appraisal stage and at the Restructuring/ Additional Financing stage are presented in Appendix D, Table D.1.

2.11 At the time of Appraisal, PDO indicator no. 1 and 2 were designed to measure the impact on the objective of 'employment'. PDO indicator no. 3, 4, 5 and 7 were designed to measure the objective of 'growth'. PDO indicator no. 6 measured the satisfaction of users of eGovernment services; however, it could not have been a measure of either growth or employment, or of ITES industry. Indicators selected in the Results Framework to measure efficiency and transparency were not adequate to describe the objective of improving efficiency and transparency. . The indicators added for GIFMIS component measured processes and inputs, but not the project outcomes.

Relevance of Design

(a) Relevance of project design to the objectives:

2.12 The Results Chain between components and objectives are presented in Appendix D, Figure D.1. It can be seen from this that Growth and Employment were the higher order objectives. These were to be attained by developing the ITES industry and improving efficiency and transparency of government operations. The development of ITES industry was sought to be achieved by creating enabling environment (Component 1) and support to local of ICT Businesses and ITES (Component 2). An improvement in efficiency and transparency of government operations was sought to be achieved through the eGovernment application and government communications (Component 3) and the implementation of GIFMIS (Component 4).

2.13 In the Project's result-chain, while the development of ITES industry could have been expected to directly contribute to the objective of growth and employment, the impact of improved efficiency and transparency of government operations on growth and employment could not be expected to be direct. Although it is expected that with improved efficiency and transparency of government operations, there would be an improvement in public service delivery and reduction in leakages from the system, the impact on growth and employment would not be immediate. It would require sustained increase in efficiency and transparency over a period 4-5 years to have any significant impact.

2.14 If the growth and employment objectives were important, it was not reflected in the design of project activities at appraisal. While the impact of creating an enabling environment and support to local ICT businesses and ITES through capacity building could not have been expected to be direct and quick, one activity that could have had a direct and quick impact on growth and employment

was establishing BPO units and providing adequate ICT infrastructure and space to budding ICT/ITES companies for enabling generation of jobs and growth of ITES. One of the major constraints to the development of the ICT/ITES sector in Ghana identified during initial project preparation was the high cost and varying quality of communications and real estate infrastructure. This could have been addressed by setting up of a BPO unit. This could have also provided a forward linkage to business incubation, regional innovation centers (RICs) and capacity building activities that the project was engaged in. However, this was not included in the project design at the appraisal stage and was added only after the mid-term review. This delay costed the project of its potential impact on the growth and employment.

2.15 The relative prioritization among project components changed during project restructuring and the size of Component 2 on providing support to local businesses and ITES shrank from 24 % of the total project cost to 13 %. The actual expenditure on this component was only 5 %. This component was demand-driven and was to directly contribute to the growth and employment objective. With his change, the project ended up becoming a supply-driven and Government-led project.

2.16 One of the major issue ignored in the project design was the percentage of individuals having internet connections and the high speed broadband connections. This was crucial for enhancing transparency and efficiency through eGovernment applications. The trend in the percentage of individuals having internet connections is placed at **Appendix B**, which shows that at the time of appraisal, only 1.8 % of individuals were using the internet in Ghana[3]. This was lower than the Africa Region's average of 2.8 % and developing countries' average of 7.8 %. The fixed broadband connections were only 0.01 per 100 inhabitants. For the use of eServices, active mobile broadband subscriptions was an important factor affecting coverage and there were only 13.44 mobile connections per 100 inhabitants at the start of the project. Limited internet penetration also acted as a constraint to a true domestic ICT market development. These were the binding constraints for the use of eServices, but the project design did not capture this and activities were not designed to address this constraint.

2.17 GIFMIS was added as the fourth component in the project, instead of an independent PFM project, and was designed to contribute to the objective of improving efficiency and transparency of government functions. The design of GIFMIS was consistent with international best practice of sequencing the core treasury systems first, starting with government's consolidated funds. However, there was no comprehensive PFM Reforms Strategy within which GIFMIS could be placed.

(b) Quality of the Results Framework:

2.18 The Results Framework had a clear statement of objectives, linked to intermediate and final outcomes. The causal chain between funding and outcomes was broadly clear and convincing; however, the results framework did not capture the efficiency and transparency outcomes of funding eGovernment applications in the GRA, RGD and eServices. While the price of bandwidth was an important exogenous factor and was well covered within the Results Framework, two of the major exogenous factors - the percentage of individuals having internet and high speed broadband

[3] ICT Facts and Figures 2016, published by International Telecommunications Union (ITU), a specialized agency of the United Nations (UN) that is responsible for issues that concern information and communication technologies.

connections – were ignored in the Results Framework, while they were crucial for the objective of enhancing transparency and efficiency through eGovernment applications.

2.19 The relevance of Design is rated **Modest.**

3. Implementation

Planned versus Actual Expenditure by Component

3.1 The planned cost of the project by component is presented Appendix B, Table B.2. It would be evident from this Table that the project cost was $40.0 million at appraisal from IDA resources alone. After the project restructuring and additional financing in 2010, the IDA allocation was increased to $84.7 million. The addition of new GIFMIS component attracted other donors – DFID, EU and Danish International Development Agency (DANIDA) – who together contributed $32.14 million in co-financing to the GIFMIS component. The total project cost was accordingly increased to $116.84 million.

3.2 The component-wise planned and actual estimates are presented in Appendix B, Table B.3. It would be evident from this Table that actual expenditure on Component 2 was much below (34%) the appraisal estimate, whereas the actual expenditure on Component 1 was much higher (174%) than the appraisal estimate. The actual expenditure on Components 3 and 4 was around 85 % of the appraisal estimate. The pattern of actual expenditure shows relatively low importance accorded to Component 2 during implementation. Considering this component was primarily designed to serve the growth and employment objectives of the project, this relatively low importance in reference to the appraisal estimate is not explained. It may be recalled that an additional financing of $4.96 million was allocated to this component during restructuring in 2010 implying that the project wanted to accord higher importance. However, the actual expenditure was lower even to the original appraisal estimate of $9.46 million. The actual expenditure on Component 2 was only 5 % of the Total Expenditure, whereas 13 % of Total Allocation was assigned to it. Component 2 was really the private sector “voice’ in the project, the only demand driven component.

3.3 The source-wise planned and actual estimates of the project cost are presented Appendix B, Table B.4. It would be evident from this Table that Borrower did not contribute to the project costs. All Development Partners made contributions close to their appraisal estimates in the range of 77-91%.

Implementation Experience

3.4 The project was implemented well for most of its long life during 2007-2015 and had adapted to changing circumstances. The project required two extensions totaling two years and nine months, which was reasonable given the doubling of the project’s resources and the addition of a major component in the middle of project implementation. The project was never at risk. The MoC made good use of PIU experts in developing and updating the legal framework for the ICT and other procurements. Physically locating the PIU at the MoC facilitated implementation.

3.5 The project implementation was ably supported by a provision of ICT technical expertise. In addition to the ITES secretariat, the project provided expertise in the form of the Ghana ICT Directorate, which was later renamed the NITA. This technical expertise combined international and

local experts to support the MoC in preparing terms of reference (TORs) and technical specifications for bidding documents for all activities.

3.6 The project engaged extensively with local and international stakeholders, particularly in reviews of draft policies, legislation and regulatory instruments. This consultative process, supported by technical assistance and steady Bank supervision, helped achieve a broad range of legislation within an impressive time period.

3.7 The project timely adapted to changing technology trends**.** The project team capitalized on opportunities and avoided redundant expenditures. The universities were able to negotiate with Google and other private service providers to provide content and applications. Similarly, emerging cloud technologies made it cheaper to test software without the expensive investments in establishing a quality assurance program and therefore a decision was made to refocus more on general capacity building.

3.8 The deployment of PPPs in e-government was a major strategic decision, which, after some complications, paid off. The type of PPP proposed for the project was similar to a deferred payment arrangement with an interest rate assigned to the deferred period and deferred amount, but with all the risks associated with originating such deferred payments supported ultimately by the private partner.

IMPLEMENTATION OF MONITORING AND EVALUATION

3.9 The MoC hired an international consultant to develop the methodology for satisfaction surveys and set up data collection and survey rollout. The additional financing paper contained a detailed review of the framework along with the new indicators that were required for the GIFMIS component. Project reporting was detailed and was crucial to project management, as well as to help the Bank be more effective in supervision. The regular project progress reports eGhana and GIFMIS allowed both PIUs and the Bank to target efforts in implementation.

SAFEGUARDS COMPLIANCE

3.10 The project was classified as Category ‘C’ under OP/BP 4.01 Environmental Assessment at the appraisal stage and no other safeguard policies were triggered. The category was later changed to Category 'B' with the addition of the project component which entailed construction of ten regional innovative centers and refurbishment of government facilities for the BPO Center. Involuntary Resettlement (OP 4.12) was also triggered. An Environment and Social Management Framework and a Resettlement Policy Framework and Action Plan were prepared to address potential impacts. An environmental safeguard issue relating to a gas facility being placed at the BPO Center during the rehabilitation work also cropped up. This Center is not yet functional and this safeguard issue is expected to be resolved when the BPO Center is formally launched.

FINANCIAL MANAGEMENT AND PROCUREMENT

3.11 The FM performance was rated as Satisfactory throughout the project and the risk was rated as Moderate. The project consistently complied with the financial covenants for the submission of quarterly reports and audit reports. The Financial Management of the project also effectively managed the transition of several ongoing contracts to the follow-up eTransform project. Some

ineligible expenditures were identified through audit, which were resolved with a reimbursement to the project account. External audits were in full compliance and not qualified.

3.12 All procurements were from approved procurement plans which were regularly updated when a procurement milestone was reached. A Post Procurement Review was carried out in April 2014 and gave the project a risk rating of moderate, while the Contract Administration and performance was rated substantial because of a number of delays in contract execution. There were no reported cases of mis-procurement.

3.13 EU had conducted performance audit of GIFMIS component which identified some financial irregularities leading to a withdrawal of about 5 million Ghanaian Cedis disbursed by them for the Project. EU has also referred this matter to their Anti-Fraud Office for investigation, the report of which is awaited.

4. Achievement of the Objectives

4.1 In the PDO, generating growth and employment were the two overarching objectives and development of ITES industry and improved efficiency and transparency of selected government functions the project level objectives. For the purpose of this evaluation, the PDO is being bundled up as follows:

- **Objective 1**: To generate growth and employment by leveraging ICT and PPP's to develop the ITES industry; and
- **Objective 2**: To contribute to improved efficiency and transparency of selected government functions through electronic government applications.

4.2 The achievement of these two objectives is discussed below. The details on Achievement of Objectives is presented in **Appendix E**. Project outcomes benefited significantly by the independent contributions from the Chinese government, the Rockefeller Foundation and Google. The exact attribution of outcomes to the various sector participants, including the Bank, is difficult to determine.

Objective 1: Growth and Employment

4.3 This was to be achieved by creating an enabling environment for the development of the ICT sector and providing support to the local ICT businesses and ITES.

OUTPUTS:

4.4 The following outputs were achieved:

(a) Creating an enabling environment for the development of the ICT sector

- Under the auspices of the project, eight laws and three regulations were passed to facilitate the development of the ICT sector. This exceeded the original target of four laws.
- The ITES Secretariat and the NITA was established as targeted, and the agency was functioning at the project closure stage.

- Models and frameworks for developing ITES and BPO policies were completed as targeted, and the framework provided key recommendations in the areas of talent development, quality infrastructure and cost competitiveness.
- The strategic plan for the NCA was completed, with recommendations for the short, medium and long term.
- One PPP contract covering five applications was completed as compared to the original target of three applications.
- Ten RICs were completed (including the construction of building infrastructure and providing Local Area Network Connectivity to these centers) to encourage the use of ICT's in the regions as targeted.

(b) Creating an environment conducive for supporting investments in ITES by local enterprises.

- An ICT industry Association was established for recruiting technical service providers as targeted.
- Standards were developed for building ITES Skills and the training curriculum for ITES industry and BPO was developed as targeted
- 532 BPO agents were trained, of which, 427 trainees took the certification exams and 361 passed.
- 28% of managerial positions were held by women as compared to 5% at the baseline and as compared to the target of 20%.
- 41 new companies were incubated each year as compared to the original and revised targets of 25 and 30 respectively.
- A BPO center was established at project closure through the refurbishment of warehouses in Accra.
- The cost of bandwidth for a full circuit E1[4] line (between Accra and Portugal reduced from US$10,000 (pre project 2005 for non-Ghana Internet Service Providers Association members) to less than US$1,200 for all internet and data service providers.
- The revised Telecom Act opened the sector to further competition and the number of mobile operators increased from four to six during the project period.

OUTCOMES

Growth Objective

4.5 For measuring this objective, the following two PDO indicators were used:

(i) **% increase in ITES contribution to the GDP:** From the Results Framework and M&E reports, it is clear that this indicator actually meant 'increase in ITES contribution to the GDP (%)'. The ITES contribution to GDP at the end of the project in 2014 had reached 2.44 %, exceeding the target of 1.5%.

[4] E1 is a European digital transformation format which carries data at a rate of 2.048 million bits per second and can carry 32 channels of 64 Kbps each.

(ii) **Increase in export-led revenues generated by ICT/ITES industry:** At project closing an achievement of $72 million was reported, exceeding the target of $70 million.

4.6 In addition, data related with GDP at Market Prices **(Appendix F, Table F.1),** GDP at constant 2006 Prices **(Appendix F, Table F.2),** Growth Rate in GDP **(Appendix F, Table F.3),** and Distribution of GDP by Economic Activity **(Appendix F, Table F.4)** present the status of GDP growth and contribution of ICT sector in the GDP growth during the project period. A summary of that information is presented **Appendix F, Table F.6**. Following facts emerge from this Table:

(i) GDP at the constant 2006 prices consistently grew within the project period. The average annual growth rate during 2007-2014 was 8.1 %, which was a substantial increase from the baseline of 5.8 % annual growth rate.

(ii) The ICT sector GDP grew at a faster pace than the overall GDP The average annual growth rate of ICT sector GDP during 2007-2014 was as high as 23.3 %.

(iii) Contribution of ICT sector to GDP at the baseline was 2.7 %, not 0.5 % as stated in the PAD. It was not verified at the time of preparing the ICR. The contribution of ICT sector to the GDP never reached above the baseline of 2.7 %. It was 2.3 % at the end of project.

4.7 However, the growth objective seems to have been achieved considering that 23.3 % average annual growth rate of ICT sector was higher than the 8.1 % average annual growth rate of the GDP.

Employment Objective

4.8 For measuring outcomes on the 'Employment' objective, the following PDO indicators were used:

(i) **Number of jobs created in the ICT/ITES sector:** The ICR reported that the revised target value of 7,000 jobs was exceeded, with 8,700 jobs created in the ICT/ITES sector by 46 companies by the project end. The ICR states that Baseline represented total 'offshore' employment[5]. However, it is not clear how the baseline relates to the target and final achievement value, which include all IT/ITES employment. The source of employment data reported by the project was GASSCOM. However, in the field mission conducted in June 2016, a senior representative of GASSCOM could not confirm this data and the concerned 46 private sector companies invited for a focus group discussion didn't turn-up for that discussion[6]. Hence, the achievement of 8,700 jobs cannot be relied upon. Data from Census, 2010 and Quality of Life Survey, 2012, were also considered, but they correspond to only one specific year of the survey and do not provide information on jobs at the start and end of project.

[5] Offshore employment is employment based on the practice of 'offshore outsourcing' under which external organizations are hired to perform some business functions in a country other than the one where the products or services are actually being developed or manufactured. Since the main opportunity for revenue generation and employment creation in the ITES sector in the long term was in attracting offshore activities, the project targeted jobs in the Business Process Offshoring (BPO).

[6] It is noteworthy, however, that while in a meeting with the IEG Mission, a senior representative of GASSCOM had indicated that he had not seen the industry employment number compilation of the Ministry of Communications, but he informed that the Ministry contacted the industry players from time to time through phone calls and face to face interviews for information on industry employment numbers and revenues. He also indicated that with his knowledge of the industry, employee figure in the industry was above 10,000, even though he had not seen the compiled figure of 8,700 from the Ministry.

(ii) **At least half of the new jobs created in the ICT/ITES sector are held by women:** Actual achievement of 54.3%, did not meet the revised target of 66%. It is noteworthy, however, that 28% of managerial positions were held by women at project closing, up from a baseline of 5% and exceeding the intermediate outcome target of 20%.

4.9 The ITU's published statistical data in 2015 has a time series for Full-Time Telecommunication Employees[7] (including females) from 2006-2012, but the information is blank for 2013-2015. The ITU's information on jobs is placed at Appendix F, Table F.8, from which, it would be clear that in 2012, only 4,975 full-time telecommunication employees worked in Ghana, out of which only 1,543 (31 %) were females. Although IT/ITES sector jobs would cover some additional jobs than the telecommunication employees, the available data signifies that project-end target for jobs were not achieved until 2012 and that the end of project achievement could not be verified from this or any other independent source.

4.10 Had the BPO center become operational, there could have been a direct attribution established with whatever jobs were created therein. But that could not be made operational until now.

4.11 There was a weak causal chain between project activities/outputs and growth and employment - both offshore and domestic. There are two major causal links: one direct through firm level support and one indirect through improved policy environment and availability of better trained workforce. Firm level support was barely accessed and underspent.

4.12 Although growth objective was achieved, the achievement of employment objective is not determinable in absence of evidence. Accordingly, overall, the efficacy of the project in contributing to achievement of the Objective 1 on Growth and Employment is rated **Modest**.

Objective 2: Efficiency and Transparency

4.13 An enhancement in Efficiency and Transparency was to be achieved by development of ICT in government operations and applications. It included development of IT architecture and interoperability standards for government applications and networks. An investment support was to be provided to the government under a PPP for setting a high speed government wide communications network connecting the key Ministries, Departments and Agencies (MDAs) for sharing information and applications and securing government databases. Specialized training was to be provided to chief information officers, technical staff of key MDA's, legislators and magistrates. A feasibility study was to be carried out for establishing PPP's for developing electronic applications of the Internal Revenue Service and other e-government applications.

4.14 The GIFMIS was to be established connecting the Ministry of Finance with MDAs, Treasuries and Metropolitan Municipalities District Agencies (MMDAs) for improving the efficiency and transparency of government financial management functions using ICT based tools at the central, regional and district levels. Businesses processes and control systems were to be established for developing budget planning tools for more effective macro-fiscal management and

[7] Full-time telecommunication employees refers to the total number of persons; in full-time equivalent (FTE) units; employed by telecommunication operators in the country for the provision of telecommunication services; including fixed-telephone; mobile-cellular; Internet and data services. This indicator excludes staff working in broadcasting businesses that offer only traditional broadcasting services.

control of the budget. Public Financial Management rules and regulations were to be reviewed for supporting changes in businesses processes as part of the ICT platform. Treasury and Cash Management system were to be developed for establishing a Treasury Single Account. MDA's internal management was to be strengthened and the capacity-building support was provided for implementing this component.

OUTPUTS:

4.15 Following outputs were achieved:

(a) Support the development of ICT in government applications and communications. Enterprise architecture was completed, a government wide network (GovNet) was established, 283 MDA's used program based budget classifications in the preparation of their 2015 budget, portal infrastructure was integrated with the Government e-payment platform, online filing of, inter alia, tax returns and business registrations was implemented, and staff were trained.

(b) Support to development of ICT services in public financial management systems. GIFMIS was rolled out, all ministries and regional treasuries were connected to central budget, production of systems based Ghana Government Finance Statistics and public sector accounting standards were ongoing, and training completed. Although a review of the Financial Management legislation was completed, the legislative updates were not completed at the project closure stage, as per the revised target.

OUTCOMES:

4.16 The following will consider whether planned outcomes of efficiency and transparency were achieved for the selected government functions through electronic government applications.

1. Ghana Revenue Authority (GRA)

4.17 Prior to the automation of the GRA, taxpayers were subjected to manual systems of multiple tax agencies and offices, with files often getting lost, tax assessments done subjectively, and a number of businesses able to evade taxes. The project supported the new Taxpayer Identification Numbering System **(**TIN). A unique identification number was issued to taxpayers for official transactions with: (a) The Domestic Tax Revenue Division of the GRA, (b) The Customs Division of the GRA, (c) The CAGD, (d) The RGD, (e) District Assemblies, and (f) Any Public Institution which the Minister may by legislative instrument prescribe. The transformation in business processes of the GRA from before to after the automation is depicted in **Appendix F, Figure F.1.**

4.18 Transparency was improved by the substantial increase in automated business registrations (87,900) and TIN registrations (425,305), which indicated that the e-government registration application was functioning. The TINs were particularly important to improving transparency because individuals would now be identified by a unique number and transactions would be associated with that number.

4.19 Tax collection was done under the structured of a PPP contract, under which, contract compensation was linked to performance. Revenue collected through the TRIPS - a new tax collection system implemented by the project - increased from 0 percent of the total tax collection in 2012 to 61.7 percent in 2015.

4.20 Enhanced efficiency in collection of taxes was clearly visible in a consistent increase in the collection of tax revenues, between 2010 and 2015. See **Appendix F, Table F.9.**The collection of tax revenues rose by 3 times in this period. As a percentage of the GDP too, the Tax Revenue increased from 12 % in 2009 to 16.9 % in 2015. However, this increase was not coupled with any significant increase in revenue staff/expenditure.

2. *RGD*

4.21 The RGD automation system has been established in RGD Headquarters and Regional offices nation-wide. The RGD citizen and business online eRegistrar portal was launched in November 2014 for submission of online application/request for 65 different services online by citizens and businesses.

4.22 The status of registered companies from December, 2011 to May, 2016 in **Appendix F, Table F.10.** It can be seen that there has been consistent increase in the number of companies registered since automation of services in December 2011. There was a quantum 55 % increase in company registration in 2012-13, which signified an increased efficiency of the RGD. This was followed by a 6% increase in 2013-14 and 3 % increase in 2014-15.

4.23 The status of Revenue generated through registration is given in **Appendix F, Table F.11**. The yearly pattern of revenues also show a consistent increase from December, 2011 to December, 2016. For registration of a new company, a TIN is first required. The RGD Portal was fully integrated with GRA e-tax portal. The companies were asked to re-register themselves with TIN after the automation of RGD and GRA. The status of re-registered companies is presented in **Appendix F, Table F.12.**

4.24 Online Registration of Companies started in January, 2015. Since then and until May, 2016, total number of online company registration has been only 500. Online applications were 0.6% of the total registered companies between January, 2015 and May, 2016. Total number of online payments have also been a minimal 192. The reason for slow take-off are lack of awareness about the online portal, people's preference to the manual system, poor internet connectivity, and continued problems with the e-payment system.

4.25 In registration of companies and businesses, efficiency has improved, but not to its potential. In the current automated system, the application form is still filled manually, and there are a number of manual steps to approval. Despite this, the whole process in the automated system takes about 15 days, compared to two months under the previous system – with two weeks to only see if the newly proposed company name already existed or was available for registration. So, there is indeed a significant improvement in efficiency of company registration, but there could be further improvements with additions in technical staffing, better workflow management, and resolution of 76 outstanding issues identified with software.

4.26 The RGD portal also allows scheduling of appointments with officers of the department. The project had planned to include online registration of marriages and estates as well, but these services have not become online yet. The status of Registered Marriages is presented in **Appendix F, Table F.13**. The number of booking approved during November, 2014 and May 2016 is very small, with a huge pendency.

3. eServices

4.27 The project provided support to the government in setting up different eServices. Citizens can access them at http://eservices.gov.gh. The performance of different eServices is presented in **Appendix F, Table F.14**. There are two major conclusions from the review of their performance. First, the efficiency has increased in selected government applications. Second, the percent of beneficiaries using these eServices is very low at below 10 %. Unless this percentage is enhanced, the impact of efficiency gains will not be felt by citizens at large. With PC density of 67 %, and 36 million subscribers of smart phones against a population of 27 million, the potential reach of eServices is huge. However, the percentage of individuals using internet is very low. In 2015, there were only 23.5 % of individuals using internet at home in Ghana (it rose to 29.6 % in 2016), in comparison to neighboring middle income countries like Nigeria having 47.4 % and Kenya having 45.6 % individuals using internet.

4.28 The mobile broadband[8] subscriptions is seeing a phenomenal increase since 2010. This provides potential platform at which citizens can access eServices. The number of mobile broad subscriptions are presented in Appendix C, Table C.4. It is evident though it was very low in 2010 at 1.6 million (6.89 mobile broadband subscriptions per 100 inhabitants), it has now increased to 18 million subscriptions (67 subscriptions per 100 inhabitants) in 2015. The eServices can be accessed on mobile phones with broadband connections, but still there is poor connectivity[9] and citizens face difficulty in using eServices. Ghana is ranked 47th out of 50 countries in the Huawei's Global Connectivity Index[10], in 2016. This index measures how nations are progressing with digital transformation using ICT.

4.29 It is also important to note that the internet cost relative to GDP per capita was too high. In such a situation, people would prefer SMS to broadband. The government could have designed payment systems (m-Banking) for SMS users, and they could have done the same for e-government services but a deliberate effort was not made in this respect.

4.30 There are also several technical snags in the ePayment system which the service providers need to address. A survey was conducted at the project closure stage to gauge user perception of services that were provided through the automation process. 76% of the beneficiaries (which included consumers, government agencies and other stakeholders such as the private sector representatives) were satisfied with the electronic delivery of services – this exceeded the original target of 68%. However, considering that users are very few in number (less than 10 % of targeted beneficiaries), these satisfaction ratings cannot be a reflection on the overall satisfaction of consumers. The purpose of conducting a satisfaction survey is also questionable considering a very low percentage of individuals using an internet to start with.

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[8] Broadband is defined as high-speed network that connects users at Speeds above 256 Kb/s (usually 1 – 2 Mb/s). India has > 2Mb/s, Swiss has > 1.5 Mb/s.

[9] Poor connectivity exists despite a high download speed of 4.13 Mbps, because of low upload speed of 0.51 Mbps and poor average latency of 706 microseconds. Latency is the time taken for a message to travel from a user's desktop to an internet server and is considered good if it is less than 100 microseconds.

[10] The Global Connectivity Index is a barometer of ICT development and resultant value. It measures investment in ICT infrastructure and the intensity of its use to illustrate how nations and industries benefit from the resultant value - a useful reference for future investment.

4. Ghana Integrated Financial Management Information System (GIFMIS)

4.31 The GIFMIS was made operational in all the 33 Ministries, Departments and Agencies located in Accra and 250 Spending Units located across the country, including 10 Regional Treasuries. Following are some of the major tangible illustrations of increased efficiency based on the findings of the PPAR mission in June 2016:

(i) **Timely preparation of Monthly Financial Reports (PEFA Indicator P1-24):** The monthly financial reports are now finalized by the 15th day of the following month; previously, reports were produced two to three months after the end of the month.

(ii) **Timely preparation of Annual Financial Statements (PEFA Indicator PI-25):** The performance of CAGD has been satisfactory in this regard even before the implementation of GIFMIS. It had submitted its annual statements to Ghana Audit Office within 3-4 months of close of fiscal year, compared to a legal requirement of 6 months. After implementation of GIFMIS, it has been submitting the same by within 3 months of the close of fiscal year.

(iii) **Effectiveness of expenditure commitment controls (PEFA Indicator PI-20 (i):** After implementation of GIFMIS, better expenditure control is observed as budget ceilings are strictly adhered to. Virements within items of expenditure can be done by MDAs and those between items are approved by the Director Budget in the MoF. GIFMIS does not allow exceptions to the rules.

(iv) **Reduction of Audit Observations (PEFA Indicator PI-26):** Due to better financial controls, the number of audit objections by the external audit agency on the use of GoG funds have reduced after implementation of GIFMIS. Most audit objections now pertain to the expenditure by IGFs.

(v) **Regularity of Account Reconciliation (PEFA Indicator PI-22):** Prior to the implementation of GIFMIS, the account reconciliation on the consolidated fund generally used to be three months late. However, after implementation of GIFMIS, account reconciliation is done regularly every month.

(vi) **Effectiveness of Payroll Controls (PEFA Indicator PI-18):** Public Service Commission is in charge of the implementation of HRMIS. They are implementing 3 Human Resources modules in 9 pilot agencies covering 65-70 % of all employees. Personnel database and payroll are directly linked to ensure data consistency and monthly reconciliation. The result has been many improvements; for example, before implementation of GIFMIS, it used to take 6 months to 1 year to make the first payment after an employee was appointed. Now it takes only 1 month.

(vii) **Removal of Arithmetic Errors:** There has been removal of mathematical errors in compilation of data from different MDAs. The GIFMIS does the aggregation at different levels with accuracy.

4.32 It may be noted, however, the GIFMIS covers only the GoG funds, which are about 66%[11] of total public expenditure. The efficiency and transparency gains pertain to GoG funds covered under GIFMIS only, which comprehensively covers budget preparation, accounting and reporting of all GoG funds. However, its control feature is limited to expenditure on goods and services, external debt servicing, capital expenditure and other salary expenditure. It does not cover expenditure on wages and salaries and domestic debt servicing. All goods and services and capital expenditure

[11] GoG funds correspond to approximately 66% of total public expenditure, but as will be observed below, not all GoG funds are controlled by GIFMIS.

going through the consolidated fund are subject to the entire procurement to purchase (P2P)[12] cycle, which is a very good practice that eliminates the possibilities of arrears. The actual expenditure has largely remained under the revised budget in Fiscal Year 2015, which shows better control. The efficiency and transparency gains, however, have not occurred in the Internally Generated Funds, Donor Funds, Statutory Funds and Extra Budgetary Funds which are not covered under GIFMIS. The Government and the Bank had rightly prioritized to cover the GoG funds first under this project. The remaining funds are being covered by GIFMIS under the ongoing PFM Reforms project.

4.33 Independent Evaluation Group (IEG) is carrying out research on a Diagnostic Framework to Assess the Capacity of a Government's Financial Management Information System as a Budget Management Tool, which seeks to assess the strength of the FMIS in terms of its effectiveness for budget management and control as they exist in 21 countries and to highlight areas of weaknesses where further reform efforts should focus. This paper has identified following set of features that are critical for determining the effectiveness of FMIS as a budget management tool: (i) Treasury single account (TSA), (ii) FMIS coverage, (iii) Core system functionality, (iv) Ancillary features, and (v) Technical aspects. It provides scores to different countries to arrive at an overall score for the system strength for each pilot country as presented in **Appendix F, Table F.15.** The diagnostic finds that Ghana's system is top of the line and scores an overall score of 51 out of 100 on the system strength. The areas of improvement largely relate to the TSA structure and FMIS coverage.

4.34 On the objective of improving transparency of PFM, the Project didn't kept any benchmarks and targets. Transparency of PFM could be measured by the OBI as well as PEFA indicator no. 10. The trend in the OBI score since 2006 is presented in **Appendix F, Figure F.2 and Figure F.3.** GIFMIS implementation was started in 2010 and was completed in 2013. However, no significant change is visible in the OBI score. It had reached the maximum of 54 in 2010, after which, there has been a marginal decline. The OBI Score of 51 denotes that the Government of Ghana provides the public with limited budget information.

4.35 The Government of Ghana has been inconsistent regarding which documents are made publicly available in a given year. Since 2012, the Government of Ghana has increased the availability of budget information by publishing the Citizens Budget and Year-End Report and improving the comprehensiveness of the Enacted Budget. However, the Government of Ghana has decreased the availability of budget information by failing to produce a Mid-Year Review report. Moreover, the Government of Ghana has failed to make progress by not producing a Pre-Budget Statement. Figure reflects availability of budget documents to public over time.

4.36 On PEFA Indicator PI-10 regarding 'Public access to key fiscal information', the trends in Ghana's scores is presented in **Appendix F, Table F.16**. It is evident that Ghana is at the same level of fiscal transparency as it was in 2006 and has declined in comparison to 2009. As per the latest PEFA report of 2013, while the GoG provides public access to: (i) the annual budget documentation when it is submitted to the legislature, (ii) in-year budget execution reports within one month of their completion, (iii) year-end financial statements within 6 months of completed audit, and (iv) all external audit reports on consolidated operations within 6 months of completed audit, there is no information on resources available to the primary service units and not comprehensive access to contract awards. While there is fairly good access to information on central government operations, accountability for the use of public resources is undermined by the delays in the publication of the

[12] P2P cycle is the 'Procure to Pay' cycle embedded within a 'Commitment Control System', which ensures that all procurements are within the approved and released budget and all purchases are within approved procurements.

in-year budget execution reports in respect to the period they cover; lack of information on in-year execution of individual MDAs and lack of public access to their financial statements. With the implementation of GIFMIS, the government can strive to improve transparency of its fiscal operations on the identified gaps as per OBI and PEFA Assessments.

4.37 Overall, there is adequate evidence of improved efficiency of selected government applications through e-Government applications, but its coverage is less than 10 % of citizens. There is less evidence of increased transparency. Overall, the efficacy of the project in contributing to achievement of Objective 2 is rated **Substantial**.

5. Efficiency

5.1 At appraisal, the Project was expected to yield significant economic, social and financial benefits to Ghana. However, a calculation of financial rate of return and economic rate of return was not done at the appraisal stage. The GIFMIS component was added in project restructuring in 2010 but the additional financing paper did not estimate a financial and economic rate of return. There was no economic analysis done in the Implementation Completion and Results Report as well.

5.2 Henceforth, in this report, an assessment was made as to how economically resources and inputs in the project were converted to results and whether costs involved in achieving project objectives were reasonable in comparison with benefits and with recognized norms.

5.3 The following factors reflect on how economically the resources were used in the project:

(i) The project time was increased by two years and nine months reflecting a 50 % increase over the original project time. This was coupled with an increase in the project's IDA resources from $38.53 million to $76.75 million, reflecting a 100 % increase. The project was able to deliver twice the value for money in less than proportionate increase in project time, reflecting efficiency.
(ii) This Project has produced major benefits in tax administration, business registration and licensing. Revenues collected through the new TRIPS now accounts for 61.7 percent of total tax receipts (from a baseline of zero), which is a reflection of enhanced value of money.
(iii) An investment of $123 million on Virginia (United States) tax reform process under a PPP contract has resulted in collection of over $300 million tax arrears and additional revenues of over $72 million annually.
(iv) The project also created value for money by emphasizing relatively low-cost staff training in the project. More than 16,000 people were trained in the project.

5.4 The project efficiency was adversely affected because of the delay in completion of some activities beyond project closure, like the construction of the RICs and the BPO Center.

5.5 The efficiency of the project is rated **Modest.**

6. Ratings

Outcome:

6.1 Relevance of Objectives has been rated high. Relevance of Design has been rated Modest. Overall, relevance is considered a strong Substantial. Efficacy of the project in contributing to achievement of Objective 1 is rated Modest and that to the achievement of Objective 2 is rated

Substantial. Overall, Efficacy is considered Substantial, although a weak one, because of lack of evidence on achievement of employment and transparency objectives. Efficiency of the project has been rated Modest. There are serious issues related with M&E design and lack of indicators to measure transparency and efficiency objective.

6.2 Considering all these factors, together, this lead to an overall outcome rating of **Moderately Satisfactory.**

Risk to Development Outcome:

6.3 The legislative gains in the IT sector are gradually becoming engrained in the ICT sector. The institutional framework is developing and is benefiting from a strong GoG commitment. For e-government applications, the automation of GoG functions including the GoG budget is highly unlikely to revert to the previous paper-based system. Staff have been involved in the design of the applications, have been trained and are gaining experience with the automated processes, which are expected to expand in the coming years. Likewise, citizens are getting used to the new e-services and the risk of reversal declines with time. The next step is to connect the revenue and expenditure sides of the GoG budget, and use the automated platform for cash management, which is planned under the new GIFMIS project. The eTransform project continues support and enlarges the gains under eGhana project in key areas. PPPs support sustainability because they provide capital to pay for system expansion, maintenance and upgrade and technical capacity to operate and run the applications.

6.4 One area where there are still some questions is the sustainability of RICs, the BPO center, and Kumasi Business Incubator (KBI), all of which have not found continued support from the new eTransform Project. It is noted, however, that as part of the eTransform project one mLabs and two iHubs are to be established to further deepen ICT entrepreneurial development in the country. One of the innovation centers is to be located in Kumasi to complement the efforts of the KBI. It is also intended to use one of the 12 units of the BPO Centre in Ghana, under the eGhana project, as an anchor unit for the mlab, where applications development and testing would take place to augment the operations of the BPO Industry.

6.5 Secondly, there are questions about the sustainability of the GovNet. There is a countrywide internet connectivity problem which needs to be addressed. MDAs are affected by poor connectivity primarily because of a low band-width (2 MBPS) connection. The requirement is for about 5 MBPS bandwidth, but the agencies do not opt for it due to budget constraints. Even the required amount for 2 MBPS connectivity is not provisioned and/or released leading to non-payment of internet bills by government agencies to NITA. There are arrears of 18 million Ghanaian Cedis and an annual requirement of 7 million Ghanaian Cedis for the use of GovNet by the MDAs. NITA has to pay this amount to Main One, the internet service provider. Similarly, GIFMIS is adversely hit by poor connectivity and requires an annual budget of 12 million Ghanaian Cedis for its proper operations and maintenance. Its arrears were once cleared by granting tax credits to the internet service provider, Vodaphone, but that was one time solution. The system requires regular flow of funds for the operations and maintenance.

6.6 In absence of provision of these funds to NITA, the operation and maintenance of GovNet is adversely affected, leading to poor connectivity and a very high risk to sustainability. A good IT infrastructure has been created, but it can fall flat in a period of 2-3 years if it is not maintained properly. There could be a national emergency if the GovNet gets suddenly disrupted for lack of maintenance as the entire government budget is executed on this network and so are eServices. For

this to happen, NITA must be regularly paid by government agencies for their internet usage and the MoF must provide adequate budget to MDAs to enable them to do so.

6.7 Thirdly, there are questions about the sustainability of eServices. The eServices are being used by less than 10 % of the target population, despite a very high smart phone density. In light of low coverage, eServices are not financially viable. The low coverage is due to the low internet penetration and lack of citizen's awareness. Although the broadband subscriptions is 67 per 100 inhabitants, the subscribers complain of poor connectivity. The internet penetration at home is not likely to increase substantially in the short term. Hence, the percentage of users of eServices (and also GRA and RGD) are not likely to increase significantly in the short term, leading to financial unviability of these services. There are also issues pertaining to the ePayment software which require government to assess additional options for ePayments like mobile phone, credit card and scratch cards. Currently, users find it extremely difficult to make payments through the network which leads to low usage. There is low citizen's awareness which needs to be addressed by a communication plan of the government. In absence of this, the usage of eServices is not likely to be enhanced and hence lower financial viability.

6.8 GIFMIS implementation is continued in the new PFM Reform Project, under which, it is targeted that GIFMIS expenditure management functionality is implemented in 150 MMDAs including Consolidated Funds, Statutory Funds, IGFs and Donor Fund corresponding to 90 % of total public expenditure by 2019. However, the progress has been slow, and, notwithstanding Ghana's good democratic tenets, the impact of the electoral cycle (with elections due later this year) may have a weakening effect on the maintenance of PFM reform momentum, which may impact the implementation of GIFMIS.

6.9 The risk to development outcome is rated **Significant.**

Bank Performance

QUALITY AT ENTRY:

6.10 The Bank applied its experience of preparing ICT projects in other countries, including infoDev experiences with ITES and the eLanka project and worked closely with the government to develop this project that addressed main constraints to the sector. The project interventions were largely well conceived and designed. However, not taking into consideration low internet penetration and broadband coverage was a design flaw for eGovernment applications, which adversely affected their impact on PDO.

6.11 The consultative approach was particularly effective in establishing the legal framework for ICT and for charting the course for further development of the legal framework and implementation of e-government applications. The private sector was consulted extensively by the Bank as part of the broad stakeholder consultative process where binding constraints that required redress were discussed and the intervention areas prioritized in collaboration with the Government of Ghana

6.12 However, the Bank did not hold specific consultations with the private sector to find out how the project could have helped them in generating higher growth in the ICT/ITES sector and jobs. Consultations with the ICT sector/software professionals in the business process outsourcing at the point of entry could have led to a better project design and positively contributed to the achievement of development outcomes.

6.13 The implementation arrangements were well designed and integrated into the government structure. The MoC served as the Project executing agency with responsibility of implementing different components given to expert government agencies. The deployment of PPPs in e-government was a constructive strategic decision, which led to efficiency and sustainability of eGovernment applications, besides being able to mobilize additional private sector investments. The Project was so design that all 5 major ICT/ eServices applications were implemented under a PPP arrangement. IDA's contribution was $20 million out of a total $60 million contract with the private sector contributing the remaining funds. The revenues were collected in an escrow account with transfers to the accounts of private partner and government automatically.

6.14 The causal chain between funding and outcomes was broadly clear and convincing, though some effects could be delayed. For example, the impact of creating an enabling environment and support to local ICT businesses and ITES on growth and employment is expected to be positive, but the impact won't be direct and quick. One activity that could have had a direct and quick impact on growth and employment was establishing BPO units, where adequate IT infrastructure and space could have been provided to budding ICT/ITES companies. This was not conceived in the initial design, and was only brought in at the mid-term review stage through restructuring. This delay led to completion of BPO center only by the end of the project, so there wasn't time to impact the project objective before completion.

6.15 The M&E Framework was fraught with errors. The project was designed to develop eGovernment applications for the GRA, RGD and other eServices, but indicators selected in the Results Framework to measure efficiency and transparency were not adequate to describe the objective of improving efficiency and transparency. Contribution of ICT sector to GDP at the baseline was 2.7 %, not 0.5 % as stated in the PAD. It was not verified at the time of preparing the project. If it was 2.7 % at the baseline, the project-end target of 1.5 % was not justifiable.

6.16 The project design underestimated the risk associated with donor coordination. Lack of provisions for harmonized reporting ex-ante and the multiple reporting requirements of different partners created burdens for the project implementing unit and the government.

6.17 Quality at entry is rated **Moderately Satisfactory**.

QUALITY OF SUPERVISION:

6.18 The Bank supervised the project closely and after the mid-term review, located the supervision team in Accra, which helped accelerate implementation. The Bank experience in ICT projects was applied successfully during supervision, in particular, by adding expertise at key junctures to support implementation. Implementation issues were greatly facilitated by the fact that there was continuity of an ICT Policy Specialist as the Task Team Leader (TTL) for the entire life of the project.

6.19 The supervision team was responsive to the new government's changed priorities. The addition of the GIFMIS component was a key decision point where Bank management took advantage of the fact that there was an ongoing ICT project, which could shorten processing time by launching the new GIFMIS component as an additional financing, rather than as a standalone project. This decision was appropriate as it saved an estimated 12 months of processing time. The advantage of keeping it in the eGhana project managed by the MoC was that the latter had the technical experts who could lead the digitization of financial accounts at early stages. Their

engagement with establishing and managing the GovNet, which was the communication backbone for GIFMIS, was also helpful in timely implementation of this component.

6.20 The supervision team was responsive to the rapidly changing technology trends in the sector and pro-actively capitalized on the opportunities that arose for avoiding redundant expenditures by incorporating additional project activities, For instance, while the project planned to provide capacity-building at selected universities, the Bank and the government team took advantage of the offer from Google to provide this activity in collaboration with the Bank. Likewise, while emerging cloud technologies made it cheaper to test software without incurring the expensive investments associated with establishing a quality assurance program, the supervision team adapted existing financing to focus more on general capacity-building.

6.21 The Bank was also able to convene support from other development partners for project implementation, with 28 % of the project cost being funded by development partners. The following are examples of how the project leveraged limited IDA resources to mobilize additional resources towards contributing to project objectives:

(i) **Donors' contribution for GIFMIS:** The Project was able to mobilize additional resources from Donors for the implementation of GIFMIS component. Against the appraisal estimate of $84.7 million for IDA resources, the Donors' pledged their contribution of $32.14 million. Donors' actual contribution was $25.45 million against IDA's actual estimate of $76.75 million.
(ii) **National Data Center:** The Project designed and constructed a National Data Center in 2008-09 at an estimated cost of $1.40 million. Based on the same design and concept, the government upgraded that to a larger National Data Center and a Disaster Recovery Site at an expense of $30 million with financial support from the China Exim Bank.
(iii) **Wide Area Network:** The Project conducted a feasibility study and designed the country-wide Wide Area Network at an expense of $30 million. The government mobilized $127 million from the China Exim Bank to construct 1,135 Kilometers national WAN in the eastern, western, southern and northern corridors covering all the 10 regions, 138 districts and established 2 sub-marine cables.

6.22 However, the supervision did not carefully monitor the development impact of the project. One of key development objectives was generation of employment in the ICT/ITES sector. As stated in Section 4, a senior representative of GASSCOM feigned ignorance about M&E reports on jobs created. The PPAR mission invited the concerned companies in a private sector focus group discussion, but none of them turned up. Hence, the mission could not verify the data. If the supervision team was doing careful monitoring, this could have been detected by them and necessary course correction done to capture the correct data. Similarly, the development impact of project's efforts to increase efficiency and transparency of selected government applications like the GRA, RGD and eServices was not measured. While this was a defect in the design, it could have been rectified during supervision or at the mid-term review level.

6.23 Donors, in particular the European Union, have not been very happy with the implementation of GIFMIS and the Bank's task team. They felt left out by the Bank supervision team while they were the funding and managing partners of GIFMIS. They allege that key reports were not shared by the Bank with them. They conducted a performance audit leading to withdrawal of about 5 million Ghanaian Cedis disbursed by them for the GIFMIS component. They have also referred the matter to their Anti-Fraud Office for investigation. The report is awaited. The relation between the Bank and donors in the management of GIFMIS was not satisfactory.

6.24 The quality of Bank supervision is rated Moderately Satisfactory. Together, these lead to an overall rating of Bank performance of Moderately Satisfactory.

Borrower Performance

GOVERNMENT PERFORMANCE:

6.25 The Government was committed to the project throughout design and implementation. The government initiated major changes to the project design, such as adding the GIFMIS component to automate the budget; freeing-up resources from other activities to fund other activities; and facilitating use the additional funds that became available from other donors such as the Rockefeller Foundation and Google for complementary ICT sector activities. The Government's decision to use Bank procurement rules as a basis for the national procurement law and working with the stakeholders from the beginning helped in speeding up the procurement process.

6.26 However, as discussed in Section 5 on Risks to Development Outcomes, there are questions about the sustainability of the GovNet because the Government did not provision funds for its operation and maintenance. There are arrears of 18 million Ghanaian Cedis and an annual requirement of 7 million Ghanaian Cedis for its use by the MDAs. Similarly, GIFMIS requires an annual budget of 12 million Ghanaian Cedis for its proper operations and maintenance. A good IT infrastructure has been created, but it can fall flat in a period of 2-3 years if it is not maintained properly. There could be a national emergency if the GovNet gets suddenly disrupted for lack of maintenance as the entire government budget is executed on this network and so are eServices.

6.27 The coordination with Donors in implementation of GIFMIS was inadequate leading to them feeling left out in the project implementation.

6.28 Even though the dimensions of efficiency and transparency were not adequately captured in the Project Results Framework, the Government, as part of routine reporting had been capturing information on efficiency and transparency of relevant government services taken up for electronic delivery.

6.29 Government Performance is rated **Moderately Satisfactory**.

IMPLEMENTING AGENCY PERFORMANCE:

6.30 There were three implementing agencies: The MoC, the MoF and the CAGD. While the MoC was responsible for implementing the bulk of the activities in Component one, two and three activities, and the MoF was responsible for Component four activities and CAGD was responsible for some component three activities (automation of government applications in CAGD). The project implementation unit was located at the MoC headquarters and the project implementation unit for GIFMIS was also located at the MoF headquarters. The three implementing agencies were proactive in making course corrections and dealing with day-to-day implementation issues. The continuity of the team, with the key members remaining throughout the project aided in the implementation of the project. The financial management of the implementing agency was deemed to be adequate. However, the MoF found it challenging to fulfill the multiple reporting requirements of the different donor agencies for the GIFMIS activity. Some activities were not completed at project closure and there were delays associated with procurement.

6.31 Implementing Agency Performance is rated Satisfactory. This leads to Overall Borrower Performance rating as **Moderately Satisfactory**

Monitoring and Evaluation

DESIGN:

6.32 There were weaknesses in the M&E design like i*ndicators selected in the Results Framework to measure efficiency and transparency were not adequate to describe the objective of improving efficiency and transparency* of selected eGovernment applications like the GRA, RGD and eServices. One of the binding constraint for the second objective of enhancing efficiency and transparency of eGovernment applications through eServices was the internet and broadband penetration. However, the M&E design did not include indicators measuring them. In addition, affordability was one of the factor for low use of the internet, but there was no indicator included in the design to measure that. PDO indicator no. 6 measured the satisfaction of users of eGovernment services; however, it could not have been a measure of either growth or employment of the ITES industry.

6.33 During Restructuring for Additional Financing, the Results Framework was revised. PDO indicators on % increase in contribution of ITES to the GDP, on increase in number of ICT SMEs reporting increased revenues, and on increase in number of PPPs in eGovernment infrastructure and applications were removed, without any explanation. Removal of these PDO indicators at the time of restructuring diluted the strength of the M&E Framework to monitor the results at the PDO level.

6.34 Considering GIFMIS was added as a new component in the project at the time of Restructuring/Additional Financing in 2010, three new PDO indicators were added to measure its impact. The new PDO indicators measured control over commitments and payments, efficiency of Ministry of Finance in preparing Fiscal Operations Report within one month, and compliance of government financial statements to international standards. The project could have used the well-established PEFA indicators and the Open Budget Index to measure efficiency and transparency of public financial management. However, this was not done.

6.35 The baseline information on ICT contribution to GDP was incorrect. That led to setting up a target lower than the baseline. In addition, there was an inappropriate data collection instrument for the PDO indicator on job creation; and, wrong baseline for the PDO indicator on contribution of ICT sector to GDP.

6.36 As per the M&E design, for monitoring the PDO indicator of jobs created in the ICT/ITES sector, the data was to be collected annually from the Government Statistics (Ministry of Labor). However, the Ministry of Labor does not publishes employment data by sector. It is Ghana Statistical Services that publishes those data. However, that data are based on the Census conducted every 10 years. The census conducted before the project appraisal was in 2000 but that was not considered in the project design. There was a Census and a Quality of Life Survey conducted in 2010, but those were considered in the midterm review.

IMPLEMENTATION:

6.37 Efforts were made to streamline M&E within the MoC by building capacity vertically across project implementing units as well as horizontally across ministerial units. To ensure independence of the M&E functions, the Policy Planning and Monitoring and Evaluation unit of the MoC assumed

a coordinating role in monitoring and evaluation by assigning a fully designated M&E Coordinator to the eGhana project. While being part of the eGhana Project Management Team, the M&E Coordinator worked closely with the staff in the ITES Department and Ghana Information Communications and Technology Directorate under supervision of the Project Coordinator. However, he reported to the Director of Policy Planning and Monitoring and Evaluation to ensure accountability of the M&E function.

6.38 All baseline data was collected at the appraisal stage itself and most PAD enumerated indicators were measured. However, during Restructuring in 2010, the Results Framework was revised and PDO indicators no. 3, 5 and 7 were removed, without any explanation. Removal of these PDO indicators at the time of restructuring diluted the strength of the Results Framework to monitor the results at the PDO level.

6.39 It is noteworthy, however, that even though Indicator No.3 *% - increase in ICT/ ITES contribution to GDP* - was removed at restructuring, the indicator value continued to be measured throughout the life of the project using data from the Ghana Statistical Service. Similarly, Indicator no. 7 continued to be reported in the Results Framework

6.40 The project design stated the Data Collection Instrument for the Employment Objective as Government Statistics (Ministry of Labour), but actually the Project used information based upon unverifiable and unpublished reports of a few ICT companies. There was no efforts to verify those reports.

UTILIZATION:

6.41 The Project's outcome indicators continue to be monitored and the National Development Planning Commission has adopted some of the key project indicators, such as the reduction in bandwidth prices and revenue generated by the ITES companies, to guide the planning process of the Commission. Project reporting was detailed and was crucial to project management, as well as to help the Bank be more effective in supervision. The regular project progress reports allowed both PIUs and the Bank to target efforts in implementation. For example, the M&E outputs helped the GoG determine areas, particularly on the eGhana side, where the additional financing would be most effective in scaling up activities. Regular project progress reports allowed both PIUs and the Bank to target efforts in implementation.

6.42 Overall, project M&E is rated as **Modest**.

7. Lessons

7.1 Following are the major lessons learnt from this project:

- It is important to include those activities in the project, upfront, which can directly and most effectively contribute to the achievement of project objectives. In the case of this Project, establishing BPO centers and Business Incubation activities could have directly contributed to the PDO of growth and employment, but these were not included in the project design at appraisal. They were included after the mid-term review of the project in 2010, and since these started late, they could not be completed by project end and therefore could not contribute to the PDO.
- Financing by multiple development partners can be challenging when different partners have different reporting requirements. It would be useful to consider alternatives such as allowing for a consolidated report that satisfies all donors.

- Implementing IFMIS under a partnership between the Ministry of Finance and a ministry in-charge of establishing government wide-area network, with the former taking the lead on taking all decisions on PFM functionality and the latter leading and managing the IT infrastructure, produces effective results. A successful implementation of IFMIS requires a combination of both skills, and in this particular project, complete ownership of, and partnership between, both ministries, with an overall lead by the Ministry of Finance, ensured success.

- With projects involving creation of large infrastructure, there must be a commitment taken from the government to provide necessary funding and institutional support for their operation and maintenance. In the absence of this, the sustainability of project investments can be put to high risk. In the case of this Project, a country WAN was created on which the eServices and GIFMIS operate, but the government did not make adequate budget provisions for its operation and maintenance. This has put on risk GovNet, which can collapse in a period of 2-3 years if the funding is not provided.

- The Project design must include activities to address the binding constraints to development objectives and indicators to measure them. In the case of this Project, eServices like birth registration, marriage registration, police verification, company registration were started but they are being used by less than 10 % of targeted citizens for lack of internet and broadband penetration and awareness among citizens.

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Appendix A. Basic Data Sheet

eGHANA PROJECT (IDA-42260, IDA-47730, P093610)

Key Project Data (amounts in US$ million)

	Appraisal estimate	Actual or current estimate	Actual as % of appraisal estimate
Total project costs	116.84	102.20	87.47
Loan amount	40.00	38.53	96.32
Additional Financing	44.70	38.22	85.50
Co-financing (DFID, EU, DANIDA)	32.14	25.45	79.18
Cancellation	0.00	0.06	0.00

Cumulative Estimated and Actual Disbursements

	FY07	***FY08***	***FY09***	***FY10***	***FY11***	***FY12***	***FY13***	***FY14***	***FY15***
Appraisal estimate (US$M)	6.00	13.50	21.00	29.00	35.00	40.00	40.00	40.00	40.00
Actual (US$M)	0.00	1.27	1.71	3.22	6.50	12.98	23.04	37.04	38.53
Actual as % of appraisal	0.00	9.40	8.14	11.10	18.57	31.42	57.60	92.60	96.32
Date of final disbursement: May 4, 2015									

Project Dates

	Original	Actual
Initiating memorandum	06/08/2005	06/08/2005
Negotiations	05/30/2006	05/30/2006
Board approval	08/01/2006	08/01/2006
Signing	08/25/2006	08/25/2006
Effectiveness	11/21/2006	11/21/2006
Closing date	03/31/2012	12/30/2014

Task Team Members

Name	*Title*	*Unit*	*Responsibility/specialty*
Lending			
Mavis Ampah	TTL	GTI11	Lead ICT Specialist
Kofi-Boateng Agyen	Senior Private Sector Develop.	GTC07	
Ferdinand Tsri Apronti	Procurement Specialist	AFTPE-HIS	
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Christine E. Kimes	Operations Adviser	SACBD	
Smile Kwawukume	Senior Public Sector Specialist	GGODR	
Cecile Thioro Niang	Program Leader	LCC3C	
Oleg V. Petrov	Senior Program Officer	GTI09	
Michele Ralisoa Noro	Operations Analyst	GTI11	
Lydia Sam	Procurement Assistant	AFCW1	Procurement
Sandra Sargent	Senior Operations Officer	GTI09	
Randeep Sudan	Practice Manager	GTIIC	
Kafu Kofi Tsikata	Senior Communications Officer	AFREC	
Salli Wondergem	Senior Executive Assistant	AFCW1	
Ismaila B. Ceesay	Lead Financial Management Specialist	GGO25	Co TTL for GIFMIS component
Robert Wallace DeGraft-Hanson	Sr. Financial Management Specialist	GGO31	FM
Winston Percy Onipede Cole	Sr. Financial Management Specialist	GGO24	
Nyaneba E. Nkrumah	Sr. Natural Resources Mgmt. Specialist	GEN04	
Beatrix Allah-Mensah	Senior Operations Officer	AFCWI	
Ali Hashim	Consultant	GGODR	Treasury Systems
William A. Allan	Consultant	GGODR	Fiscal reporting and M&E
Supervision			
Mavis Ampah	TTL	GTI11	IT
Adu-Gyamfi Abunyewa	Senior Procurement Specialist	GGO08	Procurement
Ferdinand Tsri Apronti	Procurement Specialist	AFTPE - HIS	Procurement
Laurent Besancon	Manager	HRDLS	
Samuel Bruce-Smith	Consultant	AFTDE - HIS	
Kashmira Daruwalla	Senior Procurement Specialist	GGOGI	Procurement
Robert Wallace DeGraft-Hanson	Sr. Financial Management Specialist	GGO31	
Jessica Dodoo		CAFW2	

Mohan Kharbanda	Consultant	TWICT-HIS	
Gareth Locksley	Sr. Telecom. Spec.	TWICT-HIS	Telecom
Oleg V. Petrov	Senior Program Officer	GTI09	
Rajesh B. Pradhan	Consultant	GTCID	
Michele Ralisoa Noro	Operations Analyst	GTI11	
Sandra Sargent	Senior Operations Officer	GTI09	Co-TTL
Randeep Sudan	Practice Manager	GTIIC	IT Expert
Ayishetu Terewina	Program Assistant	AFCW1	
Kafy Tofi Tsikata	Senior Communications Officer	AFREC	
Elizabeth Alluah Vaah	ET Consultant	AFTME-HIS	
FrederickYankey	Sr. FM Specialist	GGODR	FM
Kaoru Kimura	ICT Policy Specialist	GTI11	
Zaid Safdar	Senior Operations Officer	GTI11	
Naomi Halewood	ICT Policy Specialist	GTI11	
Gabriel Dedu	Governance Specialist	GGO13	
Gurcharan Singh	Senior Procurement Specialist	GTI11	
Stephen Tettevie	Team Assistant	AFCW1	
Ismaila B. Ceesay	Lead Financial Management Specialist	GGO25	Co TTL for GIFMIS component
Khuram Farooq	Sr. Financial Management Specialist	GGO25	
Smile Kwawukume	Senior Public Sector Specialist	GGO19	
Aleksandar Kocevski	Operations Officer	GGO27	
Ali Hashim	Consultant	GGODR	Treasury Systems
William A. Allan	Consultant	GGODR	Fiscal reporting and M&E
Stephen Gur	Consultant	GGODR	Budget reforms
Charlotte Hayfron	Program Assistant	AFCW1	

Staff Inputs (staff weeks)

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY05	29.70	117,295.72
FY06	48.26	234,287.60
FY07	8.82	32,956.63
Total:	**86.78**	**384,539.95**
Supervision		
FY07	23.77	150,623.51
FY08	41.60	236,779.23
FY09	32.31	166,650.97
FY10	16.87	116,650.97
FY11	31.25	192,473.75
FY12	37.46	211,498.37
FY13	26.50	150,828.23
FY14	27.03	149,084.87
FY15	17.70	118,569.97
Total:	**254.49**	**1,492,563.49**

Appendix B: Project Costs

Table B.1 Project-Cost by Component

Component	Original Allocation (US$ Million)	% Allocation	Additional Financing (US$ Million)	Total IDA Allocation (US$ Million)	Donor Co-Financing (US$ Million)	Total Allocation	% of Total Allocation
1. Enabling Environment	9.65	24	1.35	11		11	9
2. Local ICT and ITES	9.46	24	5.25	14.71		14.71	13
3. e-Government	20.89	52	9.66	30.55		30.55	26
4. GIFMIS	0	0	28.44	28.44	32.14	60.58	52
Total	**40**	**100**	**44.7**	**84.7**	**32.14**	**116.84**	**100**

Source: Project Appraisal Document and Additional Financing Project Paper

Table B.2 Cost Allocation by Component and Source of Finance (Figures in US $ Million)

Component	*IDA Allocation*			*DFID*	*EU*	*DANIDA*	*Total Allocation*
	Original Allocation	*Additional Financing*	*Revised Allocation*	*Original Allocation*	*Original Allocation*	*Original Allocation*	
1. Enabling Environment	9.65	1.35	11	-	-	-	11
2. Local ICT Businesses and ITES	9.46	5.25	14.71	-	-	-	14.71
3. e-Government Program	20.89	9.66	30.55	-	-	-	30.55
4. GIFMIS	0	28.44	28.44	15.05	12.27	4.82	60.58
Total	**40.0**	**44.7**	**84.7**	**15.05**	**12.27**	**4.82**	**116.84**

Source: Project Appraisal Document and Additional Financing Project Paper

Table B3 Component-wise Appraisal and Actual Estimates (Amount in $ Million)

COMPONENT	*IDA Allocation*		*Donor Co-financing*		*Total*			
	Planned Estimate	***Actual Estimate***	***Planned Estimate***	***Actual Estimate***	***Planned Estimate***	***Actual Estimate***	***% of Planned***	***% of Total***
1. Enabling Environment	11	19.09			11	19.09	174	19
2. Local ICT Businesses and ITES	14.71	4.96			14.71	4.96	34	5
3. e-Government Program	30.55	26.38			30.55	26.38	86	26
4. GIFMIS	28.44	26.32	32.14	25.45	60.58	51.77	85	51
Total	**84.7**	**76.75**	**32.14**	**25.45**	**116.84**	**102.2**	**87**	**100**

Source: Project Appraisal Document and Additional Financing Project Paper

Table B4 Source-wise Appraisal and Actual Estimates (Amount in $ Million)

Source of Finance	***Type of Co-Financing***	***Planned Estimate***	***Actual Estimate***	***% of Planned***
Borrower		***0***	***0***	***0***
United Kingdom Department of International Development	***Joint***	***15.05***	***11.52***	***77***
European Union	***Joint***	***12.27***	***9.96***	***81***
Danish International Development Agency	***Joint***	***4.82***	***3.97***	***82***
International Development Association	***IDA***	***84.7***	***76.75***	***91***
TOTAL		***116.84***	***102.2***	***87***

Source: Project Appraisal Document and Additional Financing Project Paper

Appendix C: Internet Usage and Broadband Data

Table C.1 Percentage of Individuals using the internet

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ghana	1.8	2.7	3.9	4.3	5.4	7.8	9.0	10.6	12.3	18.9	23.5
Nigeria	3.5	5.5	6.8	15.9	20.0	24.0	28.4	32.8	38.0	42.7	47.4
Kenya	3.1	7.5	8.0	8.7	10.0	14.0	28.0	32.1	39.0	43.4	45.6
Africa Region	2.4	3.3	3.9	5.9	7.3	9.6	11.9	14.0	16.7	19.6	22.5
Developing Countries	7.8	9.4	11.9	14.6	17.4	21.0	23.9	26.8	29.4	33.1	36.7
Developed Countries	50.9	53.5	59.0	61.3	62.9	66.5	67.7	72.0	73.8	76.1	78.1
World	15.8	17.6	20.6	23.1	25.6	29.2	31.7	34.8	37.2	40.5	43.8

Table C.2 Fixed Broadband connections per 100 inhabitants

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ghana	0.01	0.06	0.07	0.10	0.12	0.21	0.26	0.27	0.27	0.27	0.28
Kenya	0.02	0.05	0.05	0.01	0.05	0.02	0.13	0.13	0.17	0.22	0.28
Nigeria	0.00		0.04	0.04	0.05	0.06		0.01	0.01	0.01	0.01
Africa Region	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5

Table C.3 Mobile Cellular connections per 100 inhabitants

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ghana	13.44	23.73	33.76	50.07	63.77	71.87	85.27	100.99	108.19	114.82	129.74
Kenya	12.89	19.97	30.06	42.05	48.62	61.03	66.81	71.17	71.76	73.84	80.68
Nigeria	13.32	22.55	27.45	41.66	47.96	54.66	57.96	66.80	73.29	77.84	82.19
Africa Region	12.4	17.8	23.5	32.2	38.0	45.4	52.3	58.9	65.6	71.0	76.2

Table C.4 Mobile Broadband subscriptions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Mobile Broadband Subscriptions (‘000)	-	-	-	-	-	1,673	5,748	8,507	10,324	15,806	18,031
Mobile Broadband subscriptions per 100 inhabitants	-	-	-	-	-	6.89	23.16	33.54	39.85	59.78	66.82

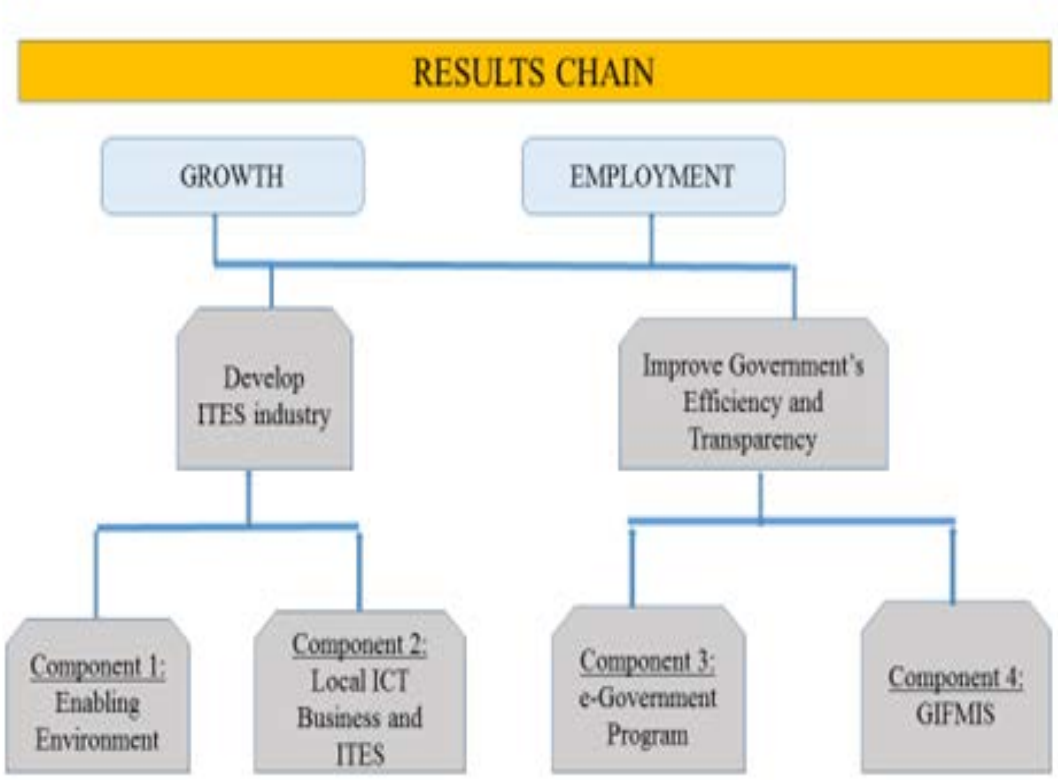
Appendix D: Project Design

Annex Table D.1 Outcome Indicators at Appraisal and Restructuring Stages

Outcome Indicators as per Results Framework in PAD, on July 7, 2006	*Outcome Indicators as per Updated Results Framework in Project Paper for Additional Financing on May 27, 2010*
1. New jobs created in the ICT/ITES sector	**No Change**
2. At least half of the new jobs created in the ICT/ITES sector are held by women	**No Change**
3. % increase in ITES contribution to GDP	**Removed**
4. Increase in export led revenues generated by ICT/ITES industry	**No Change**
5. Increase in number of ICT SMEs reporting increased revenues	**Removed**
6. Increase over the baseline in satisfaction of users with government services taken up for electronic delivery (specific services will identify as the result of eGovernment study).	6. Increase over the baseline in satisfaction of users with government services taken up for electronic delivery (specific services will identify as the result of eGovernment study). (User perception of quality of public services (%)
7. Increase in number of PPPs in eGovernment infrastructure and applications	**Removed**
	8. MDAs applying commitment controls using GIFMIS (number) ***[NEW]***
	9. Production through GIFMIS of systems-based quarterly GoG Government Finance Statistics (GFS)-compliant Ghana Fiscal Operations Report by MoF within one month of quarter-end ***[NEW]***
	10. Production of International Public Sector Accounting Standards compliant GoG annual financial statements by CAGD for the CFA ***[NEW]***
	11. Number of manpower trained (number of people)- CORE ***[NEW]***
	12. Number of direct project beneficiaries (of which females) ***[NEW]***

Source: Project Appraisal Document and Additional Financing Project Paper

Annex Figure D.1 Results Chain



Source: Graphic depiction based on Project Appraisal Document and Additional Financing Project Paper

Appendix E. Details on Achievement of Objectives

1. In the PDO, generating growth and employment were the two overarching objectives and development of ITES industry and improved efficiency and transparency of selected government functions the project level objectives. For the purpose of this evaluation, the PDO is being bundled up as follows:

- **Objective 1**: To generate growth and employment by leveraging ICT and PPP's to develop the ITES industry; and
- **Objective 2**: To contribute to improved efficiency and transparency of selected government functions through electronic government applications.

2. The achievement of these two objectives is discussed below. Project outcomes benefited significantly by the parallel financed activities by other donors like EU, DFID and DANIDA; and, also independent contributions from the Chinese government, the Rockefeller Foundation and Google. The exact attribution of outcomes to the various sector participants, including the Bank, is difficult to determine.

Objective 1: Growth and Employment

3. This was to be achieved by creating an enabling environment for the development of the ICT sector and providing support to the local ICT businesses and ITES.

OUTPUTS:

4. Following outputs were achieved:

(a) Creating an enabling environment for the development of the ICT sector

- Under the auspices of the project, eight laws and three regulations were passed to facilitate the development of the ICT sector. This exceeded the original target of four laws. These laws were:

  (i) The National Communications Act of 2008 which established the National Communications Authority as the central body for licensing and regulating telecommunication activities and services.
  (ii) The Electronic Communications Act, 2008 for regulating electronic communication broadcasting, electronic communications, broadcasting service providers and their networks.
  (iii) The National Information Technology Agency Act of 2008 for regulating information communication technology.
  (iv) The Electronic Transactions Act, 2008 for facilitating electronic communications and related transactions in the public interest.
  (v) Electronic Communications Regulations, 2011, provided subsidiary legislation for strengthening the provision of the Electronic Communications Regulation.

(vi) The Mobile Number Portability Regulations, 2011 aimed at removing the obstacles for customers who wished to change networks but were reluctant to do so due to the inconvenience associated with changing their phone numbers.
(vii) Electronic Communications (Amendment) Act, 2009 to address challenges associated with international incoming call termination.
(viii) Subscriber Identity Module Regulations, 2011 to address challenges associated with the use of mobile phones to commit various crimes in the country.
(ix) Companies (Amendment) Act 2012 to facilitate the electronic registration process of companies at the registrar general's department.
(x) The Electronic Transactions (Amendment) Act, 2012, for facilitating the electronic registration process of companies at the Registrar General's department.
(xi) Data Protection Act, 2012, to protect the privacy of the individual and personal data.

- The ITES Secretariat and the NITA was established as targeted, and the agency was functioning at the project closure stage.
- Models and frameworks for developing ITES and BPO policies were completed as targeted, and the framework provided key recommendations in the areas of talent development, quality infrastructure and cost competitiveness.
- The strategic plan for the NCA was completed, with recommendations for the short, medium and long term.
- One PPP contract covering five applications (Internal Revenue Service, Revenue Agencies Governing Board, and Large Tax office, Small and Medium Enterprises (SME's) Tax Office and the Registrar General's Department) were completed as compared to the original target of three applications. At closure, investments in the ICT/ ITES under PPP arrangements were around US$60 million.
- Ten RICs were completed (including the construction of building infrastructure and providing Local Area Network Connectivity to these centers) to encourage the use of ICT's in the regions as targeted.

(b) Creating an environment conducive for supporting investments in ITES by local enterprises.

- An ICT industry Association was established for recruiting technical service providers as targeted.
- Standards were developed for building ITES Skills and the training curriculum for ITES industry and BPO was developed as targeted. The curriculum which was designed to generate job creation focused on six areas: Customer Interaction, Data entry and Processing, IT technical support, Data Conversion, Finance and Accounting and Medical Transcription. This curriculum was subsequently adopted by the Governing Council of the ITES and the BPO industry.
- 532 BPO agents were trained, of which, 427 trainees took the certification exams and 361 passed.
- 28% of managerial positions were held by women as compared to 5% at the baseline and as compared to the target of 20%.

- 41 new companies were incubated each year as compared to the original and revised targets of 25 and 30 respectively.
- A BPO center was established at project closure through the refurbishment of warehouses in Accra. The activity included upgrading of the existing facilities and installation of technical equipment at the center. Investment promotion events were conducted for attracting investors in Ghana as targeted.
- The cost of bandwidth for a full circuit E1 line (between Accra and Portugal reduced from US$10,000 (pre project 2005 for non-Ghana Internet Service Providers Association members) to less than US$1,200 for all internet and data service providers.
- The revised Telecom Act opened the sector to further competition and the number of mobile operators increased from four to six during the project period.

OUTCOMES

Growth Objective

5. For measuring outcomes on the 'Growth' objective, following two PDO indicators were used:

(i) **% increase in ITES contribution to the GDP:** From the Results Framework and M&E reports, it is clear that this indicator actually meant 'increase in ITES contribution to the GDP (%)', not '% increase in ITES contribution to the GDP'. The ICR states that the contribution of ITES to the GDP was 0.5 % at the Baseline in 2006. The project target was to increase to 1.5 % by the project-end. The ITES contribution to the end of GDP at the end of the project in 2014 had reached 2.44 %. ICR concludes that this outcome indicator was more than achieved.

(ii) **Increase in export-led revenues generated by ICT/ITES industry:** There was no baseline available for this indicator. The targets for year 1 and 2 were not fixed. For year 3, a target of $60 million was fixed, and for the project-end, in year 5, a target of $90 million was fixed. The project-end target was reduced to $70 million on June 30, 2014 citing the reasons of low international demand and economic crises. At the end of the project, on December 31, 2014, an achievement of $72 million was reported. Thus, this target was declared to have been achieved. The substantial 22 % reduction of target just 6 months before the project closure clouds the achievement of this target.

6. Moreover, the increase in export led revenues by ITES as presented in the Project ISRs and ICR is not consistent with data on International Trade published by Ghana Statistical Service. As can be seen from Annex F, Table F.5 on 'Exports by Section (2009-2013), export-led revenues from ITES were not included in government publication. The sections with less than 15 Million Ghana Cedis were summed up in 'Others' category. The ISRs and ICR report that export-led revenue from ITES was $32 Million (47 million GhC) in 2010 and $72 million (231 million GhC) in 2014. Had that been the case, it would have been included in above tabulation by Ghana Statistical Service.

7. Moreover, while these two indicators would measure project contribution to growth, but not growth itself. The data related with GDP at Market Prices (Appendix F, Table F.1), GDP at constant 2006 Prices (Appendix F, Table F.2), Growth Rate in GDP (Appendix F, Table F.3), and Distribution of GDP by Economic Activity (Appendix F, Table F.4) present the status of GDP growth and contribution of ICT sector in the GDP growth during the project period. A summary of that information is presented Appendix F, Table F.6. Following facts emerge from this Table:

(i) GDP at the constant 2006 prices consistently grew within the project period, with annual growth rate reaching even 14 % in 2011 and 9.3 % in 2012. The average annual growth rate during 2007-2014 was 8.1 %, which was a substantial increase from the baseline of 5.8 % annual growth rate.

(ii) The ICT sector GDP grew at a faster pace than the overall GDP. The growth rate of ICT sector reached a whopping high of 41.5 % in 2012. Even at the project end in 2014, it was astronomically high at 38.5 %. The average annual growth rate of ICT sector GDP during 2007-2014 was as high as 23.3 %.

(iii) Contribution of ICT sector to GDP at the baseline was 2.7 %, not 0.5 % as stated in the PAD. It was not verified at the time of preparing the ICR. If it was 2.7 % at the baseline, the target of 1.5 % by the project-end was not justifiable. The contribution of ICT sector to the GDP never reached above the baseline of 2.7 %. It was 2.3 % at the end of project.

8. However, the growth objective seems to have been achieved considering that 23.3 % average annual growth rate of ICT sector was higher than the 8.1 % average annual growth rate of the GDP.

Employment Objective

9. For measuring outcomes on the 'Employment' objective, following PDO indicators were used:

(i) Number of jobs created in the ICT/ITES sector: At the baseline on December 31, 2005, the number of jobs in the ICT/ITES sector were reported to be 2,200 created by 5 companies. The original target value was 6,000 by end of March 31, 2012. This was revised to 7,000 on June 30, 2014 to be achieved by the project-end. The Project reported that 8,700 jobs were created in the ICT/ITES sector by 46 companies by the project end of December 31, 2014. Hence, the achievement exceeded the target. The ICR states that Baseline represented total 'offshore' employment[13]. This was reformulated to core indicator – IT/ITES employment (number of people) – on September 8, 2010. It is not clear, however, that if the indicator was changed why not the baseline. If the objective was increase in the jobs in the 'offshore' employment only, the achievements should have been reported in respect of

[13] Offshore employment is employment based on the practice of 'offshore outsourcing' under which external organizations are hired to perform some business functions in a country other than the one where the products or services are actually being developed or manufactured. Since the main opportunity for revenue generation and employment creation in the ITES sector in the long term was in attracting offshore activities, the project targeted jobs in the Business Process Offshoring (BPO).

offshore employment alone. Considering that there was a corresponding PDO indicator of increase in export-led revenues from ICT/ITES sector, the intention of this indicator was to measure the off-shore employment.

(ii) At least half of jobs created in the ICT/ITES sector are held by women: At the baseline on December 31, 2005, 70 % of the jobs in the ICT/ITES sector were held by women. The end of project target was fixed at 50 %. This was lower than the baseline and not justifiable. It is reported that at the baseline, most of the staff working in the ICT/ITES sector was women, and that proportion was not possible to carry on a sustainable basis. If that was the case, this outcome indicator should not have been kept in first place. The end of the project target was increased to 66 % on June 30, 2014, just 6 months before project closure, because the new BPO center was about to become operational and it was specifically targeting women employees. However, the BPO could not become operational and the achievement at the end of the project was 54.3 %, much below the target of 66 %.

10. The source of employment data reported by the project was GASSCOM. The Project Completion Report (PCR) prepared by the PIU included a Matrix at its Annex 2 displaying a list of ITS-BPO companies with number of jobs created. That matrix is presented in Annex F, Table F.7 to this report.

11. In the field mission conducted in June 2016, the mission team met a senior representative of GASSCOM and enquired about the veracity of this data. The Chairman feigned ignorance about this data. The mission than invited all these companies in a private sector focus group discussion. None of these companies turned up. Hence, the mission could not verify this data and cannot say with certainty that it is correct.

12. The PPAR team tried to verify the employment data from the Ghana Statistical Service. They publish employment data on the basis of Census that is conducted every 10 years. The last census was conducted in 2010. The census prior to that was conducted in 2000, and the next one will be conducted in 2020. The baseline and end of project information cannot, therefore, be derived from the Census data. There was a Quality of Life Survey conducted in 2012 which covered how many number of hours the people employed in various sectors, including the Information and Communication sector, worked during a week. This, however, did not reflect on the overarching employment objective of this project. From the available information, it is, therefore, not possible to conclude on the achievement of the overarching objective of employment.

13. The ITU's published statistical data in 2015 has a time series for Full-Time Telecommunication Employees (including females) from 2006-2012, but the information is blank for 2013-2015. The ITU's information on jobs is placed at Appendix F, Table F.8, from which, it would be clear that in 2012, only 4,975 full-time telecommunication employees worked in Ghana, out of which only 1,543 (31 %) were females. Although IT/ITES jobs might cover more than telecommunication employees, the available information signifies that project-end target for jobs were not achieved until 2012 and that the end of project achievement could not be verified from this or any other independent source.

14. Had the BPO center become operational, there could have been a direct attribution established with whatever jobs were created therein. But that could not be made operational until now.

15. There was a weak causal chain between project activities/outputs and growth and employment - both offshore and domestic. There are two major causal links: one direct through firm level support and one indirect through improved policy environment and availability of better trained workforce. Firm level support was barely accessed and underspent. It is hard to say that all that growth in employment was due to grants provided under the project.

16. Overall, the efficacy of the project in contributing to achievement of this objective is rated Modest.

Objective 2: Efficiency and Transparency

17. This was to be achieved by development of ICT in government operations and applications. It included development of ICT architecture and interoperability standards for government applications and networks. An investment support was to be provided to the government under a PPP for setting a high speed government wide communications network connecting the key MDAs for sharing information and applications and securing government databases. Specialized training was to be provided to chief information officers, technical staff of key MDA's, legislators and magistrates. A feasibility study was to be carried out for establishing PPP's for developing electronic applications of the Internal Revenue Service and other e-government applications.

18. The Ghana Integrated Financial Management System (GIFMIS) was to be established connecting the Ministry of Finance with MDAs, Treasuries and MMDAs for improving the efficiency and transparency of government financial management functions using ICT based tools at the central, regional and district levels. Businesses processes and control systems were to be established for developing budget planning tools for more effective macro-fiscal management and control of the budget. Public Financial Management rules and regulations were to be reviewed for supporting changes in businesses processes as part of the ICT platform. Treasury and Cash Management system were to be developed for establishing a Treasury Single Account. MDA's internal management was to be strengthened and the capacity-building support was provided for implementing this component.

OUTPUTS:

19. Following outputs were achieved:

(a) Support the development of ICT in government applications and communications

(i) Enterprise Architecture designed to use IT information for government operations and Inter-operability framework for facilitating Intra-government communications was completed as targeted.

(ii) GovNet - a communication infrastructure connecting all government agencies onto a single shared and secured communication platform - was established and deployed in

all regional capitals and 15 districts across the country. The project developed the concept for the GovNet with a smaller scope (Metro Network in Accra and Tema), and the government expanded the system nationwide with additional funding from the Chinese government. With this, the GovNet was deployed in over 300 government organizations in the country by project closure.

(iii) At project closure, 283 MDA's (including 33 ministries and 250 spending units) used program based budget classifications in the preparation of their 2015 budget.

(iv) The Portal infrastructure consisting of data center, payment gateway, security and authentication systems were developed and this portal infrastructure was integrated with the Government e-payment platform for collection of revenue online for government services such as for licenses, taxes, fee payments, fixed fees and other service payments (such as passport fees).

(v) E-government software applications were operational for the Ghana Revenue Authority because of which, Tax returns could be filed online.

(vi) E-government software applications were also operational for the Registrar General's Department whose portal provided online registration for transactions such as business/company registration, e-payments, and scheduling appointments with officers of the department.

(vii) 856 Chief Information officers were trained as compared to the target of 100. This included training to 96 legal and judicial staff. 2,623 technical staff were trained as compared to the original target of 100.

(b) Support to development of ICT services in public financial management systems

(i) The new Ghana Financial System was finalized as per the target and the full Ghana Integrated Financial Management Information System (GIFMIS) was rolled out after a pilot at the CAGD and the Ministry of Finance.

(ii) All the ministries (33) and regional treasuries were connected to the central budget as targeted.

(iii) Training programs were delivered as targeted. This included Oracle University Training to all end users of the MDA's at the national and regional level, training to the IT staff for MDA's in Accra and 22 regional MDA's to provide first line support to end users, and 12 staff members were trained in Oracle Certification Training.

(iv) The project secretariat was established as targeted. Consultants were recruited to provide technical assistance in the fields of procurement management, finance and accounting, and communication.

(v) Activities such as production of systems based Ghana Government Finance Statistics and public sector accounting standards were ongoing at the project closure stage.

(vi) Although a review of the Financial Management legislation was completed, the legislative updates were not completed at the project closure stage, as per the revised target.

OUTCOMES:

20. Let us look at whether planned outcomes of efficiency and transparency were achieved for the selected government functions through electronic government applications.

1. Ghana Revenue Authority (GRA)

21. Prior to the automation of the GRA, tax payers were subjected to manual systems of multiple tax agencies and offices, with files often getting lost, tax assessments done subjectively, and a number of businesses able to evade taxes. GRA's work was being done by several revenue agencies in different computing environments: Internal Revenue Service was manual, VAT's back office was computerized but front-end was manual, Large Tax Office (LTO) had a silo sever. There was a need for business process re-engineering. All these activities were merged in the GRA in December 2009. The GRA developed systems to provide integrated solutions. It reviewed different tax laws and conducted self-assessment.

22. In December 2011, it started the new Taxpayer Identification Numbering System (TIN). A unique identification number was issued to taxpayers for official transactions with: (a) The Domestic Tax Revenue Division of the GRA, (b) The Customs Division of the GRA, (c) The CAGD, (d) The RGD, (e) District Assemblies, and (f) Any Public Institution which the Minister may by legislative instrument prescribe.

23. All persons liable to pay tax, or from whom taxes were withheld at source by employers or agents through payroll deductions and /or other business transactions under any enactment, were required to register. A person transacting a business with any of the listed public institutions had to quote their TIN for purposes of identification. The streamlined automated process at the GRA provided a shared platform with real time data, and a link between business registration and Revenue Authorities through the TIN. The transformation in business processes of the GRA from before to after the automation is depicted in Appendix F, Figure F.1.

24. Transparency was improved by the substantial increase in automated business registrations (87,900) and TIN registrations (425,305), which indicated that the e-government registration application was functioning. The TINs were particularly important to improving transparency because individuals would now be identified by a unique number and transactions would be associated with that number. This new process thereby increased visibility to the public and reduced opportunities for corruption. It also made it easier to avoid and correct mistakes that were more common in the paper-based system. TINs have also improved GRA's operational efficiency significantly in defining and calculating the correct tax obligations of tax payers. The use of TIN improved the quality of business data remarkably at the RGD as well, as TINs can uniquely identify each employee of a company. All data changes are updated in real time, and the Business Certificates are electronically generated in a centralized printer. As an outcome, there was an increase in new taxpayers (estimated at 400,000) following the provision of the TIN registrations that enabled people to file their taxes online.

25. Tax collection was done under the structured of a PPP contract, under which, contract compensation was linked to performance. Revenue collected through the TRIPS - a new tax collection system implemented by the project - increased from 0 percent of the total tax collection in 2012 to 61.7 percent in 2015.

26. Enhanced efficiency in collection of taxes was clearly visible in a consistent increase in the collection of tax revenues, between 2010 and 2015. See Appendix F, Table F.9.The collection of tax revenues rose by 3 times in this period. However, this increase was not coupled with any significant increase in revenue staff/expenditure.

2. ***RGD***

27. The RGD automation system has been established in RGD Headquarters and Regional offices nation-wide from December 2011 to November 2014 for the management and processing of company registration, Marriage Registration and Estate Administration. Most services of the RGD were manual earlier. The RGD citizen and business online eRegistrar portal was launched in November 2014 for submission of online application/request for 65 different services online by citizens and businesses.

28. The status of registered companies from December, 2011 to May, 2016 in Appendix F, Table F.10. It can be seen that there has been consistent increase in the number of companies registered since automation of services in December 2011. There was a quantum 55 % increase in company registration in 2012-13, which signified an increased efficiency of the RGD. This was followed by a 6% increase in 2013-14 and 3 % increase in 2014-15.

29. The status of Revenue generated through registration Appendix F, Table F.11. The yearly pattern of revenues also show a consistent increase from December, 2011 to December, 2016. For registration of a new company, a TIN is first required. The RGD Portal was fully integrated with GRA e-tax portal. The companies were asked to re-register themselves with TIN after the automation of RGD and GRA. The status of re-registered companies is presented in Appendix F, Table F.12.

30. Online Registration of Companies started in January, 2015. Since then and until May, 2016, total number of online company registration has been only 500. Online applications were 0.6% of the total registered companies between January, 2015 and May, 2016. Total number of online payments have also been a minimal 192. The reason for slow take-off are lack of awareness about the online portal, people's preference to the manual system, poor internet connectivity, and continued problems with the e-payment system.

31. In registration of companies and businesses, efficiency has improved, but not to its potential. In the current automated system, the application form is still filled manually. It is scanned by a data entry operator and uploaded on the system. It is then reviewed and cleared by the Company Inspector. It is thereafter submitted to the lawyer for approval. After lawyer's approval, a certificate of registration is automatically printed by the system and is put up for signature of the lawyer. The whole process in the automated system takes about 15 days. In the manual system earlier, it used to take about 2 months to register a company – with two weeks to only see if the newly proposed company name already existed or was available for registration. So, there is indeed a significant improvement in efficiency of company registration.

32. However, ideally, a business company can be registered in 30 minutes, but there are delays due to human factors and a parallel manual system. The application form could be

directly filled by applicants on the system. That way the data pertaining to their applications could be directly uploaded on the company's database. A scanned copy of the application can only serve the purpose of record keeping, but not for doing database management. The Data-entry operators have to enter data for each application separately, which consumes a huge amount of their time. If it is done by applicants in a decentralized manner, lot of time can be saved.

33. Secondly, RGD has 25 data entry operators, 12 company inspectors and only 6 lawyers. There is a bottleneck at the level of lawyers due to their shortage. The current Registrar General informed the PPAR mission that, as per current workload, at least 12 additional lawyers are required by the RGD to clear the applications for company registration in less than a week. The human factors come into play as there is no queuing system. Applications received first are not disposed-off first. The applications received at a later date with external influences can be cleared first. There is no work flow management system to track delays at different levels. Lastly, the certificates can be digitally signed instead coming to the lawyers for signature. In addition, there are some 101 issues identified related with software, but only 25 have been resolved. All of these steps can considerably enhance efficiency up to its optimal level.

34. The RGD portal also allows scheduling of appointments with officers of the department. The project had planned to include online registration of marriages and estates as well, but these services have not become online yet. The status of Registered Marriages is presented in Appendix F, Table F.13. The number of booking approved during November, 2014 and May 2016 is very small, with a huge pendency.

3. eServices

35. The project provided support to the government in setting up different eServices. Citizens can access them at http://eservices.gov.gh. The performance of different eServices is presented in Appendix F, Table F.14. There are two major conclusions from the review of their performance. First the % of beneficiaries using these eServices is very low at below 10 %. Unless this percentage is enhanced, the impact of efficiency gains will not be felt by citizens at large. With PC density of 67 %, and 36 million subscribers of smart phones against a population of 27 million, the potential reach of eServices would apparently appear huge. However, the percentage of individuals using internet is very low. In 2015, there were only 23.5 % of individuals using internet in Ghana, in comparison to neighboring middle income countries like Nigeria having 47.4 % and Kenya having 45.6 % individuals using internet. Broadband penetration is crucial for the development of a domestic ICT market and to make e-government meaningful for the population. In 2015, the Fixed Broad Band Connections in Ghana were only 0.28 per 100 inhabitants (see Appendix C for detailed information). As per analysis done by 'Alliance for Affordable Internet'14, using industry data for the number of mobile broadband subscribers, the actual penetration figure for mobile broadband is only 9%. It is not possible to access eServices at low bandwidth. Thus, despite

[14] The Alliance for Affordable Internet (A4AI) is a broad coalition working to enable everyone, everywhere to access the life-changing power of the Internet. Details can be found at http://a4ai.org/

high PC density and high smart phone subscribers, the eServices users remain low. In addition, internet penetration is affected due to certain additional barriers[15].

36. However, the mobile broadband[16] subscriptions is seeing a phenomenal increase since 2010. This provides potential platform at which citizens can access eServices. The number mobile broad subscriptions are presented in Appendix C, Table C.4. It is evident though it was very low in 2010 at 1.6 million (6.89 mobile broadband subscriptions per 100 inhabitants), it has now increased to 18 million subscriptions (67 subscriptions per 100 inhabitants) in 2015. eServices can be accessed on mobile phones with broadband connections, but still the subscribers complain of poor connectivity and citizens face difficulty in using eServices.

37. It is also important to note that the internet cost relative to GDP per capita was too high. In such a situation, people would prefer SMS to broadband. The government could have designed payment systems (m-Banking) for SMS users, and they could have done the same for e-gov services but a deliberate effort was not made in this respect. eServices design for browser access require broadband (fixed or mobile), which were affected by the constraint of low broadband penetration and high costs. The government could have, but did not foresee SMS or low bandwidth services.

38. The overarching binding constraint for both coverage and efficiency are low internet usage, poor internet connectivity, high prices and problems with the ePayment system. Less than a quarter of citizens have access to internet and those who have it are not able to access good 24X7 internet connectivity. Also, while the eServices platform is on the GovNet, the ePayment system operates on the internet. The poor connectivity affects the ePayment system to function efficiently. There are also several technical snags in the ePayment system which the service providers need to address.

39. There is also a lack of awareness among citizens. The government needs to launch a massive awareness campaign to motivate citizens to use eServices highlighting its benefits. Secondly, while the service standards have significantly improved, they have not reached the optimum level. It would require business process reengineering at the back-end.

40. A survey was conducted at the project closure stage to gauge user perception of services that were provided through the automation process. 76% of the beneficiaries (which included consumers, government agencies and other stakeholders such as the private sector representatives) were satisfied with the electronic delivery of services – this exceeded the original target of 68%. However, considering that users are very few in number (less than 10 % of targeted beneficiaries), these satisfaction ratings cannot be a reflection on the overall

[15] Research ICT Africa (2012), Evidence for ICT Policy Action, Policy Paper 4, What is Happening in ICT in Ghana, A Supply and Demand-Side Analysis of the Sector identifies the barriers as: (i) no interesting, (ii) lack of local language content, (iii) slow internet, few people to communicate with via the internet, (v) expensive to use.

[16] Broadband is defined as high-speed network that connects users at Speeds above 256 Kb/s (usually 1 – 2 Mb/s). India has > 2Mb/s, Swiss has > 1.5 Mb/s.

satisfaction of consumers. The purpose of conducting a satisfaction survey is also questionable considering a very low percentage of individuals using an internet to start with.

4. Ghana Integrated Financial Management Information System (GIFMIS)

41. The government's budget is classified into 4 categories: (i) Government of Ghana (GoG) Funds, (ii) Internally Generated Funds, (iii) Donor Funds, and (iv) Statutory Funds. The GIFMIS covered only category (i) of GoG funds, which are covered under a TSA structure and represents about 66 % of the Total Budget.

42. The GIFMIS component is designed to support the following objectives: (i) Improving financial management, accounting and reporting of the government, including payroll management; (ii) Establishing HRMIS; and (iii) Improved Budget Preparation.

43. There are two major components of the GIFMIS Project. The Director of Budget is in charge of planning and implementing the budget management function using the budget module of the GIFMIS, and the Controller and Accountant-General is in charge of planning and implementing the budget execution, financial accounting, financial reporting, and cash management functions.

44. GIFMIS was implemented as per following sequencing: (i) Budget Financials, Accounting and Reports; (ii) Payroll Management; (iii) HRMIS, and (iv) Budget Preparation.

45. The GIFMIS system utilizes a new harmonized chart of accounts for all financial transactions throughout the country. The Controller and Accountant-General has enhanced commitment control through the widespread use of the procure-to-pay (P2P) module at all levels of government, under which, only those purchase orders that are entered, edited and approved in GIFMIS are processed through to payment status by GIFMIS. P2P system acts as an ex-ante control over expenditure.

46. A modern technical infrastructure has been established / upgraded to implement the new system. This infrastructure includes electronic data transmission systems (WAN/LAN) as well as environments for servers and desktop computers and related storage and disaster recovery systems. Change management activities are programmed as part of implementation. Salient features of the systems functionality and architecture under the new project are given below:

47. Budget Preparation : The GFMIS covers the Budget Preparation phase of the PFM cycle which, inter-alia, includes calculation of program and project costs; compilation of budget proposals from spending agencies; and printing Budget Documents. In Ghana, the budgeting process is centered at the office of the Director Budget (MOF), who receives budget submissions from Line ministries in response to the budget circular sent out to them. The offices of the main vote controllers, who are responsible for distribution of the budget to their subordinate units are provided access.

48. Budget Execution: This component includes the following:

- Budget Management–including Budget Apportionment, Budget Allotment, Budget Releases, and Budget Transfers
- Commitment Management – Recording all commitments relating to intended government expenditures
- Payments management- Processing all government expenditures relating to: Procurement of goods and services, Salary Payments, Debt servicing
- Receipts Management - Recording revenues and receipts
- Accounting (posting all transactions as they occur)
- Cash Management, and
- Fiscal Reporting

49. As per economic classifications, the public expenditure is divided into following 4 broad categories:

(i) **Expenditure on Wages and Salaries:** The Budget for wages and salaries is prepared using the Hyperion module in the GIFMIS; however, the expenditure on wages and salaries is controlled by the IPPD System and the HRMIS. Currently, payroll expenditure from the IPPD system are posted ex-post on the General Ledger against the appropriate budget lines of MDAs. Every expenditure on wages and salaries is approved by the CAGD. It is, however, not clear whether and how the budget provision for wages and salaries and the warrants of budget release issued during the year are used as a control in the IPPD system. Other salary related expenditure for MDAs, on the other hand, goes through the P2P budgetary controls on the GIFMIS and well controlled. The full budgetary control, including positions and establishment control, will be achieved once the HRMIS is fully implemented and integrated into the budget, financial and payroll systems. This is at an advanced stage of implementation. In either case, the total expenditure on wages and salaries is largely within the revised budget of Fiscal Year 2015.

(ii) **Goods and Services:** The entire set of expenditure on goods and services is government by the P2P system which is embedded in a Commitment Control System. The P2P system ensures ex-ante control over all expenditure on goods and services. For expenditure on goods and services, there is a quarterly release of the budget warrants to MDAs, which act as a limit on expenditure for that quarter.

(iii) **Capital expenditure**: Every capital expenditure is approved by the Director Budget at the Ministry of Finance and follows the P2P feature of GIFMIS to incur expenditure. All GoG funded capital expenditure, including advance payments, counterpart funds, and ABFA funds are released through the IFMIS on ex-ante basis, and are subjected to all necessary budgetary controls. The exception is donor funded projects. Payment for mobilizations (advance payment) by MDAs on capital projects are done through the GIFMIS. The amounts are treated as prepayments which are reported in the public accounts.

(iv) **Debt Servicing**: The budget for debt servicing, as approved by the parliament, is loaded on the GIFMIS as part of the annual appropriation. Servicing of external debts (interest and principal) go through the P2P process and are subjected to the relevant ex-ante budgetary controls. Warrants are issued and invoices raised at MoF before payment on

GIFMIS by the CAGD Treasury. Servicing of domestic debts (mostly T-Bills), which are done directly by the Bank of Ghana (BoG) on behalf of Government, are posted to the General Ledger ex-post, but not before warrants are issued to that effect from the approved budget on the GIFMIS. On the basis of the above, expenditure on debt servicing (whether recorded ex-anti or ex-post on the GIFMIS) cannot exceed the approved budget recorded on the system. In either case, the total expenditure on wages and salaries is largely within the revised budget of Fiscal Year 2015.

50. The GIFMIS was made operational in all the 33 Ministries, Departments and Agencies located in Accra and 250 Spending Units and 10 Regional Treasuries located across the country. They have all implemented the P2P/ Commitment Control System. GIFMIS now covers the GoG only, which accounts for about 66 % of total public expenditure. It comprehensively covers budget preparation, accounting and reporting of all GoG funds. However, its control feature is limited to expenditure on goods and services, external debt servicing, capital expenditure and other salary expenditure. It does not covers expenditure on wages and salaries and domestic debt servicing.

51. The Ministry of Finance now produces systems-based quarterly GFS-compliant Ghana Fiscal Operations (GFO) Report for the GoG funds within one month of quarter end. The Government has adopted International Public Accounting Standards, and the GoG annual financial statements are being prepared by Controller and Accountant General Department for the consolidated fund.

52. GIFMIS has contributed to the improved efficiency of the public financial management systems. It has enhanced the speed and accuracy of financial transactions. Following are some of the major tangible illustrations of increased efficiency as observed during the PPAR mission in Ghana in June 2016:

(i) **Timely preparation of Monthly Financial Reports (PEFA Indicator P1-24):** Before the implementation of GIFMIS, in 2011, monthly and quarterly financial reports from CAGD were generally finalized within two months from the end of the month. This practice was deteriorated in 2012 with the introduction of the new Chart of Accounts when finalization of financial reports took longer than three months. After implementation of GIFMIS in 2013, the monthly financial reports are finalized by the 15th day of the following month.

(ii) **Timely preparation of Annual Financial Statements (PEFA Indicator PI-25):** Section 41 of the Financial Administration Act 2003 (Act 654) provides the legal and regulatory framework for the preparation and submission of annual financial statement by CAGD for external audit by the Auditor General, as per which, CAGD must submit annual financial statements for external audit within 6 months of closer of fiscal year. Ghana's fiscal year is between January 1 and December 31. The Annual Financial Statements are required to be submitted to the Auditor General Office by June 30th of the following fiscal year. The performance of CAGD has been satisfactory in this regard even before the implementation of GIFMIS. It had submitted its annual statements to Ghana Audit Office within 3-4 months of close of fiscal year. After implementation of GIFMIS, it has been submitting the same by within 3 months of the close of fiscal year.

(iii) **Effectiveness of expenditure commitment controls (PEFA Indicator PI-20 (i):** After implementation of GIFMIS, better expenditure control is observed as budget ceilings are strictly adhered to. Virements within items of expenditure can be done by MDAs and those between items are approved by the Director Budget in the MoF. GIFMIS does not allow exceptions to the rules. There is no expenditure which can be made outside the scope of GIFMIS controls. No new commitment can be created unless there is adequate budget provision and released virements for that. The vendor registration is linked with the GRA and RGD portals and the vendors must be registered with a TIN. No purchase order can be issued to a vendor who is not registered with the RGD and/or does not have a TIN. Similarly, no payments can be issued unless a commitment was created in the system.

(iv) **Reduction of Audit Observations (PEFA Indicator PI-26):** Due to better financial controls, the number of audit objections by the external audit agency on the use of GoG funds have reduced after implementation of GIFMIS. Most audit objections now pertain to the expenditure by IGFs.

(v) Regularity of Account Reconciliation (PEFA Indicator PI-22): Prior to the implementation of GIFMIS, the account reconciliation on the consolidated fund generally used to be three months late. However, after implementation of GIFMIS, account reconciliation is done regularly every month.

(vi) Effectiveness of Payroll Controls (PEFA Indicator PI-18): Public Service Commission (PSC) is in charge of the implementation of HRMIS. They are implementing 3 HR modules in 9 pilot agencies covering 65-70 % of all employees. Personnel database and payroll are directly linked to ensure data consistency and monthly reconciliation. Before implementation of GIFMIS, it used to take 6 months to 1 year to make the first payment after an employee was appointed. Now it takes only 1 month. After payroll audit of 9 pilot agencies, 5,000 Ghost names have been identified in the payroll and suspended till further probe and verification. CAGD gives MDAs a schedule of only 10 days to update HR record between 12th and 27th of every month in situations of appointment, promotion or transfer. New names cannot be added in the payroll without the approval of the PSC on HRMIS. This prevents further addition of ghost employees. Authority to change records and payroll is thus restricted and results in an audit trail. A strong system of annual payroll audits exists to identify control weaknesses and/or ghost workers.

(vii) **Removal of Arithmetic Errors:** There has been removal of mathematical errors in compilation of data from different MDAs. The GIFMIS does the aggregation at different levels with accuracy.

53. It may be noted, however, the GIFMIS covers only the GoG funds, which are about 66 % of total public expenditure, barring the expenditure on wages and salaries and domestic debt servicing. The Internally Generated Funds, Donor Funds, and Statutory Funds are not yet covered under GIFMIS, and are being covered under the ongoing PFM Reforms project. Hence, the efficiency and transparency of public expenditure could not be impacted comprehensively.

54. IEG is carrying out research on a Diagnostic Framework to Assess the Capacity of a Government's Financial Management Information System as a Budget Management Tool, which seeks to assess the strength of the FMIS in terms of its effectiveness for budget management and control as they exist in 21 countries and to highlight areas of weaknesses where further reform efforts should focus. This paper identifies following set of features that

are critical for determining the effectiveness of FMIS as a budget management tool: (i) Treasury single account (TSA), (ii) FMIS coverage, (iii) Core system functionality, (iv) Ancillary features, and (v) Technical aspects. It provides scores to different countries to arrive at an overall score for the system strength for each pilot country as presented in Appendix F, Table F.15. Ghana scores an overall score of 51 out of 100 on the system strength and the areas of improvement largely relate to the TSA structure and FMIS coverage.

55. On the objective of improving transparency of public financial management, the Project didn't kept any benchmarks and targets. Transparency of PFM could be measured by the OBI as well as PEFA indicator no. 10. The trend in the OBI score since 2006 is presented in Appendix F, Figure F.2 and Figure F.3. GIFMIS implementation was started in 2010 and was completed in 2013. However, no significant change is visible in the OBI score. It had reached the maximum of 54 in 2010, after which, there has been a marginal decline. The OBI Score of 51 denotes that the Government of Ghana provides the public with limited budget information.

56. The Government of Ghana has been inconsistent in which documents are made publicly available in a given year. Since 2012, the Government of Ghana has increased the availability of budget information by publishing the Citizens Budget and Year-End Report and improving the comprehensiveness of the Enacted Budget. However, the Government of Ghana has decreased the availability of budget information by failing to produce a Mid-Year Review. Moreover, the Government of Ghana has failed to make progress by not producing a Pre-Budget Statement. Figure reflects availability of budget documents to public over time.

57. On PEFA Indicator PI-10 regarding 'Public access to key fiscal information', the trends in Ghana's scores is presented in Appendix F, Table F.16. It is evident that Ghana is at the same level of fiscal transparency as it was in 2006 and has declined in comparison to 2009. As per the latest PEFA report of 2013, while the Government of Ghana provides public access to: (i) the annual budget documentation when it is submitted to the legislature, (ii) in-year budget execution reports within one month of their completion, (iii) year-end financial statements within 6 months of completed audit, and (iv) all external audit reports on consolidated operations within 6 months of completed audit, there is no information on resources available to the primary service units and not comprehensive access to contract awards. While there is fairly good access to information on central government operations, accountability for the use of public resources is undermined by the delays in the publication of the in-year budget execution reports in respect to the period they cover; lack of information on in-year execution of individual MDAs and lack of public access to their financial statements. With implementation of GIFMIS, the government can strive to improve transparency of its fiscal operations on the identified gaps as per OBI and PEFA Assessments.

58. Overall, there is adequate evidence of improved efficiency of selected government applications through e-Government applications, there is less evidence of increased transparency. Accordingly, the efficacy of the project in contributing to achievement of this objective is rated Substantial.

Appendix F: Data Related With Outcomes

Table F.1 GDP at Current Market Prices by Economic Activity (Amount in Million Ghanaian Cedi)

		2006	2007	2008	2009	2010	2011	2012	2013	2014*
1.	**AGRICULTURE**	**5,415**	**6,320**	**8,875**	**11,343**	**12,910**	**14,155**	**16,668**	**20,232**	**23,278**
1.01	Crops	3,794	4,409	6,435	8,425	9,422	10,650	12,525	15,742	18,144
	o.w. Cocoa	*537*	*581*	706	874	1,392	1,996	1,869	1,981	2,409
1.02	Livestock	437	501	606	729	873	1,004	1,162	1,223	1,318
1.03	Forestry and Logging	736	910	1,072	1,314	1,614	1,549	1,880	2,019	2,537
1.04	Fishing	448	500	762	874	1,001	952	1,102	1,249	1,279
2.	**INDUSTRY**	**3,704**	**4,513**	**5,855**	**6,776**	**8,294**	**14,274**	**20,438**	**25,113**	**28,767**
2.01	Mining and Quarrying	497	602	693	740	1,013	4,690	6,961	8,503	8,640
	*o.w. Oil***	*0*	*0*	0	0	178	3,746	5,649	7,441	7,793
2.02	Manufacturing	1,823	1,990	2,277	2,478	2,941	3,842	4,263	4,800	5,342
2.03	Electricity	143	130	155	167	266	280	332	393	443
2.04	Water and Sewerage	224	227	229	246	368	467	511	568	576
2.05	Construction	1,016	1,564	2,500	3,144	3,706	4,995	8,370	10,848	13,766
3.	**SERVICES**	**8,690**	**10,922**	**13,935**	**17,543**	**22,184**	**27,423**	**35,837**	**44,964**	**56,248**
3.01	Trade; Repair Of Vehicles, Household Goods	1,141	1,335	1,710	2,109	2,701	3,282	4,060	5,222	6,085
3.02	Hotels and Restaurants	894	1,210	1,716	2,196	2,593	3,007	3,517	5,256	6,099
3.03	Transport and Storage	2,357	2,849	3,262	3,758	4,578	5,997	8,041	10,149	13,351
3.04	Information and Communication	483	511	622	657	831	989	1,590	1,572	2,441
3.05	Financial and Insurance activities	473	739	1,089	1,547	2,240	2,466	3,452	5,885	9,115
3.06	Real Estate, Professional, Administrative & Support Service activities	914	1,018	1,185	1,462	1,945	2,591	3,502	3,485	3,894
3.07	Public Administration & Defence; Social Security	862	1,289	1,799	2,479	3,024	3,897	4,952	5,305	5,843
3.08	Education	655	856	1,132	1,506	1,877	2,307	3,101	3,248	3,883
3.09	Health and Social Work	250	308	381	513	674	728	921	956	1,091
3.10	Community, Social & Personal Service Activities	662	807	1,039	1,318	1,722	2,159	2,701	3,886	4,445
	FISIM (Financial Intermediation Services Indirectly Measured)**	407	503	689	1,192	1,512	1,458	2,317	2,919	4,354
4.	**GROSS DOMESTIC PRODUCT at basic prices**	**17,403**	**21,252**	**27,975**	**34,470**	**41,876**	**54,394**	**70,627**	**87,390**	**103,939**
	Net indirect Taxes	1,302	1,902	2,204	2,128	4,166	5,422	4,689	6,026	9,404
5.	**GROSS DOMESTIC PRODUCT in purchasers' value**	**18,705**	**23,154**	**30,179**	**36,598**	**46,042**	**59,816**	**75,315**	**93,416**	**113,343**

**Revised*
*** FISIM is a negative item*
**** Oil means Oil and Gas*

Table F.2 GDP at 2006 Prices by Economic Activity (Amount in Million Ghanaian Cedi)

		2006	2007	2008	2009	2010	2011	2012	2013	2014*
1.	**AGRICULTURE**	**5,415**	**5,322**	**5,716**	**6,129**	**6,453**	**6,507**	**6,657**	**7,035**	**7,362**
1.01	Crops	3,794	3,743	4,064	4,479	4,703	4,878	4,915	5,204	5,499
	o.w. Cocoa	537	493	509	535	677	771	699	717	748
1.02	Livestock	437	458	481	502	526	552	581	612	644
1.03	Forestry and Logging	736	706	682	687	757	651	695	727	754
1.04	Fishing	448	416	488	460	467	427	465	492	464
2.	**INDUSTRY**	**3,704**	**3,930**	**4,522**	**4,725**	**5,053**	**7,157**	**7,947**	**8,475**	**8,542**
2.01	Mining and Quarrying	497	532	544	581	690	2,116	2,462	2,747	2,834
	*o.w. Oil****	0	0	0	0	65	1,372	1,669	1,969	2,058
2.02	Manufacturing	1,823	1,801	1,868	1,844	1,984	2,321	2,366	2,355	2,335
2.03	Electricity	143	118	141	152	170	169	188	218	219
2.04	Water and Sewerage	224	227	229	246	259	267	273	269	266
2.05	Construction	1,016	1,252	1,739	1,902	1,949	2,285	2,659	2,887	2,888
3.	**SERVICES**	**8,690**	**9,358**	**10,106**	**10,667**	**11,715**	**12,813**	**14,361**	**15,798**	**16,679**
3.01	Trade; Repair Of Vehicles, Household Goods	1,141	1,203	1,317	1,388	1,573	1,746	1,944	2,225	2,261
3.02	Hotels and Restaurants	894	917	1,000	962	988	1,023	1,082	1,348	1,332
3.03	Transport and Storage	2,357	2,573	2,672	2,790	3,014	3,346	3,653	3,635	3,646
3.04	Information and communication	483	503	601	624	777	909	1,286	1,599	2,213
3.05	Financial and Insurance Activities	473	560	620	678	791	799	975	1,201	1,475
3.06	Real Estate, Professional, Administrative & Support Service activities	914	944	943	945	1,076	1,227	1,452	1,198	1,180
3.07	Public Administration & Defence; Social Security	862	960	1,082	1,208	1,249	1,341	1,397	1,514	1,444
3.08	Education	655	720	814	915	963	1,000	1,067	1,140	1,221
3.09	Health And Social Work	250	259	271	312	347	364	404	435	428
3.10	Community, Social & Personal Service Activities	662	720	786	845	936	1,057	1,101	1,503	1,479
	FISIM (Financial Intermediation Services Indirectly Measured)**	406	450	522	739	797	904	1,015	1,315	1,394
4.	**GROSS DOMESTIC PRODUCT at basic prices**	**17,403**	**18,160**	**19,822**	**20,782**	**22,424**	**25,573**	**27,950**	**29,994**	**31,188**
	Net indirect Taxes	1,302	1,358	1,482	1,554	1,677	1,913	2,090	2,243	2,334
5.	**GROSS DOMESTIC PRODUCT in purchasers' value**	**18,705**	**19,518**	**21,304**	**22,336**	**24,101**	**27,486**	**30,040**	**32,237**	**33,522**

*Revised
** FISIM is a negative item
***Oil means Oil and Gas

Table F.3 Growth Rates of GDP at 2006 Constant Prices (%)

		2007	2008	2009	2010	2011	2012	2013	2014*
1.	**AGRICULTURE**	**-1.7**	**7.4**	**7.2**	**5.3**	**0.8**	**2.3**	**5.7**	**4.6**
1.01	Crops	-1.3	8.6	10.2	5.0	3.7	0.8	5.9	5.7
	o.w. Cocoa	*-8.2*	*3.2*	*5.0*	*26.6*	*14.0*	*-9.5*	*2.6*	*4.3*
1.02	Livestock	4.7	5.1	4.4	4.6	5.1	5.2	5.3	5.3
1.03	Forestry and Logging	-4.1	-3.3	0.7	10.1	-14.0	6.8	4.6	3.8
1.04	Fishing	-7.2	17.4	-5.7	1.5	-8.7	9.1	5.7	-5.6
2.	**INDUSTRY**	**6.1**	**15.1**	**4.5**	**6.9**	**41.6**	**11.0**	**6.6**	**0.8**
2.01	Mining and Quarrying	6.9	2.4	6.8	18.8	206.5	16.4	11.6	3.2
	*o.w. Oil****	-	-				*21.6*	*18.0*	*4.5*
2.02	Manufacturing	-1.2	3.7	-1.3	7.6	17.0	2.0	-0.5	-0.8
2.03	Electricity	-17.2	19.4	7.5	12.3	-0.8	11.1	16.3	0.3
2.04	Water and Sewerage	1.2	0.8	7.7	5.3	2.9	2.2	-1.6	-1.1
2.05	Construction	23.1	39.0	9.3	2.5	17.2	16.4	8.6	0.0
3.	**SERVICES**	**7.7**	**8.0**	**5.6**	**9.8**	**9.4**	**12.1**	**10.0**	**5.6**
3.01	Trade; Repair Of Vehicles, Household Goods	5.4	9.5	5.4	13.3	11.0	11.3	14.5	1.6
3.02	Hotels and Restaurants	2.5	9.1	-3.8	2.7	3.6	5.7	24.6	-1.2
3.03	Transport and Storage	9.2	3.8	4.4	8.0	11.0	9.2	-0.5	0.3
3.04	Information and communication	4.1	19.5	3.9	24.5	17.0	41.5	24.3	38.4
3.05	Financial and Insurance Activities	18.4	10.8	9.3	16.7	1.0	21.9	23.2	22.9
3.06	Real Estate, Professional, Administrative & Support Service activities	3.2	0.0	0.2	13.9	14.0	18.3	-17.5	-1.5
3.07	Public Administration & Defence; Social Security	11.3	12.7	11.7	3.4	7.4	4.2	8.4	-4.7
3.08	Education	10.0	13.0	12.4	5.3	3.8	6.7	6.9	7.1
3.09	Health And Social Work	3.8	4.4	15.2	11.2	5.0	10.9	7.8	-1.7
3.10	Community, Social & Personal Service Activities	8.9	9.2	7.5	10.8	12.9	4.2	36.5	-1.6
	FISIM (Financial Intermediation Services Indirectly Measured)**	10.8	16.1	41.4	7.9	13.4	12.4	29.5	6.0
4.	**GROSS DOMESTIC PRODUCT at basic prices**	**4.3**	**9.1**	**4.8**	**7.9**	**14.0**	**9.3**	**7.3**	**4.0**
	Net indirect Taxes	4.3	9.1	4.8	7.9	14.0	9.3	7.3	4.0
5.	**GROSS DOMESTIC PRODUCT in purchasers' value**	**4.3**	**9.1**	**4.8**	**7.9**	**14.0**	**9.3**	**7.3**	**4.0**

**Revised*
*** FISIM is a negative item*
**** Oil means Oil and Gas*

Table F.4 Distribution of GDP (at Basic Prices) by Economic Activity (%)

		2006	2007	2008	2009	2010	2011	2012	2013	2014*
1.	**AGRICULTURE**	**30.4**	**29.1**	**31.0**	**31.8**	**29.8**	**25.3**	**22.9**	**22.4**	**21.5**
1.01	Crops	21.3	20.3	22.4	23.6	21.7	19.1	17.2	17.4	16.8
	o.w. Cocoa	3.0	2.7	2.5	2.5	3.2	3.6	2.6	2.2	2.2
1.02	Livestock	2.5	2.3	2.1	2.0	2.0	1.8	1.6	1.4	1.2
1.03	Forestry and Logging	4.1	4.2	3.7	3.7	3.7	2.8	2.6	2.2	2.3
1.04	Fishing	2.5	2.3	2.7	2.5	2.3	1.7	1.5	1.4	1.2
2.	**INDUSTRY**	**20.8**	**20.7**	**20.4**	**19.0**	**19.1**	**25.6**	**28.0**	**27.8**	**26.6**
2.01	Mining and Quarrying	2.8	2.8	2.4	2.1	2.3	8.4	9.5	9.4	8.0
	*o.w. Oil***	0.0	0.0	0.0	0.0	0.4	6.7	7.7	8.2	7.2
2.02	Manufacturing	10.2	9.1	7.9	6.9	6.8	6.9	5.8	5.3	4.9
2.03	Electricity	0.8	0.6	0.5	0.5	0.6	0.5	0.5	0.4	0.4
2.04	Water and Sewerage	1.3	1.0	0.8	0.7	0.8	0.8	0.7	0.6	0.5
2.05	Construction	5.7	7.2	8.7	8.8	8.5	8.9	11.5	12.0	12.7
3.	**SERVICES**	**48.8**	**50.2**	**48.6**	**49.2**	**51.1**	**49.1**	**49.1**	**49.8**	**51.9**
3.01	Trade; Repair Of Vehicles, Household Goods	6.4	6.1	6.0	5.9	6.2	5.9	5.6	5.8	5.6
3.02	Hotels and Restaurants	5.0	5.6	6.0	6.2	6.0	5.4	4.8	5.8	5.6
3.03	Transport and Storage	13.2	13.1	11.4	10.5	10.6	10.7	11.0	11.2	12.3
3.04	Information and communication	2.7	2.4	2.2	1.8	1.9	1.8	2.2	1.7	2.3
3.05	Financial and Insurance Activities	2.7	3.4	3.8	4.3	5.2	4.4	4.7	6.5	8.4
3.06	Real Estate, Professional, Administrative & Support Service activities	5.1	4.7	4.1	4.1	4.5	4.6	4.8	3.9	3.6
3.07	Public Administration & Defence; Social Security	4.8	5.9	6.3	7.0	7.0	7.0	6.8	5.9	5.4
3.08	Education	3.7	3.9	3.9	4.2	4.3	4.1	4.3	3.6	3.6
3.09	Health And Social Work	1.4	1.4	1.3	1.4	1.6	1.3	1.3	1.1	1.0
3.10	Community, Social & Personal Service Activities	3.7	3.7	3.6	3.7	4.0	3.9	3.7	4.3	4.1
4.	**GROSS DOMESTIC PRODUCT at basic prices**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

**Revised*

****Oil means Oil and Gas*

Table F.5 Export by Section (2009-2013)

GH¢ million

Section	2009	2010	2011	2012	2013
Live animals and products	30.8	25.7	55.5	41.3	41.1
Vegetable products	104.2	100.3	1,715.1	618.7	1,114.1
Animal or vegetable fats and oils and their cleavege products	28.7	41.5	107.5	277.7	386.1
Prepared food	1,672.1	1,469.8	3,691.1	3,795.1	3,034.9
Mineral products	230.1	322.0	4,808.2	7,442.1	6,514.3
Products of chemical or allied industries	79.5	75.0	427.5	416.1	757.1
Plastics and acticles thereof	211.8	148.5	699.6	234.6	264.1
Wood and articles of wood	311.5	281.6	732.5	677.7	928.3
Textiles and textiles articles	34.6	20.9	430.3	180.3	58.9
Articles of stone, plaster and cement	1.5	2.8	12.6	6.3	102.2
Natural and cultured pearls	3,865.2	4,820.5	7,334.8	12,741.8	10,520.5
Base metals and articles of base metals	77.0	213.1	277.4	324.0	387.7
Machinery and mechanical appliances	33.2	81.9	139.1	299.3	375.2
Vehicles, aircraft and transport equipment	81.1	15.4	76.6	42.7	55.0
Medical or surgical instruments	2.0	8.6	23.8	78.3	95.8
Others [2]	95.3	26.9	357.3	36.8	37.3
Total	**6,858.7**	**7,655.3**	**20,901.8**	**27,219.0**	**24,678.2**

Source: GRA/GCMS

[1] Based on the Harmonised System Classification at the 2-digit level.
[2] Sections with less than Ghc 15 million trade volume are summed up in others.

(Source: Ghana Statistical Service)

Table F.6 Growth of GDP of ICT sector during 2006-2014 (Amount in Million Ghana Cedi)

	2006	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
GDP at Constant 2006 Prices	18,705	19,518	21,304	22,336	24,101	27,486	30,040	32,237	33,522
Growth Rate of GDP at Constant 2006 Prices (%)		4.3	9.1	4.8	7.9	14	9.3	7.3	4
ICT sector GDP at Constant 2006 Prices	483	503	601	624	777	909	1,286	1,599	2,213
Growth Rate of ICT sector GDP at Constant 2006 Prices (%)		4.1	9.5	3.9	24.5	17	41.5	24.3	38.4
Contribution of ICT sector to GDP at Constant 2006 Prices (%)	2.7	2.4	2.2	1.8	1.9	1.8	2.2	1.7	2.3

Source: *Ghana Statistical Service*

Table F.7 Jobs created in ICT/ITES sector as on December 31, 2014

Name of Company	ICT/ITES-BPO Total Jobs	Jobs held by Women	% Women
ABM Systems Ghana	41	14	34.1
ACS-BPS Ghana			
Bsystems Ghana	45	7	15.6
Cyberspace Technologies	0		
Equinox Intercom	13	3	23.1
eServices Ghana	160	30	18.8
EXPO Promotions	5	0	0.0
Ghana Community Network (GCNet)	170	45	26.5
12000 LTD (NIIT)	115	18	15.7
InsurebyNet IBN-PO GHA	25	20	80.0
IPMC	450	193	42.9
Masai Computer Service	19	9	47.4
Micro warehouse Ghana	35	19	54.3
Novel Solutions Inc (NSL)	29	18	62.1
OstecIT	29	10	34.5
Persol Systems	25	8	32.0
Platinum Technologies Co. (In-charge)	7	1	14.3
Rancard Solutions	35	6	17.1
Rhema Systems and Associates	25	4	16.0
Rising Data Solutions Ghana	0		
SISCO - Somuah Info System	17	5	29.4
Socket Works Global	244	92	37.7
Tino Solutions	2		0.0
CWG Ghana Ltd	13	1	7.7
Danash Ltd			
Dream Oval Ltd	7	0	0.0
Evolution Ghana Lltd	20	4	20.0
Fairgreen Ltd	22	8	36.4

Ghana. Com			
Infonaligy Ltd	23	2	8.7
Internet Ghana Ltd	30	6	20.0
Metrocoms	10	10	100.0
NCBC			
NetAfrique Ltd	25	10	40.0
Novell Africa	8	2	25.0
Open Consult Group	5		0.0
Raycom Technologies	15	2	13.3
Sawtel Ghana Ltd	30	5	16.7
Softtribe Ltd			
Teletech	460	248	53.9
MTN contact and data	834	580	69.5
Explainer DC	42	18	42.9
4 sight Micro system	55	32	58.2
Incharge service	184	119	64.7
Vodafone	225	154	68.4
Tigo Contact and Data	180	105	58.3
Banks	1,720	1,240	72.1
Insurance Data , IT support and contact centre	300	145	48.3
TechMahindra	420	125	29.8
Nestle Share Centre	150	72	48.0
Ghana Revenue Authority	60	38	63.3
Registrar General's Department	45	25	55.6
Nyansah Group	67	43	64.2
IDG Group	62	38	61.3
Data Systems	52	20	38.5
Directory services for MTN	55	32	58.2
Other ICT companies (Eaton Towers etc.)	2,090	1,140	54.5
World Vision Call Center			
Grand Total	**8700**	**4725**	**54.3**

Table F.8 Number of full-time telecommunication employees

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Full-time telecommunications employees	-	6,328	6,581	4,904	4,707	4,779	4,975	-	-	-
-Of which females	-	1,404	1,552	1,145	1,046	1,106	1,543	-	-	-
% of females	-	22	24	23	22	23	31	-	-	-

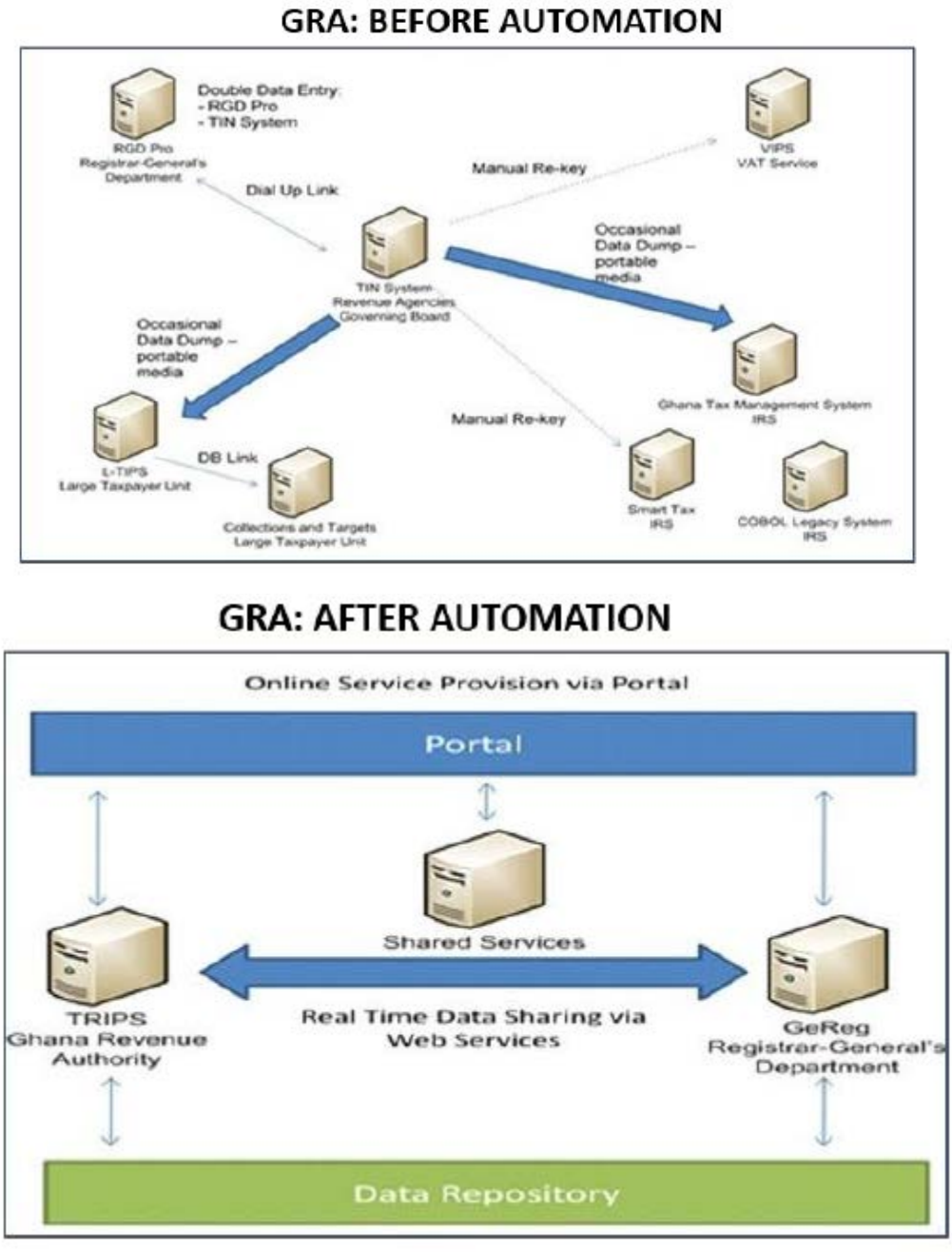
Source: ITU Telecommunications Database, 2015

Table F.9 Collection of Tax Revenue (Million GhC)

Year	*Target*	*Collection*	*Collection as % of Target*
2010	3251	3499	108
2011	4426	5111	115
2012	7466	7661	103
2013	9621	7732	80
2014	10803	10025	93
2015	12358	12444	101

Source: Ghana Revenue Authority

Figure F.1 Transformation in Automation in GRA



Source: Implementation Completion and Results Report

Table F.10 Summary of Registered Businesses /Companies (05-Dec-2011-31-May-2016)

Entity Type	*Number Registered between 5 Dec 2011- 30 Dec 2011*	*Number Registered during Jan-Dec 2012*	*Number Registered during Jan-Dec 2013*	*Number Registered during Jan-Dec 2014*	*Number Registered during Jan-Dec 2015*	*Number Registered during Jan-May 2016*	*Total No. Registered between Dec 2011-May 2016*
Subsidiary Business Name	1	41	327	471	506	239	1,585
Company Limited by Guarantee	18	2,500	4,001	4,918	4,663	2,159	18,259
Partnership	1	109	274	241	152	71	848
Company Limited by Shares	117	9,866	17,566	17,797	13,744	5,565	64,655
Sole Proprietor	301	21,155	30,128	32,170	38,477	17,710	139,941
Total External Company	2	81	143	153	115	44	538
Total	**440**	**33,752**	**52,439**	**55,750**	**57,657**	**25,788**	**225,822**

Source: Registrar General Department

Table F.11 Revenue Summary by Entity Type (05-Dec-2011-31-May-2016)

Entity Type	*Revenue-GhC*	*Revenue-USD*
Subsidiary Business Name	528,069.50	10,117.50
Company Limited by Guarantee	76,033,308.34	976,243.60
Partnership	185,416.50	
Company Limited by Shares	2,432,588,358.68	1,662,960.49
Sole Proprietor	355,433,416.54	912,915.92
Total External Company	1,449,927.90	141,550.00
Total	**3,866,218,497.46**	**3,703,787.51**

Source: Registrar General Department

Table F.12 Re-Registered Businesses / Companies Summary (05-Dec-2011-31-May-2016)

Entity Type	*No. Registered*
Subsidiary Business Name	92
Company Limited by Guarantee	765
Partnership	122
Company Limited by Shares	7,431
Sole Proprietor	20,078
Total External Company	85
Total	**28,573**

Source: Registrar General Department

Table F.13 Registered marriage Summary (03-Nov-2014 -31-May-2016)

Entity Type	*No. Registered*
Booking Approved	221
Booking Pending Approval	3,126
Total	**3,347**

Source: Registrar General Department

Table F.14 Performance of eServices

eService	Citizen Services provided	Time taken to provide service in online system	Time taken to provide service in manual system	% of beneficiaries using online system	% of Online Processing by Agency	Comments
1. Births and Deaths Registry	Certified true copy of Birth Certificate	2 days	15 days	10 %	100.00%	The birth registration service can be accessed by any citizen world-wide. Module of death registration not developed yet.
2. Registrar Generals Department	Online Ordinance Marriage Registration	-	-	0.00%	100.00%	Citizen submit paper applications for automated processing at RGD. This eService is not online yet.
3. Registrar Generals Department	Online Estates	-	-	0%	100.00%	Citizen submit paper applications for auto processing by RGD. This eService is not online yet.
4. Registrar Generals Department	Company registration	15 days	60 days	< 1%	100.00%	Efficiency Service standards can improve by business process reengineering and additional staffing of lawyers.
5. Police Criminal Investigation Department	Criminal background check, Finger print analysis, background check for visa and job applications	1 day	10 days	6%	6.00%	The police verification pertains to sentences above 2 years only. Hiring companies can also seek police verifications for their job applicants.

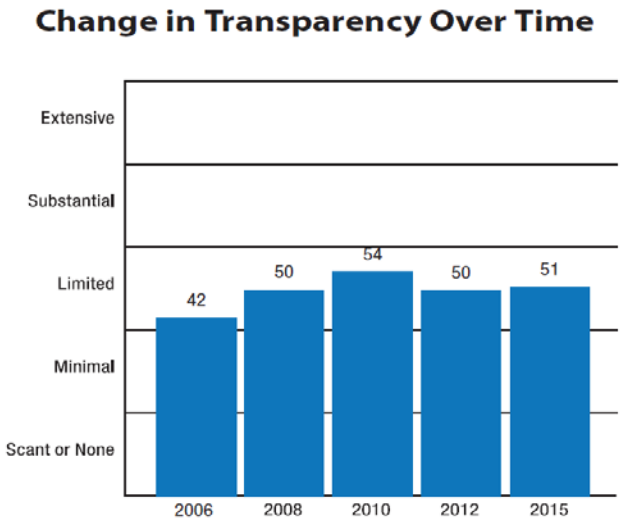
6. Ghana Immigration Service	Visa on Arrival other visas, Work permit etc.	-	7days			This eService is yet to be launched.
7.Passport Office	Online Passport application	2days	5-14days	<1%	100%	Publicity yet to be conducted. This eService is yet to be launched
8. Accra Metropolitan Assembly	Marriage Licenses	21days	21 days	<10%	10%	By law all marriage licenses has a waiting period of 21days. Applicants do not have to be physically present to submit application
9. Ghana Tourism Authority	Accommodation and Catering Establishment					Publicity yet to be conducted. This eService is yet to be launched
10. Food and Drugs Authority	Food and drugs importer					Publicity yet to be conducted. This eService is yet to be launched
11. National Identification Authority	Downloadable forms for National ID forms					This eService is yet to be launched

Table F.15 Diagnostic Framework to measure performance of IFMIS Overall Assessment of FMIS in Sample Countries

Country	*TSA status*	*FMIS coverage*	*Core functionality*	*Ancillary features*	*Technical aspects*	*Total system strength*
Max score	10	25	40	15	10	100
Afghanistan	10	25	22	8	8	73
Bangladesh	6	15	9	5	3	38
Cambodia	5	10	25	4	7	51
Ghana	2	9	34	5	9	59
Indonesia	7	23	35	13	10	88
Kazakhstan	9	25	29	4	8	75
Lao PDR	6	11	18	3	7	45
Liberia	2	9	26	7	8	52
Malawi	10	11	16	4	5	46
Malaysia	9	23	39	14	9	94
Maldives	3	17	26	3	8	57
Mozambique	2	15	26	6	8	57
Myanmar	9	2	8	1	3	23
Nepal	7	19	18	5	6	55
Pakistan	7	15	26	9	9	66
Philippines	6	2	10	0	0	18
Russian Fed.	9	25	29	4	9	76
Sierra Leone	2	9	24	5	7	47
Thailand	7	23	39	11	10	90
Vietnam	8	23	34	3	8	76
Zambia	3	14	22	7	8	54
Zimbabwe	2	13	26	8	9	58

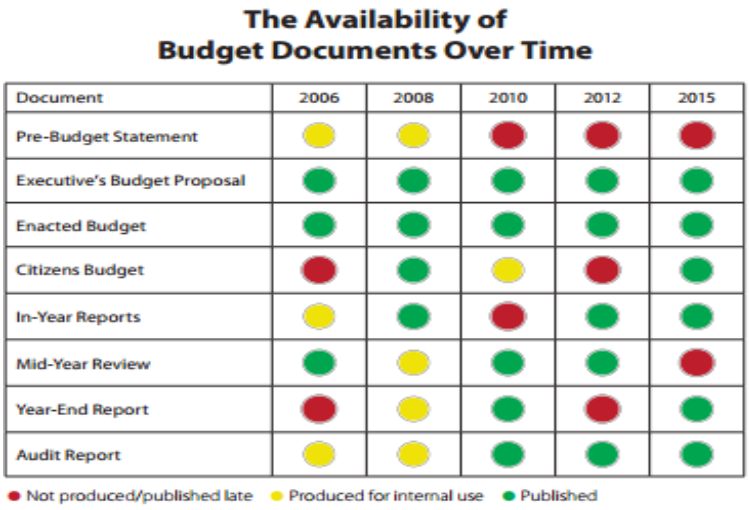
Source: A Diagnostic Framework to Assess the Capacity of a Government's Financial Management Information System as a Budget Management Tool

Figure F.2 Measuring Budget Transparency through Open Budget Index



Source: Open Budget Survey 2015

Figure F.3 Availability of Budget Documents over Time



Source: Open Budget Survey, 2015

Table F.16 Trends in Public Access to Key Fiscal Information

PEFA PI-10 Scores		
2006	**2009**	**2013**
B	A	B

Source: PEFA Assessment Reports in 2006, 2009 and 2013

Appendix G. List of Persons Met

Name	Title/ Organization
Government Staff	
Isaah Yahaya	Chief Director, Ministry of Communications
Michael Ayesu	Director, External Resource Mobilization, Ministry of Finance
Sauda Ahmed Seinu	Principal Economics Officer, Ministry of Finance
Teki Akuetteh Falconer	Executive Director, Data Protection Commission, Ministry of Communication
Paul Kwakye	Ghana Revenue Authority
Seidu Kotomah	Acting Controller and Accountant General
Emelia Derkyi	Director Accounts, Ministry of Education
Thomas Appiagyei	Acting Director-Budget Implementation, Ministry of Finance
Sherif Mohammed	Schedule Officer-Budget Technical Assistance Support, GIFMIS, Ministry of Finance
Wisdom K. Messan	Department Controller, Payroll, Controller and Accountant General Office
Asare Fianko	Acting DCAG (F&A), Controller and Accountant General Office
David Annam-Bonny	Acting DCAG (ICTM), Controller and Accountant General Office
Kwasi Qurism	DCAG (FMS), Controller and Accountant General Office
Ps. Sam Boateng	Head, Financial Reporting and Monitoring Unit Ministry of Health
Ms. Roberta Quarshie	Deputy Auditor General, Commercial Audit Department
Kwesi Ohemeng-Agyei	Director, Research Information and M&E, Public Service Commission
Nana Defie Badu	Director, Consumer and Corporate Affairs National Communications Authority
Kenneth Adu-Amanfo	Deputy Director, IT, National Communications Authority
Edward Asuo-Afram	Director Economic Statistics
Albert E. Enninful	Deputy Director General National Communications Authority
Ms. Mary Ninson	Deputy Financial Controller, Ministry of Health
Project Staff	
Osae Nelson	Project Coordinator, eGhana Project
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Appendix H. Borrower Comments

Please find comments on the Draft Project Performance Assessment Report of the IEG Mission of June 2016.

1) Consultation of Government with Private Sector: In Section 6.26 the report indicated that the Government did not hold consultations with private sector/software professionals in BPO at the time of appraisal. This statement does not reflect the reality. The implementation of the eGhana project followed up closely on the heels of the development of the Ghana ICT4AD Policy. The policy development process was a highly consultative one involving both the private and public sectors. Relevant identifiable groups from both the private and public sectors were actively engaged in the ICT policy cycle – through the problem recognition stage to the policy adoption stage. Similar consultations were broadly held with relevant private and public sector institutions during eGhana project formulation and appraisal. Almost at the same time that the eGhana project was being formulated and appraised, a parallel World Bank-funded project, the Medium, Micro and Small Enterprises Project, (MSME Project) under the auspices of the Ministry of Trade and Industries, became effective on May 3, 2006. This project had a component for the development of a mini ICT Park in the Tema Industrial enclave, with MoC as the lead implementing institution. This component was meant to meet the real estate needs of the ICT/ITES BPO industry and was implemented as a collaborative effort between the Ministry of Communications (MoC) and the Ministry of Trade, in consultation with the private sector with MoC playing the lead role in the establishment of the mini ICT Park. The design, procurement and implementation of the ICT Park took a longer time than anticipated. Subsequently, the private sector in 2010 approached the Ministry of Communications to look for a quick-fix solution to the problem of real estate availability for the industry. The Ministry subsequently identified some disused warehouses of the Public Works Department and made a case with the Bank for the development of the BPO Centre during the restructuring in 2010. **Thus, the non-inclusion of the BPO Centre at project design was not because of lack of consultation of Government and the World Bank team with the private sector, but rather a concerted action of Government, in partnership with relevant stakeholders (private sector included), to harmonise interventions and better leverage resources for coordinated development of the private sector.**

2) **Consultation of Bank with Private sector**: In Section 6.11 the report indicated that the Bank did not consult with the Private Sector at Appraisal: This assertion requires some modification. Ministry of Communications is aware that during eGhana project formulation and appraisal stages, the private sector was consulted extensively by the Bank as part of the broad stakeholder consultative process where binding constraints that required redress were discussed and the intervention areas prioritized in collaboration with the Government of Ghana.

3) **Non selection of Indicators to measure efficiency and Transparency Outcomes**: (Refer Section 2.11, 6.14 and 6.30). While Indicator 6 may not be fully adequate to measure transparency and efficiency of government services taken up for electronic delivery, the statement that there was no indicator to measure the objective of improving efficiency and transparency is not a full reflection of the situation since satisfaction of users with government

services was selected as a direct measure of transparency. The statement should be modified to read: *Indicators selected in the Results Framework to measure efficiency and transparency were not adequate to describe the objective of improving efficiency and transparency.*

4) ***E*ven though the dimensions of efficiency and transparency** were not adequately captured in the Project Results Framework, the Borrower, as part of routine reporting had been capturing information on efficiency and transparency of relevant government services taken up for electronic delivery. Reference to Borrower‟s ICR Chapter 5.5.9 – 5.5.10, from pages 83- 85 under the headings *Outcomes of Ghana Revenue Authority Automation, Outcomes of Registrar General's Department Automation* and *Benefits/Outcomes of eServices Deployment*, shows that the Borrower considered these outcomes as important and therefore tracked them, even though they were not explicitly captured in the results framework.

(For ease of reference please find attached as Attachment 1, the transparency and efficiency dimensions of egovernment services as described in the Borrowers‟ ICR.)

5) **Removal of some Indicators at Restructuring**: The report touched on Removal of Indicators 3, 5 and 7 at Restructuring without explanation: (a) Even though Indicator No.3 *% increase in ICT/ ITES contribution to GDP* was removed at restructuring, the indicator value continued to be measured throughout the life of the project using data from the Ghana Statistical Service. (Please refer to Borrower's ICR chapter 5.5.7). (b) Indicator No. 5 " *Increase in number of ICT SMEs reporting increased revenues"* was removed because the quantum of revenues generated, which was captured by Indicator 4, "*Increase in export led revenues generated by the ICT/ITES industry*," was considered to be a stronger indicator of growth than the number of companies reporting increased revenues. In order to keep indicator numbers to a manageable minimum, the stronger indicator of growth (Indicator 4) was settled on. (c) Indicator 7, *Increase in number of PPPs in eGovernment infrastructure applications* was removed because at the time of restructuring One (1) PPP covering 5 applications had been accomplished. Knowing that no other PPP had been planned under the project, and applying the principle that any indicator that does not vary over time should not be the focus of measurement, this indicator was removed. It is however noteworthy that the Borrower continued to report on this indicator as depicted in the Results Framework of the Borrower‟s ICR (page 75) and also the Bank‟s ICR.

6) **ITES/BPO Employment numbers (Section 7.12):** While in a meeting with the IEG Evaluator, during the IEG Mission, the Chairman of GASSCO indicated that he had not seen the industry employment number compilation of the Ministry of Communications. He however confirmed that the Ministry contacted the Industry players periodically through phone calls and face to face interviews for information on industry employment numbers and revenues. He also indicated that with his knowledge of the industry, employee figure in the industry was above 10,000, even though he had not seen the compiled figure (8700) from the Ministry. From the discussion with GASSCOM CEO, the issue that came to the fore had to do more with communication of results to the Industry rather than the veracity of the industry employment situation. It is also noteworthy that the International M&E Consultants hired under the project developed the framework and instruments for data collection on industry employment which had been used for information gathering during the project period.

7) **Quality of Supervision by Bank Team:** In section 6.21, the report stated in reference to GASSCOM chairman's *"feigned ignorance"* of employment numbers that "if the Bank supervision team was doing careful monitoring" the situation could have been avoided. Ministry of Communications wishes to state that the quality of supervision and monitoring provided by the Bank team during the implementation of the eGhana project was very satisfactory. The records will show that the Bank team regularly interacted with the private sector during Supervision missions and other scheduled meetings. Note is taken of the fact that after project restructuring, the Task Team Leader was re-located from Washington DC to Accra, Ghana which further aided in regular interaction with industry players. During most of these meetings, a discussion of the state of the industry was thoroughly discussed, including the industry size, employment numbers, discussion of the ICT ecosystem, challenges and constraints of the industry among others. It is our considered view that **the lack of communication of the results of the surveys on employment situation to the industry members, rather than the low quality of supervision is the core issue.** As noted earlier, GASSCOM Chairman who was reported to *"feign ignorance"* of the employment figures as compiled in the ICR (8700) indicated to the IEG team that the employment figure was over 10000 without looking at the numbers that were presented in the ICR.

8) **No continued support for BPO Centre and Incubation in eTransform project** (Section 6.4): The report indicated that there are no follow up activities in the follow-up eTransform project to drive sustainable development of these initiated actions. As part of the eTransform project one mLabs and two iHubs are to be established to further deepen ICT entrepreneurial development in the country. One of the innovation centres is to be located in Kumasi to complement the efforts of the Kumasi Business Incubator which was created with eGhana project support. It is also intended to use one of the 12 units of the BPO Centre in Ghana, under the eGhana project, as an anchor unit for the mlab, where applications development and testing would take place to augment the operations of the BPO Industry.

9) **Indebtedness to NITA by MDAs for use of GovNet** The report raises concerns about the non-payment to NITA for GovNet services and flags this as a significant risk (Refer section 6.5.-6.6). During the IEG Mission, the Evaluation team held meetings with the Deputy Director of Budget and other officials of the Ministry of Finance who emphasised that successful GIFMIS implementation was critical to the national development effort and would therefore take requisite measures to ensure that payment for GovNet use was effected by relevant user agencies from their respective budget allocations,. The Ministry of Finance team further revealed that they did not have any indication from NITA that departments owed them, and urged NITA to compile a list of defaulting institutions and the corresponding amounts owed to enable payments from the respective departmental allocations. Representatives of the Ministry of Finance also stated that as a matter of policy, payment for services would not be centralized to ensure effective financial management across government.

10) Page xi: The name should read "Victor Adadjie" and **not** "Victor Adadji"

11) On cover page Credit No. should read IDA-42260 and **not** IAD -42260.

ATTACHMENT 1: (EXTRACT FROM BORROWER'S ICR) TRANSPARENCY AND EFFICIENCY OF GOVERMNENT SERVICES TAKEN UP FOR ELECTRONIC DELIVERY

5.5.9. Outcomes of Ghana Revenue Authority (GRA) Automation

a) Issuance of New Identification Numbers to Tax payers: New TIN numbers and certificates were generated for tax payers. 425,305 new tax identification numbers (TIN) have been generated for tax related operations under GRA. The numbers have enhanced and improved GRA‟s operations in defining and calculating the rightful tax obligations of tax payers.

b) Registration of Taxpayer Master List and Tax Type registration: The registration and re-registration of taxpayers on the system has enabled GRA to establish an updated Master list for Taxpayers (Individual and Companies), allocated Tax Payers to a single Tax Office, determined the number of taxpayers liable for various taxes and moved taxpayers tax files to a single office eliminating issues on processing of Tax under multiple Tax offices as was manifested in the old system.

c) Business Process Re-Engineering and Documentation of Procedure Manual: Business process and procedure Manuals for implementation developed for TRIPs has enhanced the delivery of services to taxpayers. Manuals developed for the various modules in TRIPs software include Registration, Revenue Collection, Returns Processing, Tax payer Accounting, Revenue Accounting, Risk, Audit, Debt Management, Compliance and Enforcement, Case Management, Objections and Appeals, Refunds.

d) Tax Compliance: The Compliance model developed in the system automatically imposes penalties and interest on returns and payments that are not submitted after due date. The automatic application has enhanced compliance resulting in taxpayers meeting their obligations for filing returns and making payments before due date, thus reducing administrative cost of pursuing taxpayers for meeting their tax obligations

e) Access to Information based on Centralized system: Data is available by authorized users in timely manner. Management, HQ Staff and Branch Office Managers are able to access information in the system based on access granted instead of requesting for information from the various offices which takes time. This ensures availability of information for Management decision making.

f) Electronic methods for administration of taxes – Case management: Introduction of e-Case Management has allowed officers in most cases to electronically use the system to document issues relating to refunds, audits, objections and appeals, Debt Management and any special cases that may be created. The information is electronically accessed by staff with rights for review and monitoring of issues.

g) Electronic Communication Platforms: Introduction of SMS, e-Mail, Appointments and scheduling enables taxpayers to communicate with GRA and vice-versa ensuring ease of interaction and communication with taxpayers.

h) Infrastructure & Equipment: Availability of shared Data Centre facility and disaster recovery sites with Database Servers and storage ensures continuity and availability of automated services to taxpayers.

i) Availability of Desktop PCs (1342), Scanners (24), Printers (88), Laptops (206), UPS (12), 200 KVA UPS (2), 80 KVA Generators (12), 500 KVA Generators (2), thin client (100), Agency servers (12), AVRs (12) has enabled GRA users to process taxes electronically and faster.

j) Expanding the Tax net: Access to Registrar General's Department data and information on registered businesses or updated business data is readily available to GRA ensuring that GRA has access to information on all new potential tax payers. Development of New Tax Forms and simplified tax forms for ease of use and collection of information is also ensuring expansion of tax net.

k) ICT Training and Capacity Building: Over 2400 GRA staff trained on basic ICT skills and TRIPs has empowered GRA staff to use electronic platforms in operational processes.

Tax Revenue Collection under TRIPS is as follows:

5.5.10. Outcomes of Registrar General's Department (RGD) Automation

Registration and Re-registration of Companies

Over 87990 Companies and Businesses have been registered and re-registered through the GEREG System from December 2011 to August 2014.

a) Integration and Collaboration with Ghana Revenue Authority for data sharing

Through the RGD-GRA integration and Issuance of unique TIN to employees of Businesses, RGD is able to share data with GRA and track movements of employees of businesses. At a touch of a button, accurate reports are generated on these individuals and businesses for faster internal processing of data.

b) Improvement in service delivery

RGD staff reported improvement in service delivery as follows:

- "Completed Forms are now typed and scanned into the system by Data Entry staff and are easily retrievable.
- Business Names are now processed for the public within 3 working days and Companies within 5 working days under normal conditions.
- It is easier to do business in Ghana now due to a more efficient business registration process and faster response time for registration of businesses and updates.
- The time however needs to be worked on to enable businesses to be registered in a day which is the ultimate goal of the Department. It is envisaged that introduction of the online business registration will assist in achieving this ultimate aim.
- The system has improved the confidence in Ghanaian companies/ businesses as the information is updated and easily available upon request which was not the case prior to the automation.
- Management decision making processes have also improved as statistical and comparative Reports are easily generated to support national and management planning.
- Interactions with investors and interested parties like the Banks and other public bodies have improved as information is now easily accessible at the click of a button."

c) Increase in Revenue Generation

The new GIPC Laws have favoured RGD since the minimum equity requirements that are paid by foreigners have increased the stamp duty paid for these businesses. These have invariably increased RGD revenues considerably. Users are now getting used to the business processes and are registering more businesses now than before. *Details of revenue generated are as follows:*

d) Improving quality of Business Data: Data quality has improved remarkably because of the use of TIN which uniquely identifies each employee of a Company. Changes carried out on Business are also updated instantly and a profile printed which makes the data credible and markedly improved. The Business Certificates are not typed with type writers anymore but electronically generated in a centralized printer.

e) ICT Training and Capacity Building: As a result of training received by staff in ICT basic IT skills staffs are now able scan documents and file all processes through the system.

Benefit/Outcomes of the eServices deployment

Web Content page views

Over 390,000 total aggregated no. of pages viewed and an average of 90,000 pages viewed per month on portal home page since June 2012. This gives an indication that information is accessed on portal frequently as expected.

Business Process Re-Engineering and Documentation of Procedure Manual

Availability of business process and procedure Manuals and workflows for implementation of Agencies online services have enhanced service delivery to customers.

Access to Information based on Centralized system

Transactional data is available for access by authorized users in timely manner. Management, HQ Staff and Branch Office Managers are able to access information in the system based on access granted instead of requesting for information from officers which takes time. This ensures availability of information for Management decision making.

Transparency in Revenue Collection Details
Total number of transactions applied and processed is readily available for reconciliation of financial statement.

Customer Satisfaction

Customers are able to track status of application submitted online without having to join long queues for processing application. Citizens are therefore having a more convenient way of accessing Government services