

Full Length Research Paper

Measuring the performance of the economic infrastructure and competitiveness cluster in Uganda

Albert Byamugisha¹ and Benon, C. Basheka^{2*}

¹Commissioner for Monitoring and Evaluation, Office of the Prime Minister-Uganda.

²School of Business and Management, Uganda Technology and Management University, Uganda.

Received 14 May 2015; Accepted 1 March, 2016

Performance measurement has become a central feature to the efficiency and effectiveness of the government of Uganda especially with increasing accusations from the citizens on deficits in service delivery in the economic infrastructure cluster Energy and Mineral development, Information and communication technology, works and transport. While most government agencies receive a substantial portion of budget allocations, this has had an uneven association to better public service delivery. Government is thus challenged to find new and more efficient ways to deliver public goods and services. Moreover, linking budget allocations with efficiency performance is an important step that once carefully subjected to policy analysis can significantly result in better policy decisions. This paper presents empirical findings of the Government Half Annual Performance Report for the performance of the Economic Infrastructure cluster. The objective is to highlight areas where progress has been made against the set targets and actions, and where delays have been occasioned. These findings are useful in guiding different actors including cabinet and line ministries, departments, agencies and local governments in ensuring that agreed targets are met by the end of the financial year and appeals to a wider local and international audience.

Key words: Performance measurement, economic infrastructure, self-assessment, Uganda.

INTRODUCTION

The Economic Infrastructure Cluster in Uganda include the Sectors of Energy and Mineral Development, Information and Communication Technology, and Works and Transport which are core to the performance of government. They are so central that over the years, they attract a significant portion of the country's budget allocations. Contextually, after two difficult decades, while Africa is reported to have enjoyed a period of high, sustained economic growth and African countries have registered consistent growth rates well above 5% on

average, a rate that has been only temporarily interrupted by the global economic downturn (World Bank, 2013), Africa suffers from a pronounced infrastructure deficit. Compared with countries in other regions, African countries have a low stock of infrastructure, particularly in energy and transportation, and the potential for information and communication technologies (ICTs) has not been fully harnessed.

Conceptually, the meaning of infrastructure has been shifting from one focusing on physical fixed assets such

*Corresponding author. E-mail: bbasheka@yahoo.co.uk.

as roads, airports, sea ports, telecommunications systems, water distribution systems and sanitation. That is why some authors also refer to soft and hard infrastructure. The softer types of infrastructure include information systems and knowledge bases (Button, 2002). The hard infrastructure also refers to physical structures or facilities that support the society and economy, such as transport (ports, roads and railways), energy (electricity generation, electrical grids, gas and oil pipelines), telecommunications (telephone and internet) and basic utilities (water supply, hospitals and health clinics, schools, irrigation, etc.). Soft infrastructure refers to non-tangibles supporting the development and operation of hard infrastructure, such as policy, regulatory, and institutional frameworks; governance mechanisms; systems and procedures; social networks; and transparency and accountability of financing and procurement systems (Bhattacharyay, 2009). Both types of infrastructure are central for the economic development of a country.

China's sustained high economic growth and increased competitiveness has been underpinned by a massive development of physical infrastructure (Stéphane et al., 2007). Within Africa, the Commission for Africa report (2005) indicated how infrastructure quality was a dominant explanatory factor of manufacturing performance and competitiveness. Infrastructure served as a key component of the investment climate. Unfortunately, problems with roads, rail, ports, air transport, energy, telecommunications and other infrastructure were cited by the business community and African Finance Ministers as one of the chief constraints to economic growth in Africa. As much as 50% of the harvest was lost in many parts of Africa because farmers lacked post-harvest storage, and were unable to get their goods to the market.

Calderón (2009) provides a comprehensive assessment of the impact of infrastructure development on economic growth in African countries. The study estimates a sample of 136 countries over the period 1960 to 2005, and it evaluated the impact of a faster accumulation of infrastructure stocks and an enhancement in the quality of infrastructure services on economic growth across African countries over the 15-year study period. The study findings indicated that growth was positively affected by the volume of infrastructure stocks and the quality of infrastructure services. In a different study, Yoshida (2000) found a positive analysis from various angles of the correlations between economic growth and the infrastructure in Japan, such as the energy, electricity, and transportation sectors over the last century in order to derive lessons that can be useful to developing countries.

Africa's gross domestic product (GDP) has been growing rapidly, on average almost 5% a year since 2000 second only to developing Asia. Medium-term growth is expected to remain robust, on the heels of a global

economic recovery, the prospect of continuing high commodity prices, and investment in productive capacity (Devarajan and Fengler, 2013). Unfortunately, overall, the continent's high growth rates have not yet translated into the rapidly improving living standards that have been seen in other regions with a similar growth performance. Low and falling productivity figures are at the core of these differences in living standards (World Bank, 2013). Kessides (2014) is of the view that continued investment in infrastructure will be critical to maintaining and strengthening growth over the medium term. Given the public sector's constrained fiscal space in Africa, the private sector will have to play an increasingly important complementary role in providing the substantial resources needed for improving national and cross-border infrastructure.

However, owing to their long histories of arbitrary administrative intervention and political instability, the region's governments continue to have limited capacity to make credible commitments that they will not engage in political expropriation of the sunk investments made by private utilities and investors.

Throughout the world, the last few years have seen a sharp expansion in the amount of activity devoted to measuring government output and indeed government performance more widely. This paper evaluates the half annual performance of the Government of Uganda in the economic infrastructure and competitiveness cluster from July to December, 2014. The rest of the study describes the objectives and scope of the study, explains the methodology, presents and interprets results before their discussion. The paper finally draws conclusions and makes policy recommendations.

Objectives and scope of the study

The objective of the study was to provide timely and focused information to Cabinet and other decision-makers on Government's progress towards its targets at the half-way stage of the financial year within the economic infrastructure and competitiveness cluster. The purpose was to enable Cabinet and Ministries identify areas where emphasis needed to be put to achieve the set targets by the end of the financial year. The analysis was done sector by sector, and then grouped into the economic functions of Government, and focused on four aspects of public sector performance:

1. Progress made against planned outputs and use of resources
2. Progress made in terms of outputs against funds released
3. Assessment of financial releases and expenditures
4. Explanations for the performance levels achieved

Specifically, the objective of this study is to provide a

Table 1. Physical performance rating system.

| Variable | Result |
|-------------------------|---|
| Likely to be achieved | Where the level of progress against the target or action at the half-year stage is likely to be achieved at the current rate of implementation by the end of the financial year, calculated on the basis of 50% or greater than the annual target reached at the half-year stage that is, pro-rate progress |
| May be achieved | Where the level of progress against the target or action at the half-year stage is borderline, meaning that the target or action may be achieved if additional effort is made, calculated on the basis of a performance level between 30% and 49% of the annual target at the half-year stage |
| Unlikely to be achieved | Where the level of progress against the target or action at the half-year stage is considerably below what was planned, and the target or action is unlikely to be achieved at the current rate of implementation by the end of the Financial Year. This reflects where the percentage of the annual target reached at the half-year stage is less than 30% |
| No assessment | Where insufficient or no data or information has been provided, an assessments not possible |

Table 2. Efficiency assessment rating system.

| Variable | Result |
|-----------------------------------|---|
| Delivery in line with release | Where the level of progress towards each output at the half-year stage is commensurate to, or greater than, the amount of funds* released |
| Delivery not in line with release | Where the level of progress towards each output at the half-year stage is less than the amount of funds* released |

*Government of Uganda component only (excluding donor funds which are not reported on at output level).

wider audience with the findings on the performance of the economic infrastructure and competitiveness cluster as part of the dissemination efforts to influence utilisation of evaluation findings. The scope of the assessment was July to December, 2014 across all the sectors of the cluster. The outputs, their indicators and associated targets, and actions outlined in FY2014/15 ministerial policy statements are used as the framework for the analysis using the efficiency rating system presented in table 2. Outcomes are only measured during the annual assessment, and are therefore excluded from this half-year assessment. The performance information in the Government Half Annual Performance Report (GHAPR) for the FY2014/15 is generated from the analysis of the data from the Ministries, Departments and Agencies (MDA) sector submissions through the Output Budgeting Tool (OBT).

METHODOLOGY

The methodology for this study was taken from the systems of government tracking performance of different entities. The Office of the Prime Minister draws data from the Output Budgeting Tool (OBT) for analysis, including checking for completeness, and where possible, accuracy, through triangulation against previous

year's performance, and other sources of information were obtained. The OBT is used to produce all the budget reports and allows one to organise the budget data shown in the reports in the way that is most useful to what one wants. The tool is linked to Budget Dashboard which explores historical government budget and performance information, and produces a data table based on the categories (such as fiscal years, sectors or types of expenditure) that one has chosen. The dashboard enables one to make quick and instant budget comparison between sectors (inter-sectoral) and within sectors (intra-sectoral), and across financial years. The dashboard includes budget information going back to 2003/04.

The financial information required for the report is supplied by Ministry of Finance, Planning and Economic Development (MOFPED) and is taken directly from the Integrated Financial Management System or related systems. The sector reports are then compiled into an overall national report) for the Rt. Hon. Prime Minister to present to Cabinet. The financial information in this study excludes taxes and arrears. Consistent with international best practices, and in line with previous Government Performance Reports, the rating system has been applied to all outputs to assess progress. Table 1 illustrates the rating system for outputs and actions based on progress at the half-year stage. The system is applied to each individual MDA output and the scores are aggregated by MDA and sector.

Table 1 outlines a new innovation, linking the progress made against an output with the amount of funds released by the MFPEd to that output. Where the progress made is equivalent to, or greater than the resources availed, the judgment is that delivery is in line with the release. Where the progress being made is

less than the amount of funds released, the judgment is that delivery is not in line with the release. While it is recognized that implementation progress is in part a factor of the timing and size of the release, this measure of performance is aimed at assisting Cabinet, Ministers and Permanent Secretaries in providing an illustration of implementation progress against resources availed at this mid-year point.

FINDINGS

The energy and mineral development sector half annual performance

Table 4 present the half – annual performance score card for energy and mineral development sector. As shown in Table 4 the sector received a total of UGX 663.32bn of the approved budget (UGX 2.864.91 trillion) for FY 2014/15, equivalent to only 23 and 98% of the funds spent. The overall sector performance indicates that, 56% of sector output indicator targets are likely to be achieved at current rate of implementation, 15% may be achieved with more effort while 29% output indicator targets are unlikely to be achieved at the current rate of implementation by end of the financial year. Efficiency assessment shows that, 68% of the sector's performance was in line with budget release by half-year, while 32% was not in line with release. For MoEMD, 71% of the performance indicators were delivered in line budget release of funds while for REA, 50% of the performance indicators were delivered in line budget release, 50% was not delivered in line with budget release of funds.

Ministry of energy and mineral development

The focus of the Ministry of Energy and Mineral Development is to increase access to electricity by developing the potential hydropower plants in the country, transmitting and distributing and using power rationally. The Ministry received 22.7% of its approved annual budget of UGX 1.768 trillion and 97% was absorbed by half-year. In terms of performance, 66% of the output indicator targets of the Ministry were likely to be achieved at current rate of implementation, 14% may be achieved with additional efforts while 20% output indicator targets were unlikely to be achieved at current rate of implementation. In relation to the release, 71% of the output indicator targets were delivered in line with spending indicating that the Ministry was very efficient in delivering its outputs during the first-half of the financial year. The delivery on 29% of the output indicators was not in line with level of spending.

Energy subsector

The Ministry was on course in achieving its annual target in construction of Karuma Hydroelectricity Power plant.

The supervising Architect was procured to design houses for project affected persons (PAPs). The construction was expected to commence in third quarter FY 2014/15. By half-year point, 10% of land was freed up for Karuma transmission line against annual target of 20%. The government continued to implement the Resettle Action Plan (RAP) for Isimba power plant and associated transmission line. By mid-year point, 50% of the annual target (20%) of land was freed up for Isimba Transmission line.

There was slow progress in the implementation of renewable energy promotion. The RAP implementation for Muzizi started and procurement of consultant to undertake construction was on-going. The procurement of the developer for Nyagak III was also going on and the developer is expected to partner with Uganda Electricity Generation Company limited (UEGCL). Negotiations between Uganda Electricity Transmission Company limited (UETCL) and Ministry of Energy and Mineral Development MoEMD on the Power Purchase Agreement (PPA) and Implementation Agreement (IA) commenced.

At mid-year point, the sector performed well on energy efficiency promotion; with 11 of annual target (10) demonstration sites were using improved energy technologies, 50% of annual target (100,000) prepaid meters were installed and all the audited firms were implementing Energy efficiency measures as recommended. On rural electrification, the MoEMD performed well at half-year, with 2850 km of medium Voltage (33kV) constructed equivalent to 87% of annual target (3262 km) and 1520 km of low Voltage (11kV) constructed against annual target (2954km). Consequently, 5 district headquarters were electrified by mid-year equivalent to 83% of annual target. There was slow progress in installation of solar system, with 21% of annual target (14,000) solar systems installed.

Oil and gas subsector

The subsector development has been promoted for sustainable exploration and production. The private sector and regional and international co-operations have been encouraged in the development and operation of the refinery and midstream infrastructure.

The upstream activities are undertaken by the private sector with close supervision of the Government of Uganda. By mid-year, there was progress in monitoring upstream petroleum activities. The planned 800 km seismic data was not acquired by mid-year and 40% of annual target (5) field development plans was approved for issuance of Production License. All the exploration companies in the Albertine Graben comply with petroleum operations guidelines.

There was slow progress in the implementation of communication strategy for oil and gas. Only 16% of annual target (25) talk shows were held and one newspaper advertorial was made and published by mid-

Table 3. Half-year performance scorecard for energy on top of figure and mineral development sector.

| Output performance | Likely to be achieved (%) | May be achieved (%) | Unlikely to be achieved (%) | No assessment (%) | Denominator | |
|------------------------------|--|---|------------------------------------|----------------------------|---------------------------|--------------------------|
| Sector | 56 | 15 | 29 | 0 | 41 | |
| MoEMD | 66 | 14 | 20 | 0 | 35 | |
| Rural electrification agency | 0 | 17 | 83 | 0 | 6 | |
| Budget performance | | | | | | |
| Budget | Approved (UGX Bn) | Released (UGX Bn) | Spent (UGX Bn) | % of budget release | % of release spent | % of budget spent |
| Sector total (GoU+Donor) | 2,864.91 | 663.32 | 654.97 | 23.2 | 98.7 | 22.9 |
| MoEMD (GoU+Donor) | 1,768.010 | 400.849 | 392.513 | 22.7 | 97.9 | 22.2 |
| REA (GoU+Donor) | 61.380 | 31.378 | 23.289 | 51.1 | 74.2 | 37.9 |
| Efficiency assessment | % of output indicators delivered in line with budget released | % of output indicators not delivered in line with budget released* | No Assessment | Denominator | - | - |
| Sector total | 68 | 32 | 0 | 41 | - | - |
| MoEMD | 71 | 29 | 0 | 35 | - | - |
| Rural Electrification Agency | 50 | 50 | 0 | 6 | - | - |

Table 4. Half-Year performance scorecard for information communications technology sector.

| Output performance | Likely to be achieved (%) | May be achieved (%) | Unlikely to be achieved (%) | No assessment (%) | Denominator | |
|------------------------------|--|--|------------------------------------|----------------------------|---------------------------|--------------------------|
| Sector | 64.3 | 7.1 | 7.1 | 21.4 | 14 | |
| MolCT | 63.6 | 9.1 | 9.1 | 18.2 | 11 | |
| NITA-U | 66.7 | 0.0 | 0.0 | 33.3 | 3 | |
| Budget performance | | | | | | |
| Budget | Approved (UGX Bn) | Released (UGX Bn) | Spent (UGX Bn) | % of budget release | % of release spent | % of budget spent |
| Sector Total (GoU+Donor) | 17.009 | 8.619 | 7.871 | 51 | 91.3 | 46.3 |
| MolCT (GoU+Donor) | 6.21 | 2.67 | 2.66 | 43 | 99.8 | 42.9 |
| NITA-U (GoU+Donor) | 10.80 | 5.95 | 5.21 | 55 | 87.5 | 48.2 |
| Efficiency assessment | % of output indicators delivered in line with budget released | % of output indicators not delivered in line with budget released | No Assessment | Denominator | - | - |
| Sector total | 75 | | 25 | | 0 | 12 |
| MolCT | 70 | | 30 | | 0 | 10 |
| NITA-U | 100 | | 0 | | 0 | 2 |

Source: Compiled from sector OBT submissions. * Where progress in performance indicators were proportional to financial releases at output level, in cases where progress in performance indicator was equal or above the releases. # Where progress in performance indicators were proportional to financial releases at output level, in cases where progress in performance indicator was equal or above the releases.

Table 5. Half-year performance scorecard for works and transport sector.

| Output performance | Likely to be achieved (%) | May be achieved (%) | Unlikely to be achieved (%) | No Assessment (%) | Denominator |
|---------------------------------|----------------------------------|----------------------------|------------------------------------|--------------------------|--------------------|
| Sector | 56 | 15 | 29 | 0 | 47 |
| Ministry of Works and Transport | 50 | 30 | 17 | 3 | 30 |
| Uganda National Road Authority | 46 | 27 | 27 | 0 | 11 |
| Uganda Road Fund | 100 | 0 | 0 | 0 | 6 |

| Budget performance | Approved (UGX Bn) | Released (UGX Bn) | Spent (UGX Bn) | % of budget release | % of release spent | % of budget spent |
|---------------------------------|--------------------------|--------------------------|-----------------------|----------------------------|---------------------------|--------------------------|
| Sector Total | 2,277.876 | 1,056.188 | 1,044.824 | 46.4 | 98.9 | 45.9 |
| Ministry of Works and Transport | 122.291 | 57.620 | 51.392 | 47.1 | 89.2 | 42.0 |
| Uganda National Road Authority | 1,727.48 | 784.516 | 780.720 | 45.4 | 99.5 | 45.2 |
| Uganda Road Fund | 428.100 | 214.051 | 212.712 | 50.0 | 99.4 | 49.7 |

| Efficiency assessment | % of output indicators delivered in line with budget released | % of output indicators not delivered in line with budget released* | No Assessment (%) | Denominator |
|------------------------------|--|---|--------------------------|--------------------|
| Sector total | 77 | 21 | 2 | 47 |
| MoWT | 70 | 27 | 3 | 30 |
| UNRA | 86 | 14 | 0 | 11 |
| Uganda Road Fund | 100 | 0 | 0 | 6 |

Source: Compiled from sector OBT submissions. * Where progress in performance indicators were proportional to financial releases at output level, in cases where progress in performance indicator was equal or above the releases.

year. The budget performance for the output was also not good with 35% of the annual output budget (UGX 0.14bn) released by mid-year and all the funds released was spent. The ministry continued the process of acquiring land for refinery construction. To-date, a total number of 1945 out of 2615 (74%) property owners who opted for cash compensation have been compensated. In addition, 533 acres of land was acquired for those persons who opted for relocation. There was good progress registered in building the capacity for the oil and gas subsector. By mid-year, 9 government officials enrolled for professional training in Oil & Gas discipline out of

8 planned. The downstream activities were dominantly undertaken by Oil Marketing Companies (OMC) such as Shell, Total, Petrocity, Cityoil etc. with close supervision of the Government to ensure compliance. At mid-year, 85% of the petroleum facilities conformed to the Petroleum facilities standards above 60% the annual target.

Mineral subsector

The Ministry of Energy and Mineral Development continued to support the development of strategic

mineral reserves to ensure the benefits accrue to Uganda, and the localities where the reserves have been discovered. The government licenses the prospective mineral areas to investors to undertake mining activities. By mid-year, 904 Mineral rights (licenses) were operational, which is over and above the annual target (506) reflecting good performance. The two flagship projects (sukuru phosphates and Kilembe mines) planned were monitored, as a result Sukuru Phosphate development was on-going. Mineral Development Agreement between the Government of Uganda and the Developer was signed and the comprehensive Industrial Development Project

was planned. The developer Kilembe mines continued to carry out further feasibility studies and established the reserves of 4.527 million tonnes with 1.598 blister copper. Further underground geological studies are on-going. The procurement of machinery to refurbish the mine commenced. Production of the copper is expected to commence in the 2015. Mining sites inspections was slow with 47% of annual target (15) mining sites inspections conducted and 80% of mining companies complied with the mining regulations. There was underperformance in Non-Tax Revenue (NTR) collection with 31% (UGX 2.46 bn) of the annual target (UGX 8.0bn) collected by mid-year.

During half-year FY 2014/15, there was under-performance in mineral production and exportation. The value minerals produced in the period under review was UGX 30.7bn against annual target of UGX 300bn, equivalent to 10% progress. The value of mineral exports as per permits issued was UGX 4bn against annual target (UGX 159bn) equivalent to only 3% progress. There was good progress in mineral discoveries with 100% potential Uranium resources targets discovered and 167% of mineralized areas discovered against annual targets.

There was good performance in building the capacity for the Mineral subsector in terms of human resources, software and infrastructure. 6 staff members enrolled for training in Mineral sub-sector against annual target of 4 staff members and 300 mineral Artisans and Small Scale (ASM) miners trained in mining districts against annual target of 570 artisans. The Ministry developed two mineral analysis techniques to ISO standards as planned and 20% of earthquake monitoring stations were installed against annual target of 25 stations.

Rural electrification agency

The rural electrification agency (REA) received 51% of its approved annual budget of UGX 61.38bn (GoU and External Financing) and 74% of the funds released was absorbed by half-year. Results indicate that 17% of output indicator targets may be achieved with more effort while 83% output indicator targets were unlikely to be achieved at current rate of implementation. Considering efficiency, 50% of the output indicator targets were delivered in line with the release while the remaining 50% of the output indicator targets were not in line with level of release.

The agency registered slow progress in implementing rural electrification schemes, connecting district headquarters and promoting private sector participation in rural electrification. Only 28% of 2954 km of low Voltage (240 V) electricity line was constructed and 48% of 3262km of medium Voltage (33 kV and 11 kV) electricity line was constructed. The performance in construction electricity line was reportedly affected by limited funds though 58% of UGX 13.98 bn was released

and all was spent by half-year. Only 8% of 14,000 solar systems was installed. The installation was affected by diminishing subsidy envelop and now some companies have no subsidy allocations. Only one district headquarter (Buhweju) was electrified against annual target of 6 districts during the period.

The information and communication technology sector

The impact of telecommunications on growth was first found by Hardy (1980) based on data from 45 countries. Overall, the literature estimates that one percent growth in telecommunication services generates three percent growth in the economy (Gupta, 2000). Importantly, the telecommunication infrastructure is a little different from other infrastructure, as a determinant of economic growth because of the existence of network externalities, a phenomenon that increases the value of a service with increase in the number of users. Because of this, the impact of telecom infrastructure on economic development is more pronounced as compared to other traditional infrastructure.

The medium term objective of the information and communication technology (ICT) sector is to ensure sustainable, efficient and effective development and use of ICT. This is to be achieved through establishment and enforcement of conducive policy, legal and regulatory framework that promotes the development of the sector and a balanced and coordinated national and regional communications infrastructure. The sector is led by the Ministry of Information and Communication Technology (MoICT) and includes Uganda Communication Commission (UCC), Broadcasting Council (BC), National Information Technology Authority (NITA-U), Uganda Post Limited (UPL) and Uganda Institute of Information and Communications Technology.

Sector half annual performance

Results in Table 4 shows that the sector received 51% (UGX 8.61bn) of the annual budget UGX17.01bn and 91% of the funds released which was spent by mid-year. The sector output performance was good with 64% of the sectors output indicator targets¹ which are likely to be achieved at current rate of implementation, and 7% may be achieved if additional effort is made while 7% of the output indicator targets are unlikely to be achieved by the end of the financial year at the current rate of implementation. The efficiency assessment indicates that delivery on 75% of the sector output targets were in line with the budget release, while 25% were not delivered in

¹ Excluding Uganda Communication Commission (UCC), Broadcasting Council (BC), Uganda Post Limited (UPL) and Uganda Institute of Information and Communications Technology.

line with funds released.

Ministry of information and communications technology

At half-year point, The Ministry received 43% of its approved annual budget of UGX 2.21bn and 99% was absorbed. In terms of performance, 64% of the output indicator targets of the Ministry are likely to be achieved at current rate of implementation, 9% may be achieved with more efforts while another 9% output indicator targets are unlikely to be achieved at current rate of output indicator targets were delivered in line with spending indicating that the Ministry was efficient in delivering its outputs during the first-half of the financial year. The delivery on 30% of the output indicators was not in line with level of spending.

IT and information management services

There was good progress registered by the Ministry in providing e-government services and promoting hardware and software development industry with all the indicator targets likely to be achieved at current rate of implementation. Both of the planned two software and hardware promotion initiatives had been undertaken, 8 of the planned 15 MDAs and LGs had been supported, and two of the four planned monitoring activities were undertaken. The Ministry also registered good progress in developing enabling policies, laws and regulations. The Ministry widely disseminated the e-waste management policy and IT sector standards to districts². However, the status of development of the data protection and privacy policy is still at stage 3 against annual target of stage 7. This target is likely not to be achieved at the current rate of implementation.

Communications and broadcasting infrastructure

The Ministry did not exhibit good progress. Only one indicator is likely to be achieved at the current rate of implementation. In this case, 3 of 5 planned MDAs are reported to have been provided with logistical support to ICT infrastructure. However, the Ministry underperformed in monitoring and promoting the players in the sector. The underperformance was attributed to inadequate funds released in spite of the 54% of the approved budget released by half-year.

National information technology authority

The authority received 55% of its approved annual budget of UGX 10.8bn and absorbed 87% of the funds

released. Although there was good performance with 67% of the output, indicator targets of the Authority are likely to be achieved at current rate of implementation, almost a third (33%) output indicators were not assessed due to insufficient data. In terms of release, NITA-U was very efficient in delivering the output targets where all the outputs were delivered in line with spending.

Development of secure national IT infrastructure and e-government

The government continued to focus on securing IT infrastructure and e-governance. In light of this effort, NITA-U rationalized and integrated national IT infrastructure and Systems; developed and promoted IT enabled services/business process outsourcing (ITES/BPO) industry.

The tourism, trade and industry sector

Works and transport sector

The Works and Transport Sector is led by the Ministry of Works and Transport. The mandate of the Sector is to promote adequate, safe and well maintained works and transport infrastructure and services for social economic development of Uganda. The constituent agencies in the Sector include Uganda National Roads Authority (UNRA), Uganda Road Fund (URF), Uganda Railways Corporation (URC), Civil Aviation Authority (CAA) and Local Governments (LGs).

Sector half annual performance

Data in Table 4 indicates that the total budget release to the sector by mid-year point was UGX1056.188Bn translating into 46% of the approved budget of UGX2277.876Bn of which UGX1044.824Bn (98%) was spent. With this budget performance, out of the 47 sector output indicators and targets, 55% are likely to be achieved at the current rate of implementation, 26% may be achieved with additional effort, while 17% are unlikely to be achieved if the current rate of implementation is maintained. 2% of the sector's output indicator targets were not assessed due to insufficient data. The efficiency assessment of the sector indicates that 77% of the sector output indicators were delivered in line with the budget released, 21% was not in line with the release while 2% of the output indicators was not assessed due to inadequate data.

Ministry of works and transport

The Works and Transport Ministry received UGX57.62Bn

² The dissemination workshop was conducted in Bushenyi and Kiruhura.

(47%) of the approved annual budget of UGX122.291Bn for FY2014/15. Out of what was release, UGX51.392Bn was spent indicating an absorption capacity of 89%. With this budget performance, the Ministry had 50% of its output indicator targets likely to be achieved at the current rate of implementation, 30% may be achieved if additional efforts are employed while 17% is unlikely to be achieved unless the current rate of implementation is revised. 3% of the indicators were not assessed due to absence of sufficient data for analysis.

Efficiency assessment based on funds released and spent indicates that 70% of the Ministry's output indicators were delivered in line with the budget release, 27% was not in line while 3% of them were not assessed due to data gaps. In the first half of the FY2014/15, good progress was registered in inspection and licensing of public service vehicles and inland water transport vessels, monitoring and coordination of air, water and rail transport programmes and construction and rehabilitation of urban roads. 66% of the planned 250 kilometers of urban unpaved roads were periodically maintained and 57% (285km out of 500km) of the paved roads were routinely maintained. The ministry carried out inspection of 617 marine vessels against the targeted 410 and conducted routine maintenance of all the planned aerodromes.

Areas of slow progress included, development and rehabilitation of railway infrastructure, operation and maintenance of MV Kalangala and monitoring compliance of construction standards. Only 15 km of the planned 50 km of railway truck had been rehabilitated by the end of the first half of the financial year.

Uganda national roads authority (UNRA)

UNRA received a total sum of UGX784.516Bn (45.4%) of the approved budget of UGX1727.485Bn of which 99% (UGX780.72Bn) was spent an indicator of good absorption capacity. In the period under review, out of 11 output indicators and targets of UNRA, 45% of them are likely to be achieved at the current rate of implementation, 28% may be achieved with additional effort while 27% are unlikely to be achieved at the current rate of implementation. Good progress was registered in construction and rehabilitation of national roads to Bitumen standards, with 121km out of the targeted 250 km of unpaved roads were upgraded to bitumen standards, 98km of national paved roads had been rehabilitated against the targeted 170 km and 50% of the targeted 68% of ongoing road upgrading and rehabilitation contracts had been subjected to independent technical and financial audits. By midyear point, road works were ongoing on several other roads³.

³ Kawempe-Luwero-Kafu road (166 km), Nyakahita-Ibanda-Fortportal (208km), Gulu-Atiak-Bibia/Nimule (104 km), Vurra-Arua-Koboko-Oraba (92km), Hoima-Kaiso-Tonya (85 km), Mpigi-Kanoni (65 km), Ntungamo-Mirama Hills (37 km) among others.

Slow progress was noted under maintenance of national roads with only 650 km of paved national roads were routinely maintained against the 3000 km target, and 20 km out of the targeted 100 km of paved national roads had been periodically maintained. 678km of the planned 2225 km of the national unpaved roads had been periodically maintained.

Uganda road fund

The Uganda Road Fund (URF) is responsible for providing adequate, reliable, timely and sustainable financing for road maintenance to ensure a safe and efficient network. The Road Fund received UGX214.051 billion (50%) of the approved UGX428.100 billion for the FY2014/15. Of this release, UGX212.712 billion (99%) was spent as an indicator of good absorption capacity by half-year. In terms output performance, all the output indicator targets for URF are likely to be achieved at the current rate of implementation. The efficiency assessment also indicates that all the output indicators under URF were delivered in line with the budget release. The agency performed well on disbursement of funds to UNRA and LGs (under DUCAR) for maintenance of national roads and district and community roads. In the period under review, URF was also able to fulfill its performance agreement with UNRA and LGs on timely and adequate release of funds. URF disburse funds to UNRA and LGs within 2 and 8 days respectively after the date of receipt of funds from MoFPED against the planned 14 days.

DISCUSSION

Infrastructure projects typically exhibit economies of scale, possibly leading to natural monopolies; they may be socially desirable but not privately profitable. These government failures may actually exceed the market failures, favoring private provision as argued by Winston (2006). Ghosh and Meagher (2008) investigated the theoretical links between the market environment and infrastructure provision, with the latter determined by the political process. The study indicated slow progress in the development and rehabilitation of railway infrastructure and maintenance of national roads. In Africa and Uganda inclusive, as Jerome (1999) report, the private sector has not produced the massive investments and dramatically improved technical performance hoped for. Despite the notable successes, overall outcomes have fallen short of expectations.

World Bank (1994) emphasized that there is a close relationship between infrastructure and economic growth. In a national study covering 36 major Chinese cities, Li (2010) found that infrastructure investment since the mid-1980s had led to a dramatic reduction in inventories from an inventory/sales ratio of 0.8 to approximately 0.15.

Road investments alone reduced raw materials inventories in the period 1998 to 2007 by 25%. The areas of good progress noted in each of the Uganda Road Fund targets suggest a strong need to invest more in road maintenance and construction and rehabilitation of national roads to Bitumen standards. Kim (2006) rightly also demonstrates how good infrastructure helps to raise productivity and lower costs in the directly productive activities of the economy, but it has to be expanded fast enough to meet the demand for infrastructure in the early stage of development. These benefits can be measured when there is effective regulation and performance assessment.

In Uganda, citizens expect ever increasing standards of service from government and from the public services, just as they expect improving services provided by the private sector. Allied to this desire to meet society's expectations, governments are subject to rising demands for accountability and the weapon for ensuring its delivery in a private sector. There has been progress in ICT technology, which reduces the cost of horizontal communication and coordination; the influence of community expectation and consumerism means that citizens want services that better meet their needs; and there has been a shift of intellectual attention away from atomistic models towards a greater emphasis on holistic approaches (Mulgan, 2005).

Conclusions

The private sector has invested large sums in the economic infrastructure of many developing countries and Uganda is not an exception. Private investors are however facing a series of obstacles which include economic and exchange rate-related risks, political uncertainties, and the fact that the payback period of numerous investments in infrastructure is rather long. The general economic and political framework conditions in many developing countries hardly offer any incentive for private engagement. To be sure, many developing countries profess allegiance to the rules of market economy in principle, but their policies often do not reflect the theory of this challenge. Measuring the performance of a sector like economic infrastructure provides an important platform for government to assess the degree of progress.

The Government Half Annual Performance Report provides information on the performance of Government at mid-point of the current Financial Year (FY) 2014/15. The objective of the assessment is to highlight areas where progress has been made against the set targets and actions, and to point out areas where delays have been occasioned. The assessment is intended to aid policy makers to support the Government in ensuring that agreed targets are met by the end of the Financial Year. The assessment found that budget releases to sectors

and their constituent Ministries, Departments and Agencies were uneven at mid-year point. While sectors like, Information and Communication Technology, Tourism, Trade and Industry and Works and Transport received nearly half of their annual budgets (including donor contributions) by half year, Energy and Mineral Development Sector received considerably less than expected (22%). The absorption of the funds release was good across the sectors in the cluster with over 90% of the funds released spent. The extent to which this improved absorption rate resulted in the equivalent performance efficiency receiving mixed reactions.

It was also revealed generally that in Energy and Mineral Development sector, there was slow progress in providing alternative energy sources, implementing the communication strategy to manage the expectation of the people in oil and gas and producing and exporting mineral resources ultimately affecting Non-Tax Revenue (NTR) collection. The Rural Electrification Agency underperformed in constructing electricity lines despite good budget performance with 51% of the annual approved budget released and 74% of the funds spent. The diminishing subsidy envelop affected the installation of solar system and now some companies have no subsidy allocations. The ICT sector performed well at half-year providing enabling environment for IT industry though data protection and privacy policy is not yet passed.

In works and Transport sector, there was good performance in monitoring and coordination of air, water and rail transport programmes, and construction and rehabilitation of urban roads, there is need for more effort in development and rehabilitation of railway infrastructure, maintenance of national roads and monitoring for compliance with construction standards axle load regulations.

In line with key medium term objective, the performance reports provide timely information to policy makers on the performance of Government during the previous financial year, highlighting what has been delivered, what has not, and the reasons why. Fundamentally, the report is designed and timed to inform the key policy makers on where resources and efficiency measures need to be placed in the coming financial year. The purpose of the retreats is to look critically at the performance of government against intended outcomes, planned actions, output targets and resource usage across the sectors that constitute the planning and budgeting framework of all the Government, and whether or not these actions and outputs remain appropriate to the achievement of sustainable results in economic infrastructure and competitiveness, service delivery in rural and human development, and ensuring security, justice and good governance.

During the retreats, presentations on the performance of each sector are made by Ministers from the Office of the Prime Minister. After presentation and discussion of

the performance of a particular sector, the plenary suggests specific actions that should be adopted to rectify the policy or implementation issues highlighted. The Cabinet then endorses the actions, and relevant Ministries Departments and Agencies are requested to plan and implement the actions in the following year. They were monitored to ensure that implementation was carried out.

Conflict of interests

The authors have not declared any conflict of interests.

REFERENCES

- Bhattacharyay BN (2009). Infrastructure Development for ASEAN Economic Integration. ADBI Working Paper 138. Tokyo: Asian Development Bank Institute. Available: <http://www.adb.org/sites/default/files/publication/155993/adbi-wp138.pdf>
- Button K (2002). Effective Infrastructure Policies to Foster Integrated Economic Development, Paper Presented at the Third African Development Forum, Addis Ababa, March.
- Calderón C (2009) Infrastructure and Growth in Africa, Policy Research Working Paper 4914, the World Bank, Washington, D.C.
- Devarajan S, Fengler W (2013). 'Africa's Economic Boom: Why the Pessimists and the Optimists Are Both Right'. Foreign Affairs, May/June 2013 Issue. Available at: <https://www.foreignaffairs.com/articles/west-africa/2013-04-03/africas-economic-boom>
- Gupta NK (2000). The Business of Telecommunication. New Delhi: TataMcGraw-Hill Publishing Company Limited.
- Ghosh A, Kieron M (2008). "Political Economy of Infrastructure Investment," mimeo, University of New South Wales and Australian National University, April.
- Hardy A (1980). The role of the telephone in economic development. Telecommun. Policy 4(4):278-286
- Jerome A (1999). Infrastructure in Africa: The record, African Development Bank. Economic Research Papers (International);46:1-28.
- Kessides NI (2014). Regulatory reform for closing Africa's competitiveness gap, World Institute for Development Economics Research (wider.unu.edu)WIDER Working Paper 2014/092
- Kim B (2006). Infrastructure Development for the Economic Development in Developing Countries: Lessons from Korea and Japan, GSICS Working Paper Series, Available online at: <http://www.research.kobe-u.ac.jp/gsics-publication/gwps/2006-11.pdf>
- Li Z (2010). "Some evidence on the performance of transport infrastructure investment in China," presentation given at the conference "The Economics of Infrastructure in a Globalised World: Issues, Lessons and Future Challenges," Sydney, 18-19 March, available at http://cama.anu.edu.au/Infrastructure_Conference.asp
- Mulgan G (2005). «Joined-Up Government: Past, Present, and Future», in V. Bogdanor (ed.): Joined-Up Government, British Academy Occasional paper 5. Oxford: Oxford University Press.
- Stéphane S, Charles V, Michael W (2007). Infrastructure and Economic Growth in East Asia, The World Bank, Policy Research Working Paper, NO. 4589.
- Yoshida T (2000). Japan's Experience in Infrastructure Development and Development Cooperation, JIBC Review, (3):62-92.
- Winston C (2006). Government Failure versus Market Failure: Microeconomics Policy Research and Government Performance. The Brookings Institution, Washington DC.
- World Bank (2013). The Africa Competitiveness Report 2013. Washington, DC: World Bank.
- World Bank (1994). World Development Report, Oxford University Press.