Summary Findings from Results Monitoring Assurance Audit

Report to the Private Infrastructure Development Group

November 2012

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1 Introduction

The Private Infrastructure Development Group's Programme Management Unit (PIDG PMU) commissioned Castalia to provide an annual quality assurance on the data reported in its results monitoring (RM) system. The RM system includes project level results monitoring sheets which report how each project contributes to PIDG's goals of improved infrastructure provision and reduced poverty. Data reported in each sheet is aggregated and reported to PIDG donors. Managers for each PIDG-financed project are responsible for completing the RM sheet within two weeks of their project reaching "financial close" or "financial commitment"[1]. RM sheets are then updated annually by the respective facility managers.

The purpose of the assurance is to ensure that the results reported in the RM system are reasonable and conform to best practice used by similar development finance institutions. The assurance will also assess the reasonableness of any assumptions and proxies used.

Castalia began the assurance audit this year by selecting a sample of twelve projects to be reviewed. These projects cover five sectors—these five sectors represent eighty three percent of the total number of projects and eighty six percent of total facility funding. Section 2.1 below explains the sample selection process in detail. The projects are distributed across the facilities as follows—two projects from InfraCo Africa, three projects from DevCo, three GuarantCo projects and four projects from the Emerging Africa Infrastructure Fund (EAIF). After selecting the sample, Castalia and the PIDG PMU agreed that an initial review of four projects—two from InfraCo Africa and two from DevCo, should be conducted so that any initial lessons learned in the process could be applied to the review of the other eight projects. Once the initial review was completed, we assessed the final eight projects in the sample.

This report explains our summary findings based on the review of the twelve projects. It is based on the specific findings from each of the sample projects reviewed, as laid out in an accompanying full report submitted to the PIDG PMU.

This summary report is structured into three sections, this introduction and the following two sections:

- **Section 2: Assurance Methodology and Sample Selection**—this section describes the methodology used in assessing the results monitoring sheets. It also explains the process we followed in selecting a sample of twelve projects that best represent the four facilities reviewed in this report
- **Section 3: General Findings and Recommendations**—this section presents common characteristics across the four facilities, and Castalia's recommendations.

[1] PIDG Results Monitoring Handbook Draft page 8

2 Assurance Methodology and Sample Selection

This section explains the steps we took in carrying out the assurance. First, we explain how we developed the questions we posed in assessing the RM sheets. Next, we explain the process we carried out in selecting a representative sample from the pool of PIDG projects.

2.1 Assurance Methodology

To ensure that our assessment is rigorous and objective, we reviewed the results in each RM sheet using four questions.

- **Is the result reasonable**? A reasonable result is one which is:
  - similar to the result achieved by a comparable project
  - relies on a similar methodology applied by a comparable DFI[2]
  - estimated based on reasonable assumptions—that is, assumptions that have a logical explanation, or are derived from results achieved by comparable projects
- **Is the result verifiable**? A verifiable result is one which can be found in:
  - the documents or spreadsheets provided by the PIDG PMU
  - websites from official sources (including: government, multilateral or bilateral banks, and donors)

  <u>This question is asked only for applicable quantitative indicators—that is, we do not attempt to verify qualitative indicators like the demonstration effect of the project</u>
- **Is the result consistent**? A consistent result is one which the information presented is consistent with the information in the documents and spreadsheets provided by the PIDG PMU
- **Is the result correctly reported?** A result that is correctly reported is one in which the information provided is broadly consistent with the indicator's definition in the RM Handbook, and calculations, where applicable, are accurate.

For each indicator where a result is reported, our responses to these questions were either "Yes", "No", "Unable to Assess" or "Not Applicable". We used the notation "Unable to Assess" for:

- Some of the qualitative and service access indicators—we think it is important to assess the verifiability of quantitative results and assumptions such as, the investment amounts reported. However, we understand that not everything on the PIDG RM sheet can be verified, such as estimated "access" figures that are based on assumptions or some of the qualitative indicators (such as additionality and demonstration effect). Therefore, we have identified results that we don't expect to be verifiable, or assessed for consistency, and marked those as "Unable

[2] In cases where the methodology used by DFIs can be improved, we also recommend some of these improvements for the PIDG PMU to consider in the future. We understand that, ideally, these changes should also be implemented by other DFIs to avoid putting PIDG projects at a disadvantage in terms of measuring impact

to Assess". An example will be estimates for service access indicators that are calculated based on conversations with project developers or reasonable assumptions which may not be stated in any official document

- Cases where no result is reported, or the result reported is zero. In some instances, such as where the actual number of people served by a project that has been completed is reported as zero, our assessment is that reporting "zero" is not reasonable. Therefore our answer to the first question is "No". We understand that this is usually the case when the impact cannot be reasonably estimated. However, we support our assessment with examples of how the result can be reasonably estimated. For the second question, we do not expect to be able to verify a "zero" result so we use the term "Unable to Assess.

The "Not Applicable" notation is used for projects where we agree that some indicators cannot be reasonably estimated. For instance, port projects where service access impact cannot be easily estimated. In these cases, we do not think it is applicable to assess the result (typically reported as zero or left blank) using our methodology described above.

The actual assurance process included the following steps.

- First, after receiving the RM sheets from the PIDG PMU, a senior member of the Castalia team with sector expertise reviewed each sheet to identify the key issues
- Second, we reviewed supporting documents provided by the PIDG PMU in detail. These documents include, project feasibility studies, information memoranda, shareholder agreements, IFC completion reports and excel spreadsheets showing the proposed capital structure for projects still under development, among others. We also conducted an internet search for publicly available information relevant to the assurance process
- Third, we created an assessment spreadsheet for each RM sheet where we reported our preliminary findings and questions. These spreadsheets were shared with the PIDG facility managers who clarified our queries via emails and conference calls
- Fourth, based on the responses received, we revised our findings and compiled the answers, by indicator, in the spreadsheets presented in the appendix. We then summarized the findings by project, reported in Section 3. The four questions we posed were revised and improved upon as we carried out the analysis.

2.2 Sample Selection

The PIDG PMU provided a list of seventy eight projects that had reached financial close across five facilities—DevCo, EAIF, GuarantCo, Infrastructure Crisis Facility (ICF-DP) and InfraCo Africa. We were asked to review a sample of twelve projects drawn from all the facilities except ICF-DP[3]. We divided the projects by sector and selected the four most represented sectors for the assurance—Energy Generation/T&D, Industrial Infrastructure, Telecoms and Transport. We then included a fifth sector, Agribusiness. Although Agribusiness only represents four percent of totally facility funding, one of the facilities (InfraCo Africa) had a high concentration of Agribusiness projects. We restricted the pool to

[3] ICF-DP does not "originate" projects and therefore has no development impact related targets.

these five sectors and randomly selected three projects for each of the four facilities. This resulted in the first proposed sample of projects shown in Table 2.1 below.

Table 2.1: Breakdown of First Proposed Sample of Projects for the 2012 Assurance

Facility Name	Agribusiness	Energy Generation/T&D	Industrial Infrastructure	Telecoms	Transport
DevCo	0	1	0	1	1
EAIF	0	0	1	1	1
GuarantCo	0	0	1	1	1
InfraCo Africa	2	1	0	0	0

Upon discussing with the PIDG PMU, we were asked to exclude the Agribusiness projects. One of the projects was sold many years ago at an earlier stage in its development (Antara) and the second was only a small pilot project (Chanyanya). The Agribusiness sector will be included in our next review (in 2013). Given that InfraCo Africa has a relatively small portfolio (approximately ten percent of total number of projects) and EAIF has a large portfolio (approximately forty two percent of total number of projects), we modified the sample to include two InfraCo Africa projects and four EAIF projects. We were also asked to include a multi-sector project (to increase the representative nature of the sample base) and an EAIF project from the Energy Generation sector (as this is a growing proportion of both EAIF's and the PIDG's portfolios).

The breakdown of the final sample is shown in Table 2.2 below, followed by the actual projects selected, in Table 2.3.

Table 2.2: Breakdown of Final Sample of Projects for the 2012 Assurance

Facility Name	Energy Generation/T&D	Industrial Infrastructure	Telecoms	Transport	Multi-Sector
DevCo	1	0	1	1	0
EAIF	1	1	1	1	0
GuarantCo	0	1	1	1	0
InfraCo Africa	1	0	0	0	1

We randomly selected twelve projects for the respective sectors and facilities according to the breakdown above. Six of the twelve projects are operational and therefore have actual commitments—this mirrors the underlying pool in which forty eight percent of the projects have actual commitments—that is, have had post-completion monitoring undertaken as they are fully built and delivering services on the ground. Finally, we changed two of the randomly generated Telecoms projects – Helios Towers, Nigeria and MTN Nigeria. These were replaced with other Telecoms projects eg Seacom. The final sample of projects chosen is shown in Table 2.3 below.

Table 2.3: Final Sample of Projects for the 2012 Assurance

Facility Name	Project	Sector	Facility Funding (US$m)	Post Completion Monitoring
DevCo	Privatisation of TELECO, Haiti	Telecoms	1.40	Not Eligible
DevCo	Cotonou Port, Benin	Transport – Ports	1.20	Not Eligible
DevCo	Albania KESH	Energy Generation/T&D	0.50	Eligible[4]
EAIF	South Asia Energy Management Systems (SAEMS) Hydro Stations	Energy Generation/T&D	14.00	Done
EAIF	Dakar Container Terminal, Senegal	Transport – Ports	17.02	Not Eligible
EAIF	Safal Investments Mauritius Limited Financing, Africa Regional	Industrial Infrastructure	29.00	Done
EAIF	Seacom, Africa Regional	Telecoms	35.40	Done
GuarantCo	Tower Aluminium Group Limited, Nigeria	Industrial Infrastructure	14.20	Not Eligible
GuarantCo	Celtel Kenya Refinancing	Telecoms	12.00	Done
GuarantCo	Shriram Transportation II, India	Transport - Roads	20.00	Done
InfraCo Africa	Kpone Independent Power Project, Ghana	Energy Generation/T&D	7.80	Not Eligible
InfraCo Africa	Kalangala Infrastructure Services Project, Uganda	MultiSector	4.60	Not Eligible

After agreeing on the sample, we selected four projects for an initial review. These projects were:

- Kpone Independent Power Project, Ghana (I-Africa)
- Privatisation of TELECO, Haiti (DevCo)
- Cotonou Port, Benin (DevCo)
- Kalangala Infrastructure Services Project, Uganda (I-Africa)

[4] Albania KESH has only recently completed all the actual investment it was expected to make. The related physical infrastructure is now on the ground and operational. As such, it is now earmarked by DevCo for post completion monitoring this fiscal year.

These projects were selected because we could carry out the assurance remotely from our office. We reported our preliminary findings to the PIDG PMU and made necessary adjustments to the assurance methodology.

We then carried out the second phase of the review and assessed the next eight projects. For the EAIF and GuarantCo projects, the project documents were reviewed at the facilities' offices in London. The final DevCo project was reviewed in our office, with documents provided by the DevCo team.

3 General Findings and Recommendations

Our overall assessment of the RM sheets is that most of the results were reasonably calculated, erring on the side of being conservative. We think this is good practice, that is, it is better to underreport than over-estimate the impact of the projects. However, with a little more effort and guidance, some of the unreported results could be estimated, and the accuracy of the reported results could be improved upon.

We also found that the total investment amounts for completed projects were to a large extent, accurately reported. The only exceptions were *Shriram Transport* and *Celtel Kenya*, where some of the debt raised was not reflected in the total investment amount. This was because the amounts could not be verified when the RM sheets were completed. For projects that are still under construction, we found that the predicted amounts were reasonable.

In cases where the financing structure had changed from when the RM sheet was filled out, we found that the changes were reasonable and the overall project costs were comparable to similar completed projects. We are not surprised by this finding because the investment amount and breakdown by source of funding are easier to measure. Also, these indicators are clearly defined and can be objectively assessed, and have been the focus of previous results reporting requirements.

Before discussing our findings and recommendations by facility and projects, we identify three areas of improvement that could further enhance the quality of results reported:

- On the poverty impact estimates, we found that nine of the twelve projects reviewed did not report the expected number of people below the poverty line that would benefit from additional service, or from improved quality of service. We understand it is difficult to accurately determine what proportion of beneficiaries is below the poverty line since these numbers are not usually published. However, a good estimate for this could be to multiply the poverty rate in the area or country by the number of beneficiaries expected. For instance, on the Albania KESH power project, the number with improved quality of service below the poverty line could be estimated as:

  12.4% (poverty rate in Albania) * 3,400,000 (total number of beneficiaries reported by DevCo) = 421,600 people

  Some of the projects were reported using this approach—we recommend that this practice be used for all projects

- Currently, the short term employment effects indicator only captures employment related to construction. However, several of the PIDG projects (such as Haiti

Telecom, Celtel Kenya, and Shriram Transport) do not involve construction. The definition of this indicator could be expanded to capture short term employment effects (within one year for instance) regardless of the type of employment. This approach will better capture the employment effects of all the projects. The long term employment effect indicator could then measure employment effects within, say three to five years

- Data from external sources should be referenced and, where possible, estimates should be based on verifiable information. Also, the assumptions used should be referenced. For instance, the reasonableness of the estimate for short term construction effects could be better assessed if the facility managers explain how these estimates were derived (under the "additional information" section) and include references where applicable. We understand that this is not a requirement for the PIDG PMU but this enhancement to the current system will make it easier to verify the reasonableness and accuracy of the predicted and actual results reported. Implementing this recommendation will generate additional costs to the PIDG PMU. However, it reduces the chances that results will be reported with a non-credible source. It will also reduce verification costs in the future
- Qualitative indicators should be more in line with the guidelines in the PIDG handbook. We found that the comments on the *developmental impact*, *additionality effects*, *overall impact on the economy* and *demonstration effects*, could be better explained, whilst generally reasonable. On the Kpone project, for instance, the comment on the *developmental impacts* describes the electricity shortfall in Ghana and the government's reform plan. The explanation could be enhanced by clearly explaining the linkage between the project and the reform plan. We think the guidelines provided in the PIDG RM handbook are very useful. Project managers should be encouraged to adhere more closely to the guidelines to ensure that the impact of each project is fully reflected in the RM sheets. Implementing this recommendation means that project managers may have to spend more time in completing these RM sheets. However, we think that the benefit of reporting stronger and well defined impacts justifies the cost.

3.1 Findings and Recommendations by Facility

In this section, we report our findings by facility and make recommendations to enhance the results reporting, where applicable.

3.1.1 InfraCo Africa

The two InfraCo Africa projects reviewed (Kalangala Infrastructure Services and Kpone Power Plant) are still under development, so our assessment was based on the predicted results reported. We found that these RM sheets were rigorously completed—the assumptions and estimates were reasonable, accurate and in line with DFI convention. Specifically, we note that:

- When we compared the planned investment amounts to similar projects, we found the project costs estimated by InfraCo Africa to be reasonable. Also, the total investment amount reported in the RM sheet was roughly in line with the amount in the financial models provided

- The long and short term employment effects were also reasonably estimated and comparable to the employment effects on similar projects that we reviewed
- The *number of additional people served* and *number of people with improved service* were reasonably predicted, and calculated in line with the PIDG PMU guidelines. However, the service access results for the Kpone electricity generation project could be improved. We explain this in depth under the Kpone project review (in the detailed report). In summary, we recommend that the calculation for the number of additional people served should factor in:
  - Expected transmission losses from the plant—this information is typically reported by the electricity regulation company in the respective country, and/or on the international energy agency website
  - The expectation that some of the electricity generated will go towards commercial use
  - The additional electricity generated could either go to improving service to existing customers, serving additional people, or a split between both uses. In cases where the third approach is used to calculate impact, the amount of electricity expected to serve each purpose should be reasonably estimated

3.1.2 GuarantCo

We reviewed three projects from the GuarantCo facility – Shriram Transport, Celtel Kenya and Tower Aluminium. Two of them were for the refinancing of existing foreign currency debt owed by the respective companies. We found that, where reported, the results were mostly reasonable, and accurately estimated. Specifically, we found that:

- The total project investment reported was reasonable and accurate but there were some discrepancies between the amount reported for Shriram and Celtel and the actual amount that was invested
- The long term and short term employment effects were reasonable and calculated in line with the PIDG guidelines. For Tower Aluminum, the long term employment reported was zero. In our recommendation below, we explain how this could have been better done
- Our findings on the service access results were mixed. Of the three projects, only Celtel reported results for improved quality of service. This is correct since the other transactions (Shriram and Tower) are designed to finance new trucks and future production, respectively. For the number of additional people served, the result could have been better estimated for the Celtel and Tower projects, as explained in the detailed report.

Recommendation: Our main recommendation relates to assessing the impact of refinancing transactions by GuarantCo. Unlike the other facilities where funds are typically disbursed for new projects, GuarantCo plays a unique role in mobilizing local investment for existing companies. Some of the guarantees provided are used to raise local capital for refinancing existing foreign denominated debt. To determine the impact of GuarantCo involvement on these transactions, it is important to understand what role the GuarantCo funds play in the company's overall financing structure. Our approach was to identify what the counterfactual is in each scenario—that is, what is likely to happen to the company if the refinancing does not occur. We recommend that the impact on projects like this be estimated as the avoided cost of the counterfactual occurring.

3.1.3 EAIF

We reviewed four EAIF projects (Safal Mauritius, Seacom Africa, Dakar Container and SAEMS Hydro station Uganda). We found that almost all the results reported were accurate and reasonably estimated. Specifically, we found that:

- The total investment amounts were correct, except in the case of Safal where there was a small error in calculation. Also, the breakdown of funds by source was roughly in line with the financial proposals reviewed
- On the service access indicators, the estimates were generally reasonable with one exception (the SAEMS power project) explained in our detailed report. Our assessment is that the methodology used on the EAIF projects is good, but could be improved upon for the power projects.
- The short term and long term employment effects were conservatively estimated. Particularly, for the Seacom project, we expect that a significant amount of indirect employment benefits will be generated from this project. However, this is not being captured on the RM sheet. We recommend that secondary sources of information can be used to estimate indirect employment benefits from projects like this. For instance, looking at potential employment from call centers, recharge card vendors, etc. This information can be sourced from telecom operators in the countries served.

3.1.4 DevCo

In our assessment of the DevCo RM sheets, we took into account the fact that the results reporting process for this facility differs from the other PIDG facilities reviewed. There are two major differentiating factors. First, until recently, DevCo was not required to submit annual updates to the RM sheets. Instead, expected and actual impact was provided through a quarterly report to the PIDG. Secondly, we understand that the actual results are not reported on the RM sheets until IFC has carried out post completion monitoring of the projects, which could be two or more years after the project is completed.

On one of the projects, Haiti Teleco, the DevCo mandate has been completed but the project has not been fully implemented due to the earthquake. Therefore, the project is not eligible for post completion monitoring so the actual results have not been fully determined. The impact observed so far has been reported in the quarterly updates to the PIDG. In the case of Albania Kesh, the RM sheet had not been updated since the DevCo application was submitted since this was not required. As such, the estimated investment amount was significantly less than the investment amount calculated at the time of completion.

Recommendation: RM sheets for DevCo projects should be treated the same way as those for other projects, that is, the results for the relevant indicators should be updated annually and upon project completion. This ensures that the results reported are accurate and correctly reflect project impact, particularly for completed projects. The other facilities have calculated reasonable and justifiable estimates of expected impacts where applicable. For consistency, we think that DevCo projects should take the same approach. This approach will actually benefit DevCo projects since the RM system defaults to zero for indicators that are not reported. Therefore, most of the impacts from DevCo projects will not be reflected in the system until the RM sheets are updated. This puts DevCo projects at a disadvantage, compared to other facilities, if the updates are done on a different timeline. We understand that post-completion monitoring is usually carried out once the project is completed and running. In cases where there are project delays (such as Haiti Teleco), predicted results may be maintained on the RM sheet until post-completion monitoring is carried out. These predicted results can be estimated using the guidelines in the new PIDG handbook and some reasonable assumptions. For instance, the predicted number of people served by Haiti Teleco could be estimated by multiplying the annual growth rate in subscriptions by the number of Haiti Teleco's customers at the time. It may also be worthwhile to explore how the other facilities report these indicators and adopt the approach where appropriate.

We understand that implementing this recommendation means that DevCo project managers may have to spend more time in completing the RM sheets. We recommend allocating more resources to this if necessary, because we think that the benefit of accurately reflecting the impact of DevCo projects will justify the additional cost.

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