



SITI, UGANDA (FRONTIER)



GEEREF IMPACT METHODOLOGY

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INTRODUCTION

The GEEREF team focuses on backing emerging investment teams active in the Renewable Energy and Energy Efficiency sectors who share its values and who implement the highest international standards for responsible investment through their businesses and projects. These standards are described fully in the EIB's *Environmental and Social Practices Handbook*.

By catalysing nascent managers, GEEREF is able to have a profound bearing upon its funds' strategies and, particularly, their approaches to impact investing.

This document sets out the key impact metrics that GEEREF and its funds track across the portfolio of investments. These metrics fall within four categories in line with GEEREF's policy objectives:

1. ENERGY
2. ENVIRONMENT
3. SUSTAINABLE DEVELOPMENT
4. FINANCIAL LEVERAGE

The metrics are calculated both on the actual results of portfolio projects in the reporting year and for their projected economic lifetimes of the projects. The metrics are reported annually in the GEEREF's impact report with additional quantitative information on the impacts of the projects financed.

GEEREF is committed to the continued pursuit of best practice in impact reporting and welcomes all feedback.

Sincerely,

The GEEREF team



METHODOLOGY

All Impact data are collected annually from GEEREF's fund managers and are analysed by the GEEREF team. The team collects data for the entire projects, rather than a pro rata share of them, with the underlying assumption that the projects would not have been financed without GEEREF' support.

The analysis comprises **three layers of data**:

- **Actual reported values** from the relevant financial year from each of the investments in each portfolio in that time period. This may include assets that have been fully operational in the financial year, partially operational or still in development or construction.
- **'Run-rate' metrics** for the existing portfolio and extrapolates for the assumption that all existing investments in the portfolio are fully operational.
- **Modelled metrics for the** fully deployed portfolio, whereby each fund has fully invested all that capital committed to projects and these are fully operational. This third approach makes a number of assumptions including total capital commitments, project sizes and technologies, capex and capacity factors in order to derive a set of metrics for what the whole GEEREF portfolio will deliver over its lifetime.

The data collection exercise is divided into four Pillars: **Energy, Environment, Sustainable Development and Financial Leverage**. For the first three Pillars there are certain metrics that can be considered **"eligibility criteria"** for GEEREF (these are highlighted in black text below). Other **impact criteria** (in blue) require quantitative inputs from the fund managers. For the fourth Pillar, Financial Leverage, GEEREF reports on the mobilisation of funding at three layers: project level, fund level and GEEREF level.

The *project level* multiplier assesses the total project capex (including fund equity, co-investment and debt) relative to the equity invested by the fund manager. The *fund level* multiplier assesses the total commitments that a fund has raised from all of its limited partners relative to the initial commitment made by GEEREF. The *GEEREF level* multiplier is essentially the project level multiplier times the fund level multiplier. A final calculation can be made for the impact achieved by the ODA investors in GEEREF who catalysed the private sector limited partners. This calculates the ratio of public to total commitments and derives a final multiplier for all capital invested through GEEREF's portfolio projects relative to the initial ODA commitments to GEEREF.

PILLAR 1: ENERGY

Eligibility Criteria	
GEEREF energy impact	> The percentage of renewable energy or energy efficiency infrastructure projects (excluding cleantech companies - see next indicator) in the portfolio of GEEREF funds that generate renewable energy or improve energy efficiency in the target regions. <i>(typically 100%)</i>
GEEREF innovation impact	> The percentage of renewable energy or energy efficiency technology R&D and equipment manufacturing companies (e.g. cleantech companies in the renewable energy or energy efficiency sector) in the portfolio of GEEREF funds (therefore excluding those cleantech companies in non-renewable energy or energy efficiency sectors, e.g. clean water, air or soil related). <i>(typically 0%)</i>
Impact Criteria	
Installed capacity	> The actual amount of renewable energy generating capacity operational by financial year end and an estimate for the total amount of generating capacity expected to be operational on completion of the project (in MWs). An estimate based for the expected fully built portfolio is also calculated.
Total electricity produced	<ul style="list-style-type: none"> > The actual amount of renewable energy generated in the financial year reported as well as an estimate for the total amount of renewable energy generated over the lifetime of the asset <i>(in MWhs)</i>. > For the purposes of standardisation and transparency, it is assumed that all clean energy generating assets have a 20-year lifetime (i.e. across all technologies) and that all energy efficiency assets have a 10-year lifetime. > The figure is calculated by multiplying installed capacity by project's capacity factor and the number of hours in a year (8760 hours).
Total energy efficiency improvement	<ul style="list-style-type: none"> > The actual amount of energy consumption reduced in the financial year reported as well as an estimate for the total amount of energy consumption reduced over the lifetime of the asset <i>(in MWhs)</i>. > For the purposes of standardisation and transparency, it is assumed that all clean energy generating assets have a 20-year lifetime (i.e. across all technologies) and that all energy efficiency assets have a 10-year lifetime.

PILLAR 2: ENVIRONMENT

Eligibility Criteria	
GEEREF climate impact	> The percentage of investments made in GHG reduction projects (including renewable energy or energy efficiency but also others such as forestry and GHG avoidance/destruction projects) (typically 100%).

Other environment related investments	> Additional environmental related (other than climate) investments, i.e.: the percentage of investment in cleantech companies or projects (e.g. waste treatment, clean water/air/soil, material efficiency, sustainable agriculture and recycling but not related to renewable energy or energy efficiency) (typically 0%).
Impact Criteria	
Total GHG emissions reduced	<ul style="list-style-type: none"> > The actual amount of GHG emissions reduced in the financial year reported as well as an estimate for the total GHG emissions reduced over the lifetime of the asset (<i>in tonnes</i>). > For the purposes of standardisation and transparency, it is assumed that all clean energy generating assets have a 20-year lifetime (ie across all technologies) and that all energy efficiency assets have a 10-year lifetime. > GEEREF uses the EIB carbon footprint methodology based upon submitted renewable energy generation figures and a standard grid emission factor per country of operation. > The figure is calculated by multiplying total energy generated by the project by country fossil fuel grid emissions factor.
Total pollution reduced	> The amount of pollution reduced as the result of the beneficiary projects (e.g. tonnes of water, air and waste treated, acres of recovered land, etc.).

PILLAR 3: SUSTAINABLE DEVELOPMENT

Eligibility Criteria	
Off-grid access	> The increase of electrification and of energy supply in communities with previously poor energy access, specifically the percentage of investments in energy generation in off-grid regions where the plant is not connected to a transmission grid.
Under-electrified region	> The increase of electrification and of energy supply in communities with previously poor energy access, specifically the percentage of investments in energy generation in an under-electrified region, defined as those where less than 75 percent of the population is connected to electricity (source: IEA, World Energy Outlook 2015).
Least developed country	> The increase of electrification and of energy supply in communities with previously poor energy access, specifically the percentage of investments in energy generation in a least developed country (LDC, as defined by OECD).
Impact Criteria	
Beneficiary households	<ul style="list-style-type: none"> > The estimated total number of beneficiary households who could potentially gain new and/or improved access to modern, renewable energy supply as the result of the project. <p>This figure is calculated by dividing total annual electricity generation by the average annual household electricity consumption in that country (source: World Bank).</p>

Beneficiary SMEs	<ul style="list-style-type: none"> > The estimated total number of small and medium-sized businesses with fewer than 250 employees that were involved in the project (including the investee companies of the funds) through a commercial agreement with the investee project company. > <i>Actual 2015</i> refers to known figures for the calendar year 2015 while <i>Annualised</i> refers to the expected yearly figure once the project is fully operational.
Permanent jobs created	<ul style="list-style-type: none"> > The number of personnel hired on a full-time basis by the investee project company (<i>this would typically include asset management services such as O&M, accounting and the like</i>). > <i>Actual 2015</i> refers to known figures for the financial year 2015 while <i>Annualised</i> refers to the expected yearly figure once the project is fully operational.
Temporary jobs created	<ul style="list-style-type: none"> > The number of personnel hired on a temporary basis by the investee project company (<i>this would typically include technical services ahead of construction, construction work and the like</i>). > <i>Actual 2015</i> refers to known figures for the financial year 2015 while <i>Annualised</i> refers to the expected yearly figure once the project is fully operational.
Permanent female jobs created	<ul style="list-style-type: none"> > The number of female personnel hired on a full-time basis by the investee project company (<i>this would typically include asset management services such as O&M, accounting and the like</i>). > <i>Actual 2015</i> refers to known figures for the financial year 2015 while <i>Annualised</i> refers to the expected yearly figure once the project is fully operational.
Temporary female jobs created	<ul style="list-style-type: none"> > The number of female personnel hired on a temporary basis by the investee project company (<i>this would typically include technical services ahead of construction, construction work and the like</i>). > <i>Actual 2015</i> refers to known figures for the financial year 2015.
Training provided	<ul style="list-style-type: none"> > The number of person-hours of work-related training provided by the investee project company. > <i>Actual 2015</i> refers to known figures for the financial year 2015 while <i>Annualised</i> refers to the expected yearly figure once the project is fully operational.
Taxes paid	<ul style="list-style-type: none"> > The total amount of local corporate tax paid at the level of the investee project company. > <i>Actual 2015</i> refers to known figures for the calendar year 2015 while <i>Annualised</i> refers to the expected yearly figure once the project is fully operational.

PILLAR 4: FINANCIAL LEVERAGE

Impact Criteria	
Portfolio fund level	<p>The equity co-finance from public/private investors attracted by the investment of GEEREF after GEEREF made its commitment (excluding the previous closings where GEEREF did not participate, if applicable). GEEREF's role being to anchor teams and to play a catalytic role for other investors, the leverage at the fund level is often the ratio of the total fund size out of GEEREF commitment.</p> <p><i>Actual 2015</i> refers to known figures for the financial year 2015 while <i>Lifetime</i> refers to the expected figure once the fund has reached final close. The <i>GEEREF Fund Multiplier</i> is calculated by dividing the amount of total fund commitments by the amount committed to the fund by GEEREF.</p>
Project level	<p>The equity and debt co-finance from public/private investors attracted to the project by the investment of GEEREF's portfolio funds after GEEREF's portfolio funds made its commitment.</p> <p><i>Actual 2015</i> refers to known figures for the financial year 2015 while <i>Lifetime</i> refers to the expected figure once the project has reached financial close. The <i>GEEREF Project Multiplier</i> is calculated by dividing the amount of total equity and debt commitments to the project by the amount committed to the fund by GEEREF.</p>
Eligibility Criteria	
GEEREF level multiplier	<p>The amount of private capital attracted by the initial public sector investment into GEEREF.</p> <p>The GEEREF Multiplier is calculated by dividing the total commitments made to GEEREF by public/private investors by the amount committed by private sector investors. This multiplier is 2x.</p>
Overall Impact	<p>The total amount of funds mobilized by GEEREF funding, or total financing made available for the final beneficiaries/projects from GEEREF's investment.</p> <p>The <i>GEEREF Overall Impact</i> is calculated by multiplying the portfolio fund level leverage by project level multiplier. <i>The figure shows the amount of funds that reach the final beneficiaries for each euro committed to GEEREF.</i></p> <p>GEEREF also calculates the "<i>GEEREF ODA Overall Impact</i>" by multiplying the GEEREF level multiplier by the portfolio fund level leverage by project level multiplier. This figure shows the amount of funds that reach the final beneficiaries for each euro of ODA funding invested in GEEREF.</p>