

Evaluation FMO Access to Energy Fund

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Final report

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Abbreviations

Abbreviation	Full description
ADFD	Abu Dhabi Fund for Development
AEF	Access to Energy Fund
AfDB	African Development Bank
AREF	African Renewable Energy Fund
AREI	African Renewable Energy Initiative
BNEF	Bloomberg New Energy Finance
BIO	Belgian Investment Company for Developing Countries
DFID	UK Department for International Development
COP21	2015 Paris Climate Conference
CCR	Client Credit Review
CDC	CDC Group plc (former Commonwealth Development Corporation), DFI owned by the UK government
CDEN	Compagnie Française des Energies Nouvelles
CDFD-CIO	Climate Development and Finance Facility, later renamed Climate Investor One
CEM	Clean Energy Ministerial
CIO	Climate Investor One
CSP	Concentrated solar thermal power (plant)
DAC	Development Assistance Committee of the OECD
DDE	Sustainable Economic Development Department of MFA
DEG	German Investment and Development Corporation
DFI	Development Finance Institution
DGIS	Directorate General for International Cooperation of MFA
DRE	Distributed Renewable Energy
EAIF	Emerging Africa Infrastructure Fund Project
EDP	Energías de Portugal
EIB	European Investment Bank
EnDev	Energising Development
ES-MAP	Energy Sector Management Assistance Program
EQ	Evaluation Question
FFEM	Fonds Français pour l'Environnement Mondial
FMO	Netherlands Development Finance Company
FMO-A	FMO funds for investment (excluding government funds)
FP	Financial Proposal
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse gas
Global LEAP	Global Lighting and Energy Access Partnership
GIB	Green Investment Bank
GOGLA	Global Off-Grid Lightning Association
GoK	Government of Kenya

GoN	Government of Nicaragua
GoR	Government of Rwanda
GoS	Government of Senegal
IC	Investment Committee
IDF	Infrastructure Development Fund, managed by FMO
IEA	International Energy Agency
IFI	International Finance Institution
IGG	Inclusive Green Growth Department of MFA
IMR	Investment and Mission Review
IOB	Policy and Operations Evaluation Department of MFA
IPP	Independent Power Producer
IRENA	International Renewable Energy Agency
KPI	Key Performance Indicator
LDC	Least Developed Country
LIC	Low Income Country
LTWP	Lake Turkana Wind Power Project
M&E	Monitoring and Evaluation
MASSIF	Micro and Small Enterprise Fund, managed by FMO
MDGs	Millennium Development Goals
MFA	Ministry of Foreign Affairs
MFI	Microfinance Institution
MSME's	micro , small , and medium enterprises
MTR	Mid-Term Review
ODA	Official Development Assistance
OECD	Organisation of Economic Cooperation and Development
OPIC	Overseas Private Investment Corporation
PAYG	Pay-as-you-go
PPA	Power Purchase Agreement
PPP	Public-private partnerships
PREP	Promoting Renewable Energy Programme
PSD	Private Sector Development
PV	Photovoltaic
RE	Renewable Energy
REEEP	Renewable Energy and Energy Efficiency Partnership
REIPPPP	Renewable Energy Independent Power Producer Procurement Programme
SACCO	Saving and Credit Cooperative
SDG	Sustainable Development Goals
SE4all	Sustainable energy for all
SEFA	Sustainable Energy Fund for Africa
Sme	Small and Medium Enterprises
SSA	Sub-Saharan Africa
ToC	Theory of Change
TOPL	Tema Osonor Plant Ltd.
ToR	Terms of Reference
UGEAP	Universal Green Energy Access Program

Executive Summary

Background

The Access to Energy Fund (AEF) was jointly initiated by the Dutch government (Ministry of Foreign Affairs) and FMO to support private sector projects aimed at providing long-term access to energy services in Sub-Saharan Africa. In 2007, AEF started with € 70 million, made available as a grant by the Ministry of Foreign Affairs (AEF I). In 2013, a top-up of € 32 million was added (AEF II) and the focus of AEF shifted exclusively to Renewable Energy in Sub-Saharan Africa. In 2016, DGIS decided in principle on another € 18 million top-up of AEF, creating a total fund size of € 120 million, of which € 50 million would be invested in Climate Investor One (CIO), a new fund originated by FMO, leaving € 70 million for AEF.

In October 2016, the Climate Team of the Ministry of Foreign Affairs commissioned an independent evaluation of AEF to the consortium of APE, MDF and Trinomics.

During the inception phase a reconstructed Theory of Change was elaborated, which served as the basis for a detailed evaluation matrix with evaluation questions and indicators, data collection and sources per evaluation question. The main data collection activities have been: literature review, portfolio analysis, strategic interviews with stakeholders and external experts including five other funds also investing in renewable energy in Africa, 20 case studies including 16 realised AEF investments and four AEF projects that did not materialise for various reasons.

Triangulation of findings from various information sources and methods has been carried out to draw robust conclusions for all (sub-)evaluation questions to enhance the validity and reliability of the findings. At case study level, the evaluation primarily relied on the information provided by FMO on the relevant investments (investment documents and interviews with investment officers). No direct primary data gathering on the case study projects itself have been conducted. The evaluation team dealt with a potential bias in the information provided by FMO by critically judging the information provided in the documents and in the interviews.

Main conclusions

1. *AEF has responded adequately to the rapidly evolving context regarding funding of renewable energy in Sub-Saharan Africa.*

AEF is a relevant and useful tool that has responded well to the rapidly changing conditions in renewable energy financing in emerging markets. AEF has clearly addressed the needs for differentiated capital in an early stage of project development. AEF has also adequately addressed the capital needs of risky new business models, both grid-connected and off-grid.

2. *The evolving policy priorities of the Ministry of Foreign Affairs on renewable energy and, in particular, on climate change are only reflected to a limited extent in the AEF operational and strategic objectives.*

The focus of AEF on access to energy for households has remained unchanged while the market has evolved. Especially the grid-connected projects, the majority of the AEF portfolio, cannot be exclusively focused on households. Furthermore, the link between renewable energy and inclusive green growth that is highlighted in government policy documents is not explicitly reflected in the AEF policy frameworks. This also applies to new policy goals such as the climate goals and improved knowledge on the links between climate, energy and development. In practice, DGIS provided little pro-active guidance to FMO regarding the (evolving) policy framework in which AEF should be functioning.

3. AEF is largely additional to other funding sources for renewable energy in Sub-Saharan Africa, and has catalysed other funding.

FMO has made good use of AEF with different types of finance (equity, loans, grants) and is complementary to FMO-A funding. All case studies showed a positive score on additionality, including the written-off investments or those with an early exit. AEF has mostly invested in the riskier part of project financing structures or provided seed capital for early stages of business development. FMO has also often acted as deal arranger, which meant that thanks to the AEF investment other investors were attracted in a direct or indirect way.

4. There is clear evidence that the planned outputs have been realised. Despite measurement problems (see below), it is also likely that AEF has already exceeded the target of 3 million people to be provided with access to energy by now, assuming catalysing effects are taken into account and if all projects proceed according to plan.

FMO invested in a sufficient number of relevant (renewable) energy projects that directly or indirectly provided additional energy connections. The evaluation team has made its own calculations of the number of people reached for the 15 case studies representing 60% of the overall portfolio in order to provide an estimate on the expected progress towards the goal. This analysis shows that the estimate of people reached lies between 348,000 and 2.3 million people reached for the 15 case studies. Extrapolated to portfolio level, this implies that between 0.6 - 3.8 million people have been provided with access to energy. There is still very limited information available on the socio-economic characteristics of the people reached.

5. FMO very seriously overestimated the number of people provided with access to energy (approximately with a factor 10), which points at weaknesses in the monitoring system despite some recent improvements.

The evidence basis at outcome level presented by FMO has so far been relatively weak, in particular for the key target the number of people provided with access to energy. This has been due to definition problems, measurement problems and weak linkages between the FMO Front Office responsible for the investments, the Mid Office in charge of Fund Management and the Back Office in charge of M&E.

6. So far, there is limited evidence on the realisation of sustainable impact, but it is likely that the ongoing impact studies of AEF will demonstrate positive impacts at household level.

7. The new M&E approach developed at the explicit request of DGIS was primarily focused on accountability and there is a risk that learning will remain very limited.

The FMO M&E approach was rolled out from 2014 onwards at the explicit request of DGIS. For accountability reasons, DGIS wanted FMO to focus on sound impact evaluations based on scientific methods and with a very limited focus on learning and timely available results. The length of the impact evaluations – between 1 and 3 years - may also limit the learning. Since 2014, the M&E approach is gradually changing as it starts to pay more attention to the learning purpose and the needs of primary stakeholders in FMO.

8. FMO appears to manage AEF efficiently by integrating the Fund's related activities in the other energy sector investments of the bank.

The integrated management model of AEF implies that the Front-, Mid- and Back Offices are all involved in AEF. This set-up has advantages and disadvantages. The advantages are that AEF deals are prepared and made by the Investment Officers who have specific skills and expertise for arranging these deals and do not have to deal with Mid and Back Office tasks such as M&E and reporting. The disadvantages, however, are the weak linkages between the three parts of the bank for the management of the Fund.

9. The utilisation of AEF funds was somewhat low, but is picking up. No definition for revolving has been defined, but according to all possible definitions, the revolving of the fund exceeds the original 50% target. Only for some definitions, revolving of the Fund meets the new 75% target set in 2012.

There has been a drop in utilisation rate around the time of the AEF II expansion, which was due to some repayments and sales of equity stakes, but also because only a small fraction of the large pipeline materialised into commitments. In recent years, the utilisation rate improved to 73% as at Q3-2016. This implies, assuming a full disbursement of all contracted amounts, that there is still € 28 million capacity available, which would be reduced to € 3 million if an additional € 25 million from AEF would be made available to CIO. Even though there is no clear agreed definition for revolving of AEF, it varies between 59% and 112% depending on the definition of revolving that is applied. This implies that the original target set for AEF-I of 50% revolving has been met, but it is unsure whether the new target of 75% revolving has been met as well as the Grant Decision for AEF-II that specifies the new target does not include a definition for the target.

Recommendations

- 1. AEF should continue its operations in the years to come, given AEF's good performance in terms of relevance, additionality and effectiveness and in the absence of mature markets for financing of renewable energy projects in Sub-Saharan Africa and the continued demand for risk-appreciative capital.*
- 2. In view of the evolving government policy priorities including increasing attention for climate goals and given the substantial differences between AEF (I and II) on the one hand and CIO on the other, DGIS should define a new overall policy umbrella framework for AEF and CIO.*
- 3. The arrangements between DGIS and FMO and roles and responsibilities should be further defined. DGIS should focus more on (re-)defining the policy framework and setting clear and realistic targets. The governance risks of the arrangements regarding CIO need to be carefully assessed and risk mitigation needs to be elaborated. Similarly, FMO should put in place clear and measurable criteria and incentives for AEF deliverables, such as when to exit deals and engage private sector investors in refinancing. Jointly FMO and DGIS need to revisit the tension between positioning AEF as 'risk-appreciative capital' in a changing market, and the 'risk-avoiding' target on higher revolvability.*
- 4. DGIS and FMO should increase cooperation on knowledge management regarding the evolving funding context of renewable energy, but also on learning from M&E.*
- 5. FMO as the AEF Fund Manager should continue to adjust its working methods and investment policy in line with the evolving market by for instance actively exploring new renewable energy market segments.*