Annex P: The Sustainable Energy for Africa Facility

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1. Overview of SEFA and time-line of Danish support

The Sustainable Energy Fund for Africa (SEFA) originated in recommendations of the Africa Commission, which was launched by Denmark's Prime Minister in 2008 to help refocus the development agenda in Africa (Danida, 2011). Through two years of consultations, the Commission identified five key areas relating to growth, employment and competitiveness. One of these was access to sustainable energy, where the need was highlighted to increase electricity access by cost-effective and climate-friendly means. The Commission identified the African Development Bank (AfDB) as the most suitable implementation partner for these efforts (Africa Commission, 2009). In this context, Danish observers identified an opportunity to help build stable energy services to enable growth among small and medium-sized enterprises (SMEs) in sub-Saharan Africa, by tapping into renewable energy sources that had potential to supply reliable, affordable and low-carbon energy systems. In this area, the AfDB was a natural partner for Denmark, due to their common engagement with other initiatives supporting RE/EE projects and investments in sub-Saharan Africa[1].

Thus, when SEFA was established in 2011 at AfDB[2], this was done with Danish support. The Danida Programme Document at the time described SEFA's aim as being to "support the provision of energy to SMEs in Africa with the purpose of generating employment and economic growth" (Danida, 2011). The rationale for focusing on renewables was that RE systems would offer a sustainable path towards energy supply, energy security and economic development without directly increasing GHG emissions. Building on this, Danish support for SEFA comprised two financial components, with supporting technical assistance (TA):

[1] These include the Programme for Scaling Up Renewable Energy in Low Income Countries (a targeted program of the Strategic Climate Fund), the African Guarantee Fund, and the Fund for African Private Sector Assistance.

[2] Initially at the Energy, Environment and Climate Change Department, which is now the Renewable Energy and Energy Efficiency Department under the Power, Energy, Climate, and Green Growth complex of the AfDB.

- **Component One**: to support AfDB renewable energy funding, directed at RE/EE projects of an investment size of USD 30-75 million, providing financial assistance (concessional lending) for project preparation (not for the investments themselves).
- **Component Two**: to support RE/EE projects with investment needs of USD 10-30 million (below the threshold for AfDB support), provided through a Private Equity Fund.

Both components aimed to achieve 'proof of concept', with Component One offering internal justification for AfDB to give higher priority to this investment segment, and Component Two providing the motivation for other private equity firms to invest in the RE/EE sector. The initial Danish contribution to SEFA was DKK 300 million for five years (2011-2016), with Component One receiving DKK 75 million, Component Two DKK 200 million and an additional DKK 25 million for TA. When SEFA became a multi-donor trust fund in 2013, the upper limits of both components were increased to DKK 200 million and DKK 80 million respectively, in order to widen the fund's ability to support a greater number of projects that would bring in private sector investment. A third component was introduced at the same time, to tackle up-stream issues in the enabling environment that were found to be holding back RE investments.

Although SEFA began with Denmark's bilateral commitment, it soon evolved into a multi-donor trust fund. Although Denmark remains its largest donor, other partners strengthened its funding base: the USA in 2013; the UK in 2014, Italy in 2015, Norway in 2018, Spain and Sweden in 2019, and Germany and the Nordic Development Fund in 2020. In 2019 it was constituted as a Special Fund[3] ('SEFA 2.0'), with a new commitment of DKK 300 million over three years from the Danish Climate Envelope[4]. In this form, SEFA is now able to use a wider range of public and private resources in more flexible ways than before, providing support through grants as well as non-grant investment instruments, including reimbursable grants, concessional debt and equity provision (Danida, 2019).

2. Capacities and priorities of SEFA

Indicating strong demand for its services, by 2014 SEFA had built an active portfolio of 15 projects in 13 countries totalling USD 12.3 million (SEFA, 2014); and by 2017 this had increased to 45 projects for USD 67.6 million in 25 African countries (SEFA, 2017)[5]. An external review of SEFA (Eco, 2018), just prior to the end of SEFA's first cycle, found:

- that SEFA was strategically aligned with broader initiatives of the AfDB for achieving universal energy access, including its New Deal on Energy for Africa, and had become the largest of 42 trust funds hosted by the AfDB;

[3] A Special Fund allows for resource contributions to come from donor countries, organizations, or public or private entities, utilising such resources through a wide range of financial instruments.

[4] A rationale for CE funding in this context is provided by Eco (2018: 5): "Africa is the continent that contributes the least to global warming in both absolute and per capita terms and accounts for the smallest share of global GHG emissions (3.8%). Despite its low emissions, Africa is one of the regions most vulnerable to climate change. Rapid economic growth and demographic and urbanization trends will increase Africa's emissions of GHGs unless mitigating actions are taken, such as the adoption of renewables-based power generation and end-use efficiency improvements."

[5] SEFA's growth was also encouraged by AfDB protocols that address broader development objectives, for example "efforts toward mainstreaming gender dimensions in the energy sector and beyond." (SEFA, 2014: 23).

- that by supporting project preparation in fragile states, SEFA was filling a crucial gap in facilitating private sector investment for countries that would otherwise have no access to this kind of help;
- that SEFA's selection process strongly favoured RE innovative technologies that were still considered as high risk (see Box 1);
- that SEFA preferentially directed enabling support to green mini-grids, which are considered to be the most feasible approach to delivering progress on SDG 7 (universal access to modern energy services);
- that EE projects were severely under-represented in the portfolio, despite the intention of SEFA to target both RE and EE investments;
- that delays in project implementation and especially procurement were reported, with bureaucratic procedures of the AfDB being a contributing factor; and
- that the multi-donor agreement lacked a results framework, which stakeholders considered an important design weakness.

The transformation of SEFA in 2019 from a multi-donor trust fund to a Special Fund of the AfDB was accompanied by increased ambitions. It now has three focal areas: (a) *green mini-grids*, to accelerate energy access among under-served populations, (b) *green baseload*, to increase the penetration of renewables, and (c) *energy efficiency*, to optimize energy systems and reduce energy intensity (SEFA, 2019). The third focus area responds directly to the external review's concern that SEFA had not given sufficient attention to EE investments earlier.

Box 1: Case Study of Ethiopia Corbetti Geothermal 20 MW

In October 2014, AREF (the private equity fund manager for SEFA) signed an agreement to invest USD 20 million into the first 20 MW phase of the Corbetti geothermal project in Ethiopia. Corbetti Geothermal PLC has a license to develop up to 500 MW of electrical generating capacity in the Corbetti caldera, approximately 250 km south of Addis Ababa and lying in the middle of the African Rift valley. Numerous surface studies have shown that this caldera has significant geothermal potential that permits an overall project of this size. The Company subsequently negotiated a power purchase agreement (PPA) with Ethiopian Electric Power and a support agreement with the Government of Ethiopia, which was signed in March 2020. The PPA sets out the commercial terms for a project of up to 150 MW, split into two phases of 50 MW and 100 MW. The PPA also grants the Company a right of first refusal over further geothermal expansion up to 500 MW. Drilling is expected to start in early 2021.

Sources: (a) SEFA (2014); (b) https://www.thinkgeoenergy.com/corbetti-geothermal-project-ethiopia-drilling-contract-pre-qualification/; (c) https://ethioenergybuz.com/en/renewables/geothermal.html.

3. Effectiveness of SEFA mitigation efforts

The growth of SEFA and its strengths as identified by the 2018 review are outcomes of its operation as a multi-donor fund. By 2019, donor commitments had reached USD 126 million, and the SEFA portfolio was supporting 60 active projects, representing an estimated 699 MW of new sustainable energy capacity to be installed, and over USD 1.7 billion of total investment to be deployed (SEFA, 2019). Building on this success, the new 'SEFA 2.0' phase has a 10-year term offering considerable security and improved prospect of sustainability for the investments supported, many of which require long-term support to secure operational stability. SEFA's own perception of its two most notable

achievements is given in Box 2. Both represent a substantial contribution to regional efforts that have had an impact across 30 sub-Saharan African countries, as documented in successive SEFA annual reports.

Box 2: SEFA statement on its two main achievements.

"SEFA has been spearheading African Development Bank's engagement in green mini-grids, both through the Market Development Program and country-focused enabling environment support, paving the way for the first two African Development Bank-supported scale-up programmes in the Democratic Republic of Congo and Burkina Faso. SEFA is also a cornerstone facility in the development of energy blended finance initiatives championed by African Development Bank: It played a catalytic role in the preparation and financial close of the Africa Renewable Energy Fund - one of the first pan-African equity funds for renewable energy - reaching a USD 200 million capitalization in 2014, and subsequently in establishing the Facility for Energy Inclusion - a pan-African debt financing platform for small-scale renewables - which has mobilized USD 250 m by end of 2019."

Source: https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/sustainable-energy-fund-for-africa.

4. Conclusion on effectiveness of Danish support

The Danida Concept Note for supporting SEFA 2.0 (Danida, 2018), viewed SEFA as "a key vehicle for Danish influence in encouraging the Bank to become a transformative actor for achieving inclusive and green growth championed by the private sector" (page 3), and noted that the AfDB possessed tools for estimating GHG emissions "based on a robust methodology in line with standards applied by other IFIs [which would be available] in SEFA 2.0 as a basis for reporting on emission reductions planned and achieved." (page 15). This, it noted, would be a condition of the Danish contribution to SEFA 2.0, since the Climate Envelope's "mandatory core indicators include emission reductions and financial leverage." (page 30). The expectation, therefore, was that by 2022, SEFA 2.0 would be reporting "emission reductions expected from commitments made, jobs expected to be created, and financial resources leveraged."

SEFA's 2019 Annual Report confirms that "Core indicators and anticipated development outcomes of SEFA 2.0 include: (i) commercial finance leveraged by the project; (ii) MW of sustainable energy generation installed (and/or degree of energy efficiency achieved); (iii) new jobs created, disaggregated by gender, and; (iv) annual GHG emission reductions delivered." (page 37). It also refers back to SEFA 1.0 results in 2018, listing reduction/avoidance of GHG emissions from RE use as a project level outcome, with reductions of 0.04 $MtCO_2e$ achieved and 12 $MtCO_2e$ in the pipeline. This aspect of performance will need to be watched going forward, but for now it can be accepted that the intention and competence are in place to document emission reductions across the SEFA 2.0 portfolio.

Meanwhile the growth of SEFA operations since 2011 can also be noted. The original design purpose of Danish support to achieve 'proof of concept' has been very successful. The AfDB, with support from many donors, has now embarked on a 10-year strategy to continue supporting the attainment of SDG 7 in sub-Saharan Africa. This is an example of Danish strategic leadership that initiated a programme of work that far exceeds the reach of one bilateral donor. It represents an important model for Danish engagement, where building on broad political commitment key gaps can be identified that with seed financing can build a strong and sustained coalition of development actors.

Annex a: Information sources for the review

This review is based on: (a) interviews on 17 Dec 2020 with **Daniel Schroth** (Acting Director, RE and EE Department, AfDB) and **João Duatre Cunha** (Division Manager, Renewable Energy, AfDB); (b) proceedings of a SEFA webinar on 14 Dec 2020; (c) study of the SEFA web-page on the AfDB website (www.afdb.org/en/topics-and-sectors/initiatives-partnerships/sustainable-energy-fund-for-africa) and documents downloaded from there; and (d) review of other documents listed in the bibliography.

Abbreviations and acronyms (SEFA)

AREF	Africa Renewable Energy Fund
AfDB	African Development Bank
SEFA	Sustainable Energy Fund for Africa
RE/EE	Renewable energy / energy efficiency

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