REPORT OF THE DEVELOPMENT RESULTS OF EU-AFRICA ITF 2007-2012
EUROPEAN INVESTMENT BANK (EIB)

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FINAL REPORT

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CEPA

CONTENTS

ACRONYMS

AFD	Agence Française de Développement (*French Agency for Development*)
AfDB	African Development Bank
AU	African Union
AWF	African Water Facility
BIO	Belgian Investment Company for Developing Countries
BOAD	Banque Ouest Africaine de Développement (*West African Development Bank*)
CEPA	Cambridge Economic Policy Associates
CO_2	Carbon dioxide
COFIDES	La Compañía Española de Financiación del Desarrollo (*Spanish Agency for International Development Cooperation*)
DBSA	Development Bank of Southern Africa
DFID	UK Department for International Development
DG	Direct Grants
EC	European Commission
EIB	European Investment Bank
EU	European Union
EU-AITF	EU-Africa Infrastructure Trust Fund
EUBEC	European Union Blending and External Cooperation Platform
EUD	European Union Delegation
ExCom	Executive Committee of the EU-AITF
FINNFUND	Finnish Fund for Industrial Cooperation Ltd.
FTE	Full time equivalent
G-8	Group of Eight (*forum of eight industrialized economies*)
GHG	Greenhouse gas
GRMF	Geothermal Risk Mitigation Facility for Eastern Africa
HIPC	Heavily Indebted Poor Countries
HVDC	High-voltage direct current
ICT	Information Communication Technology
IDA	International Development Association
IFC	International Finance Corporation
IP	Insurance Premia
IRS	Interest rate subsidy
KfW	Kreditanstalt für Wiederaufbau (*German Development Bank*)

LuxDev	Agence luxembourgeoise pour la Coopération au Développement (*Luxembourg Agency for Development Cooperation*)
MRI	Mutual Reliance Initiative
NEPAD	New Partnership for Africa's development
NIF	Neighbourhood Investment Facility
OeEB	Oesterreichische Entwicklungsbank AG
PFG	Project Financiers Group
PIDA	Programme for Infrastructure Development in Africa
PIDA PAP	PIDA Priority Action Plan
PIDG	Private Infrastructure Development Group
SE4AII	Sustainable Energy for All Initiative
SIMEST	Società Italiana per le Imprese all'Estero *(the Italian company for foreign enterprises)*
SOFID	Sociedade para o Financiamento do Desenvolvimento (*Portuguese Development Finance Institution*)
TA	Technical assistance
TEU	Twenty Foot Equivalent Unit
TG2	Technical Group 2
UN-HABITAT	The United Nations Human Settlements Programme
WB	World Bank Group

EXECUTIVE SUMMARY

The EU-Africa Infrastructure Trust Fund (EU-AITF) is a multi-donor and multi-financier trust fund which supports infrastructure projects in Sub-Saharan Africa through various types of grants (technical assistance, investment grants and interest rate subsidies[1]) in four key growth sectors essential to supporting economic and social development in Africa: Energy, Transport, Water and Information and Communication Technologies.

The EU-AITF's main objective is to develop and leverage financing for regional infrastructure projects[2], thereby fostering regional integration, sustainability and African ownership.

This report by CEPA has reviewed the expected and, where applicable, actual[3] results of the EU-AITF from the start of operations in 2007 until 2012 and finds that:

- EU-AITF Grant Operations appear well-aligned with its Strategic Objectives of leveraging resources for regional infrastructures and promoting regional integration;
- the grants offered by the EU-AITF have been, and continue to be, useful instruments in enabling Projects to be launched and to proceed;
- there is a high level of emphasis on mobilising resources for regional infrastructure development endorsed by African governments;
- the EU-AITF's most used grant instruments are technical assistance (TA), largely supporting advanced project preparation stages and project implementation, and interest rate subsidies (IRS) aimed at mobilising loans, that would otherwise be difficult to provide because of the borrowing constraints faced by recipient countries.

Approximately 20% of approved EU-AITF funding (some €71m in total) has been allocated to project preparation, mostly in the form of technical assistance, but also through direct grants. Availability of funding for project preparation in Africa has been identified as a major constraint to infrastructure development[4], since in its absence, projects would find it difficult to reach financial close. The EU-AITF is one of the largest providers of project preparation support for regional infrastructure.

Most of the regional infrastructure supported is backbone infrastructure such as transmission lines, road and rail links which is publicly financed. The availability of the IRS

[1] Since July 2013, an additional grant type has been included: Financial Instruments (Guarantee, Risk sharing instruments, Equity, etc.)

[2] An additional envelope to support the UN Sustainable Energy for All (SE4All) initiative was added in 2013, which is however not covered by this report as only Grant Operations approved until 31.12.2012 have been reviewed.

[3] Due to the long lead time for infrastructure projects generally and those with a regional dimension in particular, currently only three closed projects have reported some actual results.

[4] For instance, by the G20 Development Working Group.

product helps to mobilise substantial resources from the EU-AITF Financiers, and enables HIPC countries to access resources for the development of regional infrastructures while respecting borrowing constraints.

EU-AITF support in the form of IRS, in addition to promoting project sustainability, has the potential to support the realisation of important social as well as environmental benefits, particularly in the energy sector, e.g. through supporting hydro power development and supporting transmission links that make electricity more accessible and cheaper to low income populations.

African ownership and endorsement is demonstrated in all the reviewed projects; either directly via the Programme for Infrastructure Development in Africa (PIDA) Priority Action Plan (PAP) status (69% of projects supported by the EU-AITF are directly contributing to PIDA) or via their link to regional or national strategies.

Among its additional objectives, the EU-AITF has been most successful in promoting multi-PFG financing (24 out of 51[5] projects) but has also enabled private sector participation in the financing of projects, even though it was not an explicit priority (11 out of 51 projects). While all EU-AITF projects are by definition regional, 65% of projects are cross-border and the remaining ones are national projects with demonstrable regional impacts.

Given the typical weakness of the sponsoring authority or agency, the importance of having a strong and committed PFG Lead Financier is emphasised.

Analysis of the sector outputs and outcomes has been carried out using the indicators suggested in the EUBEC TG2[6] report of June 2013. It has, however, been challenging to aggregate sector specific and cross-cutting actual indicators at project level as few Projects are as yet in operation, given the long timescales faced in bringing such Projects to fruition, even when they have been supported at a relatively late stage in the project development cycle. Besides, for a number of early stage projects, the expected indicators used today might develop over time and with the progress of the projects. Nonetheless, it is possible, even in the absence of specific indicators, to illustrate the beneficial influence of the EU-AITF and its potential to deliver the targeted Impacts. Moreover, in future, in order to improve monitoring and evaluation of the Projects supported, the EU-AITF Financiers will be requested to specify ex-ante output, outcome and other indicators for future grant applications.

[5] A total of 55 projects was reviewed, but the four projects cancelled after approval were excluded from the statistical analysis

[6] EU Platform for Blending in External Cooperation (EUBEC) Technical Group 2 – was set up to work on the enhancement of the blending activities, with an initial focus on developing a results-based framework and a more standardised reporting mechanism applicable to EU blending mechanisms

1. INTRODUCTION

1.1. Background

The EIB, as the Manager of the EU-Africa Infrastructure Trust Fund (hereafter referred to as the EU-AITF), has commissioned Cambridge Economic Policy Associates (CEPA)[7] to review the EU-AITF's approved Grant Operations[8] in Sub-Saharan Africa and to produce a report detailing the expected and actual results from the start of EU-AITF Grant Operations in 2007 until 2012.

The EU-AITF was launched in 2007 as an instrument of the wider EU Africa strategic partnership on Infrastructure with the European Commission (EC), the EIB and nine EU Member States signing the EU-AITF Agreement (subsequently joined by three additional EU Member States). The EU-AITF was established to attract and leverage financial resources and technical expertise to support regional infrastructure investments in Sub-Saharan Africa. It does so through a grant-loan blending mechanism, supporting the Project Financiers Group (PFG)[9] of 12 financing institutions with international expertise in the field of development project financing. Up to the end of 2012, the EU-AITF had received €417.7m in donor contributions in support of regional infrastructure projects, as well as a further pledged contribution of €329m from the EU Commission to support projects eligible under the EU response to the Sustainable Energy for All (SE4ALL) Initiative. The EU-AITF has targeted regional projects in four infrastructure sectors: Energy, Transport, Water and Sanitation, and Information and Communication Technologies (ICT). For clarity, the Grant Operations considered under this assignment were all approved under the original EU-AITF regional infrastructure envelope.

1.2. Study objectives and approach

The objectives of this study are

- first to provide an overview of the Projects supported by sector and type of Grant Operation;
- second to present the output and outcome indicators for the Project portfolio to the extent to which they exist; and

[7] CEPA is a London and New Delhi-based economic and financial advisory business.

[8] As at the end of 2012, EU-AITF Grant Operations were offered in one of four forms: "Interest Rate Subsidies (IRS), Technical Assistance (TA), Direct Grants (DG) for the financing of environmental or social components of a project and Insurance Premiums (IP) as a risk mitigation mechanism."(Source: EU-AITF Annual Report 2012)

[9] The Project Financiers Group (PFG) brings together the nominated Project Financiers, i.e. a Development Finance Institution, Bank, Member State Agency or public body with international development project expertise, nominated by each Donor and agreed by the Executive Committee. The PFG is composed of: EIB, AFD, AfDB (nominated by UK), KfW, PIDG, Lux-Development, FINNFUND, BIO, SOFID, OeEB, SIMEST and COFIDES.

- finally to review how both Projects and Grant Operations have contributed to the EU-AITF's strategic objectives, including the value added of the latter.

This report is not a strategic review but a statistical / narrative research report, including interviews with Task Officers, which aims to record the results of the EU-AITF support, which is provided within an extremely challenging economic, social, environmental and institutional context.

Following the submission of an Inception Report in late November 2013 (see Annex 1) which sets out our proposed approach to the study, CEPA has been working on the development of some 55 fiches, which in addition to contextual information specifically aim to capture a series of Output and Outcome indicators for Projects supported by EU-AITF Grant Operations, as well as key information on the Grant Operations themselves. The pro-forma fiche template is provided as an annex to the Inception Report. The analysis of the EU-AITF Grant Operations was extended beyond the Project fiches to include a more in-depth review of ten selected Case study Projects which can be found at Annex 2. The Case Studies cover a wide diversity of infrastructure projects, with a size range of €50m to €400m; the sector coverage comprises four in Transport, four in Energy, one in ICT and one in Water & Sanitation. Out of these ten projects, two[10] projects are fully completed and one[11] is partly completed. The aims of this analysis were to explore each Case Study Project's value added, to evaluate their contribution to EU-AITF's Strategic Objectives, and to describe *expected* and *actual* project results.

The foundation of this study research is to apply the monitoring and evaluation framework developed by EUBEC to the Projects supported by Grant Operations. This framework is to be applied to EU-AITF's activities going forwards. It comprises three main analyses, namely: *outputs, outcomes* and where possible, *impacts*. Whereas the objectives set out above are essentially associated with the overall EU-AITF Programme, the main focus has been to apply the framework on measuring at least the Outputs and Outcomes of the Projects. As such the focus has been on extracting and aggregating sector specific and cross-cutting Output and Outcome indicators. Whilst at present there is no formal output-outcome-impact framework for Grant *Operations* as distinct from *Projects*, the fiche design distinguishes between each and seeks to establish the additionality – or value added - of each Grant Operation, in terms of how it has benefited the underlying Project.

1.3. Report structure

Following further consideration and in order to present the data and analysis in the most logical manner:

[10] Caprivi Interconnector and EASSy cable
[11] Beira Transport Corridor – port component

- **Section 2** provides the Project Portfolio overview analysing the breakdown of Project by sectors, by regions and by grant instruments.
- **Section 3** provides analysis of the expected and actual outputs and outcomes based on sector indicators used from the EUBEC TG2, June 2013 report.
- **Section 4** discusses the contribution of the Projects to which grants have been provided, towards meeting EU-AITF's strategic objectives.

In addition **Annex 1** contains the Inception Report; **Annex 2** contains the ten Case Studies; **Annex 3** contains the description of cancelled Grant Operations; **Annex 4** contains the fiches of 55 Projects (list provided in Annex 5) along with their respective Grant Operations, including a status report; and **Annex 5** contains the list of Projects and Grant Operations analysed.

2. EU-AFRICA ITF ANALYSIS REPORT – PROJECT AND GRANT OPERATIONS PORTFOLIO OVERVIEW

2.1. Introduction

Between 2007 and 2012, EU-AITF grant support to 55 projects was approved, totalling €367.5m.

In this section we provide a high level segmentation of the portfolio of Projects supported[12], as well as an overview of supporting Grant Operations and of the PFG Financiers executing them. We begin by looking at the Project Portfolio in terms of type, sector and African region in which the Project takes place. We then turn to an analysis of Grant Operations, beginning with a sector analysis by number, scale and average size of Grant Operation. Finally, we look at the level of overall financing that EU-AITF support is enabling.

2.2. Segmentation of Projects by stage, sector and region

2.2.1. Stage of Project

"Project stage", for the purpose of this report, is classified into three different categories: in preparation, in implementation and in operation. A project in preparation means that the project is in pre-feasibility, feasibility or negotiations stage. When the construction of the infrastructure or another targeted work has begun, then the project is considered in implementation. An Infrastructure Project in operation means that the work has been completed and outcomes will begin to be realised.

As set out in Table 2.1, 33% of the Portfolio are Projects in preparation and another 57% are Projects in implementation. Four physical Projects are in operation so far, reflecting the considerable time taken to implement regional infrastructure Projects in Africa.

Table 2.1: Summary of Portfolio (by numbers of Projects)

	Energy	Transport	ICT	Water	Multi-sector	TOTAL
Projects	**26**	**14**	**6**	**3**	**2**	**51**
of which						
in preparation	12	2	2	1	0	**17**
in implementation	12	12	1	2	2	**29**
in operation	2	0	3	0	0	**5**[13]
Sector share	51%	27%	12%	6%	4%	100%

Source: CEPA analysis

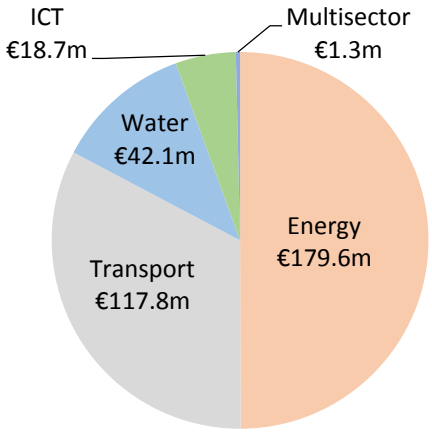
[12] In this Section we consider still active projects (51). The Grant Operations for the four cancelled Projects are not included.

[13] Four physical infrastructure Projects (Caprivi Interconnector, EASSy Submarine Cable, Seychelles Submarine Cable, Mauritania Submarine Cable Connection) and one master planning (Update of the WAPP Masterplan).

2.2.2. Sector and regional distribution of Projects[14]

As set out in Figure 2.1, more than half of the supported Projects are in the Energy sector, followed by the Transport sector.

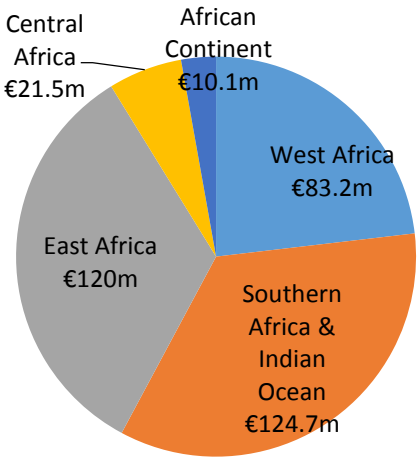
Figure 2.1: Sector distribution of Projects supported (by EU-AITF grant amount)



Source: CEPA Analysis

Most Energy Projects are in Western Africa and to a lesser extent in East Africa, whereas the Transport Projects supported are predominantly in Southern Africa. Overall, EU-AITF support has been spread over all eligible African regions, with the exception of Central Africa with only 6% of all approved Grant Operations.

Figure 2.1: Regional distribution of Projects supported (by EU-AITF grant amount)



Source: CEPA Analysis

[14] The analysis in this chapter is based on EU-AITF grant amount as expected project costs are not always known.

Projects classified as “African Continent” are continent-wide Projects, such as The African Internet Exchange System (AXIS), the Satellite-Enhanced Telemedicine and eHealth for Sub-Saharan Africa project and the Africa Energy Guarantee Fund.

2.3. Analysis of Grant Operations

The EU-AITF is a flexible instrument allowing various type of grant support like technical assistance, interest rate subsidies and direct grants. As shown in Table 2.2, some projects are benefiting from more than one Grant Operation. This is the case especially for projects which combine grants for the preparation stage and for the implementation stage. Examples are the Cote d’Ivoire-Liberia-Sierra Leone-Guinea interconnector (CLSG) and the Kampala Water project.

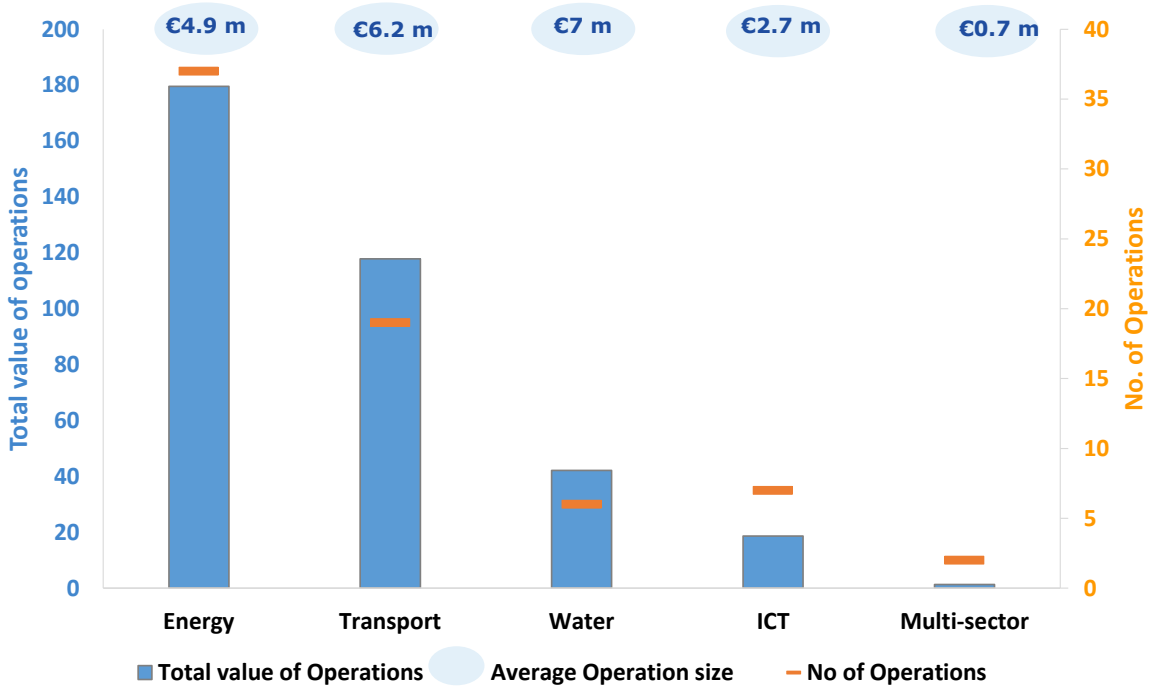
Table 2.2: number of projects and grants per sector

	# of projects	# of grants
Energy	26	37
Transport	14	19
Water	3	6
ICT	6	7
Multi-sector	2	2
Total	**51**	**71**

2.4. Distribution of Grant Operations by sector, size and number

As shown in Figure 2.3, numerically Energy is the dominant sector accounting for 37 out of 71 Grant Operations (excluding the four cancelled Grant Operations) in support of 26 Projects, with Transport following with 19 Grant Operations in support of 14 Projects.

Figure 2.3: Sector breakdown of Grant Operations by value, number and average size



Source: CEPA analysis

The Water and Sanitation sector has the highest average grant size amounting to €7m per Grant Operation, followed by Transport at €6.2m, Energy at €4.9m and ICT at €2.7m. The overall average grant amount is €5.1m.

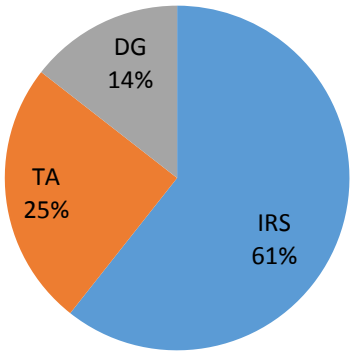
2.4.1. Grant Operations by type of grant

There are mainly three types of grant instruments used in financing the EU-AITF Grant Operations between 2007 and 2012 – TA, IRS and DG. As shown in Table 2.3 and Figure 2.4, in terms of value, the most used instrument is IRS (61%) because of the size of the individual Grant Operations, then TA (25%), followed by DG (14%). Numerically TA is the most commonly used grant instrument type in terms of approved Grant Operations, making up 65% over all approved Grant Operations, followed by IRS (28%) and DG (7%). However, DG has seen a rise in use in 2012, with three of the five DG Operations approved during 2012.

Table 2.3: Grant Operations by type of grant

	In terms of value	In terms of number
IRS	61%	28%
TA	25%	65%
DG	14%	7%

Figure 2.4: Breakdown per type of grants (in % of grant amount)



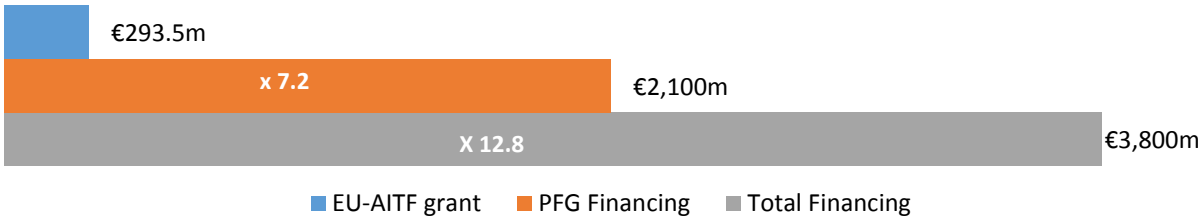
2.4.2. Breakdown of Grant Operations by PFG Financiers

An analysis of the allocation of approved Grant Operations shows that out of the 12 Financiers in the PFG six have actively taken the lead on Grant Operations.[15] Within this, there is a clustering of EIB, KfW and AFD (the Mutual Reliance Initiative – MRI – members) which dominate in terms of number and amounts granted.

2.4.3. Financing Leverage

Considering all supported Projects that are in the **investment and operating stage** (including all types of grants), EU-AITF support has facilitated the mobilisation of financing volumes of over € 2 billion in PFG Financing and almost € 4 billion in total financing as shown in Figure 2.5. The total amount leveraged[16] as at the end of 2012 was nearly 13 times the level of the EU-AITF grant.

Figure 2.5: PFG and total financing leverages



Source: CEPA analysis

[15] EIB, KfW, AFD, AfDB, PIDG, and LuxDev

[16] Based on EU-AITF methodology, taking total project cost and PFG financing for Projects in the investment and operating stage as of 31.12.12. Financing leverage = Total project financing /Total EU-AITF grant and PFG leverage = Total PFG financing / Total EU-AITF grant.

3. EU-AFRICA ITF ANALYSIS REPORT – PROJECT RESULTS

3.1. Introduction

This section analyses the sector Outputs and Outcomes and Cross-Sector indicators[17] at project level.

We begin by reporting the total Output and Outcome indicators on a sector and cross-cutting basis, beginning with Projects for which actual results have been collected by Project Officers. Where these do not exist, we then set out any estimates collected.

From the outset it needs to be noted that most of the aggregated data at this Project level was obtained from a relatively small number of Projects where Outputs and Outcomes were available. Most of the analysis is therefore presented on an expected basis, but where actual data is available, this is reported separately.

3.2. Reported Outputs and Outcomes

We begin analysing Outputs and Outcomes by discussing the actual results as reported for completed Projects in all sectors. Following this we discuss the aggregated expected results by sector, utilising the key sector-specific indicators. The Output measures are typically related to the increased service delivery capacity created by the infrastructure, whereas the Outcome measures relate to the extent to which such capacity has been utilised.

For each sector we provide a summary table which aggregates the values of the indicators provided in each fiche. All measurements are variances from the baseline.

3.2.1. Actual Outputs and Outcomes for all sectors

As at December 2012, four physical infrastructure projects have reached their operation stage: the Caprivi Power Interconnector, the EASSy Submarine Cable, the Mauritania Submarine Cable and the Seychelles Submarine Cable. Output and outcome figures have been reported by the relevant Project Officers for the Caprivi Interconnector as well as for the EASSy Submarine Cable and the Seychelles Submarine Cable Projects.

It should be noted that the EUBEC indicators for physical infrastructure projects are not suited for an analysis of upstream projects such as (cross-)sectoral master plans or capacity building.

The available actual Output and Outcome information reported is summarised in Table 3.1.

[17] The indicators used for measuring expected (and actual) outputs and outcomes from the Projects in each of the four sectors are drawn from the EUBEC TG2, June 2013 report as required by our Terms of Reference.

Table 3.1: Actual Output and Outcomes information for completed Projects

	Indicator	Energy		ICT[18]	
		Value	**Number of Projects***	**Value**	**Number of Projects***
Outputs	Transmission and distribution lines installed (km)	970	1		
	Length of cable completed (km)			11,930	2
Outcomes	Temporary jobs created (#)	1,000	1	-	-
	Permanent jobs created (#)	30	1	-	-
	No. of direct beneficiaries (m)	-	-	57.54	2

*Notes: * for which data was available*
Source: CEPA analysis

It can be expected that actual results reported will increase over time, though this will require ongoing monitoring from the PFG Financiers, as well as from the EU-AITF.

To avoid undue complication, for each sector, the total actual and expected results are reported below, with the former being explicitly identified within the total provided.

3.2.2. Expected Outputs and Outcomes

3.2.2.1. Energy portfolio analysis

The main Energy Output indicators relate to two key Output measures: (i) the increased length of transmission and distribution wires and (ii) additional renewable generation capacity created.

As regards to Outcomes, the focus is on (i) the number of households which benefit from an improved service; (ii) the amount of energy generated; (iii) numbers of beneficiaries; (iv) variations in greenhouse gases; and (v) jobs generated as a result of the construction and / or operation of the energy assets.

Table 3.2 below shows the sum of the expected Outputs and Outcomes of all Energy sector Projects.

This shows all initially expected results of EU-AITF supported energy projects, therefore it includes projects that have been completed and have therefore reached the expected results. This is done in order to show the aggregate results of the projects.

[18] This includes the figures for EASSy and the Seychelles Submarine Cable. To date, no figures have been provided on the Mauritania Submarine Cable.

Table 3.2: Expected Output and Outcome indicators in Energy

Expected Outputs	Value	No. of projects*	Out of total
Length of Transmission & Distribution lines installed or upgraded (Km)	10,788	18	21[1]
Additional Renewable Capacity (MW)	1,173	9	9
Expected Outcomes	**Value**	**No. of projects***	**Out of total**
No. of households benefitting from new capacity	79,405	2	9
Power production (GWh/year)	3,034	5	9
Total no. of beneficiaries ('000)	115,418	8	26[2]
Variation in CO2/greenhouse gases (ktons CO_2)	-6,235	7	26[2]
Temporary jobs created	10,941	10	26[2]

*Notes: * for which data was available*
1 Out of the 21, 12 are transmission only projects and 9 are generation projects with transmission lines
2 Total number of energy sector projects including completed project Caprivi
Source: CEPA analysis

By way of example, Box 3.1 illustrates the expected Outputs and Outcomes from the Félou Hydropower Project in Mali, with the former being based on generating capacity and length of transmission link and the latter estimated power generation values and jobs created.

Box 3.1: Félou Hydropower Project – Mali

Félou was designed as a second generation, run of the river power plant, located some 15 km upstream of Kayes in Mali, close to the existing Manantali dam and 2,000 MW facility.

The main expected **Outputs** from the project were a new powerhouse, around **59 MW** of additional generating capacity and a transmission interconnection to the existing sub-station at Kayes. In addition, there will be a **10 km** 225 kV overhead transmission line to connect the hydropower plant to the existing grid substation at Medina-Kayes in Mali.

The main expected **Outcome** of the Project is power generation of 325 GWh per annum. Employment benefits quoted include some **500 person years** during construction with full time sustainable jobs at the plant and transmission are around **40 to 50 persons.**

3.2.2.2. Transport portfolio analysis

The key Transport output indicators relate to three key Output measures: (i) length of new or upgraded roads; (ii) airport terminal capacity; and (iii) port terminal capacity. As regards Outcomes, the focus is on (i) users of new or upgraded roads; (ii) rail use per passenger; (iii) port terminal user traffic; and (iv) airport use for both freight and passengers.

Table 3.3 provides aggregated results, all of which are expected rather than actual, for the Outputs and Outcomes across the different segments of the Transport sector.

Table 3.3: Expected Output and Outcome indicators in Transport

Expected Outputs	Value	No. of Projects*	Out of total
Length of new or upgraded roads (km)	849	5	6
Length of new or upgraded railways (km)	682	2	2
Airport terminal capacity ('000 Passengers/year)	20,000	1	3
Port terminal capacity ('000 TEU/year)	1,105	2	5
Expected Outcomes	**Value**	**No. of Projects***	**Out of total**
Users of new or upgraded roads (vehicles per day)	1,969,238	4	6
Rail use (passengers/year)	2,000,000	1	2
Port terminal user traffic (TEU/year)	1,482,000	2	5
Airport air freight use (tonnes/year)	393,000	2	3
Airport use (passengers/year)	7,300,000	2	3

Source: CEPA analysis * for which data was available

Again, by way of example, Box 3.2 provides an example of the Great East Road Transport Project in Zambia which shows outputs based on length of road to be provided and numbers of expected beneficiaries.

Box 3.2: Great East Road (GER) – Zambia

The GER is the second of three phases of Nacala road corridor development through Mozambique, Malawi and Zambia and the main financier is the AfDB. Most likely it will take another five years before the road routes link up and provide a 200 km shorter trade route than the traditional transit via Durban. The upgrades largely follow existing highways but with some bridge and bypass additions plus One Stop Border Posts and associated trade facilitation measures.

The main expected **Output** from the EU package is a rehabilitated 360 km road with realignment and improved bridging.

As regards **Outcomes**, the total number of beneficiaries from this Project is expected to be **1,700,000** with **1,139,000 below poverty line**. In addition to jobs during the construction period, the project is expected to lead to the creation of **50 temporary jobs and 30 full-time jobs**, either directly or indirectly.

3.2.2.3. Water and sanitation portfolio analysis

Until the end of 2012, there were three supported water sector Projects, all of which were on-going and therefore without any actual results. The key Water and Sanitation Output indicators relate to four key Output measures: (i) length of new or rehabilitated water supply pipes; (ii) length of new or rehabilitated sewer pipes installed; (iii) number of new connections to water supply; and (iv) total additional water treatment capacity.

Three Outcome measures focus on (i) population benefiting from safe or reliable drinking water; and (ii) population benefiting from improved sanitation services.

The aggregated expected Outputs and Outcomes in the water and sanitation sector are shown below in Table 3.4.

Table 3.4: Expected Output and Outcome indicators in Water and Sanitation

Expected Outputs	Value	No. of Projects*	Out of total
Total length of new or rehabilitated water supply pipes (Km)	1,348	3	3
Total length of new or rehabilitated sewer pipes installed (Km)	101	1	2
Total number of new connections to water supply (#)	5,000	1	3
Total additional water treatment capacity ('000 m^3)	4,850	2	3
Expected Outcomes	**Value**	**No. of Projects***	**Out of total**
Population benefiting from safe or reliable drinking water (#)	2,258,500	3	3
Population benefiting from improved sanitation services (# households)	108,000	2	3

Source: CEPA analysis * on which data was available

Box 3.3 illustrates the Outputs and Outcomes of the Ugandan component of the Lake Victoria WATSAN Project, as regards water treatment capacity and especially poorer residents expected to benefit from this.

Box 3.3: Lake Victoria WATSAN -Kampala

The Kampala project is part of a wider and integrated programme of water and sanitation interventions in the Lake Victoria Basin. This programme has built on technical, economic and initiatives over the last decade to try and stabilise and remove water pollution from industrial and human sources, improve water treatment and distribution, upgrade sewerage systems and services and enhance the capacity of water operators to plan and act in sustainable partnerships, rather than to be continuously crisis driven.

As regards Outputs**,** the improved water treatment plant capacity is expected to be around **350,000 m3/ year** for the Kampala area. In addition there will be **960 km** of new pipelines**.**

In terms of **Outcomes**, the total population benefiting from safe drinking water from this project is expected to be **2**,**000,000** with **700,000 below poverty line**.

3.2.2.4. ICT Portfolio analysis

Of the six ICT Projects undertaken, three are fully disbursed (all submarine cable projects). The other three projects[19] support capacity building and other Programmes, rather than supporting the direct provision of physical infrastructure. Data on completed submarine cable projects are limited[20] as shown in Table 3.1.

The expected Outputs and Outcomes for the two completed Projects in the ICT sector for which data has been reported are EASSy Submarine Cable and Seychelles Submarine Cable projects. The other Projects mentioned above have a range of other reported attributes, which have not been included in Table 3.5 in order to maintain consistency.

As there are no available data yet on expected results for on-going EU-AITF supported ICT projects, the table shows expected results only for completed ICT infrastructure projects. As also mentioned in Table 3.1, these expected results have been achieved.

Table 3.5 ICT expected Output and Outcome indicators

Expected Output	Value	No. of projects*	Out of Total
Total length of cable completed (Km)	11,930	2	3
Expected Outcome	**Value**	**No. of projects***	
Total number of internet users (m)	57.54	2	3

Source: CEPA analysis * for which data was available

Box 3.4 provides a summary of the EASSy submarine cable which is bringing considerable benefits to Eastern Africa.

Box 3.4: Eastern Africa Submarine Cable System (EASSy)

The EASSy is a 10,000 km submarine cable which runs along the East African coast, from Sudan to South Africa, with 10 landing points plus increasing inland connections to land locked countries. It provides connection with other regional and global networks and was subject to a major capacity expansion in 2011. The EASSy cable predates the creation of the Programme for Infrastructure Development in Africa Priority Action Plan (PIDA PAP) but there is evidence of strong African ownership through the New Partnership for Africa's development (NEPAD) e-Africa Commission and other regional sources. The ICT regional projects in PAP also include the East African Community backbone project with links to EASSy.

The main actual and expected **Outputs** were the **10,000 km** submarine cable, **10 landing points** plus the consortium and WIOCC institutional and commercial operation.

The main expected **Outcomes** were regional access to reliable, fast and widespread telecommunications services; increased competition and lower user tariffs due to reduced costs; and greater regional and international connectivity leading to improved economic performance and enhanced competitiveness. This Project benefits the 57.5m internet users in the region.[21]

Given the structure of the project and the number of countries gaining access – both immediately via the 10 landing points plus the consortium commitment to add inland links to landlocked countries – the Project was also seen as boosting regional integration.

[19] AXIS- The African Internet Exchange System; Satellite eMedicine Sub-Saharan Africa; UMOJANET Western
[20] The EUBEC TG2 report does not specify any indicators for the ICT sector
[21] International Telecom Union figures for the region, 2012.

3.3. Expected cross-sector Outcome indicators

These indicators aim to enable the measurement of Project Outcomes across sectors, largely based around number of beneficiaries – especially poorer ones – employment created and changes in greenhouse gas emissions. Necessarily, the reporting of these recently created indicators has been limited to date, but can be expected to expand over time.

Table 3.6 below shows all expected cross-sector outcomes of EU-AITF supported projects, including those completed that have reached the expected results.

Table 3.6: Expected Cross-sector indicators [22]

Sector	Expected Outcomes	Value	# projects*	Out of
Energy	Total no. beneficiaries ('000)	115,418	8	26
	Variation in CO2/greenhouse gases (ktons CO2)	-6,235	7	26
	Temporary jobs created	10,941	10	26
Transport	Total no. beneficiaries ('000)	13,978	5	14
	Total no. beneficiaries (below poverty line) ('000)	2,978	2	14
Water and Sanitation	Total no. beneficiaries ('000)	3,410	3	3
	Total no. beneficiaries (below poverty line) ('000)	700	1	3
ICT	Total no of beneficiaries (m)	57.54	2	3

Source: CEPA analysis * on which data was available

3.4. Conclusions

The analysis illustrates the nature and the extent of the projected benefits – across all four sectors - that can be expected from the Projects supported by the EU-AITF; however, the many challenges faced in the implementation of regional infrastructure in Africa means that these will inevitably take time to be realised.

The analysis also shows that there are gaps in the data that has been collected by the PFG Financiers on key Output and Outcome measures and how important it will be to start collecting such information as the Projects are implemented[23]. It is likely that information captured will improve for existing Projects as they will require further support. For new grant applications, expected Outputs and Outcomes are systematically asked during the approval process. The indicators measurement framework agreed within EUBEC TG2 makes provision for definition of baseline and target as well as during project implementation.

[22] Please note: based on the EUBEC TG2 methodology, the energy outcomes and the cross sector indicators are the same. However, this is not the case for the other sectors. As such, the more specific sector outcomes and the cross sector indicators are not necessarily directly comparable. (See Technical Group 2 to the Policy Group of the European Union Blending and External Cooperation Platform (June 2013) 'Enhancement of Blending Activities: Measuring Results, Monitoring and Reporting' p24 to 30)

[23] In large part, this is explained by the fact that many of the Projects were supported before such Output and Outcome indicators were systematically collected.

4. CONTRIBUTION TO STRATEGIC OBJECTIVES

4.1. Introduction

In this section, we take a step back and consider how the Programme of activities as a whole has contributed to the EU-AITF's Strategic Objectives, including General and Specific Objectives and Programme results (intermediate outcomes). We do so by analysing how both, first, the portfolio of *Projects* and second, their supporting Grant *Operations* have each contributed to the different high level Programme Impacts and Outcomes.

We begin by first setting out the Global and Specific Objectives, as well as intermediate outcomes focused on by the EU-AITF, which comprise the different elements of the evaluation framework at the Programme level. We then show how the choice of Projects supported underpins these objectives and then how the different types of Grant Operation also contribute to the realisation of objectives. Due to the limited time and vast amount of data, we have extracted selected data from the fiches to demonstrate that the Grant Operations support EU-AITF's strategic objectives. This is complemented by the ten Case Studies that have been undertaken and that have enabled us to conduct a more in-depth analysis on selected Projects and supporting Grant Operations.

4.2. EU-Africa ITF Strategic Objectives: Global, Specific Objectives and results

Global Objectives can be seen as the ultimate *Impacts* that the EU-AITF is seeking to achieve as regards the overall programme of activities. Specific Objectives have a sector flavour in terms of articulating the *Outcomes* that are being targeted. As set out, in Sub-Saharan Africa, these are to extend regional interconnectivity networks and increases energy access through:

- Energy networks extended, cross –border connections improved, access to services increased, energy generated and energy efficiency measures taken though execution of energy projects.
- Transport cost reduced and quality of transport services improved through execution of transport projects.
- Adequate access to affordable technologies ensured by supporting regulatory reform, capacity building and broadband infrastructure development through execution of ICT projects.
- Management of water resources at local, national and a cross-border basin level improved, as well as the access to drinking water and adequate sanitation facilities, through the execution of water and sanitation measures.

In turn these Specific Objectives are supported by what are termed Programme results or (intermediate outcomes)[24], which include:

- Mobilisation of resources for regional interconnectivity infrastructure projects.
- Mobilisation of resources for energy access, energy generation and energy efficiency projects.
- Increased partnership and collaboration between African States and European donors in the area of infrastructure development.
- Increased loan finance mobilised from European Development Finance Institutions thereby leveraging additional finance.
- Social (employment generation) of executed projects maximised and environmental impacts minimised.

From another perspective, in addition to Global and Specific Objectives which are largely about *what* is supported in terms of the nature of infrastructure, other more subtle objectives are about *how* support is provided, particularly as regards how the different members of the PFG work together, such as the MRI initiative.

4.3. Project analysis

Given the EU-AITF's Objectives as summarised above, we now turn to how the composition of the Project portfolio, which represents the focus of EU-AITF support, is consistent with the targeted results, Outcomes and Impacts for the EU-AITF.

4.3.1. Regional integration

Africa's regional integration agenda is extremely ambitious and resource intensive, but with EU-AITF resources being an important tool in its realisation. All EU-AITF supported Projects have a regional infrastructure aspect, even national Projects need to have an identifiable regional impact. In addition, some 33 out of 51 Projects are actual cross-border infrastructure Projects. Some €184m, or 51% of approved EU-AITF grant amount have been committed to such Projects, which are generally regarded as particularly challenging due to their numerous coordination issues.

EU-AITF support has been targeted to regional Projects at various stages of development and implementation and across different sectors. By scale, these Projects have an estimated value of some €11bn. Table 4.1 shows a breakdown of these Projects in terms of where they sit within the project cycle.

[24] The Programme Outputs can arguably be seen as being the Grant Operations.

Table 4.1 : Value of cross border Projects supported by EU-AITF Grant Operations at different stages

	In Preparation		In Implementation		In Operation	
	No.	Value (€m)	No.	Value (€m)	No.	Value (€m)
Energy	12	32.9	12	79.4	2	2.4
Transport	2	2.6	12	129.0	0	0.0
Water and Sanitation	1	5.6	2	20.7	0	0.0
ICT	2	23.0	1	5.1	3	6.4
Multi-sector	0	0.0	2	29.8	0	0.0
Total	**17**	**64.1**	**29**	**264.0**	**5**	**8.8**

Source: CEPA analysis

Specific examples of Projects which demonstrate regional integration include:

- the Caprivi Interconnector which has established power transmission between Zambia and Namibia and therefore the northern and western parts of the Southern African Power Pool (SAPP);
- the Kazungula Bridge and Border Project (KBBP) which involves construction of a 0.93km permanent road (and potential rail bridge over the Zambezi River, linking Zambia and Botswana while being contiguous to the Zimbabwe and Namibia borders road bridge);
- the ASECNA (Agency for Aerial Navigation Safety in Africa and Madagascar) air transport Project which covers 17 African countries aiming to reduce flight times and CO2 emissions by improving the equipment used by the Air Traffic Control , thereby improving the service levels between these countries; and
- the EASSy cable which is a 10,000 km submarine cable along the East African coast, from Sudan to South Africa, with 10 landing points helping to increase inland connections to land locked countries and provides connection with other regional and global networks.

4.3.2. African ownership

All supported Projects demonstrate African Ownership through their contribution to PIDA or other relevant regional or national strategies. As such, all have the endorsement of African governments. The majority of the Projects supported by EU-AITF, 35 out of 51, are components of the PIDA PAP which promotes African ownership. These take the form of some 40 public sector Projects that are being supported by the EU-AITF Grant Operations.

4.3.3. Private sector and mixed capital initiatives

Mobilisation of private as well as development capital to target infrastructure Projects is also an implicit desired Programme result. Indeed, attracting private capital to infrastructure

is required if Africa's infrastructure financing gap is to be addressed. EU-AITF funding has been used innovatively in several different ways. First, as a member of the PFG, the PIDG vehicles have begun to access EU-AITF resources to develop innovative Projects which are seeking investment from the private sector.

Second, the EU-AITF has been used to help support innovative approaches developed by other members of the PFG aimed at supporting private sector investment. An example is the EIB-led Africa Energy Guarantee Fund (AEGF), which aims to provide risk mitigation and credit enhancement solutions to facilitate more private sector investment in the African Energy sector. AEGF aims to increase private sector investment in African energy infrastructure by providing access to reinsurance capacity and lowering reinsurance costs. Similarly, there is the Africa Sustainable Energy Facility (ASEF), which intends to promote private sector investment in renewable energy and energy efficiency projects in Africa and is part of the UN's Sustainable Energy for All (SE4ALL) initiative.

In addition to the AEGF which will comprise both public and private capital, another example of a mixed capital Project includes the Mauritania Submarine Cable where active promotion of enabling catalytic public and private investment has been undertaken. EASSy cable, which, although pre-dating the creation of the PIDA PAP, is an example of a mixed capital Project, which also demonstrates strong African ownership through the endorsement of the New Partnership for Africa's development (NEPAD) e-Africa Commission.

4.3.4. Leveraged resources and improved PFG Financiers' cooperation

Leveraging support is an EU-AITF Strategic Objective and one that has been advanced by PFG cooperation through the Lead Financier MRI, although the Case Studies show considerable diversity in the extent to which EU-AITF support has enabled the "crowding in" of additional PFG Financiers. The main hub of cooperation is between EIB, KfW and AFD, with the AfDB in close association (as illustrated by the wider Lake Victoria Basin WATSAN). See also chart 2.4.

4.4. Total number of Projects supporting Strategic Objectives

Table 4.2 below sets out the number of Projects by sector that involve multi-PFG cooperation, which are contributing to PIDA and therefore promoting African ownership, involve private sector participation and promote regional integration. The EU-AITF has been most successful in promoting multi-PFG financing (almost half of the supported projects: 24 out of 51). Despite the establishment of the EU-AITF predating the PIDA, more than 65% of the supported projects are in the PIDA Priority Action Plan (35 out of 51). Other supported projects are in line with at least national and/or regional strategies. Despite it not being a priority of the EU-AITF, a few EU-AITF supported projects (11 out of 51) are benefitting from private sector participation through private or mixed capital investments.

Table 4.2: Numbers of Projects supporting key Strategic Objectives

Objectives	Measured through:	Energy (26 projects)	Transport (14 projects)	Water (3 projects)	ICT (6 projects)	Multi-sector (2 projects)	Total
Improved PFG members coordination	Multi PFG financing	13	6	3	2	0	24
African ownership[25]	Contributing to PIDA	19	9	2	4	1	35
Private sector initiatives	Private or mixed capital	6	1	0	3	1	11
Regional Integration	Cross-border projects	21	5	1	4	2	33
	National projects with demonstrable regional impact	5	9	2	2	0	18

Source: CEPA analysis

[25] The table measures African Ownership through the project contribution to PIDA. However, African Ownership is also ensured through the involvement of regional and/or national African stakeholders (Governments, RECs, Power Pools, etc.).

5. CONCLUSIONS

In conclusion, it has been possible to demonstrate how the portfolio of Projects and supporting Grant Operations is well-aligned to support the realisation of Strategic Objectives at a high Programme level. It has been relatively more challenging to aggregate sector specific and cross-cutting indicators at the Project level, largely as the requisite data has not been fully captured to date. However, as most of these are anticipated benefits, there is a considerable opportunity over time to develop the fiches further in order to capture actual results as they become increasingly available. As such, each fiche can be seen as a living document which can be built on to chart the realisation of different benefits, realised to varying degrees through the support of EU-AITF Grant Operations.