



Mapping of Energy Initiatives and Programs in Africa

Final Report, May 2016



Africa-EU
Energy Partnership

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The **Africa-EU Energy Partnership (AEEP)** constitutes one of the initial eight partnerships under the Joint Africa-EU Strategy (JAES), a long-term framework for cooperation between the two continents. The African Union Commission, the Common Market for Eastern and Southern Africa (COMESA) Secretariat, Egypt, the European Commission, Germany, Italy are the Steering Group members providing political guidance to the Partnership.



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FOREWORD

Over the past ten years, and specifically in 2015 with the adoption of the Sustainable Development Goals (SDGs), as well as the historic commitments made at the COP 21, sustainable energy in Africa has risen to the top of the international development and climate agendas. What has been championed by energy sector stakeholders, as well as recognized by the development community and African governments alike is that access to sustainable energy is a precondition to economic development in Africa.

As a result of this prioritization, the sector is experiencing an influx of new initiatives and actors committed to the common goal of supporting the continent in reaching a sustainable energy future. This increased investment and number of energy initiatives have also led to a greater need for coordination to ensure the efficiency and effectiveness of support provided by development partners.

Throughout a structured and consultative discussion series, launched in May 2015 and spearheaded by the European Commission, the African Union Commission and the NEPAD Planning and Coordinating Agency, stakeholders asked the Africa-EU Energy Partnership (AEEP) to create a mapping of energy initiatives to allow stakeholders and African policy makers to navigate the large number of initiatives currently active in the sector,

as well as to act as a key first input in to a proposed pan-African coordination mechanism in the energy sector proposed by the African Union Commission (AUC).

The following report was undertaken through a consultative approach at all stages of development to ensure that the data and analysis presented reflect the information provided by the initiatives themselves, as well as properly analyze the data to derive useful conclusions for the sector. The mapping of initiatives has been identified by major global initiatives like the Sustainable Energy for All (SE4ALL), the African Renewable Energy Initiative (AREI), among others as a central activity. The study therefore provides an opportunity to input directly into the core tasks of these initiatives in order to allow for use of existing implementation mechanisms.

We encourage stakeholders to make use of the study and take advantage of opportunities, gaps and overlaps in the African energy sector that are highlighted in the report. A coordinated effort can ensure that the AEEP's 2020 Political targets on energy access, efficiency, security and renewable energy are achieved, and Africa realizes its goal of a sustainable energy development path, and future.

May 2016



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LIST OF ABBREVIATIONS

AA	Action Agenda
ACCES	Africa Clean Cooking Energy Solutions Initiative
AECF	Africa Enterprise Challenge Fund
AEEP	Africa-EU Energy Partnership
AEGF	Africa Energy Guarantee Facility
AELG	Africa Energy Leaders Group
AFD	Agence Francaise de Développement
AfDB	African Development Bank
AFESD	Arab Fund for Economic and Social Development
AfIF	Africa Investment Facility
AFREA	Africa Renewable Energy Access Program
AMCEN	African Ministerial Conference on the Environment
AREF	Africa Renewable Energy Fund
AREI	African Renewable Energy Initiative
AUC	African Union Commission
BCC	Behaviour Change Communication
CBN	Continental Business Network
CCAK	Clean Cookstoves Alliance of Kenya
CFP	Country Focal Point
Ci-Dev	Carbon Initiative for Development
COMESA	Common Market for Eastern and Southern Africa
COP	Conference of Parties
CTF	Clean Technology Fund
ECOWAS	Economic Community of West African States
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency
EDFIs	European Union Development Finance Institutions
EEEP	regional policies on renewable energy and on energy efficiency
EnDev	Energising Development
EREP	regional policies on renewable energy
ESWG	Energy Sustainability Working Group
EUEI	European Union Energy Initiative
EUEI PDF	European Union Energy Partnership Dialogue Facility
GACC	Global Alliance for Clean Cookstoves
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GRMF	Geothermal Risk Mitigation Facility
IASS	Institute for Advanced Sustainability Studies
IDA	International Development Association
INDCs	Intended Nationally Determined Contributions
IP	Investment Prospectus
IRENA	International Renewable Energy Agency
ITF	Infrastructure Trust Fund
JAES	Joint Africa-EU Strategy
JICA	Japanese International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau, Germany's development bank
KSS	Kenya SE4All Secretariat
MoEP	Ministry of Energy and Petroleum
MS	

MSP	Mediterranean Solar Plan
NEAPS	National Energy Efficiency Action Plans
NEPAD-IPPF	NEPAD Infrastructure Project Preparation Facility
NPCA	NEPAD Planning and Coordination Agency
NREAPS	National Renewable Energy Action Plans
ODA	Official Development Assistance
PDF	Partnership Dialogue Facility
PICI	Presidential Infrastructure Champion Initiative
PIDA	Program for Infrastructure Development in Africa
PPIAF	Public Private Infrastructure Advisory Facility
PRG	Partial Risk Guarantee
RECP	Renewable Energy Cooperation Program
RECs	Regional Economic Communities
REPoR	Renewable for Poverty Reduction Program
REPP	Renewable Energy Performance Platform
RES4Africa	Renewable Energy Solutions for Africa
RTAP	Regional Technical Assistance Program
SAIREC	South Africa International Renewable Energy Conference
SDGs	Sustainable Development Goals
SDIP	Sustainable Development Investment Partnership
SDM	Service Delivery Mechanism
SE4ALL	Sustainable Energy for All
SEFA	Sustainable Energy Fund for Africa
SREP	Scaling Renewable Energy Program
TAF	Technical Assistance Facility
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

SECTION 1: OVERVIEW

Background and objectives of the mapping exercise

Investments in the energy sector have been identified as a priority by many African governments, regional organizations as well as the international donor community. As a result, numerous initiatives have been launched with the common goal to support the continent in achieving a sustainable energy future. While this represents a very welcome development, it has also led to an increasing need for exchange and coordination across the growing number of initiatives and programs in the sector. This has been articulated on a number of occasions, including strategic meetings organized within the framework of the Africa-EU Energy Partnership (AEEP), such as at the Sustainable Energy for All (SE4ALL) Forum in New York in May 2015, the Vienna Energy Forum in June 2015, the Third International Conference on Financing for Development held in Addis Ababa in July 2015 as well as at the South Africa International Renewable Energy Conference (SAIREC) in Cape Town in October 2015. The point is echoed in a report recently commissioned by the German Federal Ministry of Economic Cooperation and Development on “The Future of Africa’s Energy Supply”¹.

In this context, the AEEP Secretariat was requested to provide a platform for discussing the harmonization of international activities in support of Africa’s energy sector development. These discussions were considered

particularly important in the run-up to the Conference of Parties (COP) 21 in Paris in December 2015. The final event of the consultative series hence took place in the Africa pavilion at the Cop21. To facilitate such coordination efforts, stakeholders have further agreed that it is essential to create a knowledge base on existing energy initiatives and programs in Africa. This represents a necessary basis for effective coordination to take place. This has been echoed by the African Ministerial Conference on the Environment (AMCEN) Bureau and the G7 process in the context of the Africa Renewable Energy Initiative (AREI) as well as by the G20 Energy Sustainability Working Group (ESWG) under the Turkish Presidency, acknowledging that there is a wide variety of information available on the topic, however, not a one-stop source to obtain a comprehensive overview.

During the consultations, major stakeholders identified the **mapping of existing initiatives and programs** as the critical initial activity in this regard. The mapping exercise is an input to the proposed pan-African coordination effort spearheaded by the African Union Commission (AUC), the African Development Bank (hosting the SE4ALL Africa Hub), the NEPAD Planning and Coordination Agency (NPCA) and other partners. Enhanced coordination will contribute to increased coherence, efficiency and effectiveness of support provided by development partners.

The AEEP was requested by stakeholders to support the development of the mapping study. This exercise is being taken forward by the AEEP with funding from the European Commission, in the context of the existing cooperation between Europe and Africa on energy issues of mutual and strategic importance. The AUC is providing the political leadership, with technical input from the SE4ALL Africa Hub based at the African Development Bank (AfDB) and African stakeholders involved in the energy sector. The Institute for Advanced Sustainability Studies (IASS) was commissioned by AEEP to lead the related data collection exercise in close cooperation with regional partners.

1 Quitzow, R., Röhrkasten, S., Jacobs, D., Bayer, B., Jamea, El Mostafa, Waweru, Y., Matschoss, P. (2016) The Future of Africa’s Energy Supply: Potentials and Development Options for Renewable Energy, IASS Study, March 2016. Available online at: http://www.iass-potsdam.de/sites/default/files/files/study_march_2016_the_future_of_africas_energy_supply.pdf



Coordination Meeting in New York, May 2015 © EUEI PDF

Approach and key activities to date

This report represents the final output of the mapping exercise, which was conducted in three phases.

- Phase 1 (*concluded in third quarter 2015*): initial overview of key initiatives and programs and preliminary phase of data collection;
- Phase 2 (*concluded in first quarter 2016*): review and validation of methodology and preliminary results by key stakeholders, followed by additional data collection;
- Phase 3 (*concluded in second quarter 2016*): finalization of the mapping exercise with additional analysis as well as conclusions based on additional input from stakeholders.

The first phase included the development of a methodology for the mapping exercise and the implementation of a first round of data collection on this basis. The results of this first phase of the mapping exercise were elaborated in a first report which was presented and discussed with stakeholders at dialogue sessions held at the South Africa International Renewable Energy Conference (SAIREC) in Cape Town in October 2015 and at the PIDA Week held at the AfDB in Abidjan in November 2015.

Based on the feedback obtained, phase 2 of the mapping exercise was implemented. This consisted of:

- A refinement of the chosen methodology for the selection of initiatives and programs;
- A revision of the selected initiatives and programs based on the refined methodology with the support of key stakeholders;
- A validation and revision of information collected on selected initiatives and programs in the first phase of data by representatives from the respective organizations;
- Collection of data on a number of additional initiatives and programs;
- Compilation of background data on Official Development Assistance (ODA) in the energy sector in Africa.

The results of the phase 2 report were presented at the COP 21 in Paris in December 2015, the IRENA General Assembly, in Abu Dhabi in January, 2016, the 3rd Annual SE4ALL Africa Workshop in Abidjan and the JAES Reference Group on Infrastructure Meeting in Addis Ababa, both in February of 2016.

In the third and final phase of the mapping exercise, the following additional tasks were completed:

- Collection of data on a small number of additional initiatives and programs;
- Second round of validation and revision of information, in particular on those initiatives and programs added in phase 2;
- Aggregation and analysis of data;
- Interviews with key experts to discuss findings and possible implications;
- Integration of case studies on donor coordination, supplied by the SE4ALL Africa Hub.

Key stakeholders consulted at various stages of report development were the following: Sustainable Energy for All (SE4ALL) Africa Hub, ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE), International Renewable Energy Agency (IRENA), Department for International Development United Kingdom (DFID), USAID, RES4MED, Energizing Development (EnDev), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), International Finance Corporation, Alliance for Rural Electrification (ARE), NEPAD Planning and Coordinating Agency, UN Development Programme (UNDP), World Bank, as well as significant input from the AEEP's co-chairs: African Union Commission, European Commission, Egypt, Italy, Germany and Common Market for Eastern and Southern Africa (COMESA)

Structure of the report

The report is divided in 5 sections, with Section 1 (above) providing an overview and putting the exercise in context. Section 2 presents the methodology and analytical framework of the mapping exercise. Section 3 of this report provides a broad overview of key trends in ODA in the energy sector, including the different sources of ODA and their regional distribution. Section 4 presents an overview of the data collected on the selected initiatives and programs. In addition, the full data on the individual initiatives is available in Annex 5 of this report, which is available online at <http://euei-pdf.org/thematic-studies/mapping-of-initiatives>. Section 5 first summarizes key findings of the study. It then identifies a number of entry-points for policy action and increased coordination and presents two brief case studies on existing coordination efforts.

SECTION 2: METHODOLOGY AND SCOPE OF THE MAPPING EXERCISE

Selection of initiatives and programs (scope of the mapping exercise)

Based on the available time and resources for the mapping exercise, its scope was limited to major programs and initiatives active at the continental or regional level with some form of public sector involvement (either by African partners or the international donor community). The mapping exercise, therefore, does not capture details on traditional bi- and multilateral international cooperation, conducted by implementers (Technical Assistance providers, development banks, consultants, civil society) on behalf of donors. It is recognized, however, that in terms of volume and impact, traditional international cooperation accounts for a very significant share of the international effort towards promoting sustainable energy in Africa. This is highlighted in Section 3, which provides a general overview of energy sector Official Development Assistance (ODA) in Africa.

The specific boundaries of the mapping exercise were defined to include initiatives and programs, which meet the following criteria:

- Initiatives and programs that have been officially launched (i.e. planned initiatives were not included);
- Initiatives and programs supported by Pan-African public actors and / or international development partners (donors and implementers);
- Multi-country initiatives and programs, including single-country initiatives or programs with a planned multi-country roll-out;
- Initiatives and programs covering all energy sub-sectors with the exception of initiatives or programs focused exclusively on large-scale fossil-based energy (coal, oil, gas) and/or nuclear energy;

- Initiatives and programs with a high ambition in terms of:
 - Anticipated results and outcomes (i.e. the expected beneficiaries measure in 100,000's);
 - Significant confirmed funding (at least 5 million EUR for TA-only initiatives; at least 20 million EUR for financing instruments).

Since it is not possible to verify the exact level of ambition for all initiatives and programs, the selection of initiatives and programs was conducted in cooperation with key stakeholders. As part of the review of the methodology of the mapping exercise, stakeholders were presented with the initial list of selected initiatives and programs as presented in the phase 1 report. On this basis, they were requested to review the list of selected initiatives. As a result of this process, a total of 58 initiatives were selected. The final list of initiatives and programs is presented in [Table 2](#) below.

Categories for the systematization of information

The framework for the systematization of information presented in the report on phase 1 of the mapping exercise received broad support from stakeholders. Only one minor change to the original framework was requested and subsequently implemented. [Table 1](#) provides an overview of the final set of categories, which have been chosen for characterizing existing initiatives and programs. A graphical illustration of the scheme can be found in Annex 1 of the report. The categories and sub-categories depicted in the scheme served as a basis for the creation of a standardized template for data collection (see Annex 2).

Table 1: Categories for the systematization of information

Type of Intervention	High Level Initiative Operative Program / Delivery Mechanism	
African Partners	Pan-African Organization Regional Organization National Government Other Public Sector Organization Private Sector Civil Society	
Donor Involvement	Single-Donor Multi-Donor Bilateral Multilateral	
Financing Instruments	Grant Equity Debt Guarantees Early Stage	
Technical Assistance	Dialogue and Networking Information and Analysis Policy Support and Institution Building Project Preparation and Project Implementation TA Skills / Capacity Development and Training	
Energy Sub-Sector Coverage	Electricity	Electricity System (Regional Integration, Transmission, Distribution) Grid-Connected Generation Mini-Grids Standalone Off-Grid Systems
	Heating and Cooling Energy Efficiency Cooking Energy	
Energy Source	Renewable Energy Sources Non-Renewable Sources	
Geographical Scope	Continental Regional Country/National	

Method of data collection

Throughout the mapping exercise, information on the selected initiatives and programs was initially collected based on publicly accessible sources, i.e. websites, project outlines and reports. This information was complemented by data available in the archives of the AEEP secretariat. In 14 cases, information was directly supplied by responsible program representatives. The information collected from public sources was sent to representatives of the organizations directly involved in the selected initiatives and programs for their review and validation. On this basis,

information on 37 of the selected initiatives and programs was validated. In sum, information on 51 of the 58 initiatives and programs was either supplied or validated by representatives of the programs.

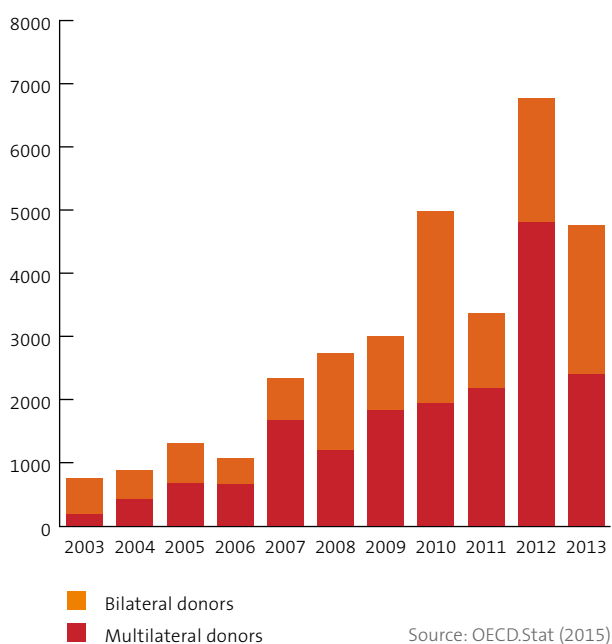
In addition to this, consultations with selected experts from ECREEE, Lighting Global/Lighting Africa, Power Africa and the SE4ALL Africa Hub regarding the main findings and related implications of the report were conducted in phase 3 of the mapping exercise. Moreover, two case studies highlighting examples of donor coordination in Africa's energy sector were provided by the SE4ALL Africa Hub.

SECTION 3: OVERVIEW OF ENERGY SECTOR ODA IN AFRICA

Trends in energy sector ODA in Africa

Over the course of the last 10 years, ODA to the African energy sector has increased substantially (see [Figure 1](#)). It experienced a six-fold increase from around 750 million USD in 2003 to more than 4.7 billion USD in 2013. Overall, the energy sector accounted for slightly over 7 percent of ODA in Africa. In the period from 2003 to 2013, multilateral donors provided 56 percent of energy ODA, while bilateral donors provided the remaining 44 percent. Detailed information on the multilateral and bilateral ODA flows can be found in Annex 4.

Figure 1: Development of energy ODA to Africa, 2003–2013



While this mapping exercise focuses on major continental and regional initiatives in the African energy sector, the figures above include all energy ODA, including funds channeled through the country-level programs of different multilateral and bilateral donors. Though beyond the scope of this mapping exercise, they represent a major component of ODA in the African energy sector. [Box 1](#) provides a brief overview of the main organizations and delivery mechanisms at the country-level.

Box 1: Country-level programming: key organizations and delivery mechanisms

As indicated in [Figure 1](#), the three largest multilateral donors in the energy sector in Africa are the World Bank, the EU institutions and the African Development Bank. While all three participate in and manage various multi-country programs, the bulk of multilateral lending is disbursed via loans and grants to individual national governments. The EU institutions deliver their ODA via a mix of thematic and geographic programs with direct as well as indirect implementation modalities, including in particular blending instruments.

Similarly, the major bilateral donors channel a large part of their ODA through a variety of country-level delivery mechanisms. The Agence Française de Développement (AFD) represents the main implementing agency of French ODA, which is provided in the form of grants, loans and technical assistance. German country-level ODA is disbursed via country-level technical assistance programs, managed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and different forms of financial assistance. The latter is primarily channeled through Germany's development bank, Kreditanstalt fuer Wiederaufbau (KfW), in the form of concessional lending and other financial instruments. Japanese ODA is organized in a similar fashion with the Japanese International Cooperation Agency (JICA) and the Japanese Bank for International Cooperation responsible for technical and financial assistance, respectively.

Geographic distribution of energy ODA in Africa

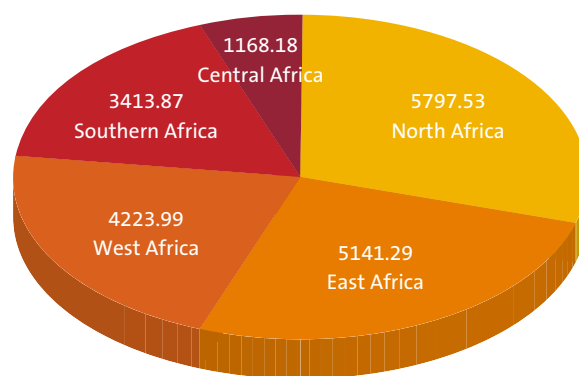
[Figure 2](#) shows the regional distribution of ODA in the energy sector between 2009 and 2013. As becomes visible, North and East Africa have received the largest volumes of energy sector ODA over the period, accounting for more than half of total ODA or 29 and 26 percent, respectively. North Africa is home to 16 percent of African population. It is also the only African region with close to universal access to electricity, while sub-Saharan Africa is the least

electrified region in the world.² In East Africa – which is home to 23 percent of Africans – four out of five people lack access to electricity. West Africa represents the third largest destination (23.3%, 2.8 billion USD) and accounts for 30 percent of the African population. Southern Africa (10,8%, 1.3 billion USD) and Central Africa (7,5 %, 908 million USD) follow by a wide margin. Southern Africa is home to 21 percent of African population, while Central Africa represents 11 percent of the African population.³ Annex 4 provides a comprehensive overview of the geographic distribution of energy sector ODA of major multilateral and bilateral donors.

A look at the top ten receiving countries of energy ODA in Africa between 2009 and 2013 (see Figure 3) shows that Egypt and Kenya are the two countries, which receive by far the largest volume of energy ODA. Egypt received 3.3 billion USD and Kenya 3.1 billion USD. Their electrification rates are 100 percent and 20 percent, respectively. They were followed by Ethiopia, Tanzania, Morocco and Tunisia, which received between 1.2 and 1.4 billion USD each. Nigeria accounted for 954 million USD, while the Democratic Republic of Congo, Uganda and Liberia obtained between 600 and 700 million USD. Together these ten countries account for more than two thirds of total energy ODA, though representing only slightly over

half of the continent’s population. In per capita terms, three relatively small countries – Cabo Verde, Liberia and Djibouti – come out on top. But also Kenya, Morocco and Egypt, three of the larger African countries, are represented among the countries with the highest per capita energy ODA. Additional information on the role of country-level programming can be found in Annex 4.

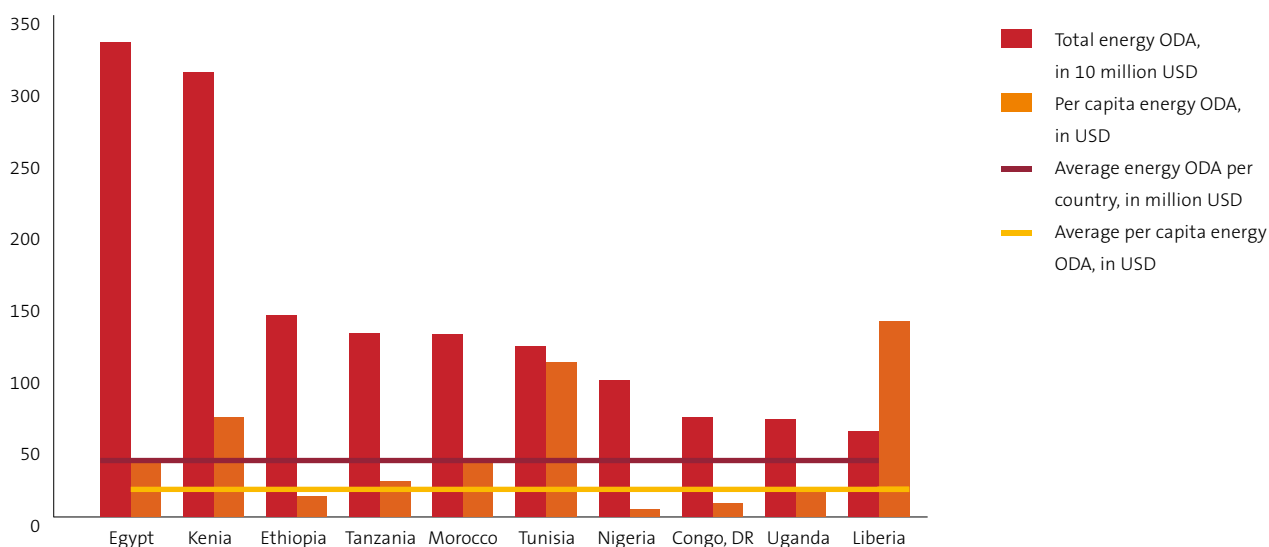
Figure 2: ODA flows to the energy sector in Africa by region, 2009–2013 (in million USD)



2 IEA 2014: Africa Energy Outlook, p. 30ff.

3 Population data are taken from the World Development Indicators database, last updated on December 11, 2015.

Figure 3: Top ten receiving countries of energy ODA in Africa on a country and per capita basis, 2009–2013, all donors



Source: OECD Stat (2015)

SECTION 4: DATA ON SELECTED INITIATIVES AND PROGRAMS

The following section presents a synthesis of the data collected on the initiatives and programs selected based on the methodology outlined in Section 2. **Table 2** provides an overview of the selected programs and initiatives. For each of the listed programs the template in Annex 2 has been filled out based on publically available data. As indicated in Section 2, for 51 of 58 initiatives and programs

the information has been validated or directly provided by representatives of the organizations involved in the program. **Detailed information and data on each initiative is available online at:** <http://euei-pdf.org/thematic-studies/mapping-of-initiatives>. A condensed version of the data can be found in Annex 3 of this report.



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Table 2: Overview of major initiatives and programs

High-level initiatives	
Africa Clean Energy Corridor	Africa Renewable Energy Initiative (AREI)
Africa Energy Leaders Group (AELG)	Presidential Infrastructure Champion Initiative (PICI)
Africa-EU Energy Partnership (AEEP)	Program for Infrastructure Development in Africa (PIDA)
Africa Power Vision	SE4ALL (Africa Hub)
High-level initiatives with an operative program	
Africa 50	New Deal on Energy for Africa
Africa Renewable Energy Access Program (AFREA I & II) – ESMAP	Power Africa
ElectriFi	Public Private Infrastructure Advisory Facility (PPIAF)
Energies pour l'Afrique	World Bank Guarantee Program
Global Alliance for Clean Cookstoves	
Operative programs and delivery mechanisms	
ACP-EU Energy Facility	GET FiT Uganda
AFREA Gender and Energy Program	Global Energy Efficiency and Renewable Energy Fund (GEEREF)
Africa Clean Cooking Energy Solutions Initiative (ACCES)	Green Mini-Grids Africa Regional Facility
Africa Energy Guarantee Facility (AEGF)	IRENA/ADFD Project Facility
Africa Enterprise Challenge Fund (AECF)	Lighting Africa
Africa-EU Renewable Energy Cooperation Program (RECP)	Mediterranean Solar Plan (MSP)
African Development Bank Partial Risk Guarantee (PRG)	NEPAD Bioenergy Programme for Africa
Africa Renewable Energy Fund (AREF)	NEPAD Continental Business Network (CBN)
Biofuels Programme for Household and Transport Energy Use	NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF)
Carbon Initiative for Development (Ci-Dev)	PIDA Service Delivery Mechanism (SDM)
Clean Technology Fund (CTF)	Private Infrastructure Development Group
EEP Africa – Energy and Environment Partnership	Regional Energy Project for Poverty Reduction
Energising Development (EnDev)	Regional Technical Assistance Program (RTAP)
Energy Access Ventures	Renewable Energy Performance Platform (REPP)
Energy Africa Campaign	Renewable for Poverty Reduction Program (REPoR)
EREF ECOWAS Renewable Energy Facility	Renewable Energy Solutions for Africa (RES4Africa)
EU-Africa Infrastructure Trust Fund (ITF) / Africa Investment Facility (AfIF)	Scaling Solar
EU Development Finance Institutions (EDFIs) Private Sector Development Facility	Strategic Climate Fund – Scaling Renewable Energy Program (SREP)
EU Energy Partnership Dialogue Facility (EUEI PDF)	Sustainable Development Investment Partnership (SDIP)
European Union's Technical Assistance Facility (TAF)	Sustainable Energy Fund for Africa (SEFA)
Geothermal Risk Mitigation Facility	

Geographic scope and distribution of selected initiatives and programs

Given the focus on major engagements on the African continent, the mapping study only covers initiatives and programs that are multi-country in nature or are planned to be so in the future. Among the selected initiatives and programs, 84 percent are continental in scope. Only 14 percent are regional in scope, meaning they cover only one or two of the African sub-regions. GET FiT Uganda is the only national program included in the exercise, albeit with a planned multi-country roll-out.

Figure 4 reveals in which African countries the selected initiatives and programs are currently active. In this context, it should be noted that the distribution of activities across individual countries could only be specified for 33 of the 58 initiatives and programs. Of these, more than 20 initiatives and programs are active in Kenya, Uganda and Tanzania, the countries targeted by the largest number of the selected initiatives and programs. Thirteen African countries are the targets of between 11 and 20 initiatives, while 28 countries are targeted by 5 to 10 initiatives and programs. Ten countries are mentioned by less than 5 initiatives and programs.

These figures reveal both important overlaps and significant differences to the distribution of country-level ODA. As Figure 5 demonstrates, Kenya and Tanzania feature both among the top countries in terms of total number of active initiatives and programs and in terms of the energy sector ODA they receive. They are both among a group of seven African countries, which received over 1

billion USD of energy sector ODA between 2009 and 2013. Uganda, the third country with over 20 active initiatives and programs, did not reach the threshold of 1 billion USD in the same time period. Nevertheless, it also figures among the top ten largest recipients of ODA. Similarly, Nigeria and Ethiopia are represented in the top ten, both in terms of the energy sector ODA received and in terms of the number initiatives and programs.

Central African countries receive the least energy sector ODA, and they are the target of only 15 initiatives and programs. A notable exception within the region is the Democratic Republic of Congo with close to 700 million USD in ODA and over ten initiatives and programs. North Africa is the region with least coverage in terms of the selected initiatives and programs. In stark contrast to this finding, however, the three North African countries Egypt, Morocco and Tunisia each received over 1 billion USD of energy sector ODA between 2009 and 2013 and figure among the top ten recipients of energy sector ODA in Africa. In fact, Egypt, which received over 3 billion USD of energy sector ODA, is the number one recipient in this category on the continent. A key reason for this discrepancy is likely to be that North African countries receive the bulk of energy ODA via traditional bilateral programs.⁴

⁴ In addition, stakeholders consulted during the mapping exercise may have focused more strongly on initiatives focused on sub-Saharan Africa. The European Union's Neighborhood Investment Facility, for instance, which covers North Africa but not Sub-Saharan Africa, was not included in the list of initiatives and programs.

Figure 4: Map 1: Geographic distribution of selected initiatives and programs

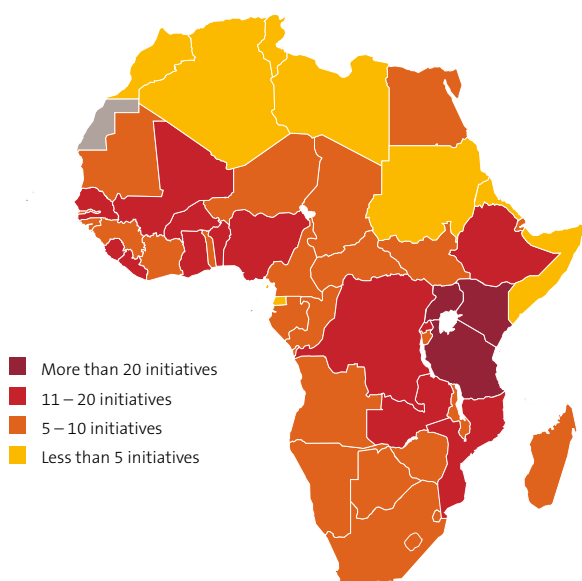
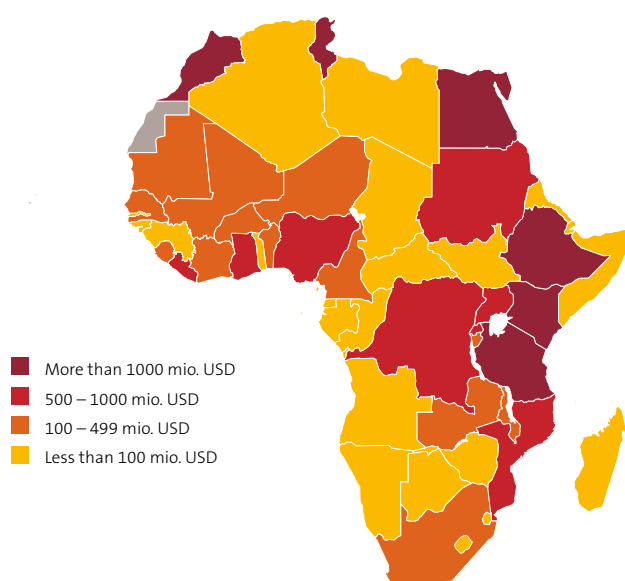


Figure 5: Map 2: Geographic distribution of energy sector ODA

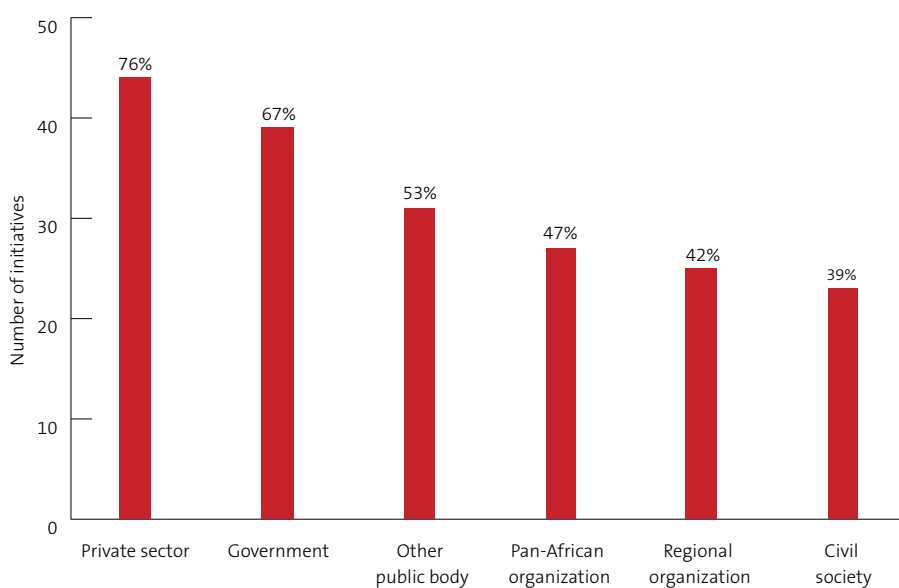


Partners involved in the selected initiatives and programs

As indicated above, the mapping exercise focuses on major initiatives and programs. As a result, the majority of selected initiatives and programs are multi-stakeholder and multi-donor in nature. Only 14 percent of the selected initiatives are single-donor programs. Figures 6 and 7 provide an overview of the types of partners involved.

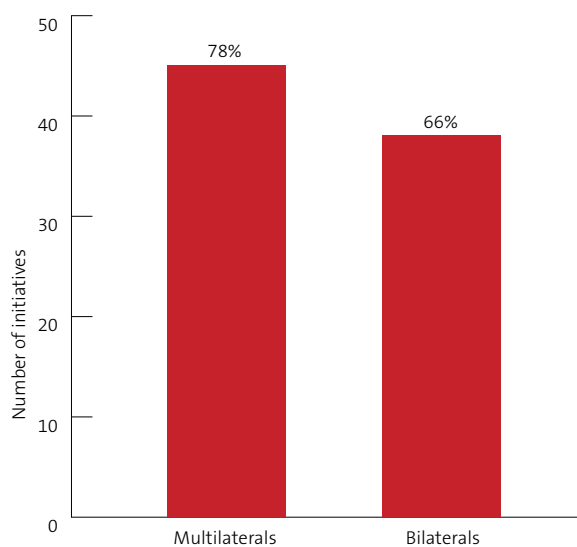
Most initiatives and programs involve both governments and private sector actors. Regional organizations and civil society organizations are the least engaged by the initiatives. Nevertheless, they participate in over one third of the initiatives and programs covered by the mapping exercise. Multilateral donors are involved in 77 percent of these initiatives and programs, while bilateral donors are involved in 65 percent.

Figure 6: African partners involved in selected initiatives and programs



*The percentages presented in this graph have been calculated on the basis of the total of 58 initiatives and programs.

Figure 7: Involvement of multilateral and bilateral donor organizations in selected initiatives and programs



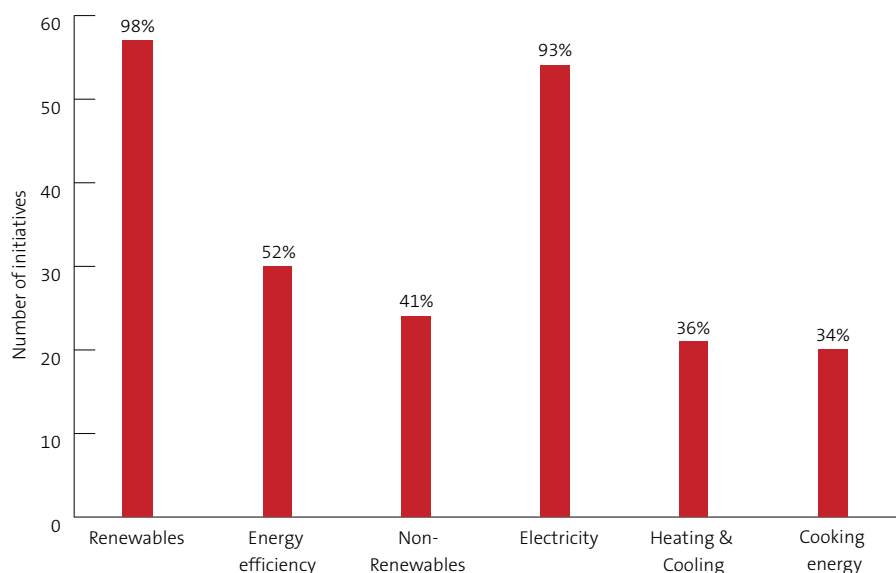
*The percentages presented in this graph have been calculated on the basis of the total of 58 initiatives and programs.

Sectors and sub-sectors addressed by the selected initiatives and programs

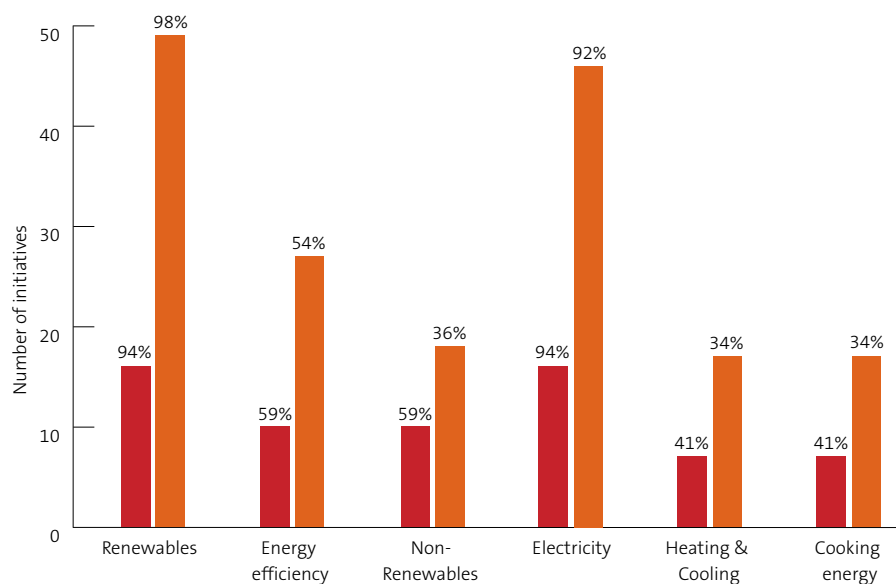
As Figure 8 indicates, virtually all initiatives and programs focus on the promotion of renewable energy. Slightly more than half of the high-level initiatives, including Sustainable Energy for All (SE4ALL), the Africa-EU Energy Partnership (AEEP), the Programme for Infrastructure Development in Africa (PIDA) and the Africa Energy Leaders Group, addresses the energy sector as a whole (i.e. renewables and non-renewables), albeit with an important emphasis on the renewable energy sector. Close to 60 percent focus

on renewables and energy efficiency. Only two high-level initiatives – the Africa Clean Energy Corridor and the Africa Renewable Energy Initiative – focus exclusively on renewables. All the operative programs support renewable energy. Slightly less than one third focuses exclusively on renewables and slightly over 50 percent on both renewables and energy efficiency. Finally, the vast majority of initiatives and programs address the electricity sector, while slightly over one third of initiatives and programs focus on heating and cooling. Cooking energy remains the least represented among sectors covered by the selected initiatives and programs.

Figure 8: Sectors covered by selected initiatives and programs



*The percentages presented in this graph have been calculated on the basis of the total of 58 initiatives and programs.



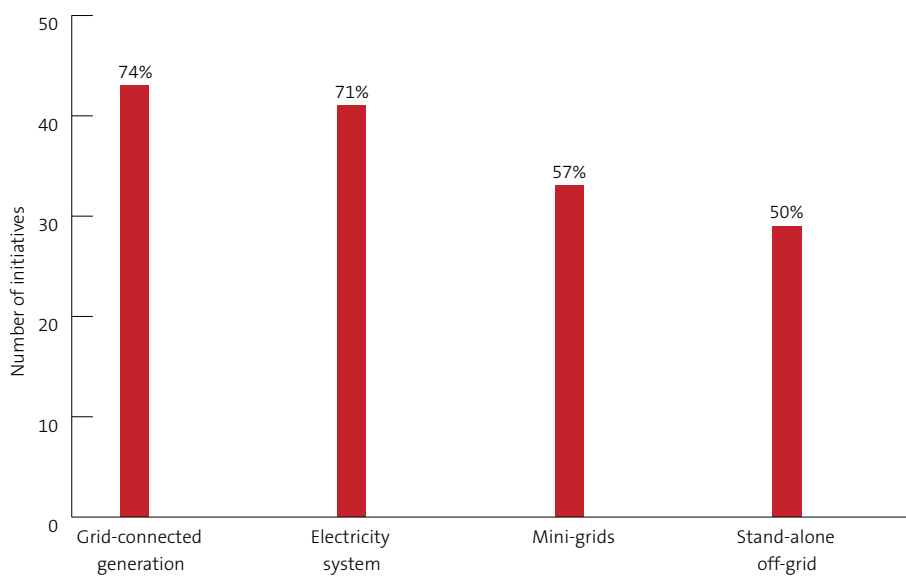
*The percentages presented in this graph have been calculated on the basis of the total of 17 high-level initiatives and 50 operative programs. As a number of programs is represented in both categories, the percentages may reveal discrepancies vis-à-vis the percentages calculated for all initiatives and programs in the graph above.

■ High-level initiatives
■ Operative programs

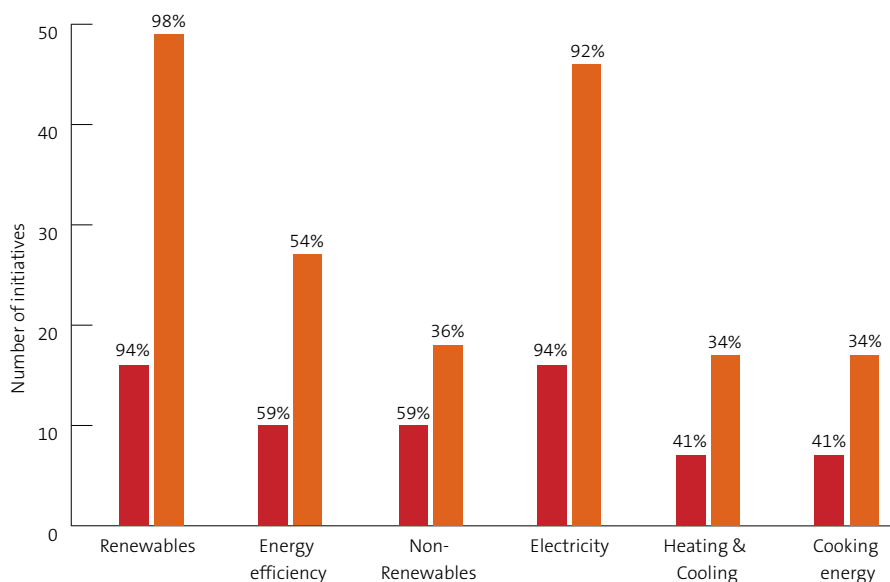
Seventy-four percent of the initiatives and programs support grid-connected electricity generation and 71 percent the electricity system. In both cases, the shares among high-level initiatives are higher than among operative programs. With a share of 57 and 50 percent respectively, mini-grids and stand-alone off-grid

applications receive relatively less support. Here the shares are broadly similar across high-level initiatives and operative programs, albeit with a slight advantage among operative programs. Experts considered this an encouraging result considering the relatively early stage of market development in these two sub-sectors.

Figure 9: Sub-sectors within the electricity sector covered by the selected initiatives and programs



*The percentages presented in this graph have been calculated on the basis of the total of 58 initiatives and programs.



*The percentages presented in the lower graph have been calculated on the basis of the total of 17 high-level initiatives and 50 operative programs. As a number of programs is represented in both categories, the combined percentages in the lower graph may reveal discrepancies vis-à-vis the percentages calculated for all initiatives and programs in the graph above.

■ High-level initiatives
 ■ Operative programs

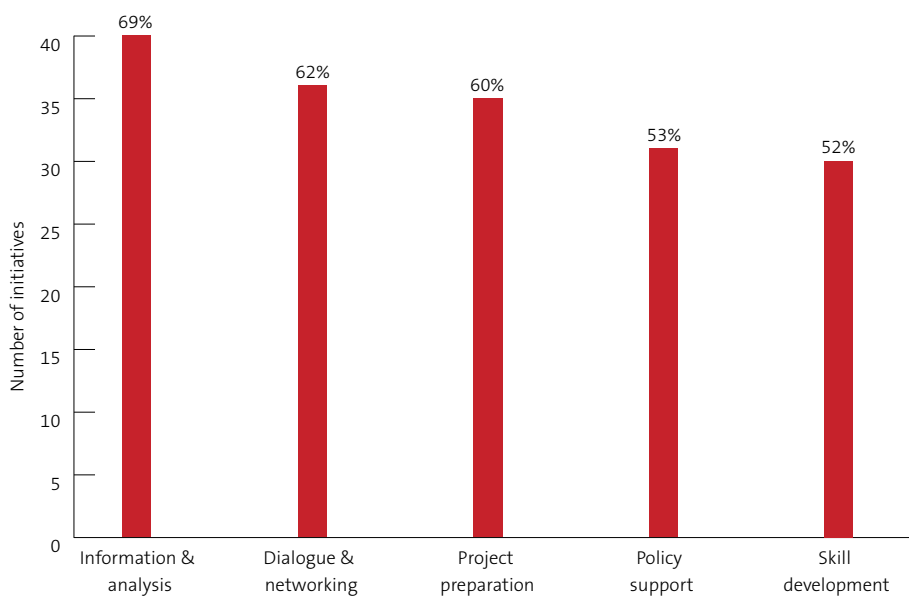
Types of technical assistance and financing provided by the selected initiatives and programs

Among the selected initiatives and programs, 84 percent provide some form of technical assistance, while 64 percent provide financing. Slightly over fifty percent of initiatives and programs offer a combination of technical assistance and financing. With one exception, these are all operative in nature (including high-level initiatives with an operative component), representing 60 percent of operative programs. For instance, a number of larger funds, such as the Sustainable Energy Fund for Africa (SEFA), Geothermal Risk Mitigation Facility (GRMF), Africa Sustainable Energy Facility (ASEF) or the EU-Africa Infrastructure Trust Fund (ITF), either include

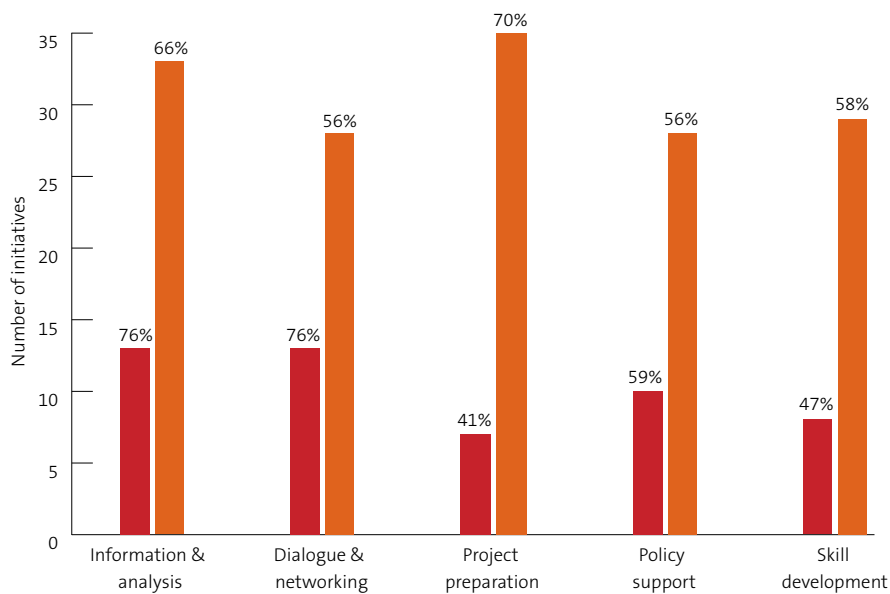
complementary technical assistance programs or grant components, which fund technical assistance. Only 12 percent of the selected initiatives and programs focus exclusively on financing. Approximately one third of initiatives and programs offer only technical assistance, including 10 high-level and 10 operative programs.

Among operative programs, 82 percent offer technical assistance. The only initiatives categorized as high-level, which do not offer technical assistance, are Africa 50 and the World Bank Guarantee Program. The importance of different types of technical assistance varies across high-level initiatives and operative programs. The categories information and analysis and dialogue and networking dominate among high-level initiatives, while project preparation is the most important category among operative programs, followed by information and analysis.

Figure 10: Types of technical assistance provided by the selected initiatives and programs



*The percentages presented in this graph have been calculated on the basis of the total of 58 initiatives and programs.



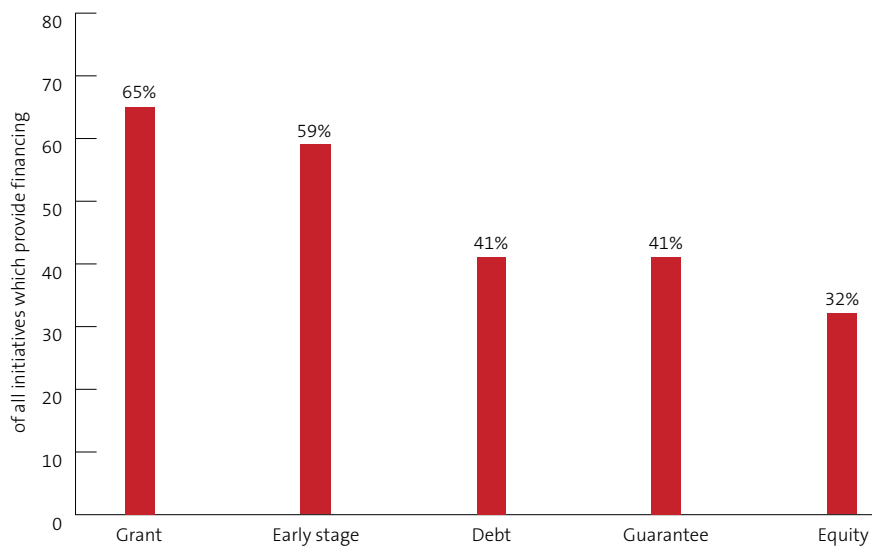
*The percentages presented in the lower graph have been calculated on the basis of the total of 17 high-level initiatives and 50 operative programs. As a number of programs is represented in both categories, the combined percentages in the lower graph may reveal discrepancies vis-à-vis the percentages calculated for all initiatives and programs in the graph above.

■ High-level initiatives
 ■ Operative programs

Among the 37 initiatives and programs that provide financing, close to two thirds provide grants. Forty-one percent of initiatives and programs offer debt and guarantees, respectively. The least common form of

financing is equity, which 31 percent of initiatives and programs provide. Fifty-nine percent of initiatives and program classify their financing as early stage.

Figure 11: Types of financing among selected initiatives and programs (percentages based on all initiatives and programs that provide financing)



SECTION 5: SUMMARY OF KEY FINDINGS AND ENTRY-POINTS FOR POLICY ACTION

The following section provides an overview of key findings derived from the data presented in this report and identifies remaining knowledge gaps and entry-points for policy action and increased coordination. The findings and conclusions that are presented here were developed on the basis of discussions with key experts from ECREEE,

Lighting Global/Lighting Africa, Power Africa and the SE4ALL Africa Hub. The section closes with a discussion of possible entry-points for increased coordination of activities in the African energy sector, including two case studies of ongoing coordination efforts.

A systematic knowledge base as the basis for coordination

First and foremost, this mapping exercise confirms that the energy sector in Africa is the target of a large variety of multi-country, multi-stakeholder initiatives and programs, corresponding to the substantial increase in ODA that the sector has seen over the past years. Stakeholders agree that the increasing number of initiatives and programs brings with it the need for more systematic exchange of information and knowledge sharing and increased coordination to enable synergies and to avoid unnecessary duplication of efforts.

This mapping exercise represents a first step in this direction by providing a common knowledge base on major initiatives and programs in the sector. It provides a broad overview of major initiatives and programs and their main focus areas in terms of geographical scope and distribution, sectors and sub-sectors addressed and types of technical assistance and financing provided. Experts consulted during the exercise agreed that the data collected provide an important basis for identifying existing overlaps as well as gaps. The possibility of developing an online tool for providing up-to-date information of this type on a continuous basis was strongly encouraged. The SE4ALL Africa Hub was identified as a possible structure for carrying forward such an effort⁵.

At the same time, it was pointed out that the majority of energy sector ODA is still delivered via traditional bilateral and multilateral development cooperation. Hence the mapping exercise can only provide a partial overview of Africa's energy sector ODA. Further data collection and analysis to close this gap was considered as an important next step by several experts. A possible way forward in this regard would be the systematic review of key donor portfolios.

In addition, it was pointed out that the existing mapping exercise would greatly increase its value-added, if it could be supplemented with comparable financial data on the various initiatives and programs. Moreover, in-depth mapping exercises, focusing on important sub-sectors within the energy sector were considered highly relevant. Among other things, it was suggested to conduct a more focused mapping exercise on market creation programs for off-grid applications, an important growth sector.

5 See conclusions of the 3rd Annual SE4All Africa Workshop: http://www.se4all-africa.org/fileadmin/uploads/afdb/Documents/Abidjan_workshop_2016/SE4All_Abidjan_Workshop_2016_summary.pdf

Key Findings and Areas for Policy Action

Major findings from the mapping exercise relate to the geographic distribution, the involvement of African partners and the sectoral and sub-sectoral focus of initiatives and programs.

Geographic scope and distribution: Lack of focus on Central Africa – Scope for more regional programs

Experts agreed that the review of ODA and the mapping of major initiatives and programs reveals that countries in Central Africa receive relatively less attention compared to the rest of the continent. In addition, the relatively small number of programs operating at the level of African sub-regions reveals a gap within the increasing number of initiatives and programs.

Partners involved: Lower level of engagement of civil society

Experts welcomed the high-level of private sector participation, relative to other African partners. The relatively lower level of participation by civil society indicates that there is scope for supporting stronger engagement by African non-governmental organizations in the energy sector.

Sectoral focus: Scope for expanding support for clean cooking

Experts agreed that the area of cooking energy, the sector with the least activities, deserves greater attention. This is reinforced by the fact that related interventions strongly benefit the poorest sections of the population.

Electricity sector: Increased role of mini-grids and off-grid requires further development of tailor-made support schemes

Experts noted that the data suggests an increased attention to mini-grids and off-grid compared to the past, albeit from a low base. To further develop and support this growing sub-sector, there is a need for additional analysis and the development of more tailored offerings, including support to entrepreneurs and start-ups.

Technical assistance: Skill development is the least common form of technical assistance

Experts noted that skill development represents an important need. As the least common form of technical assistance, it may offer scope for an increased focus in the future.



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Coordination in practice

As stated above, the mapping exercise confirms the existence of a large number of initiatives and programs in support of Africa's energy sector. Of the selected initiatives and programs, 17 were categorized as high-level initiatives, indicating that a number of fora for political dialogue and coordination have already been created. A number of different initiatives focused on various sub-sectors and themes may be beneficial for developing shared visions and fostering knowledge sharing and learning within the chosen area. More active coordination of activities would be most effective, however, if pursued within one or a small number of complementary fora. Among the initiatives, SE4ALL was pointed out to have the most comprehensive mandate, also in view of the strong alignment with SDG 7 on energy. It thus bears important potential to support coordination exercises at different levels (continental, regional and country-level). Strengthening SE4ALL and providing it with the required political backing to fulfill such a role could provide important impetus for increased coordination. In doing so, it is essential that SE4ALL closely works with the relevant African partners in the context of the future Pan-African Coordination Platform.

In a number of cases, SE4ALL has already assumed the role as a facilitator of coordination efforts. In the ECOWAS region, SE4ALL has partnered with the regional organization ECREEE to facilitate a coordinated process of developing National Renewable Energy Action Plans (NREAPS), National Energy Efficiency Action Plans (NEAPS) and SE4All Action Agendas. A key next step in the process will be a regionally coordinated approach to SE4ALL Investment Prospectus development (see [Box 3](#) for more details). At the country-level, SE4ALL has partnered with the Kenyan government to create an institutional framework to drive the country's SE4All agenda. The process is led by the Ministry of Energy and Petroleum (MoEP) and coordinated through the Country Focal Point (CFP) who was appointed within the Directorate of Renewable Energy in the MoEP. This coordination platform will be transformed into the "Kenya SE4All Secretariat" ("KSS"). More details on the process are described in [Box 3](#).

Such coordination efforts (and many others, including sectoral examples) represent an important learning ground for countries throughout the continent. More in-depth assessment of these and other pioneering efforts could help extract important lessons learned. SE4ALL could act as a hub for gathering and disseminating related lessons.

Box 2: ECOWAS SE4All Implementation Framework

The Economic Community of West African States (ECOWAS) has been pioneering a coordinated regional approach to energy access, renewable energies and energy efficiency. In 2010 the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) was established in Praia with a mandate of providing support to the region on policy and capacity development, knowledge management, investment and business promotion and managing specific energy projects. With the launch of the SE4All initiative in 2011, ECOWAS became the first of the Regional Economic Communities (RECs) to adopt a coordinated approach towards the implementation of the SE4All Country Actions and mandated ECREEE to lead this effort. In this context, ECREEE partnered with the SE4All Africa Hub.

The approach taken by ECOWAS to align SE4All with the implementation of the regional policies on renewable energy (EREP) and on energy efficiency (EEEE) was adopted by the 43rd Ordinary Session of the Conference of Heads of State and Government of ECOWAS, held in Nigeria in July 2013. The implementation of the SE4ALL country actions is coordinated by ECREEE who closely works with the ECOWAS Member States and provides technical assistance supported by a team of national and international experts. Regional "concerted actions" support

the national processes. Through the "Abidjan Processes", a series of regional coordination events held in Côte d'Ivoire, that started in 2014 with the adoption of the SE4All Action Agenda template prepared by the SE4All Africa Hub as the common methodology to establish the long-term objectives for the sector, and its follow-up. As a result of this process, each country of the region has prepared a set of interconnected reports and policy documents through comprehensive stakeholder consultations and strong government leadership, these are:

- The National Renewable Energy Action Plans (NREAPS);
- The National Energy Efficiency Action Plans (NEAPS);
- The SE4All Action Agenda.

Most of the SE4All Action Agendas and the National Plans on Renewable Energies and Energy Efficiency have been completed and discussions are advanced on developing a regionally coordinated approach to the SE4All Investment Prospectus development in collaboration with the SE4All Africa Hub and the European Commission.

The regional coordination efforts also include other related activities including:

- ECOWAS access to sustainable electricity services program with a specific focus on clean energy mini-grids, stand-alone systems and productive uses of electricity;
- ECOWAS Program on Gender and Energy – is dedicated at addressing barriers to the equal participation of women and men in expanding energy access in West Africa;
- The ECOWAS Bioenergy Program – to increase access to sustainable Bioenergy production and use;
- The West African Clean Cooking Alliance – to promote the access to efficient, sustainable and affordable cooking energy in the entire ECOWAS region;
- ECOWAS Capacity Building Program – designed to address the capacity-related barriers identified in the region;
- ECOWAS Program on Project Development and Financing – to support the development of the project pipeline in the region;

- ECOWAS Sustainable Energy Policy & Environment Program – to promote the implementation of sustainable energy policies and regulation at the national level.

Within the framework of the outcomes of the COP21, ECOWAS Member States approached ECREEE to link the Action Plan process to the climate change discussions and support the MS, especially with regards to the Intended Nationally Determined Contributions (INDCs).

During the 2016 Annual Workshop on the implementation of the SE4All initiative in Africa, hosted by the Africa Hub, a recommendation was made to replicate this approach of regional coordination of SE4All activities in other RECs.

Source: Case study provided by SE4ALL Africa Hub

Box 3: National SE4All coordination structure in Kenya

Kenya joined the SE4All initiative in 2012 and finalized its national Action Agenda (AA) and Investment Prospectus (IP) in late 2015, with the support of the SE4All Africa Hub. The Kenya AA and IP was developed through an extensive consultation process with all relevant stakeholders (relevant Ministries and Government entities, development partners, private sector and civil society representatives) in the Kenyan energy sector. This consultation also included the county Governments in view of the devolution of energy planning, implementation, monitoring and evaluation responsibilities to the sub-national level, and it is envisaged to support the establishment of SE4All county technical committees. Plans are underway to develop capacity of county SE4All technical committees in preparation for the task ahead.

The Kenya AA sets a 100% access target to be reached by 2022 for electricity and by 2030 for access to clean cooking solutions, while further improving the share of renewable energy sources up to 80%. The energy efficiency target is to achieve a 2.78% reduction of total energy intensity yearly. The Action Agenda is an umbrella Government strategy document towards the achievement of sustainable energy for all citizens of Kenya and a national implementation framework for the implementation of the Sustainable Development Goal number 7. It supports the Country's Vision 2030, and provides a framework that is intended to guide development sectors, planners and partners in their engagement with Kenya on sustainable energy.

Kenya has put in place an institutional framework to drive the country's SE4All agenda, led by the Ministry of Energy and Petroleum (MoEP) and coordinated through the Country Focal Point (CFP) who was appointed within the Directorate of Renewable Energy in the MoEP. This coordination platform

will be transformed into the "Kenya SE4All Secretariat" ("KSS"). This Secretariat will be responsible for the overall development, implementation and monitoring of the SE4All activities in Kenya and will be the AA's lead advocacy and managerial unit. With this process, it is expected that the harmonization and integration of strategies and programs under the SE4All AA will be facilitated, and key implementation challenges will be mitigated. This is especially important for addressing the challenges associated with devolution and the operationalization of the AA. The objective of the Kenya's SE4ALL Secretariat is to increase the capacity of the Government to improve coordination of activities across interventions funded and implemented by key stakeholders. The "KSS" will also facilitate the process of mobilising resources for implementing priority actions identified in the AA and IP.

The SE4All AA and IP development process in Kenya was also guided by an SE4All Steering Committee which included representation from the public sector, private sector, civil society and donor community to support the design of the AA and the IP. This Committee will remain in place after the validation of AA and will meet regularly to provide support and advice to the Kenya SE4All Secretariat. The MoEP has realised the need to bring the issues of clean cooking to the fore and in this regard has partnered with the Global Alliance for Clean Cookstoves (GACC) and the Clean Cookstoves Alliance of Kenya (CCAK) to formulate and implement a Behaviour Change Communication (BCC) strategy aimed at increasing adoption of clean cooking solutions nationally as part of the preliminary response to some of the high priority action areas of the AA and IP.

Source: Case study provided by SE4ALL Africa Hub

Annex 1: Mind Map of the Systematization of Information



Annex 2: Sample Template for the Systematization of Information

Name of initiative											
Implementing agencies											
African partners	Pan-African organization	x	Regional organization		Government		Other public body		Private sector		Civil society
Names of African partners involved											
Donor involvement (incl. IOs)	Single Donor	x	Multi-donor		Multilaterals involved		Bilaterals involved				
Names of donors involved (incl. IOs)											
Geographical scope	Continental	x	Regional		Country						
Countries where active											
Sector	Renewables	x	Non-Renewables		Electricity		Heating and Cooling		Energy Efficiency		Cooking Energy
Sub-Sector (Electricity)	Electricity system	x	Grid-connected generation		Mini-grids		Stand-alone off-grid				
Type of intervention	High-level initiative (upstream)			x	Operative program / delivery mechanism (downstream)						
Type of technical assistance	Dialogue and networking			x	Information and analysis				Policy support / institution building		
	Project preparation / implementation			x	Skill development / training						
Type of financing	Grant	x	Equity		Debt		Guarantee		Early stage		
Main objectives											
Main activities											
Comments											
Sources											

Annex 3: Overview of key data on selected initiatives and programs

Overview of high-level initiatives African Partners involved

	Pan-African organization	Regional organization	Government	Other public body	Private sector	Civil society
Africa Clean Energy Corridor			x			
Countries in the Eastern Africa, West African and Southern African Power Pools, the African Union Commission (AUC), the New Partnership for Africa's Development (NEPAD), the Eastern African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA), Southern African Community (SADC), the Economic Commission for West African States (ECOWAS), the Eastern Africa, West African and Southern African Power Pools (EAPP, WAPP and SAPP), Regional Regulatory Bodies (ERERA, IRB and RERA), Regional Renewable Energy and Energy Efficiency Centres (ECREEE, RCREEE), National Utilities, National Electricity Regulatory Bodies, Research and training Institutions, Private Sector						
African Energy Leaders Group (AELG)	x	x	x	x	x	x
African political leaders including the President of Cote d'Ivoire, Vice President of Nigeria, several West African Prime Ministers, private sector leaders including Aliko Dangote, Tony Elemelu, Akon and others, African Union Commission, ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) and others						
Africa-EU Energy Partnership (AEEP)	x	x	x	x	x	x
African Union Commission; Conference of Energy Ministers of Africa (CEMA), Regional Economic Communities (RECs), Common Market for Eastern and Southern Africa (COMESA) and Egypt.						
Africa Power Vision	x		x			
African Union Commission; NEPAD Planning and Coordinating Agency; Federal Ministry of Finance, Nigeria						
Africa Renewable Energy Initiative (AREI)	x		x			
Committee of African Heads of State on Climate Change (CAHOSCC), African Ministerial Conference on the Environment (AMCEN), Conference of Energy Ministers of Africa (CEMA), African Union Commission, NEPAD Agency, African Group of Negotiators						
Presidential Infrastructure Champion Initiative (PICI)	x	x	x	x	x	x
African Union Commission, NEPAD Planning and Coordination Agency, Presidential Champions (currently chaired by H.E. President Jacob Zuma, South Africa), AfDB, UNECA, RECs						
Programme for Infrastructure Development in Africa (PIDA)	x	x	x	x		
Core partners: African Union Commission (AUC), NEPAD Planning and Coordinating Agency (NEPAD Agency), Regional Economic Communities						
SE4ALL (Africa Hub)	x	x	x	x	x	x
African Union Commission, NEPAD Planning and Coordination Agency, ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), RECs						

Sectors / Sub-Sectors addressed

Africa Clean Energy Corridor	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
African Energy Leaders Group (AELG)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
Africa-EU Energy Partnership (AEEP)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
Africa Power Vision	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
Africa Renewable Energy Initiative (AREI)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
Presidential Infrastructure Champion Initiative (PICI)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
Programme for Infrastructure Development in Africa (PIDA)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
SE4ALL (Africa Hub)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				

Operative programs and delivery mechanisms

African partners involved

Africa 50	Pan-African organization	x	Regional organization		Government		Other public body		Private sector		Civil society	
	AfDB as reference shareholder; no projects/partners yet, still in fundraising stage											
Africa Renewable Energy Access Program (AFREA I & II) – ESMAP	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector		Civil society	
ElectriFI	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	Local private sector, Civil Society, Local Authorities, Local banking sector											
Energies pour l'Afrique	Pan-African organization		Regional organization	x	Government		Other public body		Private sector	x	Civil society	x
Global Alliance for Clean Cookstoves	Pan-African organization	x	Regional organization	x	Government	x	Other public body		Private sector	x	Civil society	x
	Diverse set of over 1,400 private sector, public and civil society partners.											
New Deal on Energy for Africa	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	The New Deal on Energy for Africa will work with all relevant African partners, including the AU, RECs, Power Pools etc.											
Power Africa	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	African Union (NEPAD), African Development Bank, Governments of Angola, Botswana, Cote d'Ivoire Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Swaziland, Tanzania, Uganda, and Zambia.											
Public Private Infrastructure Advisory Facility (PPIAF)	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector		Civil society	x
	African Development Bank											
World Bank Guarantee Program	Pan-African organization		Regional organization		Government	x	Other public body		Private sector	x	Civil society	

Sectors / Sub-Sectors / Type of TA & financing

Africa 50	Renewables		Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt	x	Guarantee		Early stage	x		
Africa Renewable Energy Access Program (AFREA I & II) – ESMAP	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage			
ElectriFI	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity	x	Debt	x	Guarantee	x	Early stage	x		

Energies pour l'Afrique	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage			
Global Alliance for Clean Cookstoves	Renewables	x	Non-Renewables	x	Electricity		Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt	x	Guarantee	x	Early stage	x		
New Deal on Energy for Africa	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity	x	Debt	x	Guarantee	x	Early stage	x		

Power Africa	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity	x	Debt	x	Guarantee	x	Early stage	x		
Public Private Infrastructure Advisory Facility (PIAF)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid					
	Dialogue and networking				Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage	x		
World Bank Guarantee Program	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt		Guarantee	x	Early stage			

Overview of high-level initiatives with an operative program African partners involved

ACP-EU Energy Facility	Pan-African organization	x	Regional organization		Government		Other public body	x	Private sector	x	Civil society	x
	ACP Group of States											
AFREA Gender and Energy Program	Pan-African organization		Regional organization	x	Government	x	Other public body	x	Private sector		Civil society	
	International Network on Gender and Sustainable Energy, ENERGIA, UN Women DRC, the Danish Embassy in Mali, ECOWAS Center for Renewable Energy and Energy Efficiency (ECREE), Netherlands Development Organization (SNV), pilot country governments, energy task teams and government clients, such as utilities (KPLC, ZESCO) and rural energy agencies (AMADER, ASER, REA)											
Africa Clean Cooking Energy Solutions Initiative (ACCES)	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector	x	Civil society	x
	Economic Community of West African States (ECOWAS)											
Africa Energy Guarantee Fund (AEGF)	Pan-African organization		Regional organization		Government		Other public body		Private sector	x	Civil society	
	Local African insurers such as ATI and ICIEC											
Africa Enterprise Challenge Fund (AECF)	Pan-African organization	x	Regional organization		Government		Other public body		Private sector		Civil society	
	African Union's New Partnership for Africa's Development through its involvement within the Alliance for a Green Revolution in Africa (AGRA)											
Africa-EU Renewable Energy Cooperation Program (RECP)	Pan-African organization	x	Regional organization		Government	x	Other public body	x	Private sector	x	Civil society	
	African Union Commission (AUC); involvement of specific partners at government level and in private sector depends on activity											
African Development Bank Partial Risk Guarantee (PRG)	Pan-African organization	x	Regional organization		Government		Other public body	x	Private sector	x	Civil society	
Africa Renewable Energy Fund (AREF)	Pan-African organization		Regional organization	x	Government		Other public body		Private sector	x	Civil society	
	ECOWAS Bank for Investment and Development (EBID), West African Development Bank (BOAD), Africa Biofuel and Renewable Energy Company (ABREC)											

Biofuels Programme for Household and Transport Energy Use	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	ECA Institute for Economic Development and Planning (IDEP), AUC African Energy Commission (AFREC), Regional Economic Communities (RECs), SE4ALL Regional Hub at the AfDB, government ministries or departments in charge of energy, local project developers (or private sector) and NGOs											
Carbon Initiative for Development (Ci-Dev)	Pan-African organization		Regional organization		Government	x	Other public body		Private sector	x	Civil society	x
Clean Technology Fund (CTF)	Pan-African organization		Regional organization		Government	x	Other public body		Private sector	x	Civil society	
EEP Africa - Energy and Environment Partnership	Pan-African organization		Regional organization	x	Government	x	Other public body		Private sector	x	Civil society	x
	Southern Africa Development Community (SADC), East African Community (EAC), National Coordinators appointed by the Ministries of Energy											
Energising Development (EnDev)	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector	x	Civil society	x
	EnDev has a number of partners in each country where it is active. Typical ministries it cooperates with are the local Ministry of Environment, Ministry of Agriculture and Ministry of Energy. Other partners are businesses and business associations, NGOs, research institutes.											
Energy Access Ventures	Pan-African organization		Regional organization		Government		Other public body		Private sector	x	Civil society	
	Business entrepreneurs and innovative SMEs involved in providing electricity and related services (e.g., Off-Grid Electric)											
Energy Africa Campaign	Pan-African organization	x	Regional organization		Government	x	Other public body		Private sector	x	Civil society	x
	14 African countries including governments of Ethiopia, Kenya, Sierra Leone, Nigeria, Malawi, Rwanda, Somalia, Senegal, Mozambique that have signed agreement with UK, African Union (present at launch)											
EREF ECOWAS Renew-able Energy Facility	Pan-African organization		Regional organization	x	Government		Other public body	x	Private sector	x	Civil society	
	National Focal Institutions in West Africa, African Renewable Energy Technology Platform (AFRETEP), African Renewable Energy Alliance (AREA), Banque Ouest Africaine de Développement (BOAD)											
EU-Africa Infrastructure Trust Fund (ITF) / Africa Investment Facility (AfIF)	Pan-African organization		Regional organization		Government		Other public body	x	Private sector	x	Civil society	

European Development Finance Institutions (EDFIs) Private Sector Development Facility	Pan-African organization	x	Regional organization		Government		Other public body		Private sector	x	Civil society	
	Local private sector											
EU Energy Initiative Partnership Dialogue Facility (EUEI-PDF)	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	African Union (AU) and other Pan-African Bodies, Regional Economic Communities, Power Pools, national governmental actors (ministries, regulatory authorities, etc.), African and European private sector as well as civil society and academia; specific partners depend on activity											
European Union's Technical Assistance Facility (TAF)	Pan-African organization		Regional organization	x	Government	x	Other public body		Private sector		Civil society	
	In cooperation with partner countries in Africa											
Geothermal Risk Mitigation Facility	Pan-African organization	x	Regional organization		Government		Other public body	x	Private sector	x	Civil society	
	African Union Commission (AUC)											
GET FIT Uganda	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector	x	Civil society	
	Government of Uganda (GoU): Ministry of Energy and Mineral Development, Electricity Regulatory Authority (ERA), Uganda Electricity Transmission Company Limited											
Global Energy Efficiency and Renewable Energy Fund (GEEREF)	Pan-African organization	x	Regional organization		Government		Other public body		Private sector	x	Civil society	
	Local funds and private sector											
Green Mini-Grids Africa Regional Facility	Pan-African organization		Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	SE4ALL Regional Hub, SE4ALL Knowledge Hub											
IRENA/ADFD Project Facility	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector	x	Civil society	
	Fund for Development of Electrification (FDE) Burkina Faso, Associated Energy Developers (Associated Wind Developers) Cape Verde, Malian Agency for the Development of Household Energy and Rural Electrification (AMADER), Agency for the Promotion of Universal Access to Basic Services (APAU) Mauritania, National Agency for Development of Renewable Energy (ANADER) Mauritania, Senegal Rural Electrification Agency (ASER), Ministry of Energy and Water Resources, Sierra Leone											
Lighting Africa	Pan-African organization		Regional organization		Government	x	Other public body	x	Private sector	x	Civil society	x

Mediterranean Solar Plan® (MSP)	Pan-African organization		Regional organization	x	Government		Other public body		Private sector	x	Civil society	x
NEPAD Bioenergy Programme for Africa	Pan-African organization	x	Regional organization		Government		Other public body		Private sector		Civil society	
	African Union											
NEPAD Continental Business Network (CBN)	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector		Civil society	
	African Union Commission, NEPAD Planning and Coordination Agency											
NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF)	Pan-African organization	x	Regional organization	x	Government		Other public body	x	Private sector		Civil society	
	African Union Commission (AUC), NEPAD Planning and Coordination Agency (NEPAD), Regional Economic Communities (RECs), Power Pools (PPs), River Basin Organizations (RBOs) and Corridor Authorities/Agencies											
PIDA Service Delivery Mechanism (SDM)	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector		Civil society	
	African Union Commission, NEPAD Planning and Coordination Agency											
Private Infrastructure Development Group (PIDG)	Pan-African organization		Regional organization		Government	x	Other public body		Private sector	x	Civil society	
	African Country Governments											
Regional Energy Project for Poverty Reduction	Pan-African organization	x	Regional organization	x	Government	x	Other public body	x	Private sector	x	Civil society	x
	<p>PAO: AfDB, AUC, NEPAD, RECs and Governments: ECOWAS/ECREEE and 15 member States, ECCAS/CEMAC and 10 member States, EAC, SADC, Rwanda, Kenya, Tanzania, Swaziland, South Africa, Mauritania, South Sudan, Zimbabwe Academia: 2iE and IRSAT (Burkina Faso); KNUST (Ghana); CSOs: ENDA (Senegal); Private sector: ABZESOLAR – MAMA-Light Initiative; Practical Action Consulting West Africa</p>											
Regional Technical Assistance Programme (RTAP)	Pan-African organization		Regional organization		Government		Other public body		Private sector	x	Civil society	
	Kenya Association of Manufacturers (KAM)											
Renewable Energy Performance Platform (REPP)	Pan-African organization		Regional organization		Government		Other public body		Private sector	x	Civil society	

Renewable Energy Solutions for Africa (RES4Africa)	Pan-African organization	Regional organization	x	Government	x	Other public body	x	Private sector		Civil society	
Renewable Energy for Poverty Reduction Program (REPoR)	Pan-African organization	Regional organization		Government		Other public body		Private sector		Civil society	
	No public information available.										
Scaling Solar	Pan-African organization	Regional organization		Government	x	Other public body		Private sector	x	Civil society	
Strategic Climate Fund – Scaling Up Renewable Energy Program (SREP)	Pan-African organization	x	Regional organization		Government	x	Other public body	x	Private sector	x	Civil society
Sustainable Development Investment Partnership (SDIP)	Pan-African organization	Regional organization	x	Government	x	Other public body		Private sector	x	Civil society	
	DBSA, Senegal Sovereign Wealth Fund for Strategic Investments (FONSIS)										
Sustainable Energy Fund for Africa (SEFA)	Pan-African organization	Regional organization		Government	x	Other public body		Private sector	x	Civil society	
	ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)										

Sectors / Sub-Sectors / Type of TA & financing

ACP-EU Energy Facility	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage			
AFREA Gender and Energy Program	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage			
Africa Clean Cooking Energy Solutions Initiative (ACCES)	Renewables	x	Non-Renewables	x	Electricity		Heating and Cooling		Energy Efficiency		Cooking Energy	x
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt		Guarantee		Early stage			

Africa Energy Guarantee Facility (AEGF)	Renewables	x	Non-Renewables		Electricity		Heating and Cooling	Energy Efficiency		Cooking Energy		
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt		Guarantee	Early stage				
Africa Enterprise Challenge Fund (AECF)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency		Cooking Energy	x
	Electricity system		Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant	x	Equity		Debt	x	Guarantee	Early stage				
Africa-EU Renewable Energy Cooperation Program (RECP)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	Energy Efficiency		Cooking Energy		
	Electricity system		Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee	Early stage	x			
African Development Bank Partial Risk Guarantee (PRG)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	Energy Efficiency		Cooking Energy		
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt		Guarantee	x	Early stage			

Africa Renewable Energy Fund (AREF)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis				Policy support / institution building			
	Project preparation / implementation			x	Skill development / training							
	Grant		Equity	x	Debt		Guarantee		Early stage	x		
Biofuels Programme for Household and Transport Energy Use	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt		Guarantee		Early stage			
Carbon Initiative for Development (Ci-Dev)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	x
	Electricity system		Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis				Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training							
	Grant	x	Equity		Debt		Guarantee		Early stage			
Clean Technology Fund (CTF)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt	x	Guarantee	x	Early stage	x		

EEP Africa – Energy and Environment Partnership	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage	x		
Energising Development (EnDev)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation		Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage	x		
Energy Access Ventures	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation			x	Skill development / training							
	Grant		Equity	x	Debt	x	Guarantee		Early stage			
Energy Africa Campaign	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis				Policy support / institution building			x
	Project preparation / implementation				Skill development / training							
	Grant	x	Equity		Debt	x	Guarantee	x	Early stage	x		

EREF ECOWAS Renewable Energy Facility	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage	x		
EU-Africa Infrastructure Trust Fund (ITF) / Africa Investment Facility (AfIF)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity	x	Debt		Guarantee	x	Early stage			
European Development Finance Institutions (EDFIs) Private Sector Development Facility	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity	x	Debt	x	Guarantee	x	Early stage	x		
EU Energy Initiative Partnership Dialogue Facility (EUEI-PDF)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage	x		

European Union's Technical Assistance Facility (TAF)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage			
Geothermal Risk Mitigation Facility	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			
	Project preparation / implementation				Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage	x		
GET FIT Uganda	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee	x	Early stage			
Global Energy Efficiency and Renewable Energy Fund (GEEREF)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity	x	Debt		Guarantee		Early stage	x		

Green Mini-Grids Africa Regional Facility	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation		Mini-grids	x	Stand-alone off-grid					
	Dialogue and networking				Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training							
	Grant	x	Equity		Debt		Guarantee		Early stage			
IRENA/ ADFD Project Facility	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid					
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt	x	Guarantee		Early stage			
Lighting Africa	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage	x		
Mediterranean Solar Plan® (MSP)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage			

NEPAD Bioenergy Programme for Africa	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	Energy Efficiency		Cooking Energy	x
	Electricity system	x	Grid-connected generation		Mini-grids		Stand-alone off-grid				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building		x
	Project preparation / implementation				Skill development / training						
	Grant		Equity		Debt		Guarantee	Early stage	x		
NEPAD Continental Business Network (CBN)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building		x
	Project preparation / implementation			x	Skill development / training			x			
	Grant		Equity		Debt		Guarantee	Early stage			
NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building		x
	Project preparation / implementation			x	Skill development / training						
	Grant	x	Equity		Debt		Guarantee	Early stage			

PIDA Service Delivery Mechanism (SDM)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage			
Private Infrastructure Development Group (PDIG)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity	x	Debt	x	Guarantee	x	Early stage	x		
Regional Energy Project for Poverty Reduction	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation		Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity		Debt		Guarantee		Early stage			

Regional Technical Assistance Programme (RTAP)	Renewables	x	Non-Renewables		Electricity		Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system		Grid-connected generation		Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis				x	Policy support / institution building		
	Project preparation / implementation			x	Skill development / training				x			
	Grant		Equity		Debt		Guarantee		Early stage			
Renewable Energy Performance Platform (REPP)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis				x	Policy support / institution building		
	Project preparation / implementation			x	Skill development / training							
	Grant		Equity	x	Debt	x	Guarantee	x	Early stage			
Renewable Energy Solutions for Africa (RES4Africa)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis				x	Policy support / institution building		x
	Project preparation / implementation				Skill development / training				x			
	Grant		Equity		Debt		Guarantee		Early stage			

Renewable Energy for Poverty Reduction Program (REPoR)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation		Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking				Information and analysis				Policy support / institution building			
	Project preparation / implementation				Skill development / training							
	Grant		Equity		Debt		Guarantee		Early stage			
Scaling Solar	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency		Cooking Energy	
	Electricity system		Grid-connected generation	x	Mini-grids		Stand-alone off-grid					
	Dialogue and networking				Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training							
	Grant		Equity		Debt	x	Guarantee	x	Early stage			
Strategic Climate Fund – Scaling Up Renewable Energy Program (SREP)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	x
	Electricity system	x	Grid-connected generation		Mini-grids	x	Stand-alone off-grid					
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			
	Project preparation / implementation			x	Skill development / training			x				
	Grant	x	Equity	x	Debt	x	Guarantee	x	Early stage	x		

Sustainable Development Investment Partnership (SDIP)	Renewables	x	Non-Renewables	x	Electricity	x	Heating and Cooling	x	Energy Efficiency	x	Cooking Energy	
	Electricity system	x	Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid	x				
	Dialogue and networking			x	Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training			x				
	Grant		Equity		Debt		Guarantee		Early stage			
Sustainable Energy Fund for Africa (SEFA)	Renewables	x	Non-Renewables		Electricity	x	Heating and Cooling		Energy Efficiency	x	Cooking Energy	x
	Electricity system		Grid-connected generation	x	Mini-grids	x	Stand-alone off-grid					
	Dialogue and networking				Information and analysis			x	Policy support / institution building			x
	Project preparation / implementation			x	Skill development / training							
	Grant	x	Equity	x	Debt		Guarantee		Early stage	x		

Comprehensive details on each of the selected initiatives and programs are available online at:
<http://euei-pdf.org/thematic-studies/mapping-of-initiatives>

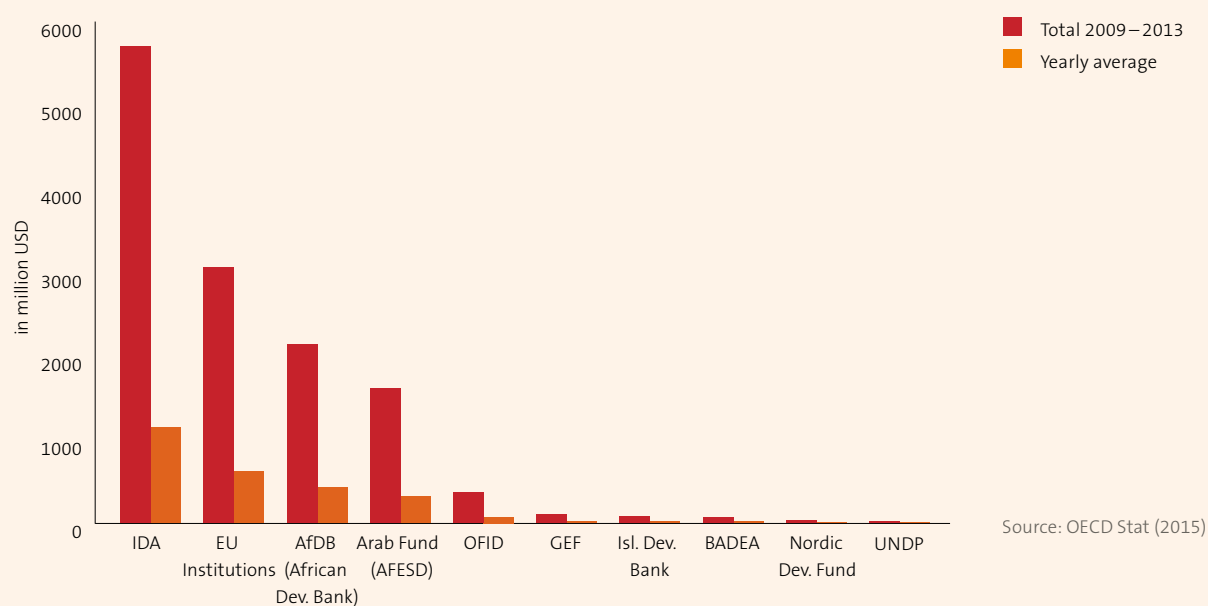
Annex 4: Additional information on energy sector ODA in Africa

Energy sector ODA from major multilateral donors

Figure A-1 presents the amount of donor funding provided by the top 10 multilateral donors over the period 2009 to 2013. World Bank grants and concessional loans provided via the International Development Association (IDA) represented the largest source of donor funding in the African energy sector from 2009 to 2013. With 5.7 billion USD, it contributed almost 28 percent of total

energy ODA over the period. The European Union was the second largest multilateral donor in the African energy sector. Its ODA amounted to more than 3 billion USD, representing over 15 percent of total ODA in the sector. Other major multilateral donors in the African energy sector are the African Development Bank (AfDB) (2.1 billion USD, 11% of total) and the Arab Fund for Economic and Social Development (AFESD) (1.6 billion USD, 8% of total). Together, the four biggest multilateral donors accounted for 63 percent of total energy sector ODA.

Figure A-1: ODA of the TOP 10 multilateral donors in the African energy sector, 2009–2013

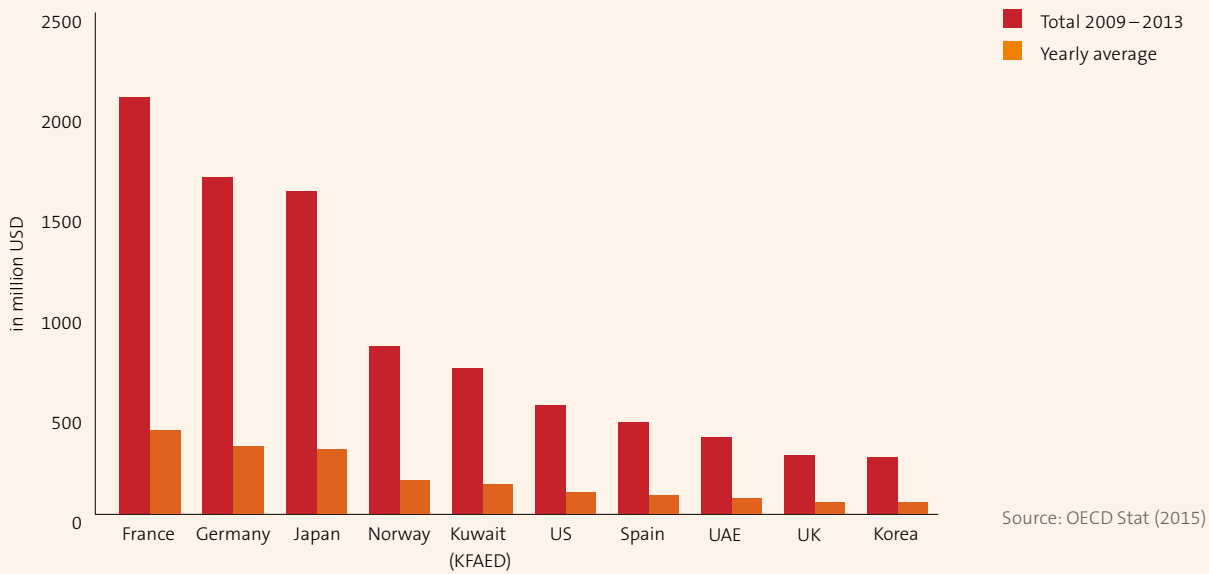


Energy sector ODA from major bilateral donors

Figure A-2 presents the amount of donor funding provided by the top 10 bilateral donors to the African energy sector over the period of 2009 to 2013. During this period, France was the largest bilateral donor with 2.1 billion USD or 10 percent of total energy sector ODA, followed by Germany

(1.7 billion USD, 8% of total) and Japan (1.6 billion USD, 8% of total). Together these three countries accounted for 27 percent of total ODA to the African energy sector and 55 percent of bilateral ODA. The group of the ten largest bilateral donors furthermore includes Norway, Kuwait, the United States, Spain, the United Arab Emirates, United Kingdom and Korea.

Figure A-2: ODA of the TOP 10 bilateral donors in the African energy sector, 2009–2013

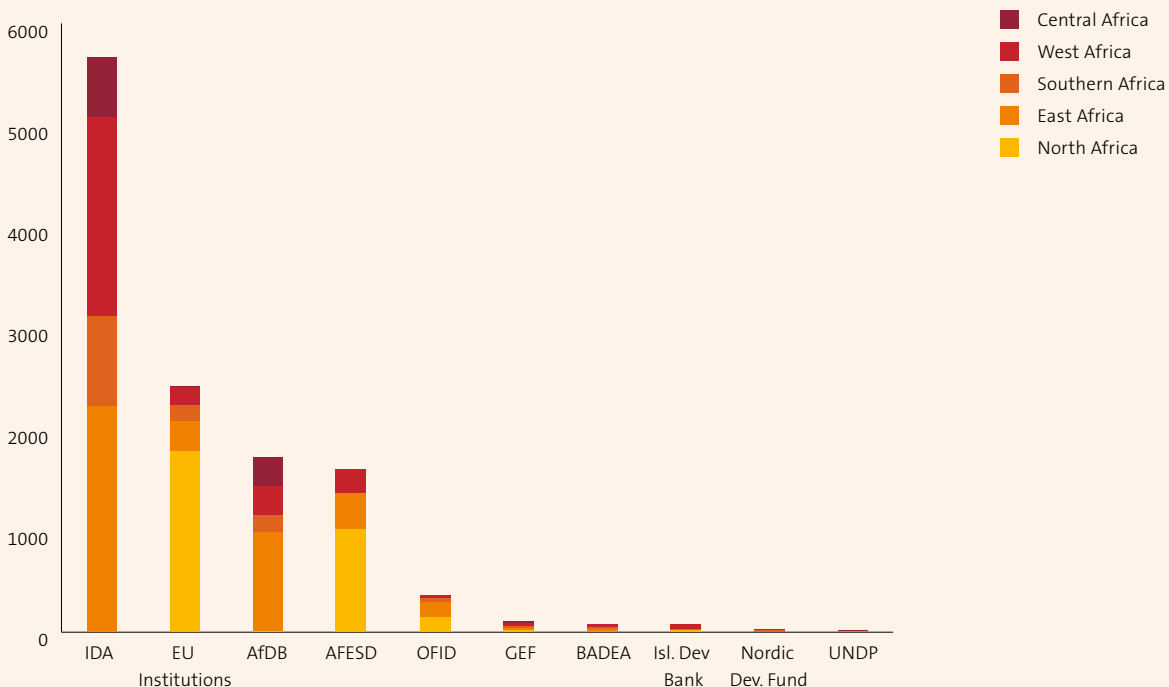


Geographic distribution of energy sector ODA of major multilateral donors

Figure A-3 depicts the regional distribution of energy sector ODA of the major multilateral donors. The World Bank directs most of its ODA funding in the energy sector to East and West Africa. With 2.2 billion USD, East Africa

accounts for almost 40 percent of IDA commitments in the African continent. West Africa makes up a share of close to 35 percent (almost 2 billion USD). North Africa dominates the energy ODA of EU institutions (73.5%, 1.8 billion USD) and the AFESD (63%, 1 billion USD). The AfDB channels most of its energy ODA to East Africa (57%, 978 million USD).

Figure A-3: Regional ODA allocation in the African energy sector, top 10 multilateral donors, 2009–2013 (in million USD)



Geographic distribution of energy sector ODA of major bilateral donors

Figure A-4 provides an overview of the regional distribution of ODA from the top 10 bilateral donors (see Figure 8). North Africa dominates the energy portfolio of Spain (97%, 429 million USD), the UAE (88%, 335 USD) and Kuwait (74%, 535 million USD). It is also the region that receives most of Germany's ODA (45%, 685 million USD) in

the sector. With around 40 percent, East Africa receives the largest share of energy ODA from France (867 million USD) and Japan (619 million USD). Southern Africa is the region that receives most energy sector ODA from the US (72%, 354 million USD), Norway (49%, 449 million USD) and Korea (42%, 122 million USD). The energy portfolio of the UK concentrates on West Africa (42%, 98 million USD) and Southern Africa (41%, 96 million USD). None of the top 10 bilateral energy donors have a focus on Central Africa.

Figure A-4: Regional ODA allocation in the African energy sector, top 10 bilateral donors – 2009–2013 (in million USD)

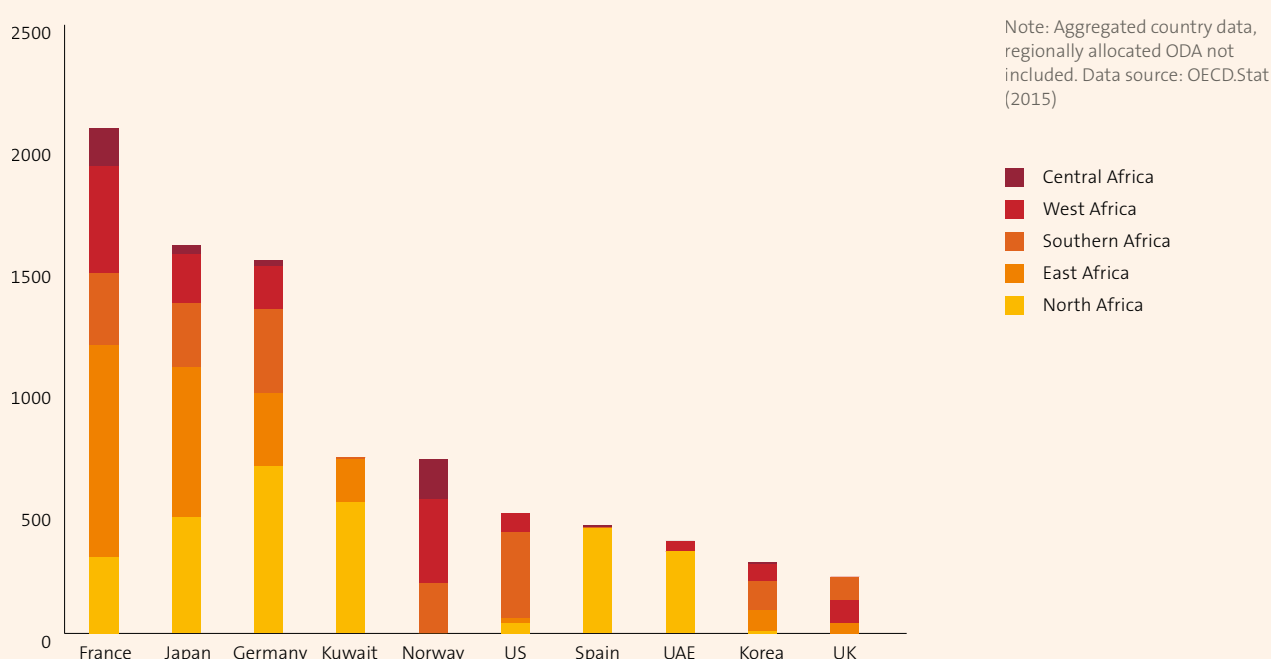


Figure A-5 depicts the shares of energy ODA among top ten multilateral donors for each African region. The World Bank's IDA is by far the largest multilateral donor in each African sub-region besides North Africa. In all these sub-regions, the AfDB is the second largest multilateral donor. In North Africa, on the other hand, the EU is the largest multilateral donor, followed by the AFESD.

Figure A-6 illustrates the shares of the largest bilateral donors in each African region for the period 2009 – 2013. In North Africa, Germany was the largest bilateral donor, followed by Kuwait, Japan and Spain. In East Africa, most energy ODA is provided by France and Japan. In Southern Africa, Germany, the US and Norway each account for around 20 percent of energy ODA. In West Africa, France is – by a wide margin – the largest energy donor. In Central Africa, France accounts for more than two thirds of the top ten bilateral donors' energy ODA.

Figure A-5: Top multilateral donors in each African region (share of ODA provided by top 10 multilateral donors, 2009–2013)

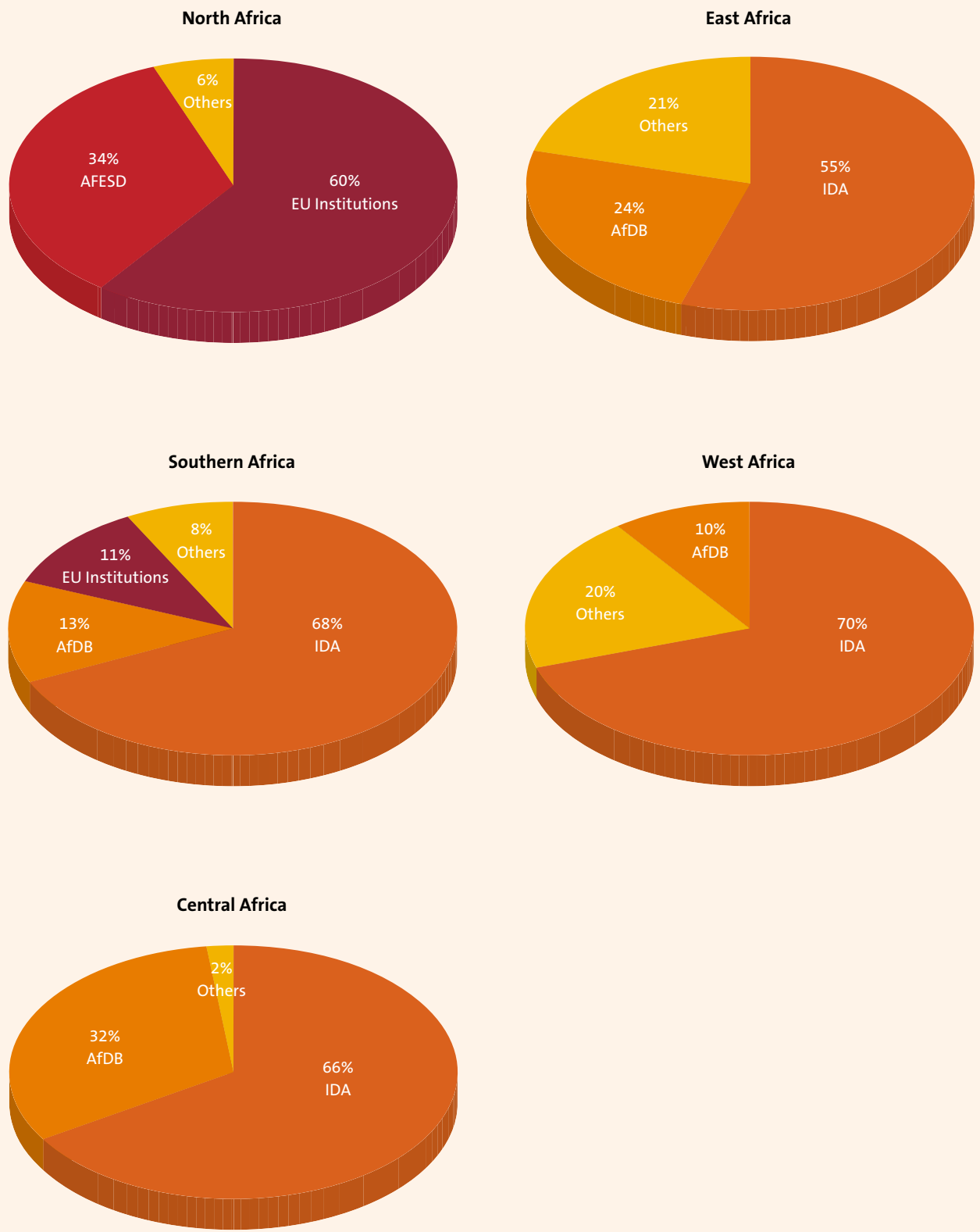
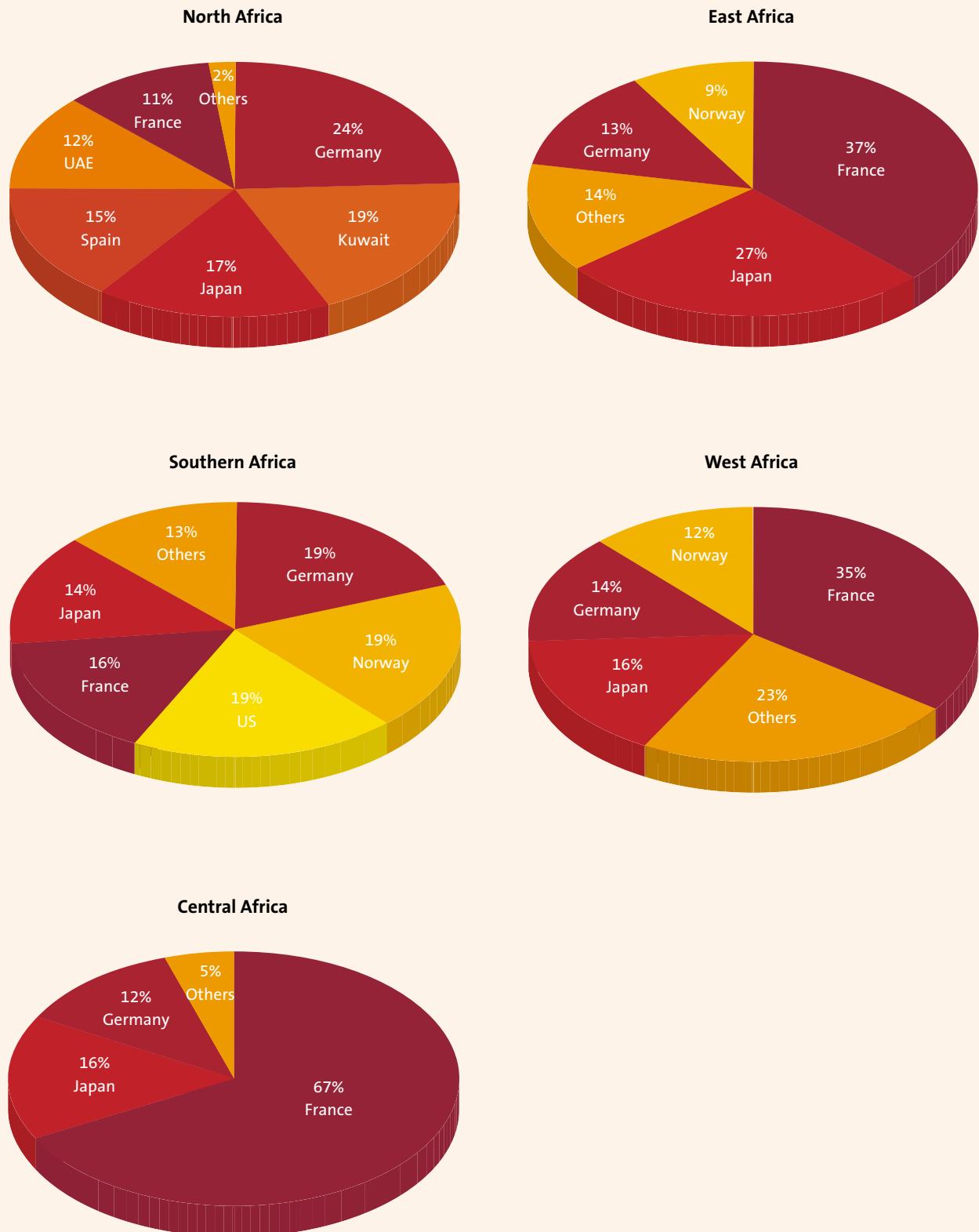


Figure A-6: Top bilateral donors in each African region (share of bilateral ODA provided by top 10 bilateral donors, 2009–2013)



Annex 5: Overview of completed templates on selected initiatives and programs

The full list of completed templates on the selected initiatives and programs is available online at: <http://euei-pdf.org/thematic-studies/mapping-of-initiatives>.



