



SUSTAINABLE ENERGY FOR ALL

AFRICA HUB

Annual Report 2015 - 2016



SEFORALL AFRICA HUB

January 2017



AFRICAN DEVELOPMENT BANK GROUP



NEPAD Planning and Coordinating Agency
Agence de Planification et de Coordination du NEPAD



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FOREWORDS



Dr. Akinwumi Adesina
President, African Development Bank Group

Africa is simply tired of being in the dark. It is time to take decisive action and turn around this narrative: to light up and power Africa. The 'New Deal on Energy for Africa' is set to accelerate universal access to energy services for all Africans by 2025. Achieving universal access in Africa ahead of 2030 is a pre-condition to achieving most of the other Sustainable Development Goals (SDGs) by 2030. To succeed, we must work together. This is why the African Development Bank has launched the Transformative Partnership on Energy for Africa, building on the good work of the Bank-hosted SEforAll Africa Hub, to work with partners to solve Africa's energy access challenges at speed and at scale. We have established a Vice Presidency on Power, Energy, Climate Change and Green Growth to lead this effort.



Dr. Elham Mahmoud Amed Ibrahim
Commissioner for Infrastructure And Energy
African Union Commission

Since the establishment of the SEforALL Africa Hub in 2013, its leadership and great achievements in facilitating and coordinating the activities for the implementation of the SEforALL Initiative have been recognized both at national, regional and continental levels as well as at the global level in the new Strategic Framework for SEforALL, July 2016. Time is now for concrete action to make the necessary investments both public and private towards universal energy access, with the support of development partners.



Dr. Ibrahim Assane Mayaki
Chief Executive Officer
NEPAD Planning and Coordinating Agency

With close to 10 African countries completing the Action Agenda and Investment Prospectus of SEforALL, this year achievements speaks volumes about the work of the African Hub. The NEPAD Planning and Coordinating Agency calls upon the SEforALL global structure to deliver on specific actions to assist these countries to implement high priority energy projects and programmes as it stands ready to join hands with development partners and investors to enable African countries achieve their set targets by 2030.



Abdoulaye Mar Dieye
Assistant Administrator and Director
Regional Bureau for Africa - UNDP

UNDP commends efforts to strengthen and foster the momentum built through the Africa Regional Hub partnership together, with UNDP, AfDB, AUC and NEPAD towards realizing Africa's response to SEforALL. UNDP continues to help RECs on regional policy frameworks and many national plans, providing strong institutional capacity support and resource mobilization alongside effective deployment of scaled-up decentralized energy solutions.

We will continue to work in close collaboration with partners to promote sustainable development and resilience in more than 3500 rural communities, especially for women.

UNDP strongly believes that the Hub's work will have a large multiplier effect in fostering resilience and sustainable development as we collectively strive to achieve the Sustainable Development Goals in Africa, by 2030.



Rachel Kyte
Special Representative of the Secretary-General for Sustainable Energy for All & CEO of Sustainable Energy for All

We have seen strong leadership and commitment at the country level and by the SEforALL Africa Hub to lay out a pathway to delivery universal access across Africa.

This is demonstrated by the widespread development and adoption of Action Agendas across almost 30 countries in Africa, the broad inclusive process that underpins them, and complimentary work on investment planning.

We have seen an unprecedented drop in prices for renewables and more than \$6 billion in development finance commitments on the continent in 2014 alone. Further new business models for distributed energy mean we can reach the 'last mile' first and accelerate efforts to close the energy gap.

But the challenge remains significant. Despite advances in electrification, progress on clean cooking has stagnated. Much more is needed to establish the integrated energy policies that can speed this transition, unlock finance and deliver the growth, education, health and other benefits that come with increased access to affordable, cleaner and efficient energy services.

We have no time to lose. Together, we must go further and faster in our efforts to secure sustainable energy for the 640 million in Africa that lack access to electricity and the 730 million that still rely on solid fuels and traditional cooking methods. We must act now. And we must leave no one behind.







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Acronyms

AA	SEforALL Action Agenda
AB	Advisory Board
ACTFCN or ACTC	African Climate Technology Finance Centre and Network
ADB	Asian Development Bank
AELG	African Energy Leaders Group
AFDB	African Development Bank
AUC	African Union Commission
CARD	Country Action Reference Document
CEMA	Council of Energy Ministers of Africa
COP	Conference of the Parties
EAC	Energy Access Committee
EBRD	European Bank for Reconstruction and Development
ECOWAS	Economic Community of West African States
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency
EEEP	ECOWAS Energy Efficiency Policy
EREP	ECOWAS Renewable Energy Policy
ESWAP	The Energy Sector Wide Approach Programme
EUR	Euros
GEF	Global Environment Facility
GFT	Global Facilitation Team
GMG	Green Mini-Grids
GMG MDP	Green Mini-Grids Market Development Programme
HIO	High Impact Opportunity
IADB	Inter-American Development Bank
IP	SEforALL Investment Prospectus
IRENA	International Renewable Energy Agency
NPCA	NEPAD Planning and Coordination Agency
ONEC	Energy, Environment and Climate Change Department of the AfDB
OOC	Oversight and Operations Committee
Q1-Q2-Q3-Q4	First, second, third, fourth quarter
RAGA	Rapid Assessment and Gap Analysis
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SEforALL	Sustainable Energy for All
SEFA	Sustainable Energy Fund for Africa
SRSG	Special Representative of the UN Secretary-General
SWG	Energy Sector Working Group
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNF	United Nations Foundation
USA	United States of America
USD	United States Dollars
W-AELG	West African Energy Leaders Group

EXECUTIVE SUMMARY

During 2015-2016, the efforts to end energy poverty and achieve the three SEforALL objectives – ensuring universal access, doubling the share of renewables in the energy mix, and doubling the rate of improvement in energy efficiency – intensified at all levels. At the global level, the SEforAll initiative has brought attention to the foundational role that energy plays in every aspect of human development; and has thereby played a decisive role in mobilizing partners and building momentum for the inclusion of energy as one of the UN's Sustainable Development Goals (SDG7).

At the African level, SEforALL has been designated by the Conference of Energy Ministers in Africa as the main platform for energy action on the continent. The SEforALL Africa Hub, hosted by the African Development Bank in partnership with the African Union Commission, the NEPAD Agency and UNDP, provides policy guidance, technical assistance, networking and knowledge management for African countries seeking to realize the SEforALL objectives. The dedication and effective collaboration of the Africa Hub partners has made this Hub the most active and successful of all regional Hubs under the SEforALL Strategic Framework.

As a result of the Africa Hub's work, almost 30 African countries have completed or are in the process of completing their SEforALL Action Agendas, under which

they set national energy targets and benchmarks up to 2030, and identify the priority actions required to achieve them. Many countries have also completed their related Investment Prospectus, which serves as the tool for operationalising the Action Agenda by identifying and mobilizing necessary infrastructure, energy efficiency and other investments. The processes for development of the SEforALL Action Agenda and Investment Prospectus have been internationally recognized as some of the most inclusive energy sector planning processes in Africa, and as suitable national frameworks for the implementation of SDG7.

The road towards universal energy access and a sustainable energy future in Africa is still long and it will require substantial additional efforts. Financing flows have increased exponentially under the SEforALL framework, but still do not come close to the level of investments needed for attaining universal energy access.

With a view to accelerating the progress achieved under SEforALL, the African Development Bank has recently launched the New Deal on Energy for Africa, which explores new approaches such as market-based green mini-grid, off-grid, and clean cooking solutions. The local markets for these solutions are improving, but not quickly enough and not at the scale required to achieve the desired targets.





1. OVERVIEW

1.1 SUSTAINABLE ENERGY FOR ALL

The availability of reliable, affordable and sustainable energy services is one of the main constraints limiting the opportunities of hundreds of millions of Africans and the social and economic development of African countries. The number of people without access is staggering: approximately 640 million have no electricity, while 730 million still rely on solid fuels and traditional cooking methods, mostly concentrated in Sub-Saharan Africa.

The UN Secretary-General launched in 2011 the Sustainable Energy for All Initiative (SEforALL), a multi-stakeholder partnership between governments, the private sector and civil society, to address the problem of energy poverty and climate change. The Initiative proposed the international adoption of three interlinked objectives to be achieved by 2030:

1. Ensuring universal access to modern energy services;
2. Doubling the global rate of improvement in energy efficiency; and
3. Doubling the share of renewable energy in the global energy mix.

At the core of the SEforALL is the concept that access to sustainable energy is not an end in itself but is a key condition to achieve improvements in most sectors, including health, education, economic development, poverty reduction, gender empowerment, environment protection and climate change. To achieve these benefits, the Initiative promotes the collaboration of stakeholders from different sectors at the international and at the country level.

SEforALL is a wide-ranging collaborative effort designed to leverage existing efforts and promote and inspire new approaches to achieve its ambitious objectives. The Initiative is based on the principle of voluntary actions and national commitments, but it has a structure to ensure coordination at the national, regional and global levels.

SEforALL has a broad network of public and private sector partners across many countries, sectors and communities. The implementation bodies of SEforALL are the Global Team (GT) recently transformed into an International Organisation (IO) based in Vienna with an Administrative Board; an Advisory Board for SEforALL; Regional Hubs to facilitate implementation at the regional level; and Thematic Hubs to coordinate

action globally on a specific topic (e.g. Renewable Energy Hub, Energy Efficiency Hub, Knowledge Hub and Capacity Building Hub). Other partnerships such as SEforALL's Accelerators and High-Impact Opportunities (HIOs) focus on a particular sector or action areas and act as coordination platforms for stakeholders working to address specific challenges.

SEforALL was a driving force during the intergovernmental processes for the Post-2015 development agenda. As a result energy has been centrally placed as goal number 7 in the 2030 Sustainable Development Goals (SDGs) list. The proposed goal strives to "ensure access to affordable, reliable, sustainable and modern energy for all". This objective and its accompanying targets on energy access, energy efficiency and renewable energy are built on the objectives of SEforALL. Furthermore, the implementation of SDG7/SEforALL goals shall be framed in the context of the Paris Agreement.

In June 2016, the SEforALL Advisory Board co-chaired by the UN Secretary-General and the President of the World Bank met in Brussels to discuss the way forward for SEforALL and its new Strategic Framework for Result (2016-2021) entitled: "Going further, faster, together", this strategic framework aligns well with the aspirations and the needs of Africa. Moreover, it places a focus on frontloading the energy access target to be achieved well before 2030 given the importance of energy access for achieving most of the other SDGs, which is consistent with the ambition of the **African Development Bank's New Deal on Energy for Africa** targeting universal energy access in Africa by 2025.

1.2 THE SEforALL AFRICA HUB

The SEforALL Africa Hub is a partnership between the African Development Bank (AfDB), the African Union Commission (AUC), the NEPAD Planning and Coordinating Agency (NPCA) and the United Nations Development Programme (UNDP). In addition, the Regional Economic Communities (RECs) are represented on a rotating basis.

The Africa Hub was launched at the AfDB's Annual Meetings in Marrakesh in 2013, and was the first SEforALL Hub to be established. Its mandate derives from a resolution of the Conference of Energy Ministers of Africa (CEMA) of November 2012 tasking the AUC, NPDA and the AfDB to coordinate and facilitate the implementation of SEforALL in Africa¹.

¹ See <http://www.eu-africa-infrastructure-tf.net/attachments/CEMA/final-communique-en.pdf>

The Hub promotes African ownership, inclusiveness and a comprehensive approach to the implementation of the SEforALL goals and SDG7. Its main activities include: provision of guidance for the SEforALL country action processes globally and notably in Africa; providing technical assistance to partner countries; mobilization of financing; information, networking and knowledge management.

The Africa Hub has a light structure composed of a Secretariat and an Oversight Committee:

- The Secretariat, responsible for carrying out the Hub's activities is hosted at the AfDB under the Vice Presidency of Power, Energy, Climate and Green Growth (PECGG). The Secretariat is managed by the SEforALL Africa Hub Coordinator with a small support team.
- The Oversight and Operations Committee (OOC) provides strategic guidance for the operations of the Africa Hub Secretariat and comprises representatives from the AUC, NPCA, AfDB, UNDP and since the beginning of 2016, the SADC Secretariat representing the RECs. Additional members might be added if and when necessary. The OOC meets formally twice a year and approves the Africa Hub's annual work plan.

The Africa Hub works in close collaboration with other AfDB activities, notably:

- The African Climate Technology Centre (ACTC), a Global Environment Facility (GEF) funded project implemented by the AfDB, which supports the implementation of the SEforALL Initiative in Africa with respect to mitigation efforts (see section 3.1.2); and
- The Sustainable Energy Fund for Africa (SEFA), a multi-donor trust fund administered by the African Development Bank to support small- and medium-scale clean energy and energy efficiency projects in Africa (see section 3.1.4).

The work of the Africa Hub also contributes to the achievement of the **AfDB's New Deal on Energy for Africa** to light up and power Africa. Launched in 2016, the New Deal has the aspirational objective of achieving universal energy access in Africa by 2025.

1.3 THE IMPLEMENTATION TOOLS OF SEforALL AT THE COUNTRY LEVEL

The SEforALL Initiative at the country level is implemented through a series of steps (see: Figure1) and are detailed in the SEforALL Country Action Reference Document (CARD) as follows:

- Rapid Assessment and Gap Analysis (RAGA),
- SEforALL Action Agenda (AA); and
- Investment Prospectus (IP).

Rapid Assessment and Gap Analysis

In promoting SEforALL global goals, the first significant step took by partner countries was to engage in a Rapid Assessment and Gap Analysis (RAGA). In essence, the RAGA is intended to help determine the main challenges and opportunities in achieving SEforALL's three objectives by 2030. It highlights the status quo of energy in the national development context, providing the political, economic, social, and environmental background for the subsequent drafting of plans to promote SEforALL in a particular country.

RAGAs have been developed since 2012 in almost all sub-Saharan African countries. Most African countries complete the RAGA as the basis for the development of their Action Agenda . Several partners, in particular UNDP, supported the development of the majority of the RAGAs in Africa.

Action Agenda

The Action Agenda (AA) is a strategy-driven holistic document, developed by the countries through a participative process, to serve as an umbrella plan for national energy sector development. It defines the SEforALL's national objectives and determines how the three goals of SEforALL can be achieved. The AA provides the long-term vision which ensures overall sector-wide coherence and synergy of the accumulated efforts towards SEforALL's country goals, while including the cross-cutting sectors, such as food security, gender, health and water. Both the methodology and the template for the Action Agenda have been led by the SEforALL Africa Hub that also provided technical assistance for its implementation in several countries (see section 3).

National ownership of the AA is crucial and its development process consist in wide consultations with all stakeholders, cross sectorial working groups, and final technical and political adoption. The SEforALL partners, such as the regional and thematic hubs and the HIOs support the national AA development processes upon request from participating countries.

Once the Action Agenda is validated and adopted, it can be followed by a set of implementation measures, like the setting up of a SEforALL Secretariat and of dedicated teams to put in place the measures envisaged.

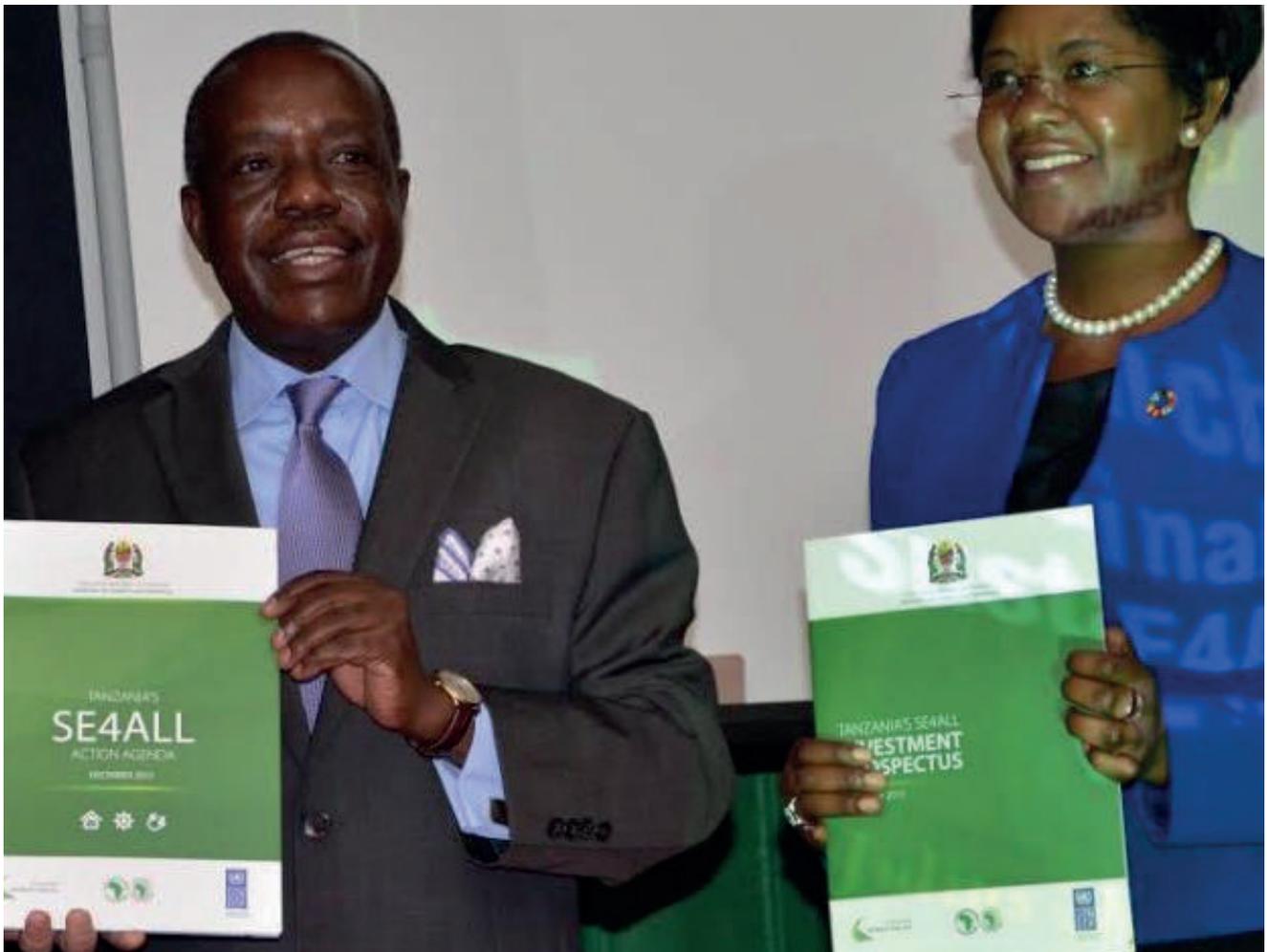
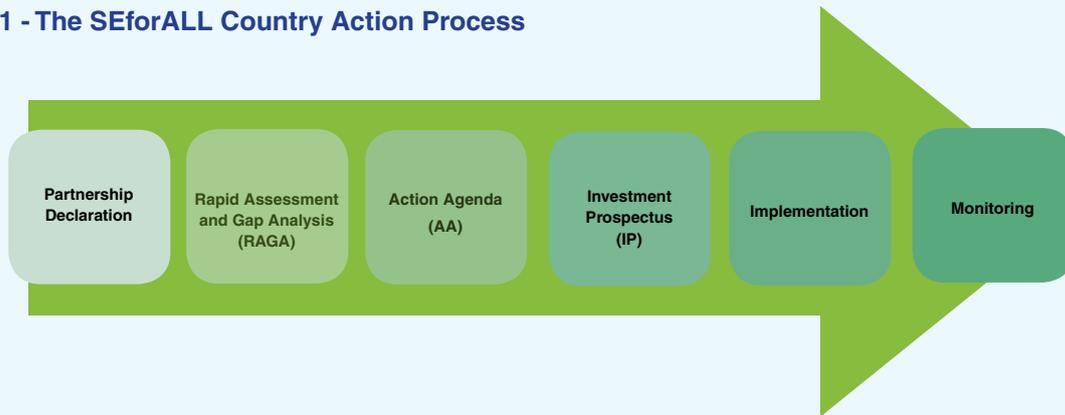
² See: <http://www.se4all-africa.org/se4all-in-africa/country-actions/gap-analysis/>

Investment Prospectus

The Investment Prospectus (IP) provides an approach to operationalizing the Action Agenda, possibly in specific sectors or subsectors. It identifies a set of implementable investment opportunities (programs and projects) including their investment requirements that may be presented to potential private and/or public investors.

The IP presents details of an investment opportunity in a particular sector (e.g. mid-sized renewables, energy efficiency, or clean cooking) for prospective financiers to decide whether or not they wish to liaise with specific program sponsors to obtain additional details and carry-out a proper due diligence. Although IPs require more flexibility and hence less standardization than AAs, the Africa Hub developed a guidance note to ensure some degree of uniformity.

Figure 1 - The SEforALL Country Action Process





2. INSIGHTS FROM THE IMPLEMENTATION OF SEFORALL IN AFRICA

2.1 RECENT ENERGY TRENDS IN AFRICA

Energy Access

Africa's energy sector does not currently meet the needs of Africa's people and businesses and is largely perceived as a bottleneck that limits economic development. Despite recent progress and acknowledging evident country by country differences, the regional energy data shows that sub-Saharan Africa (SSA) suffers from a chronic lack of access to modern energy services, which is particularly severe in rural areas, but also affects urban areas whose growing consumption of both electricity and fuels for cooking is met with difficulty. Furthermore, a fast growing population requires an even greater pace of intervention to close the energy access gap and meet the demand in both urban and rural settings.

The most recent data³ available shows that between 2010 and 2012 the electricity access in SSA rose moderately from 32% to 35%, with new connections able to surpass population growth to some extent. This increase, however, has been concentrated in urban areas - where access growth exceeded population increase by 25 million, while in rural areas, it fell short by 23 million. The 20 least access countries in Africa would require growth rates of around 4-5 percentage points each year to achieve universal electricity access, but are all well below these levels. In this group, between 2010 and 2012, only Liberia and South Sudan managed to grow more than 1% a year, while all the others grew at around 0.5% annually. In fact, excluding the countries that are already close to the target (like Gabon 89% and South Africa 85%), no other country is progressing so far at a pace that is compatible with universal energy access in 2030. The ones that are closer to the required trajectory are Cabo Verde and Comoros and, to a lesser extent, Ghana and Equatorial Guinea.

For the clean cooking sector, so far the data does not show signs of improvement. The increment in access during 2010-12 amounted to 9 million persons and was not able to keep the pace with a growth of the population of 48 million. The share of access to non-solid fuels⁴ in 2012 remained at 7% in rural areas and 37% in urban areas on average in SSA. While few higher income countries managed to improve the access to non-solid fuels, the bulk of SSA - and the regional average - stayed essentially flat in the last 20 years. Few countries managed to achieve a faster than average growth including Angola with a 23% increase between 2000 and 2012, Sudan 20%, Gabon 15%, and Congo, Cabo Verde, Mauritania, Botswana, Equatorial Guinea and South Africa of around 10%. In order to achieve the universal access target, an annual growth rate of 4-5% per year would be required yet.

Renewable Energies

Africa' primary energy supply is dominated by biomass, mostly used for cooking and heating in traditional and harmful ways. Modern renewables energies have great potential and are increasing throughout continent.

Renewable energies are the dominant primary energy source in Africa. Biomass represents roughly 70% of the total energy in SSA, or 80% excluding South Africa⁵. A great part of this energy is used by households for cooking and heating in highly inefficient and dangerous ways. Household Air Pollution due to the use of biomass is a major health problem causing an estimated death toll of almost 600'000 people in 2012, half of which children under the age of five⁶. The widespread use of traditional biomass for cooking and heating also contributes to a number of social and environmental challenges, including gender inequality, deforestation, climate change and connected negative economic externalities. On the other hand, the biomass and charcoal sector provides many jobs in rural and urban areas, and its economic importance is relevant in many countries, making interventions to improve its sustainability both urgent and challenging.

³ New data will be released in 2017. All access numbers originated from the World Bank's Global Tracking Framework 2015: Progress toward sustainable energy. <http://doi.org/10.1596/978-1-4648-0200-3>

⁴ The current indicator used to track access to clean cooking is access to non-solid fuels. A more granular methodology to track clean cooking adoption, as well as the quality of electricity services, is being tested. The methodology is called Multi-Tier Framework and has been developed by the World Bank in collaboration with SEforALL. First results for selected countries are expected to be reported in the Global Tracking Framework 2017.

⁵ IEA. (2014). Africa Energy Outlook, 1-237.

⁶ WHO. (2014). Burden of disease from Household Air Pollution for 2012, 35(February), 17. [http://doi.org/10.1016/S0140-6736\(12\)61766-8](http://doi.org/10.1016/S0140-6736(12)61766-8).Smith

Modern Renewable Energies, for electricity production and sustainable biofuels have a great potential to grow and power Africa, for example the IEA expects renewables to provide around 35% of the electricity by 2040, up from 16% in 2012, in its scenario based on currently adopted policies⁷, while IRENA estimates that with the right conditions put in place renewables could generate 49% of electricity by 2030 and the use of unsustainable biomass reduced by a factor of three.

Large hydro dominates electricity generation in many countries, and in few (like Ethiopia, Mozambique and DRC) it generates 99% of the power. Further development of large hydro power plants is being pursued, often with export of electricity in mind, with around 17 GW currently under construction (mainly in DRC and Ethiopia). Small and mini hydro are also being developed more actively as a cost efficient solution, particularly for distributed generation for mini-grids in rural areas far from the national network. Overall it is estimated that around 92% of the technically feasible hydro – both large and small - potential has not been developed⁸ yet. Other renewables also show great potential. Installed Photo Voltaic (PV) solar capacity saw more than 10 fold growth between 2009 and 2014, reaching 1.3 GW, with South Africa being a clear leader in the sector, while Concentrated Solar Power (CSP) has been developed in Morocco, Algeria, Egypt and South Africa so far. Wind is also seeing a significant growth in many parts of the continent, with more than 2.4 GW installed at the end of 2014, with Morocco, South Africa and Egypt as the leaders in the sector.

Geothermal energy is also being actively developed, where available. The leader here is clearly Kenya that was able to develop around 0.6 GW, and has identified resources for around 3GW. Development are also planned in Ethiopia, Tanzania and Djibouti. Modern biomass use has also a great potential, although its uptake has been so far slower.

Overall, recent developments in renewable energies shows that the market for modern technologies is growing at a fast pace, pushed by cost reductions, energy efficiency improvements, the large resources available and the need to increase energy production and diversification of the energy mix. On the other hand, traditional, unsustainable and harmful uses of biomass still dominates the energy systems, particularly for domestic energies for cooking and heating, and concerted effort is needed to make progress in this area.

Energy Efficiency

While energy efficiency is often the lowest-cost means of increasing the reliability, affordability and sustainability of energy supplies in Africa, its potential remains largely untapped. African countries could make a leap towards a high-efficiency energy economy.

Global energy intensity – the amount of energy used per unit of gross domestic product (GDP) – improved by 1.8% in 2015. This is good news, however the global progress on energy intensity is still too slow, falling short of putting the world onto a sustainable pathway. Annual energy intensity improvements need to rise to at least 2.6% in a trajectory consistent with the energy goal.

Energy intensity did not decline uniformly across the globe: gains in 2015 were higher in emerging and developing countries compared to industrialized countries. This trend will need to continue and strengthen: in a 2°C pathway, average annual intensity improvements between now and 2030 are 3.7% in emerging and developing countries as compared with 2.2% for industrialized countries⁹.

In 2015, Africa's energy consumption grew by half the rate of GDP (3.2%) resulting in a 1.6% decline in energy intensity. This was a slightly bigger decline than the 10-year average annual decline of 1.4%¹⁰.

Energy efficiency offers a powerful and cost-effective tool for increasing energy access. Improved energy efficiency frees generation capacity for improving access, while providing access in an energy-efficient manner is more cost effective than retrofitting at a later stage. Though Africa has a high-energy intensity, the potential of reducing CO₂ emissions and increasing energy access through energy efficiency measures remains untapped.

Market barriers include (i) the low priority given to energy efficiency issues, (ii) Information failure (limited awareness of the benefits provided by energy efficiency, limited awareness of the different efficient technologies and limited understanding of energy efficiency as an energy resource) which stands amongst the most important barriers to the deployment of energy efficient technologies, (iii) Energy price distortions through subsidies and regulations. Financial barriers include:

(i) The initial cost barrier as energy-efficient products tend to be more expensive than their less efficient counterparts,

⁷ See IEA. (2014). Africa Energy Outlook, 1–237. See International Renewable Energy Agency (IRENA). (2015). Africa 2030: Roadmap for a Renewable Energy Future. REmap 2030 Programme, 72. <http://doi.org/10.1017/CBO9781107415324.004>

⁸ International Renewable Energy Agency (IRENA). (2015). Africa 2030: Roadmap for a Renewable Energy Future. REmap 2030 Programme, 72. <http://doi.org/10.1017/CBO9781107415324.004>

⁹ See IRENA. (2016). Energy Efficiency Market Report 2016. <http://doi.org/10.1787/9789264206052-en>

¹⁰ See BP (2016). BP Statistical Review of World Energy - Full report, (June), 1–48.

(ii) Uncertainty associated with energy efficient projects and the lack of standardised measurement and verification protocols,

(iii) The absence of energy efficiency awareness among financiers is also an important barrier to increased energy efficiency investments.

Traditionally, energy efficiency has not been high on the agenda in SSA where most people lack access to energy in the first place. On the contrary, growing energy consumption is often regarded as a condition for economic growth.

2.2 SEFORALL IMPLEMENTATION IN AFRICA

African countries have embraced the SEforALL objective and embarked on developing country-specific Action Agendas as a framework energy sector development document. These documents, developed through an inclusive consultative process, have been finalised in 20 countries and are under development in another 9 countries. In parallel, the SEforALL Investment Prospectus, under development in 22 countries and finalised in 4 more countries, showcases related investment opportunities.

Public and private stakeholders in Africa have long been aware of the energy challenges faced by their countries, and quickly embraced the SEforALL objectives to accelerate progress in this area. Around 44 African countries, most in sub-Saharan Africa, have been formally adhering to the SEforALL objectives since 2011. In 2015, the objectives of SEforALL were incorporated in the SDGs and approved by all countries in the UN General Assembly, making its three goals of universal access, efficiency and

renewable energy a common objective not only for the whole continent, but for the world. In 2016, the African Development Bank launched the New Deal on Energy for Africa, aimed at accelerating universal energy access to 2025, five years ahead of the SDG7 target.

In Africa, the SEforALL Initiative has been centred on the principles of African ownership, inclusiveness and coordination. Most countries have completed the Rapid Assessment and Gap Analysis; the Action Agenda, and the Investment Prospectus.

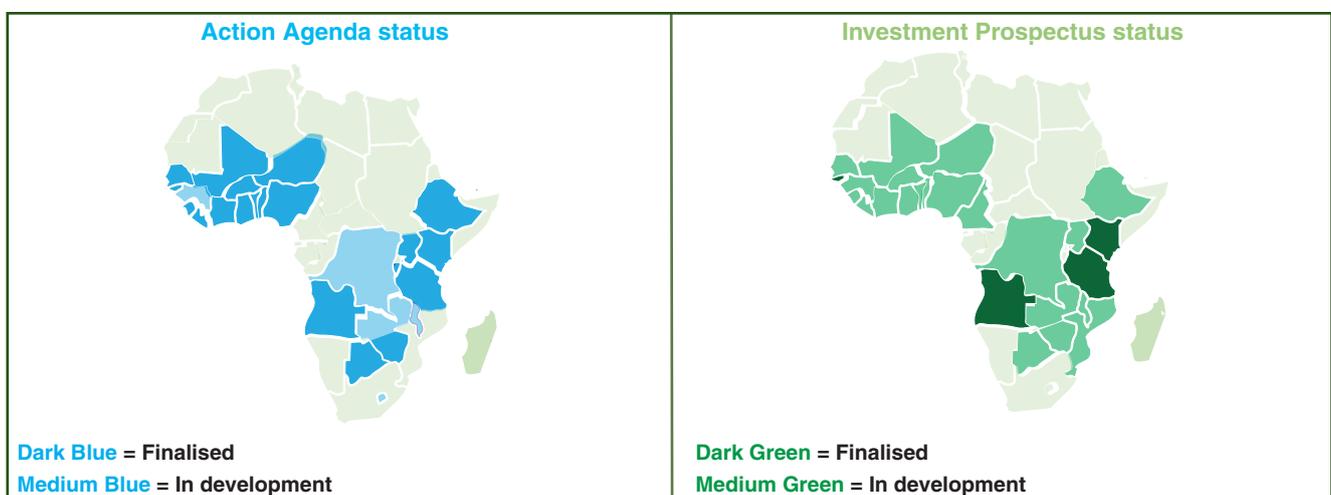
RAGAs were mostly completed between 2012 and 2016. They inform the major challenges of the sector in each country, and what needs to do to overcome them.

Action Agendas have been finalised in 20 countries, and 9 more are under development¹¹. Most were developed based on the template created by the SEforALL Africa Hub. In the ECOWAS region, the process was led by the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), which coordinates SEforALL implementation in the region (Box 1)¹². In other countries, the Action Agenda has been developed by National Governments in collaboration with development partners.

The SEforALL Investment Prospectus has been finalised in 4 countries, and is under development in 22 countries¹³. As with the Action Agenda, ECOWAS is developing a coordinated regional approach to the Investment Prospectus.

Similar to ECREEE, other Regional Centres have been launched in Southern Africa (SACREEE in Namibia) and Eastern Africa (EACREEE in Uganda). At the SADC meeting in June 2016, Energy Ministers encouraged the SADC countries that have not yet done so to develop their Action Agenda and Investment Prospectus.

Figure 2. Development Status of Action Agenda and Investment Prospectus in Africa (as of October 2016)



¹¹ See: <http://www.se4all-africa.org/se4all-in-africa/country-actions/action-agenda/>

¹² See: <http://www.se4all.ecreee.org/>

¹³ See: <http://www.se4all-africa.org/se4all-in-africa/country-actions/investment-prospectus/>

SEforALL Implementation in ECOWAS

ECOWAS has set ambitious policy targets for energy access, renewable energy and energy efficiency, which converge with the SEforALL objectives. ECREEE, based in Cabo Verde, has been appointed the regional SEforALL Focal Point, responsible for overseeing the development of SEforALL activity programmes.

In 2014-2015, ECREEE assisted the ECOWAS Member States in developing SEforALL National Action Agendas, which include a National Renewable Energy Action Plan (NREAP) and a National Energy Efficiency Action Plan (NEEAP). These Action Agendas, based on the Africa Hub template, provide a national strategy and road map, validated by each Government and sustained by national policies. ECREEE engaged national consultants and international experts to assist with this effort. The Directors for Energy of each ECOWAS member state presented their Action Agendas at the ECOWAS Sustainable Energy Policy and Investment High-Level Forum, which took place in September 2015 in Abidjan.

The SEforALL National Action Agendas translate national policies into a strategic path that will bring each country close to the SEforALL objectives by 2030, with intermediate milestones. The Agendas provide information on the inputs required to meet the targets set for number of electricity connections; number of households with access to efficient cooking fuels and equipment; MW of installed renewable energy capacity; and penetration of energy efficient devices. They also indicate the timeline for rolling out the actions and programmes needed to create an enabling environment for investment in these inputs.

Following the successful elaboration of the Action Agendas, the next phase for ECREEE involves supporting ECOWAS Member States in developing their Investment Prospectus. This is a bottom-up process that consists of developing a pipeline of projects and information on the effort and timeline required to bring each project to maturity and bankability.

ECREEE is receiving support from the European Union's Technical Assistance Facility (TAF) to assist a first set of 8 ECOWAS Member States in elaborating their Investment Prospectus: Nigeria, Sierra Leone, Liberia, Cabo Verde, Senegal, Togo, Benin and Cote d'Ivoire. Additional countries might be supported by others donors, including the AfDB through the SEforALL Africa Hub, as is the case with additional support to be provided to Nigeria.

The development of the IPs for the first 8 countries began in July 2016 and should be finalised in 2017, following the concept note developed by the SEforALL Africa Hub as well as the specific ECOWAS IP framework document developed by ECREEE.



2.3 INSIGHTS FROM THE ACTIONS AGENDAS

The development of the Action Agendas represented a breakthrough in Africa's efforts to achieve universal access to clean energy, given its widespread adoption across the continent and its inclusive development process. Twenty countries have completed and 9 more are in the process of completing their Action Agendas, with an estimated 100 experts participating in its development in each country. This makes the Action Agendas one of the most openly discussed set of energy sector strategy documents ever developed in Africa.

Most Action Agendas follow the structure developed by the Africa Hub, with the contents adjusted to each country's specific situation, needs and resources. With this diversity in mind, this report presents some insights from the Action Agendas developed so far, identifying common areas and themes.

Objectives

The Action Agendas transform the global SEforALL/SDG7 targets into national objectives, lay out the overarching strategy to achieve them, and identify priority action areas.

Many African countries are quite far from the target of universal energy access and would need a substantial increase in the yearly growth rate of access to electricity and clean cooking solutions. The great majority of the countries that developed an Action Agenda set a target of 100 percent access by 2030. Some adopted a more cautious approach and indicated lower targets, while others aim to achieve universal access before 2030 (Table 1).

The targets for renewable energy are more heterogeneous. Many countries already have a very high share of renewables in their electricity output and primary energy consumption; so the challenge for those countries is to dramatically expand electricity production while keeping a high share of renewables and moving from unsustainable to sustainable biomass. The capacity of the countries to maintain a high share of renewables will depend on national energy policy choices, the availability of renewable energy resources, and the ability to develop them.

The energy efficiency targets also vary, as they involve different metrics for each country. All countries, however, consider energy efficiency an important part of their Action Agenda, and most envisage an improvement of at least 1 percent per year.

Action Agendas an implementation tool for SDG7

"Encourage that the SEforALL Action Agenda be formally recognized as an implementation tool for proposed SDG7 at national level"
SEforALL Energy Access Committee, May 2015

"National AA and IP present a robust framework for accelerating the implementation of energy related goals and targets of the country"
SEforALL Advisory Board, May 2015

"We welcome the development of Action Agendas and Investment Prospectuses at country level" Financing for Development Outcome Document, July 2015

"Support the ongoing and future African voluntary country-led processes to develop SEforALL Action Agendas with appropriate goals as an umbrella framework for energy sector development at the national level."
G20 Action Plan on Energy Access in SSA, October 2015

"We welcome the development of SEforALL Action Agendas as umbrella energy sector development documents looking at access, renewables and energy efficiency in a holistic manner."
SAIREC Declaration, October 2015

"To promote continuous partner coordination through the SEforALL Action Agenda process at country level, participants recommended to formally establish the AA as a framework for SDG7 implementation at national level"
SEforALL Africa Workshop – February 2016



Table 1. Selected Action Agendas – National Targets

	Action Agenda status	Access target Electricity	Access target Clean cooking	Renewable Energy Consumption (share in Total Final Energy Consumption)	Renewable Electricity Output	Energy Efficiency (rate of improvement in energy intensity)
Angola	Finalized	100%	100%	42%	>85%	-1% yearly
Benin	Finalized	100%	100%	n.a.	n.a.	n.a.
Cabo verde	Finalized	100%	100%	n.a.	100% ¹⁴	-20% by 2030 ¹⁵
DRC	Pending approval	100%	100%	50% ¹⁶	n.a.	-30% ¹⁷
Ethiopia	Finalized	100%	100%	n.a.	n.a.	n.a.
The Gambia	Finalized	100%	100%	n.a.	n.a.	n.a.
Kenya	Finalized	100% by 2022	100%	80%	80%	-2.78% / year
Niger	Finalized	65%	100% urban, 60% rural	n.a.	n.a.	-25% against baseline
Nigeria	Finalized	90%	80%	n.a.	30% ¹⁸	100% efficient lighting
Rwanda	Finalised	100%	100%	n.a.	60%	n.a.
Sierra Leone	Finalized	92%	75%	86,8%	65,3%	100% efficient lighting
Togo	Finalized	82%	80%	n.a.	24%	n.a.
Tanzania	Finalized	>75%	>75%	>50%	n.a.	-2,6% / year
Uganda	Finalized	>98%	>99%	>90%	n.a.	-20% ¹⁹

¹⁴ Share in electricity mix¹⁵ Reduction of Final Energy Demand compared to the Base Case¹⁶ Without biomass¹⁷ Electricity savings in high consuming sectors¹⁸ Share in electricity mix

Priority Actions

Each Action Agenda identifies a series of priority actions that a country plans to carry out to reach its energy objectives. These interventions range from policy, institutional and market reforms to capacity building to project development and financing. The Action Agendas place particular emphasis on energy access, both electricity and clean cooking; while renewable energy development and energy efficiency improvements are also treated as instrumental to achieving the universal access target.

In most countries, policy and institutional reforms, as well as capacity building, are the first enabling steps toward scaling up its efforts. Policy and institutional reforms may include setting up a dedicated SE4ALL Secretariat or Task Force; establishing or reinforcing a regulatory authority; and/or drafting and enacting of specific policies and regulations related to, for example, performance standards, mini-grid concessions schemes, and independent power producers (IPPs).

Capacity building focuses on scaling up support for the development of energy investment projects. Priority Actions often include the establishment of dedicated funds to support long-term on-grid and off-grid planning; mapping of renewable energy sources and potential project sites; and technical assistance for project identification and preparation at some of those sites.

The following section presents some common priority actions in three sample areas of the Action Agendas: (a) green mini-grids (GMGs) and rural electricity access; (b) clean cooking solutions; and (c) energy efficiency.

(a) Green mini-grids and rural electricity access

Green mini-grids are extensively discussed in countries' Action Agendas. They are "small" electricity networks that generally range from a few kilowatts up to 10 megawatts. Most are developed by small and medium-sized enterprises (SMEs), communities or utilities to provide electricity to rural households, businesses and institutions. Mini-grids are a critical piece of any national strategy aiming to provide energy access in rural areas. They complement extensions of the main grid and stand-alone technologies (primarily solar photovoltaic). Priority actions vary from country to country in response to local conditions, but frequently include actions to establish GMG policy and regulatory enabling environments and provide support and financing for private GMG project developers:

- Establishing a proper enabling environment is a necessary pre-condition for developing a private sector-driven GMG sector, as investment depends on consistent rules, regulations and predictable outcomes. Enabling actions may include determining procedures for simplified GMG licensing or for assigning geographic concession areas for non-electrified parts of the country; setting tariff schemes for mini-grid operators; regulating the outcome in the event that the national grid reaches the mini-grid concession zone; and setting technical standards to ensure quality and safety of the service, and to ensure compatibility with appliances and the national grid.
- Another area for priority action is developer support. The private sector is generally expected to be the main driving force behind off-grid rural electrification. To attract private investment to the GMG sector, the actions foreseen in AAs include renewable energy resource mapping, predictable grid extension planning, technical assistance, and financial incentives, including tax relief and subsidies. Some countries also incentivize the productive uses of energy and promote linkages with anchor clients, such as telecoms or agro-processing enterprises.
- Some Action Agendas also envisage public expansion of the mini-grid sector through either large deployments by national utilities or coordinated efforts with the private sector in the form of public-private partnerships (PPPs).

(b) Clean cooking solutions

Clean cooking interventions in many Action Agendas include facilitating the adoption of modern cook stoves, as well as interventions on the fuel value chain, with particular focus on reducing unsustainable fuelwood and charcoal use, strengthening forestry regulations and management, and promoting the wider use of liquefied petroleum gas (LPG). Other interventions include raising awareness of the gender aspects of clean cooking, given the strong traditional gender roles associated with both cooking and the collection/procurement of wood and domestic fuels. Priority actions in the Action Agendas include:

- **Setting up the right enabling environment** to dramatically expand the adoption of clean cooking solutions and sustainable fuel supply chains.

On the appliances side, the actions include promoting standards for efficiency, safety, and emission reduction, together with rigorous testing protocols and labelling. On the fuels side, the Agendas point to better regulation of biofuels collection and transformation to reduce their environmental impact; for example, through formalization of the charcoal sector, reinforcement of forestry regulations, or the introduction of an integrated taxation approach that incentivises cleaner alternatives.

- **On the supply side**, the priority actions identified include support to local manufacturers and suppliers for the development, production, marketing and retailing of high-performing cook stoves. This includes the removal of import tariffs on materials required, imposing minimum standards that rise over time, providing testing and certification services, and implementing quality control and enforcement. Supply-side interventions also include financial instruments to allow the scale-up of production by stove manufacturers through financial intermediaries. Finally, promotion of LPG is a central part of the Action Agendas in many countries.
- **On the demand side**, the countries prioritised actions to increase the market demand for clean cooking solutions based on two main actions: awareness and behavioural change campaigns. The objectives of these actions are to increase the social acceptance and the inclination to make a permanent switch to cleaner fuels and appliances, and the development of microfinancing schemes to enable families with limited resources to purchase cleaner and more efficient stoves.

(c) Energy Efficiency

Energy efficiency (EE) is a core component of the Action Agendas. It is closely linked to the improvement of cooking techniques and fuels, and in general to the quest to close the electricity demand gap with fewer resources and less expensive investments.

- **The need for a proper enabling environment** is one of the most common issues identified in the Action Agendas. Priority actions in this area include development of a comprehensive regulatory framework that specifically addresses energy efficiency with concrete goals and targets; and national energy efficiency strategies and programmes to assess in multiple sectors. The objective of having a specific energy efficiency policy and strategy package is to: (a) provide guidance for the country in terms of objective savings; (b) provide incentives and security for investors in the EE field; (c) endow a specific institution or agency with a clear mandate to design and implement EE activities.

Other actions include the definition of performance standards for appliances, industrial processes, and buildings; and where appropriate, pairing these standards with energy efficiency labelling and other requirements (e.g., the installation of solar heaters in new buildings).

- **Institutional capacity is also given attention in the Action Agendas.** Priority actions include improving the capacity of national institutions to coordinate, monitor and evaluate, and report on energy efficiency initiatives; and to develop national communication and awareness campaigns. Other priority actions include setting up a dedicated energy efficiency unit within the designated institution.
- **Supply side actions are also envisaged** to improve efficiency, such as grid-loss reduction plans, implementation of smart grids, optimization of generation efficiency through benchmarking programmes, and the rehabilitation and modernisation of existing power plants.

In addition, the Agendas also include specific measures for large consumers (like industries and mines), public and private buildings, agriculture and for clean cooking appliances and fuels.

2.4 INVESTMENTS AND FINANCING

Financing the investments needed to achieve universal energy access remains a challenging task. Development finance has increased considerably in recent years, and reached almost USD 6 billion in commitments in 2014 for the whole continent. In addition, Chinese development finance is estimated to have surpassed USD 2.7 USD billion in yearly commitments, making China one of the most important players in Africa. These growing financial flows are welcome, but their adequacy to finance universal energy access is still uncertain.

With the international political agenda focusing more on the issue of energy poverty, driven by SEforALL, and with the adoption of SDG7, donors and partners have greatly increased the number of energy initiatives²⁰ and the amount of financing flows to the sector since the early 2000s. Official Development Finance (ODF) for the energy sector, which includes both Official Development Assistance (ODA), Other Official Flows (OOF) and Equity surpassed USD 3.1 billion in disbursements in 2014 for sub-Saharan Africa (plus USD 1.1 billion for South Africa and USD 1.6 billion for North African countries).

²⁰ See euei-pdf. (2016). Mapping of Energy Initiatives and Programs in Africa. Retrieved from http://www.euei-pdf.org/sites/default/files/field_publication_file/mapping_of_initiatives_final_report_may_2016.pdf

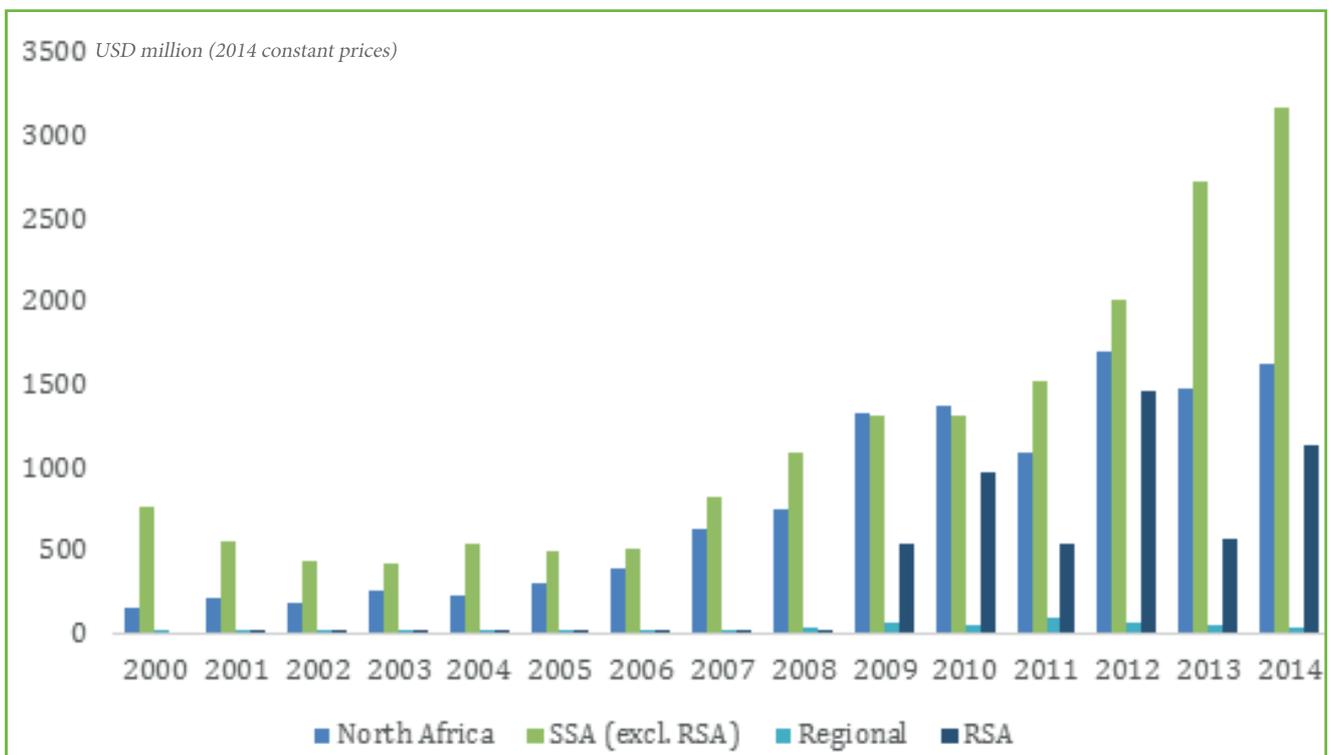
Disbursements are projected to further increase in the future, driven by higher commitments in the range of around USD 4 billion a year (excluding South Africa and North Africa)²¹. These data include only OECD-DAC donors, and notably omit financing flows from China, which are substantial. Chinese development finance commitments for the African energy sector amounted to USD 2.7 billion a year between 2010 and 2013²², making China one of the most important players in the sector. The other large providers of development finance are the World Bank (IDA USD 1.0 billion, IBRD USD 527 million)²³, the EU (USD 1.0 billion), the Islamic Development Bank (USD 834 million) and the African Development Bank (USD 793 million). Chinese development finance is almost completely directed to sub-Saharan Africa, while traditional donors direct one third of their financing flows, on average, to North African countries (Figure 3).

The adequacy of investment flows to reach the objective of universal energy access is difficult to estimate. First, there is not yet a complete picture of national and private

financing flows in each country; and second, there is uncertainty about the amount of finance that would be needed. The SE4ALL Financing Committee refers to the analysis by the International Energy Agency (IEA), which estimates that USD 45 billion a year is needed to achieve universal energy access by 2030 for all countries; and that SSA would need investments of around USD 17 billion each year for access only, in addition to around USD 30 billion for renewable systems and more than USD 10 billion for energy efficiency. The AfDB estimates that the investment needed for the whole continent would be in the range of USD 65 to 90 billion a year for universal access by 2025.

The general growth of development finance is a welcome sign, and its amount has now reached a critical mass to be impactful at the global level, if supplemented by adequate public and private flows. However, it is still uncertain whether the geographical distribution of this finance across African countries is adequate to respond to national needs.

Figure 3. Development Finance for African Energy Sector (excluding China and other non OECD DAC Donors)



²¹ Data elaborated from the OECD-CRS database. All data at 2011 prices.

²² Estimates on Chinese development finance are sourced from AidData – Research release 1.2 - <http://china.aiddata.org/>

²³ Yearly average 2011-2014, commitments. Source OECD-CRS

Testimonial from the SEforALL Country Action Process in: Kenya, Nigeria and Zimbabwe

1. What do you consider the particular value added of the SEforALL country action process?
2. Do you have any key lessons learned that you would want to share?
3. What are the next steps in moving towards implementing the priority actions identified?
4. What are your key expectations in terms of follow-up support from SEforALL partners?



KENYA

Faith Wandera – Odongo
Deputy Director of Renewable Energy / Ministry of Energy and Petroleum
SEforALL focal point, Kenya

1. Value added

It has brought about inclusiveness in planning in the energy sector that was not there before. Civil society and the private sector now value collaboration with government more than before. It has initiated a spiral of processes in developing a county planning framework. It has brought to light the capacity gaps in the counties and stimulated interest from a wide range of partners to contribute to capacity development (e.g., EU has already conducted a capacity assessment which will inform the process of capacity building process in the counties; GIZ has supported harmonisation of the county energy planning frameworks; the counties are alert to their energy needs and what needs to be done to achieve self-sufficiency; the World Bank is engaged with clean cooking for underserved communities). The clean cooking agenda has gained significant recognition and many more partners are giving it prominence (e.g., the Ministry of Energy and Petroleum is working together with the Global Alliance for Clean Cookstoves and the Clean Cookstoves Association of Kenya to advance the cause of clean cooking). This is evident from the clean cooking events that are taking place in the country. The SEforALL process has invigorated the energy sector to new levels.

2. Key lessons

Energy development through a multi-stakeholder process can achieve significant progress. Stakeholder buy-in is important in the SEforALL process and once this happens, the support and collaboration realised are beyond measure. The SEforALL process has caused the energy stakeholders to speak with one voice. The SEforALL process has provided a new engine for resource mobilisation by linking it to partners such as AfDB and IRENA. The fire may have been ignited for energy development in Kenya, but sustaining it requires commitment, adequate resources, proper coordination and focus on county-specific needs. If these are well defined, significant strides can be made toward achieving the desired objectives. Capacity building in the counties is a key process that requires immediate support to expand the SEforALL framework to the grassroots level.

3. Next steps

The AA and IP have received political buy-in, as shown by the signatures appended on the documents by the Principal Secretary and Cabinet Secretary for Energy. Set-up of the Secretariat to coordinate implementation will be fast tracked with support of the AfDB. The implementation process needs to be thrown into high gear by ensuring funding for identified projects.

4. Key expectations

More funds and technical assistance to address climate change available for energy sector projects. Sustaining the unified approach as the SEforALL process moves forward, with the Action Agenda and Investment Prospectus as the guiding documents. Continued consultation, update and involvement in relevant developments. Respect for and recognition of the contributions of all partners.



NIGERIA

Faruk Yusuf Yabo
Deputy Director / Renewable and Rural Power Access
SEforALL Focal Point in Nigeria

1. Value added

Nigeria's SEforALL action process has helped bring together both public and private stakeholders players in the energy space, as well as strengthen the energy-environment nexus. The process has resulted in the setting of national energy targets, particularly RE and EE targets, and in the identification of new strategies, measures and priority actions.

2. Key lessons

A key lesson learned is that data gathering takes time. Also, political ownership is critical for driving the process forward – most stakeholders would like to know that government is committed to the process. In addition, international support and collaboration such as the regional approach coordinated by ECREEE, as well as peer review and quality circle reviews, are essential elements for successful and quality documents.

3. Next steps

With the approval of the Nigerian SEforALL Action Agenda by the National Council on Power (NACOP), a high-level public presentation of the AA by political leaders is also planned before year end. This will underscore the Government's political will to support implementation. An aggregation of implementable projects in the pipeline is underway through the SEforALL Investment Prospectus (IP) process.

4. Key expectations

SEforALL partners should continue to support the national SEforALL process with regard to projects and programme implementation on the ground. Efforts to de-risk investment and financing should be supported by all SEforALL partners. However, in providing financial instruments and support, a bottom-up approach should be adopted in order to capture the peculiarities unique to each nation. Every country should be encouraged to define its specific needs based on its own circumstances.



ZIMBABWE

Benson Munyaradzi
Director Power Development / Ministry of Energy and Power Development
SEforALL Focal Point in Zimbabwe

1. Value added

- The coming together of all stakeholders to agree on realistic targets for the SEforALL goals.
- The cooperation of civil society organisations.
- The use of SEFORALL as a planning tool for the achievement of SDG7.
- Identification of the current gaps and barriers to the achievement of sustainable energy for all in the country.
- Acceptance by all stakeholders that the SEforALL Action Agenda is for Zimbabwe, not for the AfDB or consultants.
- Validation of the actions by the Office of the President and Cabinet.

2. Key lessons

- Need to engage all stakeholders from the beginning of the process.
- Need to have a focused and committed country focal person.

3. Next steps

- 1st Step - Government approval of the Action Agenda as the overarching energy strategy framework for Zimbabwe.
- 2nd Step - Set up inter-governmental committee to oversee the implementation of priority actions.
- 3rd Step - Identify the ministries/agencies to implement specific actions.
- 4th Step – Funding of the Action Agenda by the international community and donors.
- 5th Step - Link all other energy policies, plans and strategies to the priority actions.
- 6th Step - Design a mechanism to monitor and report on progress of implementation.

4. Key expectations

- Help to secure funding for some of the actions.
- Continuously update the country on SEforALL issues.
- Escalate the SEforALL Initiative to the regional level (SADC).



3. SEforALL AFRICA HUB ACTIVITIES

The activities of the SEforALL Africa Hub are aimed at facilitating the implementation of the SEforALL Initiative in Africa. These activities include elaboration of policies and guidelines, technical assistance to African countries, support for partnerships and networking, and knowledge creation and knowledge management. The following section highlights the work of the Africa Hub in 2015-2016.

3.1 ELABORATION OF POLICIES AND GUIDELINES

Since its launch, the SEforALL Africa Hub's work on elaborating policies and guidelines has helped to shape the implementation of the SEforALL Initiative at the country level. The Hub – in consultation with partners – conceptualised the SEforALL Country Actions, developed the SEforALL Action Agenda template and the Investment Prospectus concept note, that have seen a large and growing adoption in the continent (See Chapter 2). The Africa Hub also contributed to the development of the Stakeholder Consultation Guidelines that supported the wide-ranging consultation process used to develop the Agendas.

In addition, the Africa Hub developed the Quality Circle for the AA/IP, consisting of experts' peer review and guidance for improving the quality of the Action Agendas and Investment Prospectuses. The process – which can be triggered by a country request before the finalisation of the AA – has been applied in Nigeria, Kenya, Tanzania, Angola, DRC, Zimbabwe, Malawi and Swaziland.

3.2 TECHNICAL ASSISTANCE

The SEforALL Africa Hub provides direct technical assistance to African countries to support their efforts to achieve the SEforALL's objectives of energy access, renewable energies and energy efficiency. The technical assistance is provided to countries and private sector actors through external service providers. This assistance is mainly framed and supported by two projects managed by the Hub team, the African Climate Technology Centre and the Green Mini-Grids Market Development Programme.

African Climate Technology Centre (ACTC)

The African Climate Technology Centre is part of a network of regional and global technology centres that support the adoption of climate-friendly technologies. The ACTC is a project financed by the Global Environment Facility (GEF) with some USD 14.3 million and implemented by the AfDB over a three-year period 2014-2017. The objective of this pilot project is to

support sub-Saharan African Member Countries in scaling-up the deployment of low-carbon and climate-resilient technologies for climate change mitigation and adaptation. The Centre's Mitigation Actions are focused for two-thirds of the budget to support implementation of the SEforALL Initiative.

The ACTC actions cover the following areas:

- Enhancing networking and knowledge dissemination with respect to climate technology transfer and financing;
- Enabling the scaling-up of technology transfer through policy, institutional and organizational reforms of the country and regional enabling environments; and
- Integrating climate change technologies into investment programs and projects. Since its inception in the summer of 2014, the ACTC has been financing technical assistance activities related to SEforALL implementation in more than 10 sub-Saharan African countries. In its first year, it supported development of AAs and Investment Prospectuses in Kenya, Tanzania and Rwanda.

In 2015 and 2016, the ACTC supported the development of SEforALL Action Agendas and Investment Prospectuses in seven additional countries: Angola, Botswana, Cameroon, Democratic Republic of Congo, Malawi, Zambia and Zimbabwe.

The ACTC has also been financing technical assistance to promote energy efficiency in public buildings in Ghana. Further, it is supporting the design of a market study to analyse the potential demand for a market-based financing facility for EE and RE projects in Cameroon, Nigeria, Kenya and South Africa.

The Centre provides its services at the request of the countries through external service providers, either individual consultants or firms. The assistance relative to the second component (policy, institutional and organizational reforms) is delivered through a framework contract with six preselected consulting firms/consortia, allowing for a quick and efficient response to the countries' requests.

Green Mini-Grids Market Development Programme (GMG MDP)

The GMG MDP is a regional project managed by the SEforALL Africa Hub. It was launched in 2015 with a grant from the AfDB's Sustainable Energy Fund for Africa (SEFA), with targeted funding provided by the UK's Department for International Development (DfID). The programme aims to foster a market-based approach to mini-grid development

by promoting conducive policy and regulatory enabling environments and supporting project developers with advisory services and financial products.

The GMG MDP is organized into five work streams or business lines:

- **Market Intelligence** – aims at providing mini-grid developers with current information on potential mini-grid markets throughout the continent;
- **Business Development Services** – provides web-based and personalized technical assistance to GMG developers;
- **Policy Support** – targets public sector players and the creation of enabling environments for private sector investment in mini-grids;
- **Access to Finance** – provides funding and financing support tools to GMG developers;

- **Quality Assurance** – aims to ensure that mini-grids are constructed to a standard sufficient to build a positive reputation for the technologies and business models.

The GMG MDP is currently more than halfway through its initial pilot phase, during which the first four business lines are being put in place.

Under the Market Intelligence business line, the programme analysed existing GMG market research methodologies and designed an approach that combines the best elements of different methodologies, which will give developers access to country-specific GMG market information and maps.

The newly developed methodology has been applied in Mozambique, with current studies underway in Ethiopia and Cameroon. Burkina Faso and Mali will complete their studies in the 1st quarter of 2017.



The Green Mini-Grids Market Development Programme: Help Desk for Project Developers

The GMG MDP Help Desk provides online technical assistance for a wide range of activities important to the business cycle of developing and operating a clean energy mini-grid. The portal provides knowledge products and tutorials on setting up a mini-grid business, site selection, legal and compliance issues, mini-grid business models, technical system design, community and stakeholder engagement, financing, procurement, installation and commissioning, operation and maintenance.

The GMG MDP Help Desk is a portal through which a project developer can receive individualized project assistance through its “Ask an Expert” function. The Help Desk also provides country-specific information on mini-grid policies and regulatory frameworks.

The GMG MDP is currently developing a Pan-African GMG strategy, to be considered by the African Energy Ministers for adoption at their next meeting. The GMG MDP has also carried out a demand-side scoping of financing needs of mini-grids developers, and a supply-side scoping of the various financial instruments available to support mini-grids projects.

Sustainable Energy Fund for Africa (SEFA)

The Sustainable Energy Fund for Africa promotes the uptake of sustainable energies in Africa. It is one of the instruments supporting the SEforALL Initiative and cooperates closely with the Africa Hub.

SEFA was developed as a joint trust fund by the African Development Bank and Government of Denmark in 2011, with an initial pledge of USD 52 million. In September 2013, SEFA converted to a multi-donor fund with a US Government contribution of USD 20 million. The United Kingdom joined SEFA in 2014 with a pledge of GBP 10 million, and Italy joined in 2015 with a contribution of EUR 7.4 million. Current capitalization stands at approximately USD 95 million.

SEFA promotes energy access and inclusive and green growth in Africa by unlocking investments in small and medium-scale renewable energy and energy efficiency projects. It operates through the three financing components:

- Project preparation grants to bring RE and EE projects to bankability;
- Equity investments to bridge the financing gap and infuse managerial capacity. The SEFA played a key role in structuring the Africa Renewable Energy Fund, (AREF), the first truly Pan-African USD 200 million private equity fund focused on renewable energy, contributing US\$ 35 million and;
- Support to public sector institutions to improve the institutional, policy and regulatory frameworks for private investments in on-grid and mini-grid projects.

3.3 AFRICA HUB PARTNERSHIPS

The Africa Hub actively collaborates with the SEforALL partners, institutions and stakeholders at the global and regional levels, in order to facilitate implementation of the Initiative and support the coordination of Action Agendas.

The Hub also cooperates closely with the Africa-EU Energy Partnership on the mapping the various energy initiatives focused on Africa. The Hub has a strong relationship with ECREEE, which is coordinating and supporting the implementation of SEforALL in the ECOWAS region. The Hub maintains close relations with Power Africa, the European Commission, and with many bilateral and multilateral donors and non-governmental actors.

The Africa Hub closely cooperates with the SEforALL Thematic Hubs. In particular, it engages with IRENA on the development and promotion of the Sustainable Energy Marketplace, including providing support to selected countries to submit their IP projects to the Marketplace. The Hub also collaborates with the Copenhagen Centre for Energy Efficiency on the development of energy efficiency programs in Africa, and on improving the energy efficiency sections of the Action Agendas through the Quality Circle revision process.

In addition, the Hub also cooperates closely with the Energy Access Practitioners Network to promote sharing of best practices in energy access; and with the Clean Energy Solutions Centre to provide technical expertise at the request of African countries. With the Global Alliance on Clean Cookstoves, the Hub promotes the development of clean cooking programs in Africa, and supports research on the best approaches to foster the diffusion of clean cooking solutions.

African Energy Leaders Group (AELG)

The Africa Hub supports the work of the African Energy Leaders Group (AELG), launched in January 2015 at the World Economic Forum in Davos and spearheaded by the former Special Representative of the UN Secretary General (SRSG) for SEforALL, Kandeh Yumkella. The AELG is a community of energy leaders dedicated to promoting a sustainable energy transition in Africa in support of the objectives of the SEforALL Initiative. The AELG comprises high-level individuals from the public and private sectors, such as heads of state, CEOs of major corporations, and representatives of African institutions who are dedicated to unblocking policy and project-related challenges confronting the energy sector. The AELG Secretariat is hosted by the AfDB in conjunction with the SEforALL Africa Hub.

The Africa Hub contributed to the establishment of the AELG, starting with energy leaders from West Africa. The first meeting of the West African Energy Leaders

Group(W-AELG) was held in June 2015 in Abidjan, and the next meeting of its principals and other stakeholders is planned for early 2017 when the group's Work Plan will be discussed. Its main thematic areas are improving access to sustainable and affordable energy, improving the reach and efficiency of the regional gas market, and reinforcing domestic LPG distribution.

The AELG has already proven its effectiveness as an advocacy instrument by successfully lobbying the United States Congress for passage of the Electrify Africa Act, which served to codify President Obama's Power Africa Initiative, of which Nigeria is a partner country. The Act guarantees the continuity of the Power Africa Initiative beyond the Obama Administration.

3.4 NETWORKING

The Africa Hub facilitates networking between African countries and SEforALL partners. The Hub's organisation of, or participation in workshops, conferences, and other events are important components of this engagement.

Between October 2015 and November 2016, the Africa Hub organized, contributed to, or participated in three types of events:

- (a) SEforALL 3rd Annual Workshop - Africa
- (b) High-level conferences; and
- (c) Country and regional implementation workshops.

Country Action in Africa

On 9 -10 February 2016, the Africa Hub held its 3rd Annual Workshop on Advancing the SEforALL Country Action Process in Africa. Its focus was on the implementation of country actions, coordination of energy initiatives, and country-level tracking and reporting.

More than 100 stakeholders from government, private sector, civil society, and international organizations gathered in Abidjan for the workshop, hosted by the African Development Bank in partnership with the African Union Commission, the NEPAD Planning and Coordinating Agency, and the United Nations Development Programme. This flagship event was supported by the African Climate Technology Centre.

During the workshop, participants called for the recognition of the SEforALL Action Agenda as a national implementation framework for SDG7. They also noted that important groundwork in terms of country-level energy sector planning processes and identification of investment opportunities had been carried out in many African countries, and that the focus will now have to shift to implementation.

Participants also recommended the integration of projects identified in Investment Prospectuses into web platforms and marketplaces; and the organisation of investment fora and knowledge exchanges on available funding instruments. The workshop program also included a series of side events.



SEforALL 3rd Annual Workshop – Africa: Side Events



Gender, Energy and Clean Cooking Solutions

The AfDB's Office of the Special Envoy on Gender (SEOG), in collaboration with the SEforALL Africa Hub, the International Network on Gender and Sustainable Energy (ENERGIA) and ECREEE, organized a side event on Gender, Energy and Clean Cooking Solutions. This special session was organised to raise awareness among development partners and African countries on the fact that access to clean cooking solutions, renewable energy and information technology are critical drivers of gender equality. The event also offered the opportunity for all participants to discuss best practices and lessons learned. Participants recommended reinforcing gender aspects in the SEforALL AA and IP processes.

Lessons learned from SEforALL processes in Ghana and Bangladesh

The US State Department organised a session on lessons learned from SEforALL processes in Ghana and Bangladesh. The focus was on how to leverage limited donor funds to stimulate private capital for financing small-scale, off-grid clean energy projects. Bangladesh's success in installing household solar power systems has helped to create a highly competitive market conducive to greater economies of scale; while the Ghana experience illustrates how analysis of standardised data using an internationally accepted comparative framework can accurately assess the cost effectiveness of competing energy projects and technologies to support blended financing mechanisms.

Sustainable Energy Marketplace (SEM)

IRENA presented its Sustainable Energy Marketplace (SEM), which brings projects, project developers and financiers, governments, and service and technology providers together in a virtual marketplace in developing countries. The core of SEM is an actively operated and facilitated web-based online tool which makes the projects and all relevant stakeholders visible and easily identifiable.

LPG in the context of SEforALL country action

The Global LPG Partnership presented LPG in the context of SEforALL country action, noting that many countries are now prioritizing LPG, or are evaluating how best to do so. The Partnership highlighted its role in helping countries accelerate the adoption of LPG through policy, regulatory and technical assistance, investment planning and preparation, and mobilisation and deployment of financing.

(b) High-level Conferences

- The SEforALL Africa Hub contributed to the development of the G20 Energy Access Action Plan in sub-Saharan Africa, under the Turkish G20 presidency. The Plan was endorsed, together with the G20 Toolkit of Voluntary Options on Renewable Energy Deployment, at **the first G20 Energy Ministers Meeting** on October 2, 2015 in Istanbul, in which AfDB President Akinwumi Adesina participated. The Energy Access Action Plan is a voluntary collaboration framework that underlines the commitment of the G20 countries to work together and coordinate activities to ensure access to affordable, reliable, sustainable, and modern energy for all, in line with SDG7. The Plan notes that the Hub was of particular importance for establishing collaboration among the partners, as the G20 countries had been invited to work with the Hub to support African countries in developing and implementing their SEforALL Country Action Agendas.



- From 16 to 17 May 2016, the Africa Hub participated in the **Africa-EU Energy Partnership (AEEP) Second Stakeholders Forum** - Business and Science: Leading the Way to Sustainable Energy. The Forum took place in Milan, Italy. Jointly organized by the AEEP, the Italian Government, the AUC and the European Commission, the Forum was attended by more than 500 African and European participants representing policymakers, international organizations, the private sector, civil society and academia. The Forum discussed progress towards achieving the AEEP's 2020 targets. It also provided an opportunity to explore the role of energy in countries' implementation of the 2030 Agenda on Sustainable Development and the Paris Agreement on climate change.

- During the discussions, several reports were presented, including the Mapping of Energy Initiatives and Programs in Africa. The mapping was undertaken in a consultative approach in the context of the AEEP, with the involvement and support of numerous partners, including the SEforAll Africa Hub. The mapping captured more than 50 energy initiatives and programs, underlining the considerable focus on energy in Africa but also indicating areas that require additional attention.

The Milan stakeholder communique called upon the SEforALL Africa Hub to “continue this work initiated by the AEEP by regularly updating the data and analysis to keep pace with the sector dynamics as a key input into a possible future ‘Pan-African Coordination Platform’, as proposed by the African Union Commission, in collaboration with the AEEP Secretariat.”



- In May 2016, the Hub contributed to the organization of a special **High-level event at the World Economic Forum on Africa** in Kigali, Rwanda. The event was co-hosted by the AGI Power Africa Senior Advisors Group, the African Energy Leaders Group and Power Africa and included high-level participants from public and private sector. The meeting was marked by a sense of optimism about the opportunity for Africa to see a significant change in energy access in coming years. Participants discussed the possible way forward, and in particular emphasized the importance of off-grid solutions, integrated energy planning, better leveraging public resources for increasing access. Finally, many participants highlighted the value of success case studies and other proofs of concept to advance energy access policies and projects on the continent.

- In June 2016, the Africa Hub participated in the **SEforALL Advisory Board** co-chaired by the UN Secretary-General Ban Ki-moon and the World Bank Group President Jim Yong Kim, held in Brussels to discuss the way forward for SEforALL and its new strategic framework for 2016-2021. The strategic framework, entitled “**Going further, faster, together,**” marks a new phase – building on SEforALL’s strong role in advocating for the Sustainable Development Goals and Paris Agreement in helping the Initiative’s partners to take rapid, tangible action on those agreements, which align well with the aspirations and the needs of Africa.
- On 1st October 2016, the SEforALL Africa Hub Coordinator launched the Green Mini-Grids Helpdesk for developers during the **3rd International Off-Grid Renewable Energy Conference (IOREC)** in Nairobi. The GMG Helpdesk is part of the larger GMG Market Development Programme being implemented by the SEforALL Africa Hub and financed through the Sustainable Energy Fund for Africa (SEFA).



- On 21 June 2016, the **35th Meeting of SADC Energy Ministers** took place in Gaborone, Botswana. The Ministers discussed implementation of the SADC Energy Programme, the advancement of regional priority projects, and development of the regional electricity market. They also noted that the SADC Secretariat had joined the Oversight Committee of the SEforALL Africa Hub, representing the Regional Economic Communities for the coming years; and recommended that those Member Countries that had not yet done so consider developing their Action Agenda and Investment Prospectus.
- From 17 to 19 October 2016, the Africa Hub participated in the **ECOWAS Sustainable Energy Week** in Accra, Ghana. The event focused on accelerating the implementation of a regional energy market and on improvements in the policy and regulatory landscape for a sustainable regional energy sector among the 15 ECOWAS countries. The event also included presentations on the Action Agendas, national Renewable Energy and Energy Efficiency action plans, and the SEforALL Investment Prospectuses of Member Countries.
- In November 2016, a PIDA Week (Programme for Infrastructure Development in Africa) took place at the headquarters of the African Development Bank in Abidjan, organized by the Africa Hub partners NEPAD and African Union Commission in collaboration with the AfDB. The event, highlighted that one of the most binding constraint to unlocking infrastructure financing in Africa is the lack of properly prepared projects, which in turn is due to lack of adequate capacity to prepare large projects, and called for concerted efforts to scale-up project preparation capacities across Africa.



During the week a round table was organized where investors and developers of five countries presented their high priority renewable energy projects that came out of SEforALL Investment Prospectus, in order to advance towards implementation through striking business deals between the country project owners and developers/investors.

(c) Country and Regional Implementation Workshops

Cameroon: On April 28 and 29, 2016, government representatives, international organizations, the private sector, civil society and other stakeholders gathered in Yaoundé for the launch of the SEforALL Country Action Process in Cameroon, and of the various technical working groups on access, renewables, energy efficiency, policies and financing.

Zambia: On 5 and 6 May 2016, government officials, representatives of international organizations, the private sector and civil society met in Chimbombo, Zambia, for the official kick-off workshop of the SEforALL Country Action Process in Zambia. The kick-off workshop also saw the establishment of several technical working groups.

Tanzania: On 13 July 2016, the SEforALL Action Agenda and Investment Prospectus of Tanzania were launched during a workshop organized by the Ministry of Energy and Minerals in collaboration with UNDP. The Action Agenda was developed in an inclusive process that brought together key stakeholders. The SEforALL Africa Hub is providing follow-up technical assistance to the Ministry focused on the institutionalization of SEforALL in Tanzania, notably the design and operationalization of a dedicated SE4All Secretariat, and resource mobilization.

Nigeria: On 14 July 2016, the Nigeria National Council of Power (NACOP) adopted the country's SEforALL Action Agenda during its meeting in Kaduna City. The NACOP was organized by the Ministry of Power, Works and Housing under the theme: Achieving incremental, then stable, then uninterrupted power. In addition to the Action Agenda, the NACOP adopted the National Renewable Energy and Energy Efficiency Action Plan and unveiled the national power sector investment catalogue. The SEforALL Africa Hub collaborated closely with Nigeria on this process, and responding favorably to a request from the Government of Nigeria to provide technical assistance support for the development of the Nigeria SEforALL Investment Prospectus in collaboration with ECREEE and the European Commission, with a view to mobilising investments from the public and private sectors.

Angola: On 26 August 2016, more than 100 stakeholders gathered in Luanda, to validate the national SE4All Action Agenda and Investment Prospectus of Angola. Guided by the SEforALL Africa Hub, the Action Agenda and the Investment Prospectus were developed by inter-ministerial working groups through an inclusive process, with extended consultations with national stakeholders and international experts.

Zimbabwe: On 20 October 2016, more than 120 stakeholders from government, private sector, civil society, academia and development partners gathered in Harare for the validation workshop of Zimbabwe's SEforALL Action Agenda. The workshop concluded the work on the Action Agenda that started in 2015 to define Zimbabwe's long-term objectives on energy access, energy efficiency and renewable energy, as well as the priority actions required to achieve them.

Rwanda: On 1 November 2016, the national SEforALL Action Agenda was officially launched by the Ministry of Infrastructure of Rwanda during the iPAD Rwanda Energy Infrastructure Forum, which included 200 international stakeholders, financiers, industry experts, and government representatives. The Action Agenda was developed by inter-ministerial working groups through an inclusive process, with extended consultations with national stakeholders and international experts.

3.5 INFORMATION AND KNOWLEDGE MANAGEMENT

The Africa Hub acts as a repository for information related to SEforALL in Africa, collecting and categorizing all relevant news and documentation, as well as contact information for partners and focal points. All information produced by the Hub is available on its two online instruments:

A website, launched in February 2016, at: <https://www.SE4ALL-africa.org>

A newsletter, launched in September 2016, at: <https://goo.gl/MFWb9m>





4. OUTLOOK FOR 2017

Considerable progress was made in recent years in Africa notably in terms of setting national energy targets and defining priority actions. Under the impulse of the SEforALL Initiative, sustainable energy and universal access to modern energy services has become a Sustainable Development Goal endorsed by the international community. In Africa, the African Development Bank is supporting this goal with the New Deal on Energy for Africa that envisages to accelerate the path towards universal access. For 2017 and beyond, the focus needs to shift now resolutely towards implementation of concrete actions able to lift hundreds of millions of Africans out of energy poverty.

In this regard, implementing the SEforALL/SDG 7 objectives at country-level continues to present many challenges including in terms of institutional capacity, coordination, monitoring, and financing. The SEforALL Africa Hub will continue its support to African countries, and in particular in 2017 it will:

- Encourage African countries – where feasible to accelerate access targets to be achieved prior to 2030 in line with the 2025 universal access target of the New Deal on Energy for Africa and highlight the importance of decentralized energy solutions (off- and mini-grid) to achieve universal energy access and of the required enabling environment for increased private sector involvement;
- Continue the development of national Action Agendas and Investment Prospectuses and promote the SEforALL Action Agendas as a suitable implementation framework for SDG7 at national level and platform for coordination of partners; Continue its coordination and facilitation role for the implementation of SEforALL in Africa and place

a particular focus on mobilizing support towards implementation of the priorities identified in the Action Agendas and Investment Prospectuses;

- Support African countries to set-up the required national implementation structures to ensure follow-up and coordination. In this regard, it is important – and envisaged in many Action Agendas – that an “institutionalization” of the SEforALL initiative takes place at country level, i.e. with the setting-up of a dedicated implementation/delivery unit (i.e. SEforALL secretariat) and of a multi-partner and inter-ministerial coordination group(s).
- Improve the ability of countries to attract adequate financing. The priorities identified in the Action Agendas and the opportunities identified in the Investment Prospectuses require substantial support in terms of technical assistance and notably investments. The mobilization of these resources from public and private sources (including domestic resource mobilization) is therefore of critical importance. Linking demand with supply will be important including through dedicated platforms such as IRENA’s Sustainable Energy Market Place.
- Promote donor coordination and scale-up of development partners’ support to African countries with the implementation of their Action Agendas and Investment Prospectuses including through multi-partner call for proposals.

The SEforALL Africa Hub and its partners are strongly committed to promote advancements in energy access, renewables and energy efficiency, and will continue to strengthen and coordinate their efforts in this area.

NOTES



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