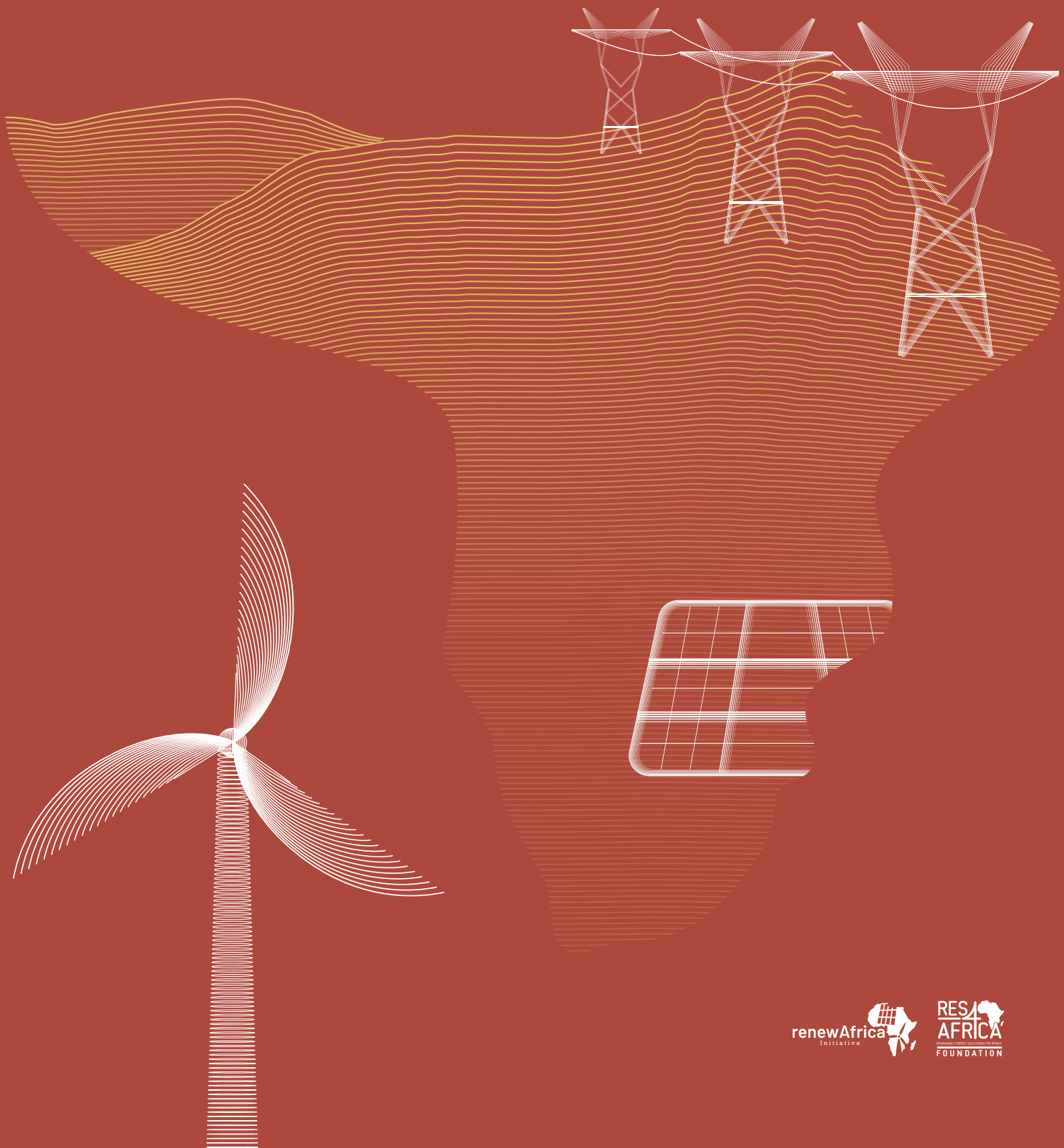
renewAfrica

A European Multi-Stakeholder Initiative Promoting Clean Energy Investments in Africa



renewAfrica Initiative

RES4AFRICA FOUNDATION

Acknowledgements

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Many thanks for their contributions to all the renewAfrica's task forces' members, contributors and peer reviewers.

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About this document

This publication is the result of the work and contributions of the members of the renewAfrica Initiative and its Secretariat housed in the Res4Africa Foundation. Since its inception in June 2019, the renewAfrica Initiative, its Secretariat and Task Forces carried out a considerable amount of institutional outreach, policy dialogue and analytical work in Europe and in Africa to elaborate on the content of the renewAfrica proposal. The purpose of this document is to share with the reader a comprehensive overview of the Initiative, its approach, analysis and recommendations.

The document is divided in two parts:

Part 1 is an executive summary of the conditions, rational and approach that have guided the work of the renewAfrica Initiative. It provides a general framework to assist the European Commission in the creation of a much-needed comprehensive de-risking instrument in support of Clean Energy Investments at scale in Africa.

Part 2 includes four chapters delineating the backbone and components of an integrated and comprehensive de-risking investment program able to support impactful renewable energy investments at scale. The chapter provides the details of the analytical and policy work carried out by four inter-institutional Task Forces that worked simultaneously on four different topics: country prioritization, technical assistance, financial support and, finally, advocacy and outreach.

The publication reflects the perspective of the leading European companies and institutions working in the renewable energy value chain committed with the objectives of the European Green Deal and the quest of the African continent in scaling up clean energy access as a foundation for its future economic and social development.

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Foreword from Res4Africa Foundation

2021 represents a new landmark moment for the renewAfrica Initiative. We are glad to present this book titled "renewAfrica: a European multi-stakeholder Initiative promoting clean energy investments in Africa". The publication is a compilation of the findings and work conducted by the renewAfrica members. Our efforts have been concentrated into promoting an integrated approach for the creation of an instrument to enable renewable energy investments at scale in Africa. The renewAfrica Initiative stems from the commitment of European private companies working across the renewable energy value chain with Africa's resolve to sustainability, de-carbonization and access to clean energy as a foundation for inclusive, clean and sustainable development.

When two years ago renewAfrica was launched it was already clear that there is an undeniable interdependence between the global social, economic, and environmental systems. COVID-19 demonstrated once again that a common challenge needs a common response. In Africa half of the population lives without access to energy and only 2% of the RE generation capacity was added in the past 10 years. To disrupt this trend a common global commitment is required.

renewAfrica conveys the opportunities that renewables can play both in facing the adverse social and economic consequences of the pandemic while contributing to climate action objectives. We must not merely recover, we must do better, we must build forward by paving the road to reconciling climate challenges with a sustainable recovery avoiding a backslide into old habits. Reinforcing the case for clean energy investment in Africa would ensure a transition to a truly inclusive and green growth, with an economic recovery guided by the principle of sustainability.

The members of the Initiative have proved and continue to prove their commitment to support African countries in transforming their energy sector landscapes, unlocking the unparalleled potential for renewables of the continent to ensure the acceleration of the energy transition while achieving universal access to energy in the fastest, most sustainable and least-cost manner. A change in this direction would display broad and various opportunities for Africa's young and growing population in terms of job creation, innovation, better health and broad socio-economic development. Lastly, renewables will be instrumental to support African countries to meet their commitment to the UN Sustainable Development Goals as well as their Nationally Determined Contributions (NDCs) under the Paris Agreement.

In the past two years we have contributed to rising awareness in Europe about the bottlenecks that impede Africa's green energy transition. Now renewAfrica will further expand the pool of stakeholders involved to build commitment towards common energy goals and to support the Initiative's propositions. Building a partnership of equals is one of the core pillars of renewAfrica, which this year will be translated into the creation of long-term and close dialogue with African countries to create shared value towards lasting improvements. This publication will support these efforts.

It is time to move forward accelerating our effort to work in Africa, for Africa, with Africa. Let us all combine our strengths and act together for a common green future. We invite you to join us.

Antonio Cammisecra

President of renewAfrica Steering Committee and Head of Enel Global Infrastructure and Networks

Roberto Vigotti

Secretary General of Res4Africa Foundation

Foreword from African Development Bank

The African Development Bank (AfDB) Group has placed energy at the top of its agenda for Africa, recognizing that sustainable energy is a critical development enabler for Africa. Covid-19 has taken a massive toll on energy sector development in Africa. The continent has experienced its worst economic recession in half a century, plunging millions of Africans into extreme poverty. For the first time in recent years, more Africans are without access to electricity than in the preceding year, bringing the figure to close to 600 million. Africa is also the continent most affected by the effects of climate change, even though it is only responsible for 4% of global greenhouse gas emissions and accounts for only 3% of global electricity demand.

At the same time, Africa has vast and largely unexploited renewable energy sources – in solar, wind, geothermal and hydro. Harnessing this potential to build back better from Covid19 requires strategic and innovative partnerships that can mobilize resources both from the public and private sector. The renewAfrica Initiative has the potential to further strengthen the links between Europe and Africa on climate change and sustainable energy in close coordination with existing initiatives. Together we can deliver concrete results to realize a long-term vision based on renewable energy as the engine for Africa's sustainable growth.

Realizing Africa's energy transition also necessitates significant investment in transmission and distribution infrastructure capable of integrating large amounts of variable renewables, better operational and financial performance of power utilities, more conducive policy and regulatory frameworks which can attract private sector investments and the smart use of concessional investments to leverage private investment at scale. In line with the recommendations of the Africa-Europe High-Level Platform on Sustainable Energy Investments in Africa launched at the Africa Investment Forum at the end of 2019, it will be critical to scale-up instruments with a track record of delivery, such as the Bank's Sustainable Energy Fund for Africa (SEFA), while developing new instruments that can help address market gaps.

We look forward to working together with renewAfrica to promote an energy transition that can boost GDP and create new jobs while accelerating energy access in Africa. Together we can contribute to a Green Recovery for Africa.

Daniel Schroth

Acting Director for Renewable
Energy and Efficiency

Foreword from UNECA

It has been two years since renewAfrica was launched. During that time, so much has happened to re-affirm the vision of the initiative to accelerate the clean energy transformation agenda in Africa. We have had strategic engagements to leverage synergies with strategic partners, including EU DG ENER, CLIMA, INTPA, Team Europe, and the UN Economic Commission for Africa. Today we reiterate the urgency to act together to ensure that the right pathway for recovering from the COVID-19 pandemic is focused on low-carbon and resilient development. Africa has a response, recovery and reset strategy with energy at its centre.[1] This will truly rejuvenate Africa's economies through more inclusive and sustainable solutions. renewAfrica remains committed to leverage its partnerships to support African countries in this process.

The twin shocks of COVID- 19 on health and economy highlighted once again the key role of electricity on the livelihoods of people, both for households' wellbeing and for the functioning of healthcare centres which represent the forefront symbol of the battle against the virus. As African countries embark on a development pathway powered by its abundant clean energy resources, renewAfrica is well placed to provide support to reap the benefits of better jobs and resilient economies through deployment of renewables on the continent .The implementation of the African Continental Free Trade Agreement will require massive investments to power our industries, digitalizing economies and services.

To meet the goal of accessible, affordable and clean energy, Africa will need to nearly double its present electricity generation capacity by 2030, from 250 gigawatts (GW) to 500GW. Adding these 250GW of clean energy capacity will require USD 500 billion. Public resources alone will not suffice to close the gap. The private sector is willing and able to complement public efforts with the right policy environment. This must be encouraged.

In this regard, ECA is proud to announce the launch of Team-Energy Africa, a coalition of African investors and institutions keen on investing, and championing Africa's energy transformation. Aiming to serve as a catalyst for transformative private sector investments in clean energy, the coalition joins forces with African countries and development partners to reach the scale of needed finance to light Africa's recovery. Team-Energy Africa gathers African investors who understand and know first-hand the challenges and opportunities of the continent, and that can speed the mobilisation of investment for Africa's power sector. The recent ECA country reports on the energy policy provides an excellent tool for joint policy advocacy.

renewAfrica and Team-Energy Africa can create synergies in bringing together the two shores of the Mediterranean, calling to action European and African stakeholders for a transformative change. Both Initiatives are built on the awareness of the compelling case for clean energy investment in Africa, and both share the vision of empowering Africa to tackle clean energy challenges and climate change ambitions. To deliver results, we all must think in a concerted way, strengthening linkages between climate change adaption, post-Covid recovery and at the same time having an optimistic perspective for the future. This is our occasion: united we can.

Vera Songwe

Executive Secretary of the Economic
Commission for Africa

1 https://www.uneca.org/sites/default/files/com/2021/E2100302-Building-Forward-African-Green-Recovery.pdf

renewAfrica

An Initiative to Scale Up Renewables Energy Investments

in Africa, for Africa, with Africa

01 /

Africa's Energy Transition Holds Immense Potential for Sustainable Economic Growth

In the next two decades the African continent will witness a rapid growth in population and will undergo the most unprecedented urbanization process the world has ever seen;[2] according to the IEA around **half of the increase of the population by 2040 will be in Africa.**

These profound changes have the potential to spur an equivalently rapid growth of the African economies, but this can only happen with reliable energy availability for domestic, commercial and industrial use.

Yet, currently some **600 million people in Africa**, or 48% of the population, do not have access to electricity. Where provided, the electrical service tends to be of low quality with frequent blackouts and brownouts. IRENA estimates that outages and load shedding shave some **2% off Africa's GDP annually** in terms of business disruption and foregone profits.[3] This figure would be even larger if it were to include the opportunity cost of new business applications that were not pursued due to inadequate energy access.

Bridging Africa's energy access gap and unlocking the related growth opportunities will require a major expansion of its power system. The continent has the unique opportunity to do so in a far more sustainable, less carbon-intensive, and least-cost manner than many other parts of the world.

Global RES capacity by region (GW)

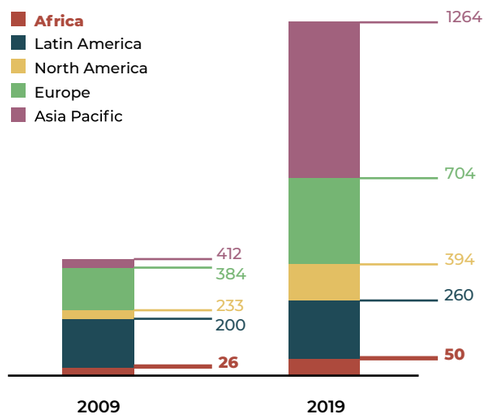


Fig.1 Global renewable energy capacity by region (GW), IEA (2018)

African countries benefit from immense solar, wind, hydropower, geothermal and biomass potential. The IEA estimates that **the continent has the richest solar resources on the planet** but has so far installed only 5GW of solar PV, which is less than 1% of total global capacity. Africa's wind potential is estimated at 1,300GW yet at the end of 2019 installed capacity amounted to only 5,5GW. In a fundamental sense, Africa has abundant RE potential, rising energy demand but not enough generation, transmission and distribution capacity.

Harnessing this rich RE potential will mean transitioning from polluting and expensive fossil fuel technologies in favour of clean and cheap sources of electricity. Indeed, renewables today are the lowest-cost source of power generation in an increasing number of countries.

2 IEA "Africa Energy Outlook" 2019
3 IRENA "Africa 2030: Roadmap for a RE Future" 2015

Access to clean, affordable and resilient energy is one of the 2030 Sustainable Development Goals (SDG 7) and a cornerstone upon which to build Africa's economic growth and social empowerment. Either centralised or decentralised, energy production is key to feed the growth of African economies, powering industrial and commercial activities, advance development of services in cities and support farm and off farm agriculture and rural development, thus generating jobs and enabling social progress. **Investing in RE is not only good for the planet; it is also good for the economy and jobs.** For instance, per $1M of expenditure, spending on renewable energy will on average create nearly three times more jobs than spending on fossil fuels. A recent study projected the number of renewables jobs in Africa to grow five-fold by 2022.[4]

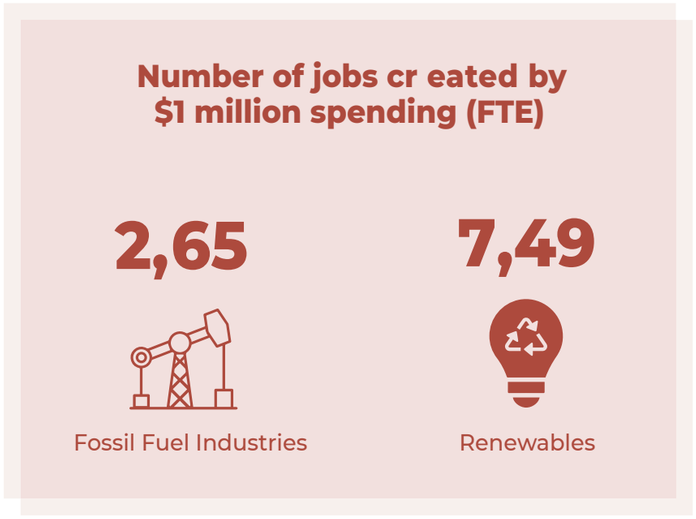


Fig.2 Estimate of jobs created per million expenditure, IRENA, Renewable Energy and Jobs (2019)

Social development and job creation are the topic of the Flagship Publication of the RES4Africa Foundation for the year 2021. In the spirit of a green reconstruction and building back better following the pandemic, the nexus between jobs and renewables is more important than ever.

Not least, renewables are the most viable power generation technology compatible with the global commitment to limit climate change. Africa has been a minor contributor to global greenhouse gas emissions, yet **many of its regions have faced some of the harshest adverse effects of a changing climate.** Renewables offer a future-proof solution to Africa's energy needs without compromising the region's commitment to the Paris agreement.

4 GOGLA and Vivid Economics 2018. The quintupling of number of jobs was estimated for direct off-grid solar employment in parts of Sub-Saharan Africa and in South Asia

The **Covid-19 pandemic is jeopardizing African efforts** towards the achievement of the continent's Sustainable Development Goals: progress achieved in energy access risks to be reversed for the first time after six years of consecutive positive results. Indeed more than 30 million people who gained electricity access are now facing difficulties in exploiting basic electricity services that have become unaffordable.[5] Millions of people in sub-Saharan African countries could fall into extreme poverty as a result of crisis outbreak.

Ultimately renewable energies have proven to be a far more resilient source of energy than fossil fuels during the pandemic, thus proving to be a deployable solution to strengthen the global commitment to build back better.

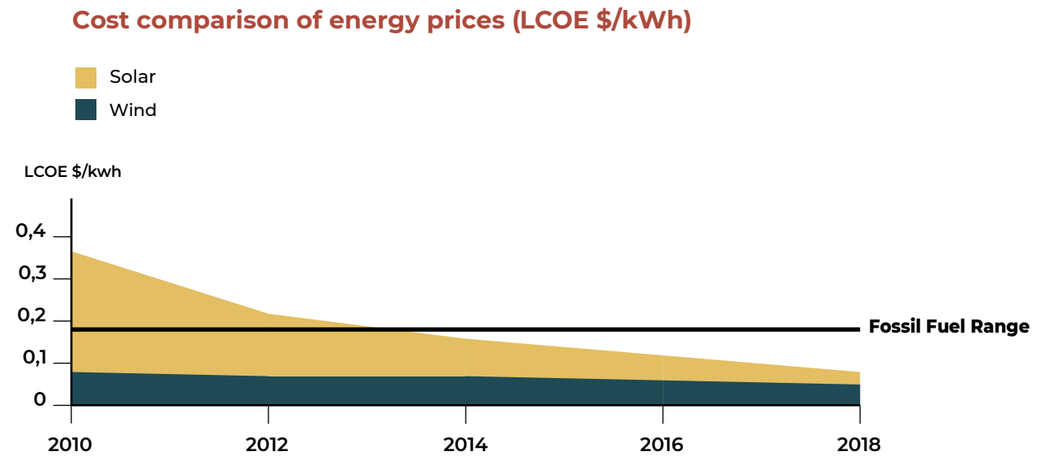


Fig.3 Cost comparison of energy prices (LCOE $/kWh), IRENA, Renewable Power Generation Costs (2019)

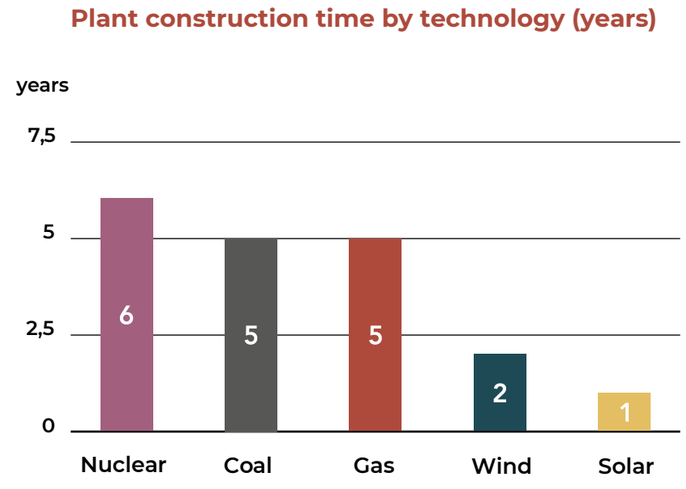
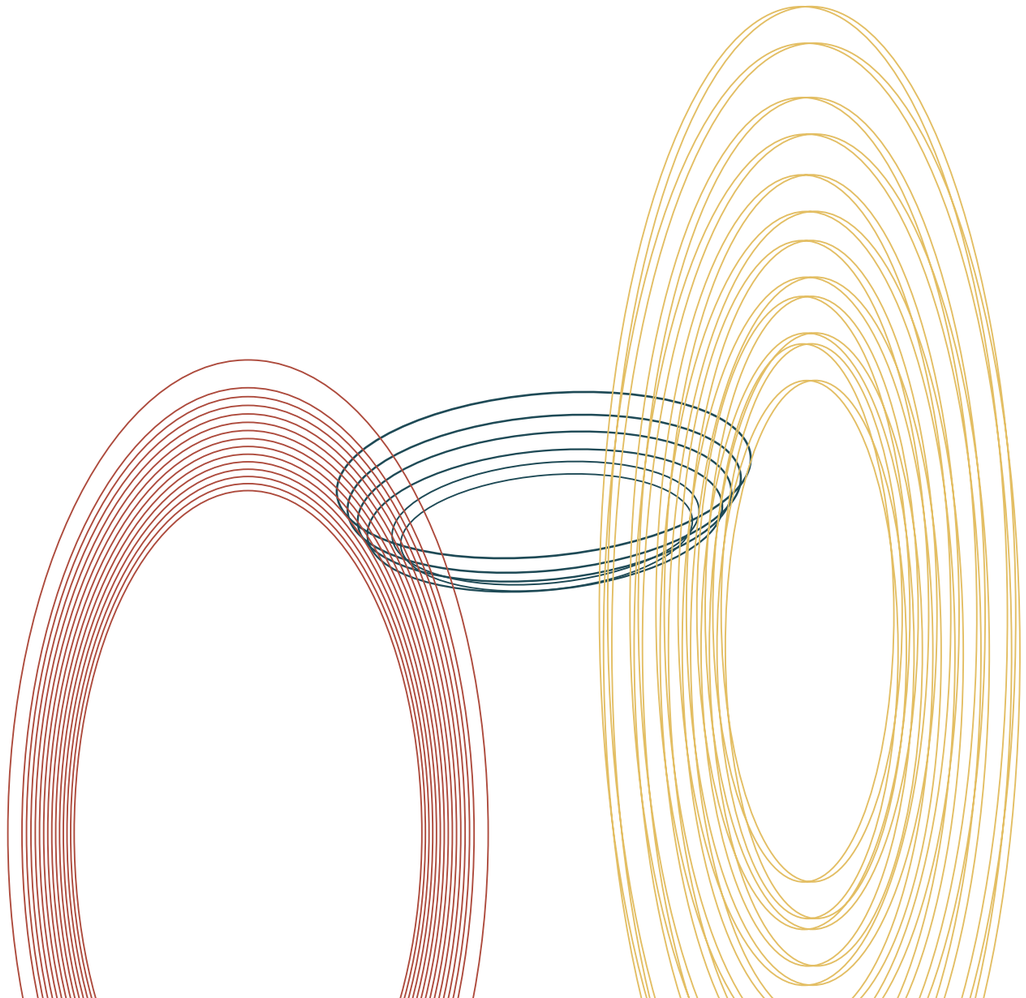


Fig.4 Plant construction time by technology (years), UKDECC: Electricity Generation Costs (2013)

5 IEA World Energy Outlook 2020

In another fundamental sense, harnessing Africa's rich RES potential requires a major scale-up in investments. While multilateral and public actors have been working steadily on project pipelines and local policy makers are striving to improve investment conditions, more effort is needed to crowd in a far larger volume of private sector investments in a broad range of assets, including utility-scale generation and transmission



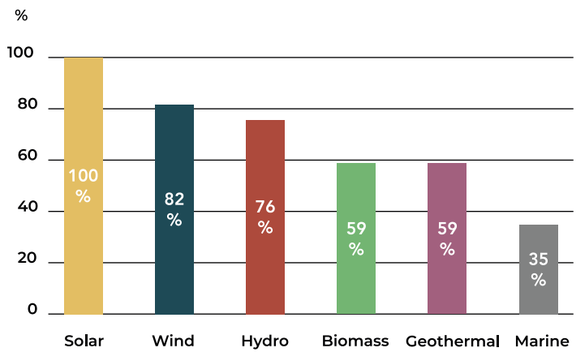
Existing EU Schemes Supporting Investment in African RES are not Fully Adequate

Unlocking Africa's energy potential and deploying the vast volumes of generation capacity requires a range of inputs, most notable of which is the need for an immense mobilization of international and domestic private capital, as public funding will not suffice. Private sector willingness to invest is there, so what is still missing?

The **renewAfrica preparatory study elaborated by RES4Africa, Enel Foundation and PwC** in 2018 analyzed a the range existing EU instruments (75 in total) and identify areas where improvements are needed. Its main finding is that **a number of good European instruments supporting RE investments in Africa exist, but they are fragmented and do not offer the necessary support** in key phases of the project cycle.

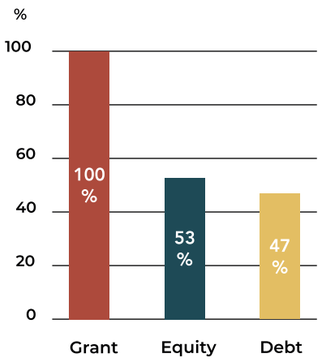
Percentage of Instruments covering various technologies

29% of instruments cover all technologies



Percentage of Instruments coverage different types of financing

41% of instruments provide all types of financing



Percentage of Instruments providing risk mitigation tools

41% of intruments dispose a risk mitigation tool

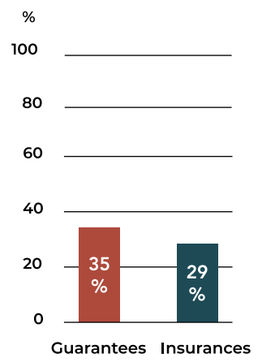


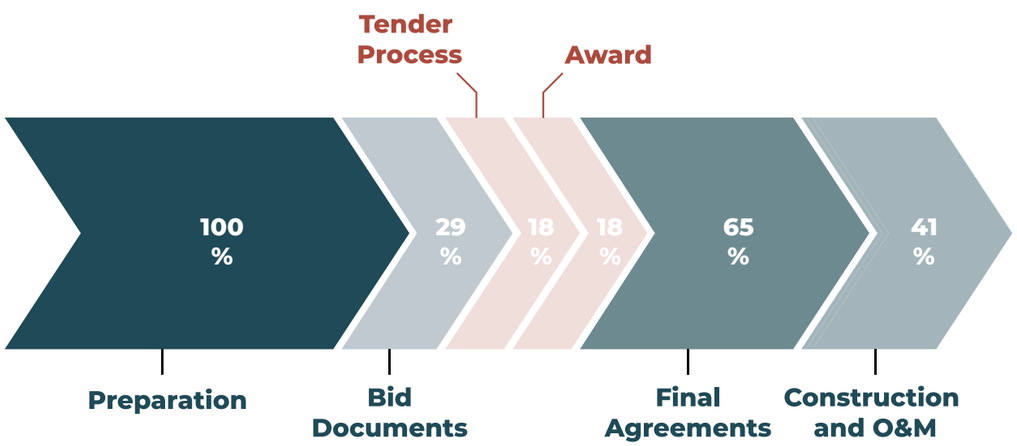
Fig.5 Currently available instruments, Preparatory study by Res4Africa and PwC "A New Instrument to Foster Large-Scale RES Development in Africa" (2018)

The problem of **fragmentation leads to overlaps, gaps and inefficiencies.** Most of the 75 analysed instruments are governed by the EU, its Member States and their DFIs which creates a crowded field in which investors do not have full clarity on which instrument to use or how to best cover their risk. Within this crowded field, there is a lack of a single, strong, central reference point able to offer an investor the entirety of the coverage needed. Of the 75 instruments screened, only 35% offer support for utility-scale RE projects. Of the 17 instruments analysed in depth, less than half provide a full financing package or at least one insurance instrument, only 29% are technology neutral, and less than a third cover all African countries.

Additionally, a **number of investment barriers are chronically unaddressed.** The study identified 28 major investment barriers observed in utility-scale RE projects in Africa and found that all 17 instruments offer support in the early stages (e.g., starting a business, permitting / licensing etc). However, only a third of the 17 instruments cover barriers related to **dispute resolution, off taker risk**, capital transfer, currency convertibility, inflation, construction flaws, tax regime, and force majeure. Interviews with stakeholders additionally emphasized policy and regulatory barriers and barriers related to the incomplete or ineffective liberalisation of electricity markets.

Investors **don't have sufficient support in the late stages of the project cycle**. The study analysed the adequacy of support along the entire project cycle, defined as Project Preparation, Tender Process, Financial Close and Construction and Operation. All 17 instruments offer some form of support in the early project stages, such as feasibility studies or capacity building, while large room for improvement remains in the core project phases such as contract negotiation, preparation of project documents, and **implementation of a tender process** (or other forms of competitive energy procurement).

Share of instruments offering support in the selected phase of the project cycle:



Main risks not covered by the analysed instruments:



Fig.6 The most uncovered areas, Preparatory study by Res4Africa and PwC "A New Instrument to Foster Large-Scale RES Development in Africa" (2018)

The study featured interviews with key RE Independent Power Producers (IPPs) and contractors active in Africa to provide a business angle on the subject. The interviewees indicated that **there is no lack of financing available in the market**, but investors have difficulty tapping into these financing pools due to the above investment barriers and the absence of comprehensive support schemes.

The study concludes by laying out a proposed solution: what is needed to mobilize private investments in Africa's RES potential **is a comprehensive EU Programme supporting RES investments** which would combine policy dialogue, capacity building, technical assistance and financial support in the form of de-risking and blended finance. The next section lays out the proposed solution in more detail.

Why renewAfrica: A Proposal for a Programme to be Owned by the EU

Launched in 2019, renewAfrica is an **industry-backed Initiative advocating for the creation of a European comprehensive Programme for renewable energy investments in Africa to be promoted and owned by EU institutions.** The ultimate goal of the 27 leading European actors supporting the Initiative (working across the RE value chain, including manufacturing, IPP, finance, trade associations and services sector) is to stimulate the EU to create and adopt a programme for Africa's clean energy development.Policy makers from both continents have expressed a clear dedication to pursuing the green transition agenda; renewAfrica is born out of a willingness to foster a constructive dialogue and bridge Africa's investment needs and European Industries' willingness to invest.

The comprehensive approach proposed by renewAfrica envisions the creation of a support Programme designed for Africa and with Africa, built on the logic of de-risking, which would include elements of policy dialogue, capacity building, technical assistance and financial support. The ultimate objective of the programme is to **stimulate the creation a pipeline of bankable RES projects at a scale that single instruments might have struggled to do so far.**

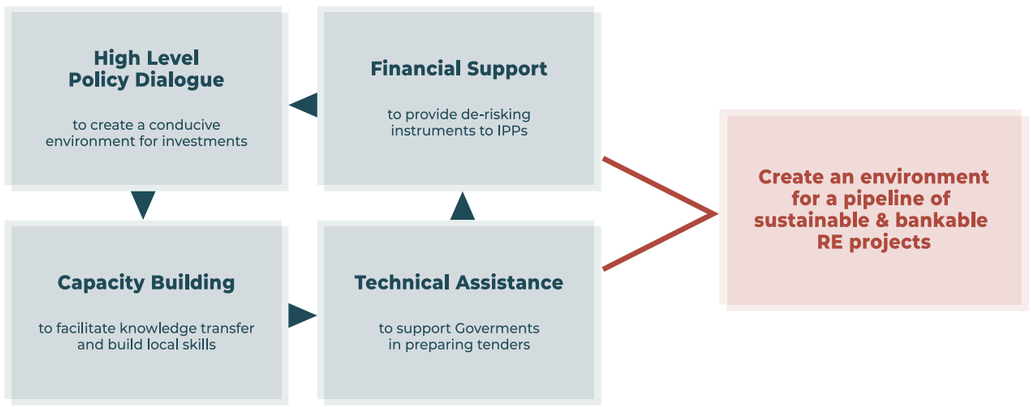


Fig.7 The four pillars of renewAfrica to create a pipeline of sustainable & bankable RE projects, renewAfrica Presentation Card (2019)

The main characteristics of the Programme proposed by renewAfrica are:

- Be technology and geography neutral
- Focus on utility-scale projects
- Offer assistance along the entire project cycle (from policy dialogue and feasibility studies to tendering and financial close)
- Bring together under one umbrella the multitude of existing EU instruments, and enhance them where needed
- Include sustainability and social impact as its cornerstone.

renewAfrica's proposal does not call for the creation of brand-new instruments, rather we suggest consolidating under one umbrella the many existing European instruments and enhancing them in specific areas where improvements are needed. **This pooling together aims at supporting the EU to generate synergies among instruments** which currently may have not be sufficiently communicating between each other. Pooling together means both reducing redundancies as well as tapping into complementarities. Member States and their respective DFIs currently operate a series of strong schemes which, when paired together with EU instruments and strengthened where needed, can form the backbone of an effective support programme. In that sense, renewAfrica's suggested Programme would be more than the sum of its constituent parts.

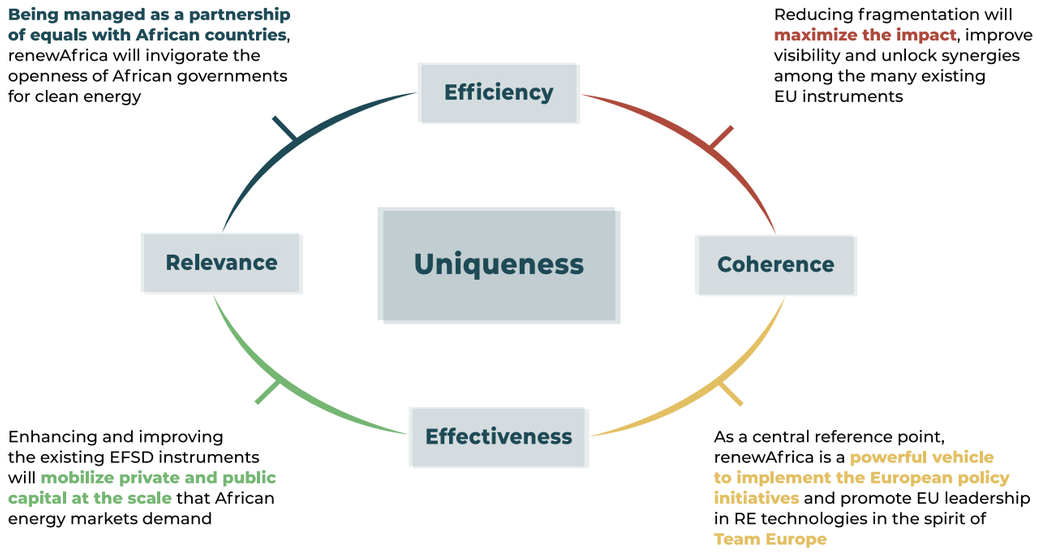


Fig.8 renewAfrica's features convey comprehensiveness, renewAfrica meeting with EVP Frans Timmermans (2020)

The need for a comprehensive **Programme** emerges from a recognition that potential investors in African renewables face a multitude of **risks related not only to the availability of finance, but also to the broad investment, business, and political climate** in a given country. For this reason, our Initiative aims to gather **best practices of available schemes** to construct a de-risking proposal that adequately addresses those risks.

Implementing the African and and European green agendas (see section 1.4) requires mobilizing private capital via evidence-based blended finance. This is necessary above all **because public financing alone will not suffice** to provide the €65bn per year[6] needed to fund the estimated requirement of 601GW of generation capacity needed in 2040[7] to secure full energy access for all Africans. **Private finance can bridge this funding gap** while at the same time tapping into the many demonstrated advantages of pursuing business partnerships rather than concessional finance.

De-risking needs to be the prime design element for a Programme that delivers. The current situation of underinvestment in Africa's renewables despite their immense potential is a form of market failure; resolving it requires a range of targeted actions to improve the investment climate and reduce risks. Financial de-risking instruments such as guarantees and insurances can go a long way in reducing risks. The EU already has in place a range of energy-focused de-risking instruments, notably under the EFSD+. Section 2.4 identifies their strengths and weaknesses, and draws a list of recommended improvements.

In addition to finance, the Programme proposed by **renewAfrica needs to embed elements of policy dialogue, knowledge transfer and advisory services** to effect structural and lasting improvements in the partner country investment climate.

The proposal for the creation of a European support Programme to be owned by the EU Institutions comes as a result of consultations and analytical work of all renewAfrica signatories. Indeed, **renewAfrica initiative's key asset is the diversity of first-hand investment experiences of the EU RES industry players that are part of its network.** Taken together, our 27 signatories provide jobs for 203.600 persons (of which 18.100 in Africa), have installed or contributed to manufacturing 11,5 GW of RE projects in Africa, provided €40 bn investments in Africa, and are operating in 48 countries. **These experiences are endowing renewAfrica with an evidence-based view of which risks are most pronounced, where the need for improvement is strongest, and what it will take to mobilize private capital at the scale required.**

6 IEA Africa Energy Outlook 2019
7 Enerdata, EnerOutlook 2019. The figure would be even larger if it were to include related investments in transmission and distribution

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203,600

jobs provided, of which 18,100 in Africa and 185,500 in Europe

11,5 GW

of renewable energy projects in Africa (installed or manufactured)

€40 bn

investments in Africa (overall exposure)

48 Countries

operating in 48 out of 54 African countries

Fig.9 renewAfrica's network and its expertise, renewAfrica's Guiding Principles (2020)

Growing EU Commitments to Climate Action and a Partnership with Africa Create a Need for renewAfrica's Proposals

The European Union is going through **a period of profound and rapid policy shifts**. The announcement in late 2019 of the European Green Deal and the intent to decarbonize the EU economy by 2050 put the EU in the driver's seat of global climate action. The core of the Green Deal entails overhauling a wide range of the Union's internal policies and regulations spanning energy, transport, industry, agriculture and so on. But there's more to it: **the Green Deal is also fundamentally a pillar of EU foreign policy, including its relation with Africa**. Indeed, the EU Strategy with Africa, published in March 2020, is one of the first strategy documents that came out of the Green Deal package.

The motivation for this stronger focus on the relationship with Africa is twofold. First, despite being a historic forerunner in polluting activities, the EU today contributes to only 10% of global CO2 emissions. Greening its own economy will not be enough; tackling the global climate change requires the creation of climate alliances of like-minded partners. As Europe's closest neighbour with a deep and long-reaching historical tie, **African countries are considered as natural partners to become part of these green alliances.**

The second motive is that **Africa has a lot to gain from a green transition** and is thus ideally positioned to become a climate partner. As noted earlier, renewables offer the cheapest and cleanest solution for the continent's wide and growing energy access gap. Leapfrogging polluting technologies is not only good for the environment, it is also good for jobs and the wider economy. Because of this, the EU is looking to make energy and the clean economy the basis for a partnership of equals.

The new policy cycle is reinforced by a **new fiscal cycle**: the EU just adopted a new seven-year budget known as the Multiannual Financial Framework (MFF), running from 2021 to 2027. What this means is that policy makers have at their disposal a unique chance to back up their policy reorientation with specifically designed and targeted financial measures.

The new MFF already made strides in **reducing fragmentation** by consolidating all its funds for external policies under the Neighbourhood, Development and International Cooperation Instrument (NDICI) with a €79.5bn budget for 2021-2027.

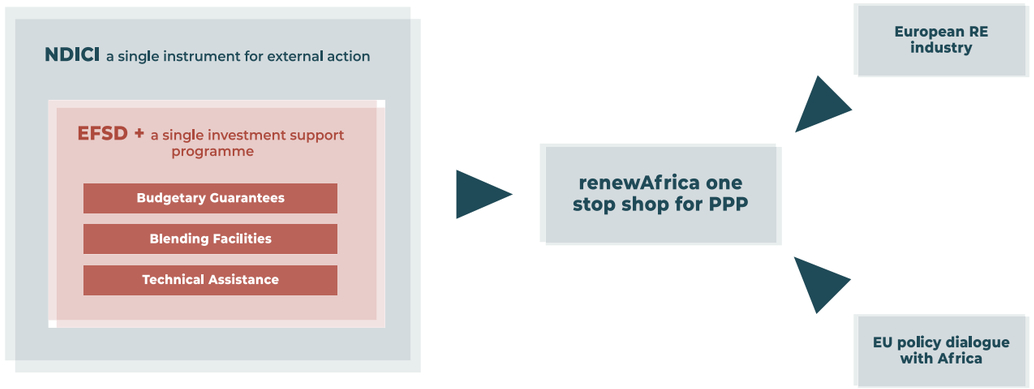


Fig.10 renewAfrica in the context of the ongoing consolidation of EU external policies under NDICI, renewAfrica meeting with EVP Frans Timmermans (2020)

The newly created **NDICI introduces a fundamental reform of the EU's approach to international partnerships, bringing under one legal roof the diverse range of partnership instruments** including grants, loans, de-risking instruments, technical assistance and the external lending mandate. The EU and its Member States are already the world's leading Official Development Assistance donors, accounting for 55% of global assistance. With NDICI, the EU has created a highly visible central reference point – which is in line with the renewAfrica proposal.

But the effort to reduce fragmentation can and **should go one step further, and now is the right time to do so.** While NDICI puts together all external policies, a single Programme for renewable energy at scale is needed. The comprehensive programme proposed by renewAfrica would unify under one roof the range of existing instruments that deal with renewable energy at scale, to bring greater synergies and better identify where improvements are needed. **The tide of policy changes that the EU is undergoing makes this the right moment to do so.** The EU's approach to partnering with Africa is changing. We believe it's the right time to also change the approach to making renewable energy a basis for those partnerships.

What makes Europe the right partner for Africa is also its global leadership in renewable technologies. Decades of stringent targets concerning the RES share in Europe's energy mix have stimulated an unprecedented development of the EU renewables industry, and rapidly falling prices are benefitting the world as a whole. As a result of intense competition and major funds dedicated to research and development (R&D), the EU today is home to some of the most successful clean energy and utility companies out there. European companies hold 40% of all patents for renewable technologies, and 43% of all offshore wind turbines in the world are produced by a few major European manufacturers.[8] EU companies are also at the forefront of the global utilities sector, as the digitalization and tech transformation of the last decade allowed for the emergence of corporate utility champions. Europe's expertise in market design, regulating, promoting, building, operating, and integrating RE in its own home markets makes it the right partner to pioneer Africa's clean energy access.

8 The European Union Leading in Renewables, European Commission COP21 brochure

The Analytical Work that renewAfrica's Task Forces Have Developed Can Support the Creation of an impactful Programme

The renewAfrica Initiative did not limit its work to defining the general aspects of a comprehensive support Programme. Its Task Forces have worked over the past year and a half to deliver expert analysis whose purpose is to guide the creation of a future European Programme. The analytical work represents the voice of the European private sector and should serve as a survey of what investors need in order to increase investments in Africa.

The methodology adopted entails an extensive analysis of primary and secondary data and available information to identify constraints and opportunities to set up our proposal. This preliminary analysis is designed as a basis for further developments and in depth researches to be tailored on country specific needs.

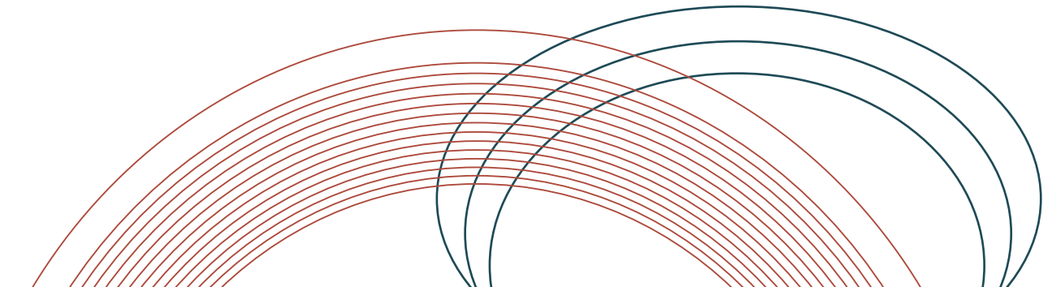
A sustainability perspective is applied across all our researching activities and our findings will be shared with other European and African stakeholders, to ensure that the proposed suggestions are shared and supported by all actors involved.

In particular the renewAfrica Task Forces have prepared analytical material on Technical Assistance, Financial Support, County Readiness and Advocacy.

Technical Assistance as a Cornerstone for Successful Implementation of Bankable RE Projects

Investments in Africa are hindered by a range of **financial and non-financial risks and barriers**. The non-financial ones relate to the adequacy of local legal and regulatory frameworks, the level and rigor of energy planning, and the capacity of national administrations to carry out and implement complex investment procedures.

In response to the need to de-risk non-financial aspects, the **Technical Assistance Task Force** developed a comprehensive catalogue of technical assistance and capacity building services that cover all project phases and is adaptable to country-specific needs. Using this approach, governments interested to benefit from the European support Programme could be supported in the preparation and execution of the RE tender, and mitigate the risks related to a potentially inadequate set-up of the auction process and project development



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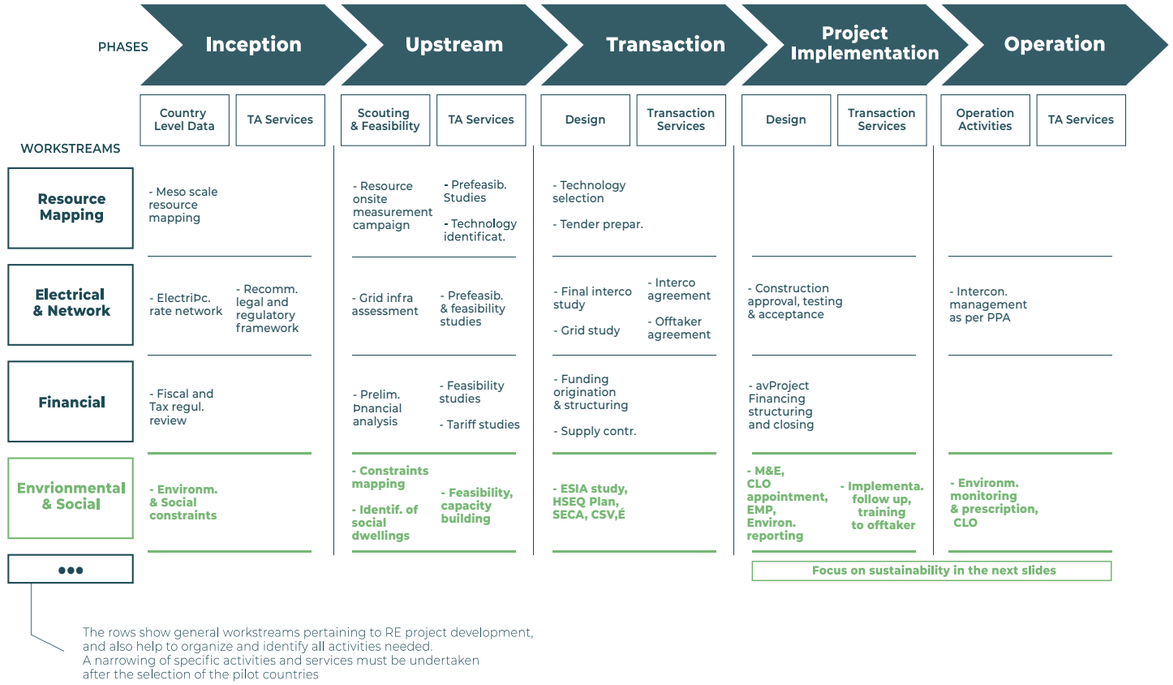


Fig.11 A comprehensive framework for TA activities, renewAfrica's Technical Assistance Task Force (2020)

Financial Support Based on Best Practices of Existing EU Instruments

After a series of non-financial risks are addressed on a systemic basis via technical assistance, financial risks will need to be addressed on a project basis via financial de-risking instruments. The renewAfrica **Financial Support Task Force** used as its starting point the renewAfrica preparatory study, which identified the strong existing EU instruments and mapped their gaps. The purpose of the Task Force is to **propose a concrete set of recommendations for how existing European instruments can be enhanced** to meet the needs of private investors. Its methodological work was carried out in 3 steps:

1. **Demand-side analysis**: Identify the risks that debt and equity investors need mitigated for investing in utility scale, grid-connected energy infrastructure in Africa
2. **Supply-side analysis**: Identify existing EU instruments that best suit the needs of debt and equity investors interested in utility scale private sector projects (screened 80 instruments and shortlisted 12 as potential base instrument candidates)
3. **Recommendations**: Propose enhancements to existing instruments or the main features of a composite instrument (5 shortlisted instruments, all part of the EFSD, analysed in-depth)

Key high-level recommendations to the European Commission include:

- Instruments need to strike a **balance between achieving a leverage effect** and providing **capital relief**.
- In order to reach their full potential impact, instruments need to be priced competitively and need to be highly visible to the broader investor community
- Instruments need to provide standardized documentation for the purpose of enhancing bankability, reducing transaction costs and improving the ease of use of the instrument itself.

Financial Support based on best practices of existing EU instruments

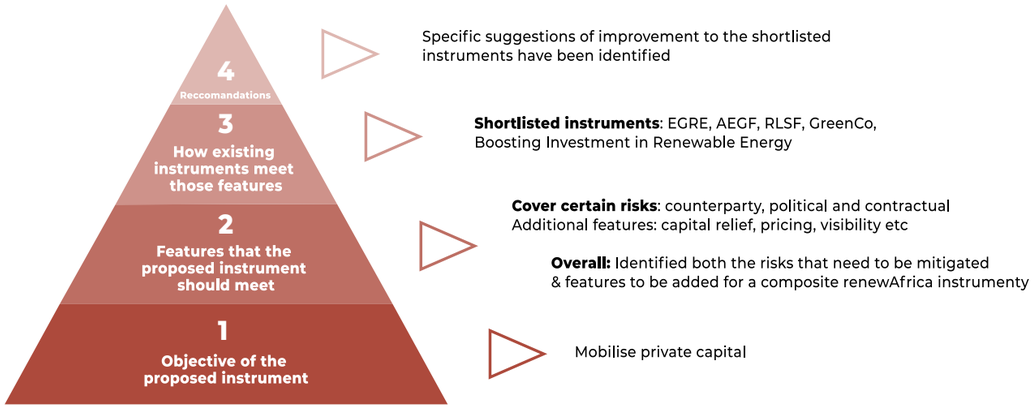


Fig.12 Structure of the analytical work, renewAfrica's Financial Support Task Force (2020)

Identifying Country Readiness

Through an in depth analytical process that took into account a wide range of socio-economic parameters, the Country Prioritization Task Force **pre-selected 10 countries** where the "renewAfrica's suggested model" could **get the best results and learn**: Algeria, Angola, Botswana, Ethiopia, Ghana, Ivory Coast, Kenya, Mozambique, Senegal, Tanzania.

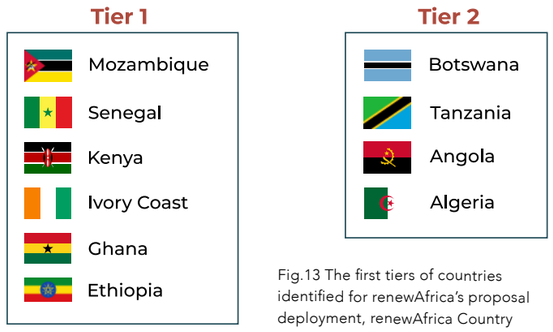


Fig.13 The first tiers of countries identified for renewAfrica's proposal deployment, renewAfrica Country Prioritization Task Force (2020)

In order to pre-select these countries, it has been necessary to adopt a double perspective: the Initiative's experts have taken into account both the readiness of the Countries in terms of business environment combined with countries where there is a higher chance of capitalizing lessons learned and to "improve by doing".

To do so the methodology adopted identified 40 Key Performance Indicators grouped under five key areas:

- **Macroeconomic**: sound macroeconomic policies and stability work as assurance for investors on the financial sustainability of their investments, while strong governments with a solid track record positively influence the perception of a country.
- **Investment environment**: the presence of incentive mechanisms, the willingness of local investors, market maturity etc. are obviously attracting factors for foreign investments
- **RES development potential**: market opportunities, convenient tariffs, land availability and clear regulations for licensing and permitting and so forth stimulate national and international actors to mobilize investments.
- **Regulatory/environment conduciveness**: predictability and reliability of the regulatory framework are critical taking into consideration the difficulty of covering these risks via international risks coverage instruments.
- **Sustainability**: ESG Criteria, SGDs and Paris Agreement Commitments are increasingly capturing the attention of global financing institutions. Governments that are embedding those values in their national policies and making efforts to implement those policies have far higher chances of attracting private investments.

This approach was made possible thanks to the extensive expertise "on the ground" of renewAfrica's members in several African countries. The results of the quantitative and qualitative analysis generated the 2 Tiers of Countries.

Building Consensus

renewAfrica's strength is anchored in the experience and leading position of its signatories and in its wide ecosystem of institutional, technical, financial, and knowledge partners. The **Advocacy and Outreach** Task Force helped **widen the reach of renewAfrica's proposal** in Europe and within well-established African institutions including UNECA, AfDB, AU, .) thus creating communication channels to build consensus among European and African stakeholders.

For the initiative to be well received and to find the right environment for its deployment, strengthening dialogues with a number of institutions is paramount. The outreach plan to get our message involved working with different actors and to present the Initiative through a multi-stakeholder ecosystem that included:

- Multilateral (IFIs, AfDB, AU, EU Delegations etc)
- Government-level
- Regulatory Energy Entities
- Utility companies (incumbent off takers in each country)
- Industry-level (business)
- Industry associations
- Financial sector (local banks and financial intermediaries)
- Research & Innovation agencies (e.g. CSIR, IRESEN etc)
- Civil society-level (engagement and dissemination)

This stakeholder engagement process **leveraged on the renewAfrica signatories**, and expanded RES4Africa Foundation members and partners.

Sustainability at the Core of Our Activities

Sustainability is a cornerstone of the renewAfrica Initiative and was reflected in the work undertaken by the renewAfrica Task Forces and analytical work. renewAfrica can create shared value on the premise that the competitiveness of a company and the well-being and development of local communities are mutually dependent. Thus, environmental and social sustainability criteria need to be embedded across the entire project development and implementation cycles. They are fundamental for both business and local communities. Sustainability and climate action are not only European ambitions; they are rooted in national strategies of nearly all African countries. All 54 African countries signed the 2030 Agenda for Sustainable Development and the 2015 Paris Agreement. 53 countries submitted Nationally Determined Contributions (NDCs) towards the achievement of the Paris agreement. Additionally the Agenda 2063, in which sustainability plays a central role, was adopted by 54 Heads of State and Governments of the African Union (AU). renewAfrica can play an instrumental role in supporting African countries meet the. By contributing to increased private sector participation and supporting countries to build a sustainable pipeline of bankable RE projects, can both **renewAfrica help to mainstream green investments** and create new local development opportunities.

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renewAfrica - A Progressive Trajectory

TIMELINE

4th June 2019

Launch of renewAfrica and signature of the Declaration of Intent by 22 stakeholders (Rome)

19th June 2019

Presentation to UNECA and AUC to the start EU-Africa dialogue (Addis Abeba)

17th July 2019

Presentation of the EIB and other DFIs (Luxembourg)

9th September 2019

First meeting of the Steering Committee (Rome)

26th November 2019

renewAfrica's Working Groups workshop (Milan)

10th January 2020

Publication of institutional Presentation Card

28th January 2020

Second Signatories meeting, with the presence of Director Generals of DG ENER, DG DEVCO and DG CLIMA (Brussels)

25th February 2020

Kick-off of the four Task Forces to shape a comprehensive Programme Proposal (Rome)

19th May 2020

Go-live of the renewAfrica video

14th September 2020

Publication of "10 Guiding Principles"

29th October 2020

Presentation to European Commission Vice President Frans Timmermans

2nd December 2020

Res4Africa Foundation participates to the Africa-Europe Strategy Group on Sustainable Energy of the Africa Europe Foundation launched by Friends of Europe and Mo Ibrahim foundation

renewAfrica 3° Signatories Meeting

renewAfrica involvement in G20

UN high level dialoge on Energy 2021

renewAfrica involvement in COP26

renewAfrica involvement in EU-Africa Summit 2021, date to be defined, probably Autumn 2021

renewAfrica roll out in selected African Countries

Shaping renewAfrica's Proposal :

A Collective Effort

02 /

The Initiative Identified the First Wave of Countries Where the Rollout of the Comprehensive Programme has Higher Chances of Success

Work package prepared by the Country Prioritization Task Force

Objective of the Task Force

In the next two decades the African continent will witness a rapid growth in population and This section illustrates how the Country Prioritization Task Force has structured its analysis to define a list of “front running countries” for a first implementation of the renewAfrica proposed Programme which aims at being a pan-African Programme.

African countries have different investment environments, political and socioeconomic realities and circumstances within which the RE project lifecycle will be prepared. In these varied landscapes, a comprehensive assessment is needed to understand which countries could present the right environment for the effective roll out the renewAfrica proposal.
In this regard, the task force objectives are composed as follows:

1. To delimit the perimeter of investigation by pre-selecting 10 countries within which to conduct detailed assessments. This pre-selection has been carried out via multilateral discussions with the private sector, finance and development players and international institutions, taking advantage of their broad expertise in implementing programs “on the ground”. This pre-selection is aimed at identifying a restricted number of countries where the renewAfrica approach could be tailored to be then brought at scale across the Continent. The pre-selected countries are Algeria, Angola, Botswana, Ethiopia, Ghana, Ivory Coast, Kenya, Mozambique, Senegal and Tanzania.

2. To divide this pool of 10 countries in Tier 1, whose framework appears most ready to benefit from the renewAfrica Programme; and Tier 2 containing countries which present a certain degree of potential but are suggested to be taken into account later on when the Programme will reach a further step of maturity.

Task Force Composition

Core Members
- Siemens Gamesa
- EGP
- CDP
- EDPR
- EIB

Enablers
- Vestas
- AFRY
- Schneider Electric

Peer Reviewers
- EGP
- Solar Power Europe

Methodology

The assessment of potential countries for a pilot implementation of the Programme proposed by renewAfrica has been elaborated through a rigorous process that saw the participation of renewAfrica members and involving a high number of iterations among the initiative's signatories and international institutions to define the most suitable approach for the countries' assessment.

A set of ' macro-criteria' helped decide the general perimeter of analysis providing a good basis for all subsequent analyses carried out:

- The renewAfrica Initiative should focus on **utility scale projects**.
- **Countries with ongoing or planned Scaling Solar (or other instruments) must not be excluded.** Country level policy dialogues are taking place as multiple instruments are being discussed with local governments. This presents an opportunity for collaboration and building synergies.
- The dialogue with the identified countries includes the **involvement of local Institutions through the EU Delegations**, as well as relevant ministries and institutional bodies (e.g., Energy Regulators, Investment Agencies).
- **Local stakeholders** such as power pools and RE Associations are relevant players and **partners**.

Informed by the above mentioned macro-criteria quantitative and qualitative indicators that best describe the investment environment were selected:

1. Quantitative Assessment

To ensure comparability among the pre-selected countries, 40 criteria (Key Performance Indicators) have been defined. The set of KPIs is distributed among 5 main areas of analysis:

- **Macroeconomic**: economy and population size, exchange rate etc. are useful indicators to build preliminary considerations regarding the stability of a national economy and to estimate the financial sustainability of an investment in that specific country. Sound data (and their availability) in national reports and statistics are also useful for investors' reporting requirements.

- **Investment Environment**: financial risk, political risk, ease of doing business etc. Investors perception of risk is highly influenced by risks linked to policy volatility and lack of predictability and reliability of rules. As an example, one of the ultimate concerns is policy reversibility or renegotiations, especially where this can be easily done via legal mechanisms and is not under the control of government agencies and the judiciary. This sort of risks can be only partially covered by international risk coverage instruments. Moreover, the presence of long-term reliable incentive mechanisms could contribute to enabling a favourable investment environment; this issue falls again below the topic of policy volatility.

- **RES Development Potential**: energy demand growth, electrification rate, renewable energy resources potential etc. Renewable energy generation potential and investments need to be matched with infrastructure development. For example, in some countries the national power grid is not able to absorb and manage intermittent power generated by renewable energies; such conditions jeopardize the development potential of a country.

- **Regulatory environment conduciveness**: independent regulatory authority, grid status, RES Target etc. the presence of an independent energy authority and the adoption of a national strategy for energy contribute to clarify national priorities across the segments of the energy sector and therefore better identify needed investments. The technical competence of such an authority is also a key factor: energy regulators should have the capacity to oversee policy development and implement agreements, by limiting, for example, arbitrary governments actions.

- **Sustainability**: global peace index, human rights index, community involvement, women empowerment etc. are parameters that have seen increasing recognition from international institutions, development banks and financing bodies, that are aligning more and more capital allocations to ESG criteria. Governments who are proving to be working in the direction drawn from the Paris Agreement are therefore more likely to attract more private capital.

The defined framework and the data used is based on robust sets of information publicly available from main global institutions data sets and reports, including World Bank, IMF, BNEF, IEA, AfDB.: renewAfrica has gathered secondary data and has contributed to strengthen existing analysis by benchmarking and cross-reference currently available data with the experience of the private sector on the field.

2. Qualitative Assessment

A **complementary qualitative assessment** has been carried out for selected criteria to ensure that country specificities are properly considered. This complementary assessment is especially relevant for those KPIs where a yes/no answer doesn't apply and where figures are uncertain/unstable: this has been particularly true when analysing the countries' regulatory framework, market conduciveness and renewable energies development potential.

- Each KPIs has been discussed within the members of the TF to ensure their general **alignment** on the main topics and issues analysed.

- Examples from **experiences on the field** have been brought to the attention of the TF to give an extra angle to the assessment and frame the discussion.

- Due to the **impact of Covid-19**, direct dialogue with countries will be needed to gain a deeper understanding of the impact of the pandemic and to update the content of the analysis accordingly.

Countries Assessment

TIER 1

(for the full assessment see Annex I)

ETHIOPIA			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	772
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	3,27%; 4,33%
Population Size	Population	World Bank, 2018	109.224.560
Population Growth	Population growth rate	World Bank, 2018	2,60%
Investment Environment			
Financial Risk	Financial Risk Index	SACE	72
	Ratings	S&P	B
Political Risk	Political Stability Risk Index	SACE	70
	Country Risk Classification	OECD, 2020	7
	Global Peace Index	GPI, 2020	2,526
Ease of Doing Business	Ease of business index	World Bank	DB Rank 159 & DB Score 48
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,83
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	(30% localization). Local operating licenses have to be in place. (Procurement, services, resources). Policy has come in place at regional level (EAC).
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	13,9
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	14%
Electrification Rate	% of population + year	SE4ALL 2018	45%

ETHIOPIA			
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	Yes
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	"Yes with limited independence
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	The five-year Growth and Transformation Plans expires in 2020 and has not been renewed as of June 2020
Grid Status, Readiness and Access	Qualitative assessment	Various	Grid Code in draft since 2018
Existing RES Incentives	Yes / No	BNEF Climatescope	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes- East African Power Pool (EAPP)
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	41
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,846
Sustainability			
Human Rights	**Human Rights Scores**	Our World in Data	-1,95

Fig.14 Ethiopia country analysis – renewAfrica Country Prioritization Task Force (2020)

GHANA			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	2.202
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	1,48%; 5,86%
Population Size	Population	World Bank, 2018	29.767.108
Population Growth	Population growth rate	World Bank, 2018	2,20%
Investment Environment			
Financial Risk	Financial Risk Index	SACE	68
	Ratings	S&P	B
Political Risk	Political Stability Risk Index	SACE	50
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	1,776
Ease of Doing Business	Ease of business index	World Bank	DB Rank 118 & DB Score 60
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,74
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	FDI Restrictions established in 2017 Local Content: 60% of the engineering and procurement contract has to go to Ghanian companies
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	15,9
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	8%
Electrification Rate	% of population + year	SE4ALL 2018	82%

GHANA			
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	Medium - High
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	Transmission Grid is extensive and covers all regions and districts. The current weakness of the grid is a challenge to RES Development
Existing RES Incentives	Yes / No	BNEF Climatescope	No
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Pool
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	79
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,79
Sustainability			
Human Rights	**Human Rights Scores**	Our World in Data	0,23

Fig.15 Ghana country analysis – renewAfrica Country Prioritization Task Force (2020)

IVORY COAST			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1716
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2,7%; 8,7%
Population Size	Population	World Bank, 2018	25.069.230
Population Growth	Population growth rate	World Bank, 2018	2,60%
Investment Environment			
Financial Risk	financial risk index	SACE	73
	ratings	S&P	Ba3
Political Risk	political stability risk index	SACE	56
	country risk classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	2,169
Ease of Doing Business	Ease of business index	World Bank	DB Rank 110 & DB Score 60,7
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,55
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	No formal requirement for local partnership and local content.
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	10,3
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	6%
Electrification Rate	% of population + year	SE4ALL 2018	67%
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	Medium for solar PV - Low for Wind

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IVORY COAST			
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	In October 2019, the Government engaged IFC as lead transaction advisor for a 60MW solar project under the Scaling Solar program
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	High grid losses (22% in 2016) are partly due to illegal connections. A number of national master plans exist.
Existing RES incentives	Yes / No	BNEF Climatescope	No
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Pool
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	54
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,698
Sustainability			
Human Rights	**Human Rights Scores**	Our World in Data	-0,44

Fig.16 Ivory Coast country analysis – renewAfrica Country Prioritization Task Force (2020)

KENYA			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1.711
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	1%; 6,13%
Population Size	Population	World Bank, 2018	51.393.010
Population Growth	Population growth rate	World Bank, 2018	2,30%
Investment Environment			
Financial Risk	Financial Risk Index	SACE	66
	Ratings	S&P	B+
Political Risk	Political Stability Risk Index	SACE	58
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	2,375
Ease of Doing Business	Ease of business index	World Bank	DB Rank 56 & DB Score 73,2
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	2,52
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	The Energy Act 2019 sets the requirements and imposes local content obligations on renewable energy projects.
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	10,3
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	6%
Electrification Rate	% of population + year	SE4ALL 2018	75%

KENYA			
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes but not updated
Grid Status, Readiness and Access	Qualitative assessment	Various	'The transmission network, which comprise few very long lines is weak, faces several limitations.
Existing RES Incentives	Yes / No	BNEF Climatescope	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Pool
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	56
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,926
Sustainability			
Human Rights	**Human Rights Scores**	Our World in Data	-1,2

Fig.17 Kenya country analysis – renewAfrica Country Prioritization Task Force (2020)

MOZAMBIQUE			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	528
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2,2%; 4,7%
Population Size	Population	World Bank, 2018	30.066.648
Population Growth	Population growth rate	World Bank, 2018	2,50%
Investment Environment			
Financial Risk	Financial Risk Index	SACE	77
	Ratings	S&P	CCC+
Political Risk	Political Stability Risk Index	SACE	73
	Country Risk Classification	OECD, 2020	7
	Global Peace Index	GPI, 2020	2,135
Ease of Doing Business	Ease of business index	World Bank	DB Rank 138 & DB Score 55.9
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,41
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	51%
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	16,7
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	3%
Electrification Rate	% of population + year	SE4ALL 2018	2017 - 26% ; 2020 - 38%
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High

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MOZAMBIQUE			
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	Yes
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes (ARENE), but still not fully operational
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	Two separate networks: one for the south and one for the center and north of the country. Access rate 28%
Existing RES Incentives	Yes / No	BNEF Climatescope	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	25
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,622
Sustainability			
Human Rights	**Human Rights Scores**	Our World in Data	-0,09

Fig.18 Mozambique country analysis – renewAfrica Country Prioritization Task Force (2020)

SENEGAL			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1522
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2,9%; 5,48%
Population Size	Population	World Bank, 2018	15.854.360
Population Growth	Population growth rate	World Bank, 2018	2,80%
Investment Environment			
Financial Risk	Financial Risk Index	SACE	67
	Ratings	S&P	B+
Political Risk	Political Stability Risk Index	SACE	46
	Country Risk Classification	OECD, 2020	5
	Global Peace Index	GPI, 2020	1,824
Ease of Doing Business	Ease of business index	World Bank	DB Rank 123 & DB Score 59,3
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,93
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	No formal requirement for local partnership and local content.
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	4,9
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	6%
Electrification Rate	% of population + year	SE4ALL 2018	67%

SENEGAL			
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
Presence of other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	Yes
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes but not updated.
Grid Status, Readiness and Access	Qualitative assessment	Various	- Lack of grid reliability - infrastructure obsolescence is leading to frequent shut-downs and transmission losses are estimated at around 21%
Existing RES Incentives	Yes / No	BNEF Climatescope	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Pool
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	46
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,926
Sustainability			
Human Rights	**Human Rights Scores**	Our World in Data	0,8

Fig.19 Senegal country analysis – renewAfrica Country Prioritization Task Force (2020)

The Initiative Proposes an Extended Framework of Technical Services Covering All Project Phases and Adaptable to Selected Countries' Needs

Work package prepared by the Technical Assistance Task Force

Objective of the TF

Investing in renewable energy in Africa entails a number of risks and hurdles, not only under a financial perspective, but in general as a consequence of the investment environment in the region. From regulatory frameworks, to logistics, technical issues, or lack of local skills there are many examples of areas of concern for investors. As described in the first part of this book, the various risks faced by investors hamper the possibility to deploy large-scale RE projects in many African countries.

To tackle those risks and stimulate the creation of an adequate investment environment, the Technical Assistance Task Force elaborated a proposal to support local competences enhancement, capacity building and the overall management of the project investment cycle.

To assist in the monitoring and evaluation of the projects' development, the RenewAfrica proposal developed by the Technical Assistance Task Force embeds a comprehensive catalogue of Technical Assistance and capacity building services. Such a catalogue covers most activities to be undertaken under the different phases of the project cycle, and can be customized based on the particular country specific needs.

Task Force Composition

Core Members
- EGP
- EIB
- CDP
- Schneider Electric

Enablers
- Vestas
- Siemens Gamesa
- EDPR
- EGP
- Prysmian
- SDA Bocconi

Peer Reviewers
- Siemens Gamesa
- EGP
- Enercon
- FMO
- Solar Power Europe

Methodology

The necessity of developing this general framework for technical assistance services and capacity building comes from the acknowledgement that renewable energy players face a multitude of challenges and risks when investing in Africa. The exposure to financial and non-financial risks combined with the lack of expertise on the ground prevent the creation of a secure investment environment and therefore the conditions for longer-term commitment.

Building on the experience of its members and network, renewAfrica has identified a comprehensive framework of advisory services that could be developed and then deployed to add value and strengthen local professional technical competencies. This catalogue will prove useful not only in mitigating investment related risks but will aim also to empower counterparts for an effective knowledge transfer.

To create a reliable technical assistance framework, the matrix has been structured on 2 dimensions:

1. The first dimension takes into consideration the main phases across the whole project development cycle, namely:
    - Inception phase
    - Development phase
    - Transaction phase
    - Project Implementation phase
    - Operational phase
2. The second dimension is based on a list of identified work streams, including resource mapping, technical capacities, financial capacities, environmental and social sustainability, tender preparation capability etc.

On a more specific and granular level, each combination of the work streams with the identified project phases generates a number of activities that could be used to develop a sustainable development framework in a given country.

This approach has led to the creation of a matrix with cross referencing both project phases and work stream dimensions. The matrix is a general framework of almost standardized technical assistance activities that can be integrated via local capacity building initiatives and is adaptable to each country specific needs. This customization can be further detailed by including other specific "adaptation drivers":

1. Language and legislation context (Anglophone, francophone, lusophone)
2. Approach to site selection and development:
    - site selected by the IPP
    - site selected from the authority
    - others

The high level of customization of the TA Framework is a crucial element to boost and embed Sustainability in the approach proposed by renewAfrica: for this reason a Sustainability framework has been put in place, to establish a common understanding of the minimum requirements that should be met when investing or participating to tenders for RE projects in Africa.

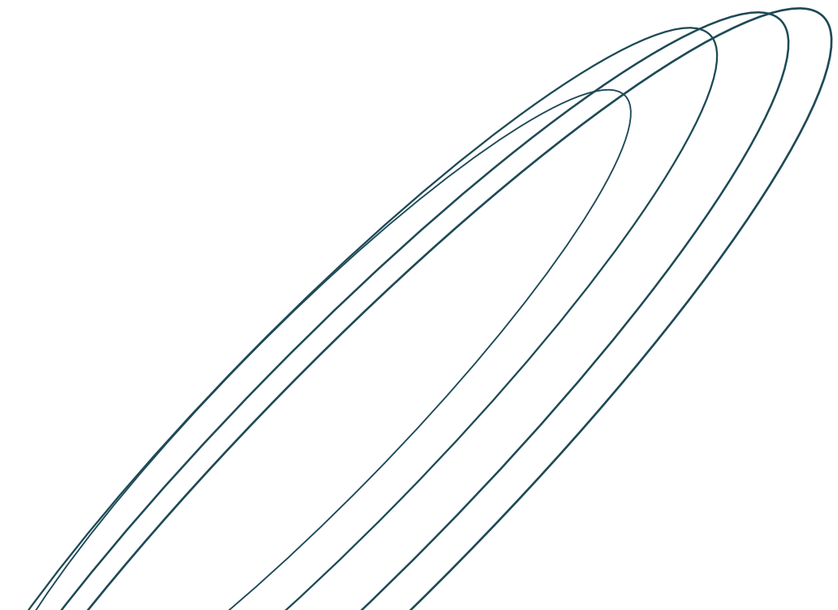
The suggested Sustainability criteria refer to optimal situations and do not aim to overrule the respective national regulations, but to supplement them as necessary. In all cases RenewAfrica initiative will be ruled by the most recognized Environmental and Social, as well as Transparency of Procurement Standards, such as the World Bank's, EIB ones, or any of its members.

Technical Assistance Framework

INCEPTION PHASE		
Workstreams	**Country Level Data**	**TA Services**
Economical & Regulatory Country Appraisal	Country Economic macro assessment Human Capabilities and skill mapping	Assessment of Off- taker/Public Auth. managerial / financial capacity
Country Technical Assessment	Source of Energy (i.e. resources as: Hydro, Coal, Gas, Oil, other Res) Existing generation technology & planned Social and Environmental mapping (projections) - Energy Least Cost assessment - Energy Integration study (Development Energy plan)	Tariff Studies
Resource Mapping	Meso scale Energy resource mapping (i.e. Wind and Solar Atlas) Design resource measurement campaign (i.e. wind & solar for Atlases)	Technology Identification
Land Mapping and Acquisition	Lad regulation study/assessment (regulatory & legislative)	Analysis of current legal framework
Electrical & Network	Current electrification rate Network development plan System stability and demand growth mapping	Recommendation for improving legal, regulatory framework
Environmental & Social	Environmental & Social Constrains (i.e. CO_2 emission on Least cost Dev plan)	
Engineering & Construction		

INCEPTION PHASE		
Procurement		Analysis of the existing Procurement framework for RE
Logistical Infrastructure Assessment	Port assessment to analyze viability	
General Permitting		
Corporate	Legal review for corporate requirements (i.e. BoD citizenship, Shareholder Citizenship, etc.)	
Financials	Fiscal and tax regulation review Tests with renewable plant characteristics Possible sources of funding Sovereign guarantees vs debt exposure	
Legal / Financial / Technical Main Project Documents	Legislative, Regulatory, Financial and Fiscal assessment test with renewable technology	Analysis of current legal framework Recommendation for improving legal, regulatory framework
Tender Preparation		

Fig.20 Inception phase TA Framework, renewAfrica Technical Assistance Task Force (2020)

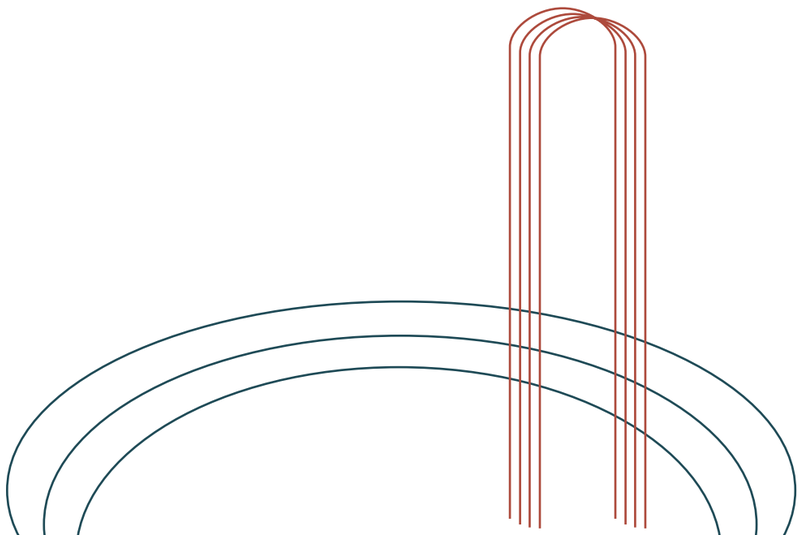


DEVELOPMENT PHASE				
Workstreams	**Scouting Phase**	**TA Upstream**	**Feasibility Phase (on the ground)**	**TA Upstream**
Economical & Regulatory Country Appraisal				
Country Technical Assessment				
Resource Mapping	Initial assessment of resources (GIS tools) Meso Scale models	Technology Identification Pre – feasibility Studies	On site Measurements of resources Comparison of onsite with meso scale assessments Equipment Selection Design Measurement Campaign - High Quality resource data Feasibility study	Feasibility study
Land Mapping and Acquisition	Land Mapping: public, private or customary Legislative framework assessment on land acquisition process	pre-feasibility	Regulations around land acquisition Landlord mapping and surveys Access to the site Geotechnical studies (Desktop) Hydrological studies (Desktop) Topography	
Electrical & Network	Grid infrastructure assessment and overview	pre-feasibility Impact of RE generation on grid network	type of connection, capacity, voltage, line routing, preliminary load assessment (load flow) Feasibility study	Feasibility study Network Studies

DEVELOPMENT PHASE				
Environmental & Social	Environmental and Social contains mapping (human settlements, parks, protected areas, ornithological corridors, archeology) Identification of social dwellings, towns, communities	pre-feasibility Capacity building: training and Advisory Services of the stakeholders/ authorities	**ESIA** – Environmental and Social Impact Assessment **SEECA, Social Economic and Environmental Context Analysis including:** **1) Community and stakeholders mapping / analysis** Community liaison **2) Consultation process with local stakeholders** **3) Materiality analysis:** identification of priorities both of the project and local stakeholders to select top areas of interventions (local employment, capacity building, water, energy, etc.). **4) Preliminary Sustainability Plan and partnerships** Feasibility study	Feasibility study Dispatching Studies and method to Transmission and Distribution Network
Engineering & Construction	Input aggregation and project identification process (GIS)	Technology Identification Pre – feasibility Studies Specification Review	Site visit overall site assessment (technology options, general constrains, network, environmental, civil) resource assessment (preliminary) cost assessment (preliminary) primary risk identification - mitigation feasibility study	Feasibility study Geo – technical Studies including land review
Procurement			Market scouting (service suppliers, contractor & suppliers)	
Logistical Infrastructure Assessment	General country infrastructure assessment (bridges, airports, ports, roads) Tax assessment and customs duties	Pre – feasibility Studies	Access to selected sites from roads Distance to Airports (wind) Feasibility study	Feasibility study
General Permitting	legal assessment for permits stakeholder mapping	pre-feasibility study	Permit tracker & permits list Feasibility study	Feasibility study

DEVELOPMENT PHASE				
Corporate	Legal assessment for regulatory and legislative requirements (land, permits, shareholder participation others)	pre-feasibility study	legal assessment for land acquisition SPV incorporation SPV structuring & SPV transactions Legal review of the corporate law (minorities), termination, etc..	
Financials			Tax regulations: - tax duties - tax on transfer of ownership - Cap. Gains taxing Preliminary financial analysis Financial modelling Feasibility study	Feasibility study Financial Structuring options including guarantee schemes Tariff Studies
Legal/ Financial/ Technical Main Project Documents			Type of documents (format/ law regulation) PPAs man terms review Grid Code requirements (as per PPA) Sovereign Guarantees Feasibility study	Feasibility study
Tender Preparation				

Fig.21 Development Phase TA Framework, renewAfrica Technical Assistance Task Force (2020)



TRANSACTION PHASE		
Workstreams	**Design Phase**	**TA – Transaction Advisory**
Economical & Regulatory Country Appraisal		
Country Technical Assessment		
Resource Mapping	Technology selection and layout Detailed Energy Resource Assessment Risk assessment Tender preparation (if tender)	
Land Mapping and Acquisition	Land acquisition vs layout definition & network routing Geotechnical Survey Topography survey Land lease/option acquisition Tender Preparation (tender documents)	
Electrical & Network	Interconnection final technical solution Interconnection authorization/negotiation Full and complete grid study Interconnection design Interconnection and Distribution Agreement signing Tender Preparation (if tender)	Interconnection Agreement drafting/ negotiation Offtake Agreement drafting/ negotiation
Environmental & Social	**Sustainability Plan** (actions/projects to mitigate risks and maximize benefits) ESIA Study HSEQ Plan SEECA (stakeholder environmental context analysis) materiality matrix & mitigations plant layout & technology definition Social intervention and mitigations (CSV) - (impacts on design) **Local contracts and employment** obligations whether applicable (impacts on procurement) Bid Preparation	
Engineering & Construction	Basic design (layout, civil, electrical, environmental) Technology selection Resource assessment Interconnection solution Access Legislative / regulatory compliancy (i.e. design, grid code, env law, etc.) Technical support to procurement (technology, contracts) Bid Preparation	

TRANSACTION PHASE		
Procurement	Procurement tender for services, supplies and contractor Local content requirements	Analysis of the existing Procurement framework for RE
Logistical Infrastructure Assessment	Road design and transportation assessment Customs duties assessment and exemption study	
General Permitting	Permit acquisitions: ESIA TLC Airport clearance (wind) Water use license Mining rights Telecom HSEQ regulation	
Corporate	Shareholder Agreement Memorandum of Incorporation Share Purchase Agreement Joint Development Agreement Investment approval for Tender participation	Analysis and Structuring of the SPV
Financials	Funding origination & structuring Documents pertaining to financial obligations and guarantees Support to procurement for contract negotiations Financial Modelling & Assessment	
Legal / Financial / Technical Main Project Documents	Lease Agreements and registration (transfer of land) Contracts (Due diligence) Supply Contracts Design Documents Environmental Management Plan Corporate (SPV) Documentation	Analysis of current legal framework Recommendation for improving legal, regulatory framework
Tender Preparation	RFP Assessment Project implementation for Tender Project Optimization Investment approval for tender Bid Preparation and Submission	Analysis of the existing Procurement framework for RE Preparation of Tender documents PPA concession Agreement drafting/ negotiation Assessment of Off- taker managerial / financial capacity Tender evaluations, report and approval Award of contracts/ signature/ publication

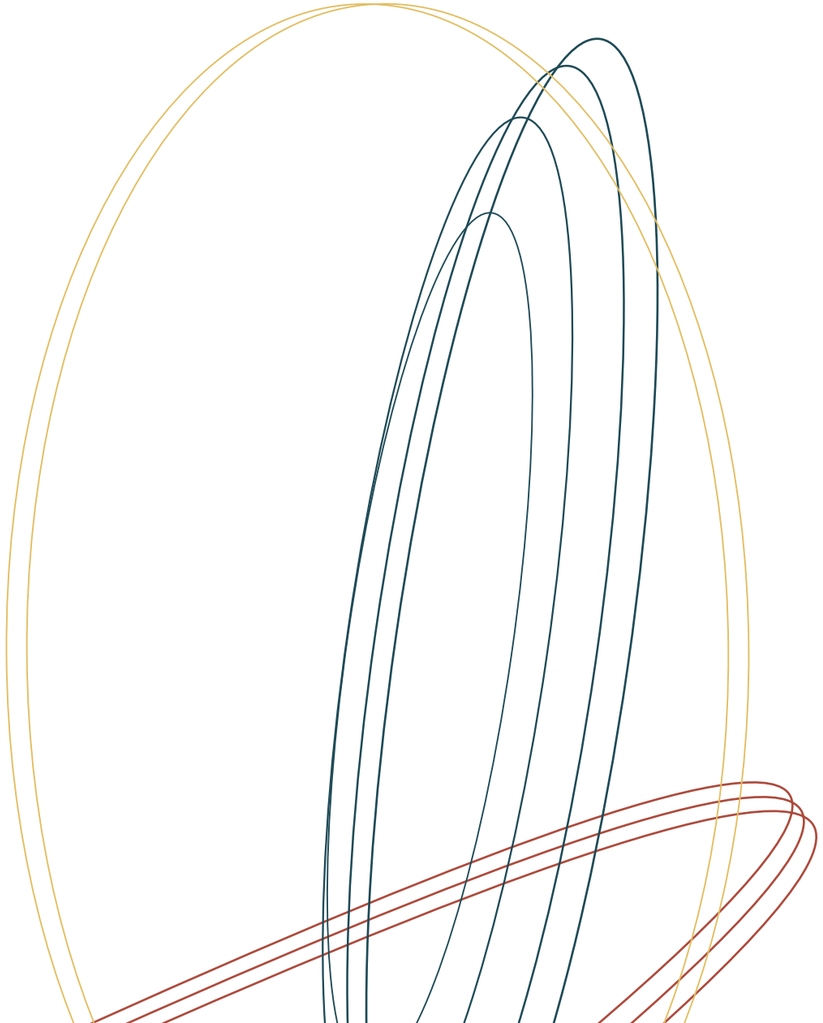
Fig.22 Transaction Phase TA Framework, renewAfrica Technical Assistance Task Force (2020)

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PROJECT IMPLEMENTATION PHASE		
Workstreams	**Implementation Phase (construction)**	**TA Project Implementation**
Economical & Regulatory Country Appraisal		
Country Technical Assessment		Capacity Building: Tariff Studies and review
Resource Mapping		
Land Mapping and Acquisition	Landowner & land contracts management Detailed Geotechnical Access Management Site restoration	
Electrical & Network	Construction Approval, testing and acceptance	Implementation follow up
Environmental & Social	Environmental monitoring and prescription fulfillment Community Liaison (CLO appointment) EMP HSEQ Plan **Sustainability Plan implementation (for intervention during construction)** Environmental reporting	Implementation follow up Capacity Building: training and Advisory Services to Offtaker
Engineering & Construction	detailed and executive design contractual management construction management and reporting testing and commissioning	Follow up on project Construction and Commissioning
Procurement	Contract definition, negotiation & management warranties, liabilities and liquidated damages	
Logistical Infrastructure Assessment	logits management (suppliers)	
General Permitting	Building Permits Generation License Tax exemptions, customs exemptions Stakeholder Management Permits Management	Implementation follow up
Corporate	Investment approval (for construction)	
Financials	Project Financing Structuring & closing	Implementation follow up

PROJECT IMPLEMENTATION PHASE		
Legal / Financial / Technical Main Project Documents	Development of a standardized PPA document adapted to local regulation, grid code and legislation Implementation agreement: - between offtaker or government - Responsibilities for payment - Step in rights from government or banks Generation Silence Interconnection Distribution Agreement Reporting responsibilities	
Tender Preparation		Capacity Building: Tariff Studies and review

Fig.23 Project Implementation Phase TA Framework, renewAfrica Technical Assistance Task Force (2020)



OPERATION PHASE		
Workstreams	**Implementation Phase (operation)**	**TA Downstream Monitoring**
Economical & Regulatory Country Appraisal		
Country Technical Assessment		
Resource Mapping		
Land Mapping and Acquisition	Landowners & land contracts management	
Electrical & Network	Interconnection management (as per PPA and Interconnection/Distribution Agreement)	
Environmental & Social	Environmental monitoring and prescription fulfillment Community liaison EMP HSEQ Plan **Sustainability Plan implementation** (for intervention during operation) Obligation monitoring/reporting	
Engineering & Construction		
Procurement	Contract management Services during the operational phase	
Logistical Infrastructure Assessment		
General Permitting	Stakeholder Management Permit management	
Corporate		
Financials		
Legal / Financial / Technical Main Project Documents	Contractual obligation monitoring Guarantee (performances) Reporting	
Tender Preparation		

Fig.24 Operation Phase TA Framework, renewAfrica Technical Assistance Task Force (2020)

Sustainability Approach

The parties participating in the RenewAfrica initiative are world leaders in the renewable energy sector, across its complete value chain, and are committed to sustainability and positive impact as core principles of their operations worldwide.

Based on the awareness that Sustainability and Climate Action are goals to be achieved through cooperation and concerted effort, the RenewAfrica Initiative acts as a carrier of the commitment of its members towards the United Nation's Sustainable Development Goals and the ambitions of the Paris Agreement: To translate this engagement into a tangible proposal, our Initiative has designed a framework to fully embed Sustainability in the proposed Programme throughout the whole value chain of the project.

Based on full compliance with the principles of the most recognized International Procurement standards, such as the World Bank, the EIB and the rest of its partners, Renew Africa tenders will advocate for openness, transparency and competence, with no discrimination of bidders.

It is proposed herein a "two layers" system to encourage the establishment of a set of sustainability and impact criteria, that will guide its actions. These two layers revolve around three main areas of focus: environment, socioeconomics and human rights.

In a first stage, Renew Africa aims to develop and implement adequate sustainability reporting standards across the projects' value chain, that contribute to the elaboration of holistic impact reports.

At a later stage, and based on the potential compliance with the abovementioned procurement standards, the reporting requirements could become mandatory, and additional criteria could be established, in order to further support the establishment of additional measures.

The two layers, including examples of impact indicators, are shown below:

1. Basic Elements

- **Environment**:
  - Environmental Product Declaration (EPD) for the main pieces of equipment, including reporting on CO2 emissions for the complete logistic chain

- **Socio-economic**:
  - Socio Economic and Environmental Context Analysis (SEECA)
  - Assessment on local employment skillset and capacity, including the potential need for trainings for certain works
  - Share of investment in Sustainable actions, included in the Projects scopes

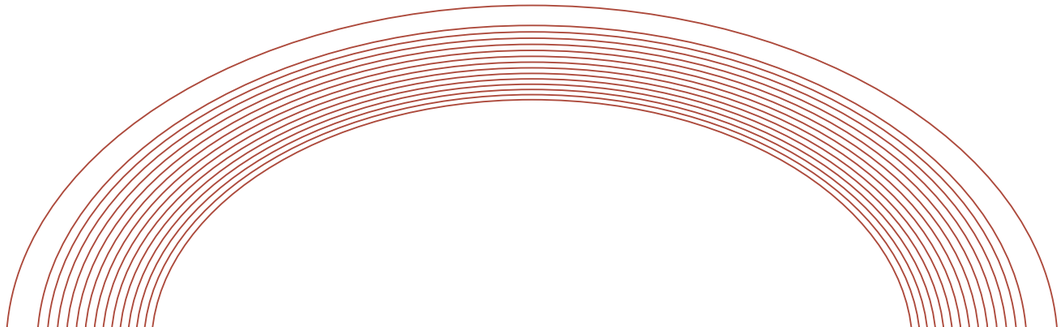
- **Human rights**:
  - Compliance to the UN Guiding Principles on Business and Human Rights in the whole value chain, including the relevant ILO conventions

2. Other Aspects

- **Environment**:
  - Land Restoration or compensatory biodiversity measures
  - Circular Economy activities, including reduction of waste materials, reuse and recycling.
- **Socio-economic**:
  - Sustainable projects targeting the local communities
  - Establishment of a "gender diversity and equal opportunity" policy in the promoting companies
  - Local contracting for services/goods;

- **Human rights**:

The Technical task Force is also developing a framework to effectively measure and valorize the project-specific impacts generated by the implementation of the above ''layers'' developed under the framework of the RenewAfrica initiative. Such Framework shall be fully compliant to applicable international procurement policies and practices.



renewAfrica's Approach to Finance is Based on De-Risking Investments to Mobilize Private Finance

Work package prepared by the Financial Support Task Force

A fundamental question keeps recurring in respect of Africa's energy landscape: why is it that despite huge untapped energy demand, abundant natural renewable energy resources and huge amounts of international private capital being available, renewable energy project development and investment from the private sector has seen only modest growth over the past decade?

An often-repeated answer points to the real and perceived investment risks that act as obstacles to private sector capital inflows. To unleash the requisite flows of private debt and equity, all material risks that the project bears need to be allocated and mitigated in a manner that is satisfactory to all stakeholders.

The European Union, together with its Multilateral and the Bilateral Development Finance Institutions of its Member States (together the EDFIs), currently manage a plethora of de-risking instruments specifically aimed at boosting renewables investments in Sub-Saharan Africa. Yet the variety and fragmentation of these instruments in terms of the institutions managing them, amounts, scope, geographies, technologies, project sizes and stages they cover, as well as awareness of their availability and their contractual complexity tend to hamper the effectiveness of these instruments in mobilizing private capital to the extent needed.

Objectives of the FSTF

The objective of the FSTF is to elaborate on a proposal for a financial de-risking instrument to enable the mobilization of private capital for utility-scale renewable projects in Africa within the framework of a suitable European Union support programme. It consequently endeavors to address both the issues mentioned above i.e. addressing the risks and drawing on the features of existing instruments to help develop a cohesive European instrument. The purpose of this chapter is to provide a broad overview of the work done.

The renewAfrica financial instrument aims at fulfilling three principal objectives:

1. **Address the key project-related risks** that private sector investors (equity) and/or lenders (debt) are unable or unwilling to assume

2. **Achieve a balance** between being sufficiently comprehensive to provide commercial lenders with capital relief, while ensuring adequate risk sharing between public and private participants to enable the effective use of public sector resources deployed ("leverage effect")

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3. **Be based on the features of existing European instruments** identified in the 2018 Ex-ante study prepared by the RES4Africa Foundation and PwC, rather than conceiving a brand-new product.

The financial instrument is a key but not the only component of a comprehensive Programme. Other components of the Programme include policy dialogue, capacity building, and technical assistance for the purpose of addressing non-financial risks and creating an enabling and facilitating investment environment. Such a holistic approach has been found to be necessary, given their mutual inclusivity.

Task Force Composition

Core Members
- Intesa San Paolo
- EIB
- CDP
- EGP
- PwC

Enablers
- Vestas
- Siemens Gamesa
- EDPR
- Solar Power Europe
- SDA Bocconi

Peer reviewers
- EGP
- EDFI
- FMO

In order to harness the considerable public and private sector expertise available within the renewAfrica membership, three teams were constituted:

- A Core Team that undertook the research and compiled a detailed Mem
- An Enabling team that acted as a sounding board e.g. for evaluating the importance of risks to be covered
- Peer Reviewers, who reviewed and validate the consistency of the Report.

Methodology for Fulfilling Objectives

Objective 1 was essentially a demand side analysis that required developing a comprehensive understanding of the project related risks that the financial instrument needs to cover in order to effectively galvanize private capital.

To address Objective 1, the FSTF built on the 28 investment risks that were identified in the study prepared by Res4Africa and PwC in 2018. It did so in two steps:

- It expanded the list to 35 risks and grouped them into (a) risks that need to be covered by a financial instrument, and (b) risks that will be addressed by the task forces dealing with Technical Assistance, Capacity Building, or Policy Dialogue within the renewAfrica initiative as part of its proposed Programme. The FSTF only focused on risks of type (a) above.

- It ranked the risks in terms of their importance. Drawing on the expertise within the renewAfrica signatories, an equal number of lenders and developers/equity investors rated the importance of each risk on a scale of A-D (which had numerical levels associated with each rating level). This produced the average rating of each risk and a ranking of all the risks relative to each other for debt and separately for equity investors.

Objective 2 seeks to establish an economic balance between the objectives of public and private sector participants. The spirit of Objective 2 is to identify which operational features are required in the financial instrument in order to attempt to achieve such a balance. The results of our work suggest at least six features are required: (i) capital relief for commercial lenders (ii) price competitiveness for the borrower (iii) adequate risk sharing between public and private parties to ensure an effective use of public resources via a leverage effect (iv) availability awareness (v) minimizing documentation complexity and (vi) political support to the instrument to ensure a shield effect in the event of issues/default.

Objective 3 was a supply side analysis to identify the risks covered by existing European instruments and their features in order to determine how well they did or did not address the risks and features identified by Objectives 1 & 2. This was done by initially applying a number of screening and scoring criteria to the universe of circa 80 instruments in order to achieve a short list of candidates. The spirit of the exercise was to identify a good candidate for a renewAfrica proposed Programme (i.e. a Base Instrument), identify which risks the Base Instrument does not currently address, determine if other instruments have features that could contribute to filling those gaps, and if not, propose enhancements required to address any significant uncovered risks.

This work was done in two steps:

1. Applying the following screening criteria based on desk research:
   - The instrument covers projects ≥ 50 MW;
   - The instrument is predominantly a guarantee, insurance or loan product (to the exclusion of instruments providing technical assistance, grants etc.);
   - The instrument is managed by the EU or a MFI/DFI of one or more of its Member States;

   - Geographic coverage i.e. the instrument is available in at least three African countries;
   - Technology coverage i.e. the instrument should cover at least two RES technologies.

This screening resulted in a shortlist of **12 instruments**.

2. Given the incomplete availability of information accessible publicly via desk research, the FSTF made direct contact with the managing institutions of each of the 12 shortlisted instruments and arranged a series of interviews to develop a better understanding of these 12 instruments, the way that they address the main risks, and how they cope at responding to some of the additional features which we listed above.

Results

Objective 1: Address the Key Project Risks

The results in respect of Objective 1 is a ranking of at least 15 risks whose mitigation by a financial instrument is essential to mobilize private capital. Those 15 risks can be grouped into three broad categories: **Counterparty Risks, Political Risks and Contractual Risks** (see table below).[8] In view of Objective 2, the risks identified, rated and ranked did not include risks that the private sector is expected to be capable of assuming: such as interest rate, radiation/wind risk, construction and logistics risk.

Counterparty Risks, which are primarily Off taker risks, relate to the risks of the purchasing counterparty, which is typically a Government owned enterprise honouring its purchase obligations and what happens if and while it does not do so, either intermittently or definitively.

Political Risks are classic ones such as capital transfer & convertibility, expropriation, sabotage, terrorism and war, but also regulatory and policy risks.

Contractual Risks include dispute resolution mechanisms, risks of termination and in a broader sense could be defined as Breach of Contract risks.

Risks that need to be covered by the renewAfrica financial instrument		
Counterparty Risks	Revenue stability / Non-honouring of financial obligations	**1.** Intermittent non-payment
		2. Definitive non-payment
		3. Non-Payment during arbitration process

9 Contractual Risks can also be considered in a broad sense as Breach of Contract risks.

Risks that need to be covered by the renewAfrica financial instrument	
Political Risks	**4.** Capital transfer and convertibility
	5. Property/concession rights (including expropriation)
	6. Regulatory and Policy Risks (including grid access rules)
	7. War & Civil Disturbance (including political violence, sabotage & terrorism)
Contractual Risks	**8.** Risk of inadequate grid access (including risk of curtailment)
	9. Dispute resolution issues
	10. Tax Regime (change in taxation, post-bid)
	11. Logistics, Physical Security and Safety Risks (to the extent the Govt is responsible)
	12. Termination Risk
	13. Inflation Risk
	14. Permitting / Licensing
	15. Exchange (depreciation) Rate Risks

Fig.25 Risks that need to be covered, renewAfrica Financial Support Task Force (2020)

From an IPP developer's perspective, risks which may prevent equity investors to move ahead with investment decisions in African countries are mainly breach of contract, expropriation, convertibility and transferability risks. Also essential for investment decisions is the need for a project to fulfil certain financial and operational parameters that make them eligible for debt financing. The aforesaid are equally major concerns for debt investors, who are additionally concerned about exchange rate depreciation and termination risks.

Objective 2: Achieve Balance via Selected Operational Features

The spirit of Objective 2 is to identify which operational features are required in the financial instrument in order to enable achieving the balance between comprehensiveness and risk sharing. The results of our work suggest at least six features are required. These are at least as important as the risk requirements.

1. **Capital relief** is a necessity for financial institutions to allow compliance with Basel III or equivalent requirements and its absence creates a major constraint. A de-risking instrument appropriately structured and found to be acceptable as a guarantee can provide capital relief for banks, whereas an instrument structured as an insurance often cannot.[9]

10 Regulatory requirements generally allow for capital relief when unconditional cover can be demonstrated, whereas insurance-type products in many cases only cover specific risks (e.g. political) while others are excluded (e.g. commercial). Moreover, Basel III explicitly provides for capital relief from guarantees, but insurance products are not explicitly referenced.

2. A clear challenge is how to make a fairly comprehensive financial de-risking instrument **price competitive**, including relative to competing public-sector finance providers and grant providers. This is made even more difficult if multiple existing products may need to be combined into a composite instrument, whereby each additional institution / instrument typically increases the all-in fees.

3. The financial instrument aims to achieve an effective use of public funds and thus aims to target a **reasonable leverage effect** between public sector resources deployed and total funds mobilized.

4. **Availability Awareness**: A single instrument emerging out of this process should facilitate availability awareness, as opposed to the fragmented landscape developers and private investors currently face.

5. Structural and documentation complexity is a non-negligible deterrent to sourcing appropriate instruments and tends to limit access to an instrument to large firms with a sizable knowhow. **Simplified structures and standardized documentation** are a means of reducing documentation complexity.

6. Finally, it is essential that the market clearly understands how the **full weight of the EU is backing such an instrument**, thereby acting as a formidable deterrent for the guarantee to be called ever arising. DFIs/MFIs have successfully used this deterrent effect as individual or several financial institutions involved in a transaction.

We believe that if the backing of the EU (with all the considerable means it has at its disposal) for a flagship instrument is **unequivocal**, it will be even more powerfully dissuasive and its "shield effect" will both be welcomed by and act as a strong catalyst for the private sector.

Required Features: non-risk requirements of the renewAfrica financial instrument
1. Be able to provide capital relief, e.g. under Basel III or equivalent rules
2. Be price competitive
3. A reasonable leverage effect between public sector resources deployed and total funds mobilized needs to be achieved
4. Facilitate availability awareness
5. Reduce structural and documentation complexity via standardized documents
6. Enjoy proactive EU backing in the event of an issue/default

Fig.26 Non-risk requirements, renewAfrica Financial Support Task Force (2020)

Objective 3: How Shortlisted Instruments Meet the Requirements

Once the Task Force established what are the requirements for a financial instrument, it proceeded to analyse existing instruments to assess how well those requirements are met. Three existing instruments, all part of the European Commission's European Fund for Sustainable Development ("EFSD"), were identified as being quite a close match:

- Africa Energy Guarantee Facility (AEGF)
- Regional Liquidity Supply Facility (RLSF)
- European Guarantee for Renewable Energy Non-Sovereign (EGRE NS)[10]

Two additional instruments do not quite meet the renewAfrica required features, but were selected for closer investigation due to their potential for synergies:

- Africa GreenCo
- Boosting Investment in Renewable Energy Guarantee

A Brief Overview of the Shortlisted Instruments

Africa Energy Guarantee facility (AEGF) is a re-insurance platform. The guarantee/insurance to investors/financiers is administered and underwritten by a primary insurer, which is currently the Africa Trade Insurance ("ATI") agency based in Nairobi, Kenya that is supported by the European Investment Bank with a second loss guarantee. The AEGF is designed as a platform, open to new primary insurers, reinsurers and guarantors. Hence, the product offering under the AEGF is open to innovation and further development. AEGF is included under EFSD.

Africa Energy Guarantee facility (AEGF)
Strengths
Addresses a substantial subset of risks and features
Presents a possible synergy with RLSF.
ATI is an African institution with relevant local experience and track record, shareholders and partners include member countries and reputable international insurers / multilaterals.
ATI is an African institution with relevant local experience and track record, shareholders and partners include member countries and reputable international insurers / multilaterals.
Covers 18 African countries without a requirement for sovereign guarantees in many of those countries, given ATI's preferred creditor status with its member countries.

11 The European Guarantee for Renewable Energy (EGRE) is an umbrella program that comprises AEGF and RLSF as its integral pillars.

Africa Energy Guarantee facility (AEGF)
Weaknesses
Does not provide capital relief under Basel III requirements. Does not cover all African markets.
Limited track-record in successful deployment (undergoing restructuring to address this).
Dependent on the successful execution on ATI.
Cost-competitiveness not always ensured

Fig.27 AEGF analysis, renewAfrica Financial Support Task Force (2020)

Regional Liquidity Support Facility (RLSF) is a joint initiative of KfW and ATI. RLSF provides the collateral (part cash, part as an on-demand guarantee) to a bank that issues a Stand-by Letter of Credit. As a condition, the RLSF operator requests the Ministry of Finance, the Ministry of Energy and the off-taker to acknowledge that this LC benefits from the preferred creditor status of ATI, so that the recourse mechanisms can be activated at short notice in case a letter of credit is called. RLSF is included under EFSD.

Regional Liquidity Support Facility (RLSF)
Strengths
It is one of the few existing instruments that provides short-term liquidity support, and in that sense, it complements the AEGF instrument very well.
Weaknesses
No counter guarantee from the State, deterrent effect remains to be demonstrated. Could be considered as an additional debt service reserve facility. Its maximum tenor is limited, usually not covering the tenor of senior loans. Available envelope limited to donor appetite.

Fig.28 RLSF analysis, renewAfrica Financial Support Task Force (2020)

European Guarantee for Renewable Energy (EGRE) is an umbrella program under the EFSD composed of three pillars, including both AEGF and RLSF mentioned above, as well as a separate non-sovereign guarantee instrument (EGRE Non-Sovereign) covered in this section. Full detail on the instrument is not yet publicly available.

European Guarantee for Renewable Energy (EGRE)
Strengths
Composite approach in line with the renewAfrica logic
Weaknesses
Instrument remains to be finalized and operationalized. Successful track-record currently non-existent.

Fig.29 EGRE analysis, renewAfrica Financial Support Task Force (2020)

Boosting investment in renewable energy is a guarantee proposed by the Association of bilateral European Development Finance Institutions and the European Bank of Reconstruction & Development under the EFSD. Its explicit objective is to mobilize private capital, on the basis of a Partial Credit Guarantee approach. The guarantee is not yet operational as its funding got shifted to the next Multiannual Financial Framework ("MFF") 2021-27 amid Covid-19.

A new Proposed Investment Programme ("PIP") will be submitted under the new MFF, potentially with revisions relative to the original proposal.

Boosting Investment in Renewable Energy
Strengths
Clear objective is to mobilize private capital. Mobilizing the various European DFIs under the umbrella of the Association of bilateral European Development Finance Institutions
Weaknesses
Operated on the Partial Credit Guarantee approach, which as explained before has its limitations. Remains to be operationalized. Successful track-record currently non-existing.

Fig.30 Boosting Investment in RE analysis, renewAfrica Financial Support Task Force (2020)

Africa GreenCo is a guarantee under the EFSD that develops an alternative approach to off-taker risk, initially in countries covered by the Southern African Power Pool (SAPP).

Its objective is to become the official off-taker of renewable energy IPPs. As an official off-taker, it would principally act as a creditworthy intermediary between the IPP and the national utility, and have the right to on-sell the power to other participants in the Southern Africa Power Pool if the national utility fails to pay. Its creditworthiness would be established through a mix of strong capitalization and guarantees issued by investment-grade institutions. In this structure, the individual IPP would be insulated from national utility payment risk and would instead be exposed to Africa GreenCo payment risk, which is expected to be of superior quality.

Africa GreenCo
Strengths
De-risking off-taker risk, which is one of the most acute concerns for IPPs in Africa.
Weaknesses
It works from the off-taker, not the IPP side so while it is a crucial product, it is part of a multiple versus single product solution. Also, it remains largely untested, and in the early stages its leverage effect and scalability will be limited.Successful track-record currently non-existing.

Fig.31 Africa GreenCo analysis, renewAfrica Financial Support Task Force (2020)

Despite these weaknesses, the FSTF recommends that that a close eye is kept on Africa GreenCo as it approaches the signing of its first transaction in Zambia. GreenCo may be a potential medium- to long-term fallback option of mitigating offtake/(r) risk, under the auspice of creating regional power pools and thereby limiting the severity of off-taker risk across entire regions.

Conclusions & Recommendations

Why, despite huge untapped energy demand, abundant natural renewable energy resources and huge amounts of private capital being available, has African renewable energy project development and investment from the private sector seen only modest growth over the past decade?

The answer to this question is two-fold:

- **Demand Side**: real and perceived investment risks act as obstacles to private sector capital inflows.
- **Supply Side**: the variety, fragmentation, specificity and complexity of existing de-risking instruments as well as competition between them hampers the effectiveness of these instruments in mobilizing private capital to the extent needed.

FSTF's objective is to propose a financial de-risking instrument within renewAfrica's composite approach that enables the mobilisation of private capital for utility-scale renewable projects in Africa. In doing so, it endeavours to address both the issues mentioned above i.e. addressing the risks and drawing on the features of existing instruments to help develop a cohesive European instrument. The renewAfrica financial instrument consequently aims to meet three objectives:

- **Objective 1:** Address the key project-related risks that private sector investors (equity) and/or lenders (debt) are unable or unwilling to assume;
- **Objective 2**: Achieve a balance between the need to provide commercial lenders with capital relief and the need for effective use of public sector resources ("**leverage effect**");
- **Objective 3:** Develop an instrument based on the features of existing European instruments, rather than conceiving a brand-new product (to the extent feasible).

Our analysis suggests the following results, which are split between what we believe is already available and works well versus what we propose needs improvement. We have then provided our perspective on what we see is the next stage in the Looking Forward section.

Available Solutions

- The AEGF and RLSF cover a broad spectrum of risks that investors face and are, therefore, well positioned to act as base instruments for the renewAfrica composite instrument. They also exhibit clear complementarities as RLSF provides short-term liquidity coverage, while AEGF provides coverage for political risk and some aspects of Contractual Risks.[12]
- The EGRE instrument has the potential to be another strong instrument. EGRE encompasses under its umbrella the AEFG and the RLSF facilities, as well as a third complementary pillar of a non-sovereign guarantee. The organizational logic of EGRE, whereby a multitude of existing instruments are grouped under one umbrella and further enhanced, is aligned with the composite approach renewAfrica is proposing.[13]
- They are also all part of the EFSD.
- The instrument Boosting investment in renewable energy seems to offer meaningful support to investors. But the instrument currently has adopted a partial credit guarantee approach and is not yet operational, which makes it difficult to draw further conclusions.

Proposed Enhancements

- To effectively mobilize private capital, mitigation of the 15 risks identified by the FSTF is essential.
- Two other risks need to be addressed: inflation and exchange rate risks (currently not covered by any instrument). They are of high concern in a broad range of African countries. This is one of the areas of enhancements that renewAfrica intends to bring to existing instruments, which can to an extent be addressed by means of standardized project & finance documentation.

The FSTF also found that adequate prioritization of essential operational features is needed. These include:

- Price competitiveness, especially in the African environment, is essential.
- The renewAfrica one-stop-shop will need to offer a suite of standardized project documentation. This enables administrative processes to be simplified, improves bankability (thanks to comprehensiveness and improving familiarity), and facilitates

12 The FSTF is aware that AEGF is undergoing a review and potential restructuring.
13 Our analysis of EGRE has been limited by the lack of publicly available information. Details on its functioning and set-up remain confidential until the Guarantee Agreement with the European Commission is finalised.

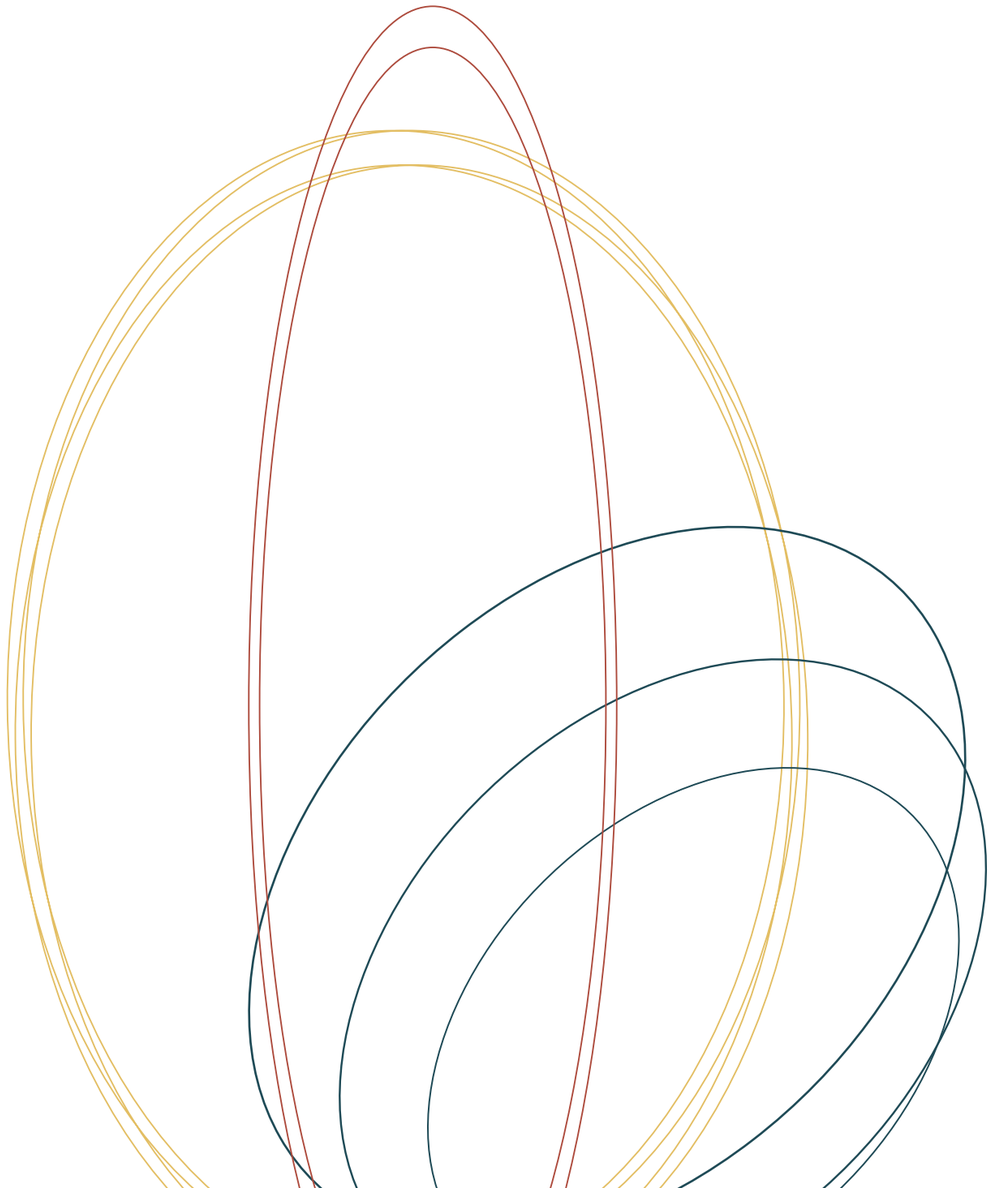
access to finance for smaller projects/developers with more modest resources. Such standardized documents could possibly be developed by the renewAfrica Technical Assistance Task Force, or other existing initiatives.

- To meet its full potential effectiveness, the financial instrument needs to be visible and well understood by a wide range of potential investors. Currently a lack of awareness among investors about the existence of certain instruments or disorientation resulting from the range of them imposes limits on their effectiveness. This can be partly solved by better marketing; nonetheless the inherent difficulty of fragmentation is that it creates confusion that undermines marketing efforts. A one-stop-shop approach which renewAfrica is proposing to be adopted, where the financial de-risking instrument is embedded within a broader range of investment assistance services, will be easier to publicize and enhance its visibility if it is recognized as the EU's core solution for any debt or equity investor looking for assistance in developing projects in Africa.
- The success of this composite instrument is contingent on the perception of whether the full weight of the EU is backing such an instrument in order to demonstrate a robust shielding effect.
- Additional enhancements are needed in the area of capital relief and the leverage effect. The Financial Support Task Force will be working with the European Commission to disclose the full details of our proposals in these two areas.

Looking Forward

- The next stage is to find suitable counterparts within the European Commission and provide our ongoing assistance to those counterparts for the development of the instrument
- The specific value-added assistance that FSTF can provide to the Commission include:
  - Refining the risks and what mitigation they require
  - Addressing private debt & equity investor needs
  - Liaise with African stakeholders
  - Assist with the definition of how the instrument functions e.g. as a guarantee versus insurance
  - Tackling the balance between comprehensiveness and leverage considerations
- The FSTF is also looking to liaise with African stakeholders to provide further insight on demand-side requirements that a support instrument will need to meet

- The overarching objective is that if the Commission is convinced by renewAfrica's proposal, it adopts and integrates it into a suitable programme with the FSTF providing assistance and support to help ensure it meets the needs of debt & equity investors and is marketed effectively.



renewAfrica's Strength Resides in the Knowledge and Experience of its Partners and their Commitment to Speak as One Voice in Support of Africa's Green Energy Future

Work package carried out by the Advocacy and Outreach Task Force

Objective of the TF

Renewables represent an untapped opportunity for African countries to leapfrog to a sustainable and more prosperous future. Achieving a green socio-economic growth for the continent requires building a coalition of different parties committed to common energy goals. Advocacy and outreach initiatives including the public sector, local communities and private sector can foster consensus to create the necessary strategies for energy reforms.

The Advocacy and Outreach Task Force of renewAfrica has worked as a catalyst in building systematic dialogue with European institutions, regional financial and development institutions as well as African stakeholders working across the renewable energy value chain.

The rationale of the Task Force is to create the conditions and the right environment for the Initiative and its proposed approach to be welcomed and for its value proposition to be recognized internationally. Ensuring that renewables deployment remains at the top of the agenda in the EU-Africa dialogue in the post-Covid recovery strategies became a key objective of the renewAfrica Initiative and particularly of the Advocacy Task Force.

Task Force composition

Core Members
- renewAfrica Secretariat
- Siemens Gamesa
- EGP
- Wind Europe
- Solar Power Europe
- Schneider Electric

Enablers
- EGP
- Schneider Electric
- EDPR

Peer reviewers
- Vestas
- EDPR
- EGP
- Enercon

Methodology

Renewables are the cheapest, most competitive, secure, and sustainable solution to achieve universal electricity access in Africa. Yet to achieve the effective deployment at scale of renewable energy in Africa, and attain significant impact, involves building consensus and streamlining current disparate approaches, instruments and tools. Convening different parties into a single, ongoing dialogue represents the starting point to encourage and boost the scale of RE investments needed to enable Africa's sustainable growth.

renewAfrica has widely promoted the involvement of all relevant stakeholders in the RE value chain to gather experiences and solutions for an impactful RE development in Africa. The ultimate goal of the 27 leading European actors supporting the Initiative is to advocate for the creation of a European comprehensive Programme for renewable energy investments in Africa. Being an industry-backed Initiative, renewAfrica draws on the experience of its different members working in different geographies across the clean energy value chain: from manufactures, to IPPs, finance, academia, and technical assistance and advisory service firms. This coalition of stakeholders has the experience, the know-how, and appetite to deliver result at scale and move forward the RE agenda in Africa. renewAfrica's proposals are developed through a bottom-up approach thanks to the participation of the Initiative's members to the four Task Forces, which cover the work areas of country prioritization, technical assistance and capacity building, financial support, advocacy and outreach.

The Advocacy and Outreach Task Force is tasked with positioning the Initiative, a goal which can be achieved through a cross-collaboration among private and public sector in both continents, so to promote the EU-Africa partnership, and to define a forward-looking green growth model in line with UN Sustainable Development Goals and Africa's Nationally Determined Contributions (NDCs).Within the aim of consolidating the EU-Africa partnership in the domain of renewable energy, the Task Force has supported dialogue with a broad multi-stakeholder pool of actors to contribute to inform and develop a policy change in the fields of sustainable energy and investments. In this regard, the Task Force has carried out efforts to:

- Open cooperation channels both in Africa and Europe
- Expand the pool of signatories of the Initiative
- Obtain endorsement of its propositions

To enable the expansion of renewAfrica members, the focus of the Task Force has been allowing different interest groups represented by the variety of members of the Initiative to frame the problems affecting Africa's green future, and advocating for renewAfrica's proposed approach proposing the renewAfrica Initiative as a viable and comprehensive solution. In order to create evidence-based consensus around the renewAfrica approach, the findings of the analysis carried out by Task forces have been used by the Advocacy and Outreach Task Force to implement a policy development process both in Europe and Africa. The continuous and ongoing enlargement of the supporters of the Initiative is a clear marker of success in this sense.

During 2021 the Task Force will enter in a new phase of policy development, building a long-term and robust partnership directly with Africa. renewAfrica will be introduced in selected

02/ Shaping renewAfrica's Proposal: A Collective Effort

African countries through customized launch events and meetings to generate action-oriented commitment for the consolidation of the RE sector.

Leveraging on the network of renewAfrica signatories as well as RES4Africa members, the stakeholder engagement process will involve a great variety of actors, namely: multilateral institutions, such as the African Union, the EU delegations in Africa, the African Development Bank, the World Bank, and private banks; government institutions; utility companies; regional power pools; industry associations; financial sector institutions; research and innovation institutions. The analysis undertaken by the renewAfrica Task Forces and the ongoing work done by the RES4Africa Foundation will be presented to Tier 1 selected African countries, namely Ethiopia, Kenya, Ghana, Ivory Coast, Senegal and Mozambique. The outreach program is composed by a two-phased approach which will entail a first phase launch of events in each of the target countries, followed by a second phase composed by a series of closed-door meetings. These meetings will provide technical content on the regulatory barriers in each country and the specific details of the renewAfrica Initiative. While the aim of the first phase will be to attract a wide audience, the closed-doors events will be organized through a content-based format, therefore convening specific categories of stakeholders in line with the content presented during each meeting.

Outreach and Engagement Efforts

Just two weeks after its launch, on June 19th 2019 renewAfrica was presented in Addis Ababa to the United Nation Commission for Africa and to the African Union Commission. The meeting was the first step into strengthening and consolidating the EU-Africa dialogue, and was crowned by the recognition of both actors that renewAfrica embodies the development aspirations both of the United Nations 2030 Agenda for Sustainable Development and of the African Union's Agenda 2063. Moreover, the United Nations Industrial Development Organization (UNIDO), the African Development Bank (AfDB) and NedBank have actively contributed to the discussion of the renewAfrica framework and proposition, being enablers to accelerating the dialogue with African countries and authorities.

From multilateral and governmental institutions to the financial sector, the buy-in and contribution of multiple players is necessary to accelerate Africa's renewable energy transition. In this regard, renewAfrica has involved Development Finance Institutions (DFIs) to learn from their financing experience and expertise to propose a tailored financial package to improve financing for renewable energy projects in Africa. The European Investment Bank (EIB), the Dutch Development Bank (FMO) and the association of European Development Finance Institutions (EDFI) endorsed the Initiative in order to provide advisory and financial support for creating a conducive business environment in Africa, substantially helping to mobilize the scale of private capital needed for a greener economic development. Moreover, the European Financing Institutions concurred in that renewAfrica represents an opportunity to build an integrated and impactful response to harmonize and enhance the existing European financing instruments.

On the European institutional side, the Task Force has been liaising with the European Commission as main interlocutor. Since the 2018, RES4Africa Foundation has contributed to the work High Level Platform for Sustainable Energy Investments in Africa (SEI Platform), launched by the Commission under the Africa-Europe Alliance for Sustainable Investments

and jobs. The aim of the SEI Platform was to provide recommendation of actions needed to accelerate impact on access to sustainable energy in Africa, boost public and private investments and promote job creation. The long-term challenges identified by the Platform have then converged to shape the new geopolitical strategy of the European Union. The mission of renewAfrica echoes the ambitions mapped out in the European Green Deal and the Strategy with Africa, which underline the commitment of the Von der Leyen Commission to advance climate action in Africa. The priorities set out in both documents delineate the EU's new carbon-neutral growth strategy, which will be translated into a stronger European international engagement, specifically with Africa. In this growing momentum of EU-Africa relations, the European Union has acknowledged that common challenges require common solutions, which in the Strategy with Africa are built around five pillars of mutual interests and values. Being partners for the green transition and energy access is the first and core component of this new comprehensive roadmap.

The shared sense of purpose between the Initiative and the path of European climate policy has been clear since the presentation of renewAfrica in Brussels which took place in January 2020 and involved the Director Generals of the European Commission, representatives from the European renewable energy industry, international financing institutions, academia, and think-tanks. In this occasion DG DEVCO, DG ENER, DG CLIMA and of the EEAS (European External Action Service) agreed that renewAfrica could be instrumental in promoting the EU Green Deal and Strategy with Africa vision in Africa and doubling down efforts to unlock its renewable energy potential. The dialogue with the EU Commission has continued during all 2020, entailing multiple conversations with the Cabinets of the Commissioners to take stock of the progress made by the Initiative and discuss the way forward. Amid the unprecedented effects of Covid-19, the Task Force has intensified its advocacy efforts to stress that the time to act is and remains now, reiterating Africa's enduring need for investments in renewables.

In the current pandemic context, the European Union has developed a "Team Europe" approach to support partners countries recovery, and in particular Africa thanks to a cross-border coordination. With the support of EU Member States, the EIB, EBRD and other financial institutions, the EU has committed itself to strengthen and deploy its green diplomacy to manage an inclusive and just transition aiming at climate neutrality, and the EU Green Energy Initiative is one of the tools to achieve this goal. In this regard, renewAfrica has been recognized as instrumental to the Green Energy Initiative, bringing together Africa's energy needs and business opportunities for EU industries.

To further position renewAfrica in Brussels, the Advocacy and Outreach Task Force supports the involvement of the RES4Africa Foundation in the Africa-Europe Foundation, promoted by Friends of Europe and the Mo Ibrahim Foundation. The Africa-Europe Foundations is directly mandated by the EU Council and the Commission to set up strategic dialogue platforms, which directly derive from the Task Forces of the Africa-Europe Alliance on Sustainable Investments and Jobs. Having contributed actively both to Africa-Europe Alliance before and now to the Strategy Group on Sustainable Energy of the Africa-Europe Foundation, the Initiative has been placed at the highest levels of the policy dialogue in Europe, further unlocking opportunities to spread its message and shape decision-making processes to take the Africa-Europe partnership to the next level of impact.

02/ Shaping renewAfrica's Proposal: A Collective Effort

Another key milestone in the path of renewAfrica and achievement of the Task Force has been the organization of the meeting with the European Commission Vice-President, Mr. Frans Timmermans. CEO's and high-level representatives of 18 of the most important international companies and organizations active in the renewable energy sector participated in the meeting. EVP Timmermans appreciated that the Initiative is in line with the green ambitions of the European Commission, and welcomed the work of renewAfrica as a positive contribution to the EU's Comprehensive Strategy with Africa and Africa's green growth. The occasion confirmed the ability of the Initiative as innovative platform for public and private dialogue.

The meeting was followed by a further reinforced dialogue with DG INTPA (previously "DG DEVCO"), DG ENER and DG CLIMA, which confirmed that renewAfrica is a tool that matches EU's scope of reaching out to African countries to support climate and sustainable energy objectives. renewAfrica and the Commission will collaborate to effectively design and implement in Africa the Green Energy Initiative, which will benefit from the findings and recommendation provided by the Initiative for the roll-out. In this regard, renewAfrica will intensify its dialogue with African countries to gain a deeper understanding of their needs and offer a tailored support to effectively advance climate action and scaling up renewable energy access.

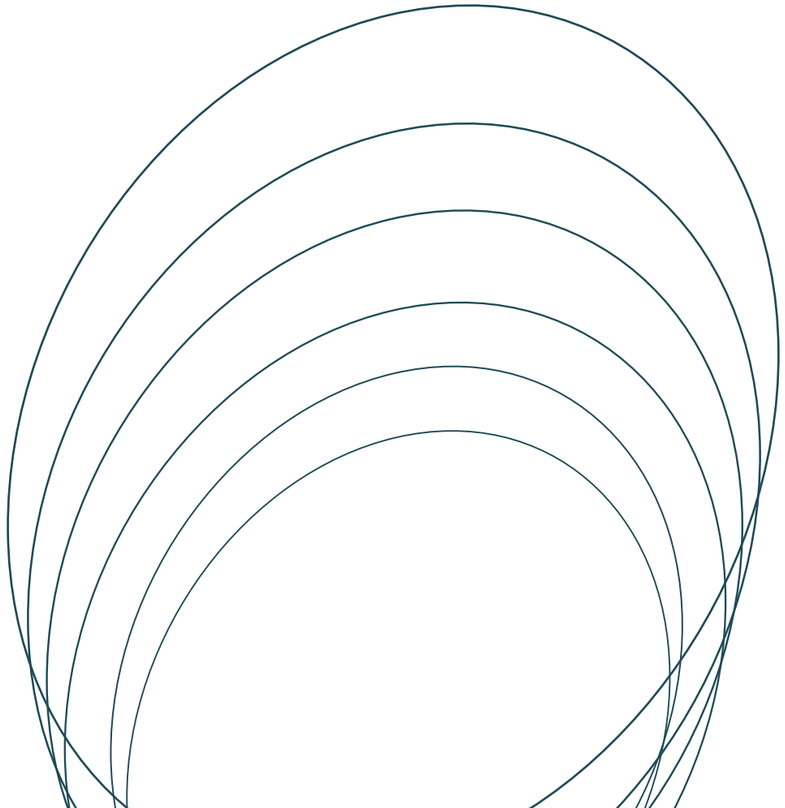
Finally, since the analysis of the EU budget and funding for the external action has been a central part of the work conducted within renewAfrica, the Initiative has participated in the consultation organized by DG INTPA to provide the private sector perspective and vision on the Multiannual Financial Framework (MFF) 2021-2027.

Next steps:

- The relationship between the EU and Africa is of central importance for the Portuguese Presidency of the Council of the EU. The European Union is prioritizing result-oriented partnerships with the continent, with a particular emphasis on green investment and the energy transition. In this regard, the Portuguese Presidency will organize both a high-level EU-Africa forum on the green economy in April in Lisbon and prepare the sixth EU-Africa Summit. The purpose of the Advocacy and Outreach Task Force is to enable the participation of renewAfrica to both events, as valuable contribution to the debate on development cooperation in the field of RE.

- To further position renewAfrica towards European and African stakeholders, in May 2021 the Initiative will be presented at the G20 side event dedicated to "Green Finance Boost for an Inclusive and Sustainable Recovery". Moreover, renewAfrica will engage with international stakeholders in the COP26 "Incontri con l'Africa" days which will be held in October 2021.

- Starting in April 2021, the renewAfrica outreach program in Africa will entail a series of launch event covering each of the selected countries of Tier 1, a process structured as follows:
  - April 2021: Mozambique
  - May 2021: Kenya;
  - June 2021: Ghana;
  - September 2021: Ivory Coast;
  - October 2021: Senegal;
  - November 2021: Ethiopia.



List of Abbreviations

AEGF - Africa Energy Guarantee facility
AfDB – African Development Bank
AOTF – Advocacy and Outreach Task Force
UNECA – United Nations Economic Commission for Africa
UNIDO – United Nations Industrial Development Organization
AUC - African Union Commission
BNEF - Bloomberg New Energy Finance
CDP - Cassa Depositi e Prestiti
CEO – Chief Executive Officer
CPTF – Country Prioritization Task Force
DFI - Development Finance Institution
DG CLIMA - Directorate General of Climate Action
DG DEVCO - Directorate General of International Cooperation and Development
DG ENER - Directorate General of Energy
DG INTPA – Directorate General International Partnerships
EBRD – European Bank for Reconstruction and Development
EC - European Commission
EEAS - European External Action Service
EFSD - European Commission's European Fund for Sustainable Development
EGP - Enel Green Power
EGRE - European Guarantee for Renewable Energy
EIB European Investment Bank
ESMAP - Energy Sector Management Assistance Program
EVP – European Vice President
EU - European Union
FSTF – Financial Support Task Force
IEA - International Energy Agency
IFC - International Finance Corporation
IMF - International Monetary Fund
IPP - Independent Power Producer
IRENA - International Renewable Energy Agency
MFF – Multiannual Financial Framework
MFI - Multilateral Financial Institutions
NDC - Nationally Determined Contributions
OECD - Organisation for Economic Co-operation and Development
PPA - Power Purchase Agreement
PPP - Public-Private Partnership
PwC – PricewaterhouseCooper
RLSF - Regional Liquidity Support Facility
SDG - Sustainable Development Goal
SE4All - Sustainable Energy for All
TA - Technical Assistance
TATF – Techcnical Assistance Task Force
UNDP - United Nations Development Programme
UNECA - United Nations Economic Commission for Africa
WBG - World Bank Group

ANNEX 1

ALGERIA			
Macro Economics			
Criterion	**Measurement Indicator**	**Source**	**KPI**
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	4.115
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	-5,15%; 6,23%
Population Size	Population	World Bank, 2018	42.228.430
Population Growth	Population growth rate	World Bank, 2018	2,00%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	DNZ 134,87 / 1 EUR
Inflation Rate	%	IMF, 2019	1,95%
Investment Environment			
Financial Risk	Financial Risk Index	SACE	66
	Ratings	S&P	n.a
Political Risk	Political Stability Risk Index	SACE	62
	Country Risk Classification	OECD, 2020	5
	Global Peace Index	GPI, 2020	2,287
Ease of Doing Business	Ease of business index	World Bank	DB Rank 157 & DB Score 48,6
Corruption	Corruption perception index	Transparency International, 2019	35
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,65
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Partially convertible

ALGERIA			
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enervate)	FDI allowed in the electricity sector with Strong Restrictions (49/51 rule), Algerian share in JV must be minimum 51%
Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	<15
International commercial banks	Number	Various	~ 15
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	Negligible
RES Development Potential			
Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	76
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	1,57
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	7%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	100%
Electrification Target	% of population	Africa Energy Outlook, 2019	n.a.
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	445
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
IPPs Market Share in the Generation Sector	% share	Various	None. However, new solar PV capacity is under construction and new renewable energy tenders are being developed.

ALGERIA			
RES Growth	CAGR past 5-10 years	IRENA	Negligible - only 3.8% of total power production is related to renewable energy
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	'Universal energy access reached in 2017. Algeria is connected with neighboring grids of Tunisia and Morocco by a 440 kV line each.
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	'4,5 GW PV in 2024 and 17,5 GW by 2030 (tot: 22 GW in 2030).
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	FIT Tenders Fiscal incentives available
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Yes Tenders with 20 to 25 years PPA with Sonelgaz or TSO as single buyer
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	Yes, but not applicable Direct PPA allowed by law 01-02 but never implemented so far
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No

ALGERIA			
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	No public information available
Land Access	Yes / No	FAO	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	45
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,815
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	0,35
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	4,99
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Renewable Energy Applied Research Unit (URAER) affiliated to the Renewable Energy Development Center (CDER) - Ghardaia.

ANGOLA

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	3.432
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	-1,37%; 2,64%
Population Size	Population	World Bank, 2018	30.809.760
Population Growth	Population growth rate	World Bank, 2018	3,30%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	AOA 362,02 / 1 EUR
Inflation Rate	%	IMF, 2019	17,07%

Investment Environment

Financial Risk	Financial Risk Index	SACE	77
	Ratings	S&P	CCC+
Political Risk	Political Stability Risk Index	SACE	69
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	2,087
Ease of Doing Business	Ease of business index	World Bank	DB Rank 177 & DB Score 41,3
Corruption	Corruption perception index	Transparency International, 2019	26
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,22
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Non convertible

ANGOLA

Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	Used to have a similar local content law like Mozambique (51% local partner), but this is no longer the case, in another words no need for local partners
Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	<15
International commercial banks	Number	Various	8 - 10
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	Negligible Interest currently improving due to the Government's new renewable energy policy

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	10,7
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,32
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	11%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	43%
Electrification Target	% of population	Africa Energy Outlook, 2019	57% in 2030 (stated policies), 100% (Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	64
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High

ANGOLA			
IPPs Market Share in the Generation Sector	% share	Various	1 IPP operating a small hydropower plant (16MW, ~1% of total installed capacity)
RES Growth	CAGR past 5-10 years	IRENA	Negligible
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes with limited independence
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	Service remains unreliable. Power network coverage has not kept up with the fast-growing urban population and in rural areas is nearly negligible.
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	Targets updated in 2018: add 800MW of RES capacity by 2025. In 2018 large hydro accounted for 60% of Angola's 5,3GW of installed capacity
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	No
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	No
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	Limited

ANGOLA			
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	The utility ENDE reports negative EBIT. Cost-recovery is a central issue in Angola's electricity sector.
Land Access	Yes / No	FAO	Yes
Integration in the Regional Power Pool	Yes / No	Various	No
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	30
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,644
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	-0,39
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	5,4
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Universidade Metodista de Angola inaugurated in 2012 an experimental center for Renewable Technology and Energy (CETER).

BOTSWANA

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	8.259
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	-5,37%; 6,78%
Population Size	Population	World Bank, 2018	2.254.130
Population Growth	Population growth rate	World Bank, 2018	2,20%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	BWP 11,85 / 1 EUR
Inflation Rate	%	IMF, 2019	2,84%

Investment Environment

Financial Risk	Financial Risk Index	SACE	49
	Ratings	S&P	BBB+
Political Risk	Political Stability Risk Index	SACE	28
	Country Risk Classification	OECD, 2020	2
	Global Peace Index	GPI, 2020	1,693
Ease of Doing Business	Ease of business index	World Bank	DB Rank 87 & DB Score 66,2
Corruption	Corruption perception index	Transparency International, 2019	61
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,35
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investo-pedia)	Fully convertible
Local Content and Local Ownership Requirements for SPV	% + qualitative assess-ment	Various (e.g. BNEF, Ener-data)	Preferential treatment is given to materials and products made in Botswana as well as to services located in Botswana and owned by Botswana citizens.

BOTSWANA

Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	Negligible
International commercial banks	Number	Various	4
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	'Negligible The only IPP is the Debswana Diamond Mining Company

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	3
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	1,63
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	2%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	65%
Electrification Target	% of population	Africa Energy Outlook, 2019	n.a.
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	3
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
IPPs Market Share in the Generation Sector	% share	Various	10% - Private mining company running dual-fuel power facility to run mining activities (2016 data)
RES Growth	CAGR past 5-10 years	IRENA	Negligible

BOTSWANA			
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes with limited independence
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	No
Grid Status, Readiness and Access	Qualitative assessment	Various	Grid network developed in the east of the country. No electricity access in rural areas, Inefficient T&D of electricity to remote locations
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	'No official targets.
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	No. Import and tax incentives apply to a wide range of manufacturing goods and there are no specific provisions for RE.
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	No
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	No
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	Electricity tariffs in Botswana have historically been heavily subsidized
Land Access	Yes / No	FAO	No. Most of land is still administered through Customary Land.

BOTSWANA			
Integration in the Regional Power Pool	Yes / No	Various	Yes - South Africa Power Pool (SAPP) + ZIZABONA interconnector (1st Phase already completed)
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	n.a.
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,806
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	1,21
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	7,17
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Yes. University of Botswana's Clean Energy Research Centre (CERC)

ETHIOPIA

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	772
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	3,27%; 4,33%
Population Size	Population	World Bank, 2018	109.224.560
Population Growth	Population growth rate	World Bank, 2018	2,60%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	ETB 33,44 / 1 EUR
Inflation Rate	%	IMF, 2019	15,81%

Investment Environment

Financial Risk	Financial Risk Index	SACE	72
	Ratings	S&P	B
Political Risk	Political Stability Risk Index	SACE	70
	Country Risk Classification	OECD, 2020	7
	Global Peace Index	GPI, 2020	2,526
Ease of Doing Business	Ease of business index	World Bank	DB Rank 159 & DB Score 48
Corruption	Corruption perception index	Transparency International, 2019	37
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,83
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Partially convertible

ETHIOPIA

Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	(30% localization). Local operating licenses have to be in place. (Procurement, services, resources). Policy has come in place at regional level (EAC).
Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	>15
International commercial banks	Number	Various	14
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	'The GoE has gained experience with Independent Power Producer (IPP) projects through negotiation of the unsolicited Corbetti and Tule Moye Geothermal Projects and the competitively tendered Metahara Solar Project.

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	13,9
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,09
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	14%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	45%
Electrification Target	% of population	Africa Energy Outlook, 2019	100% in 2030 (stated policy and Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	534
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High

ETHIOPIA			
IPPs Market Share in the Generation Sector	% share	Various	Still no presence of IPPs, in terms of currently installed power capacity. Three new IPPs are expected to come on line within the next few years
RES Growth	CAGR past 5-10 years	IRENA	None
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	Yes
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	«Yes with limited independence
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	The five-year Growth and Transformation Plans expires in 2020 and has not been renewed as of June 2020
Grid Status, Readiness and Access	Qualitative assessment	Various	Grid Code in draft since 2018
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	RE Targets updated in 2019: 25 GW by 2030
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	Yes: FIT defined by regulation in 2011 but never implemented. Level of FIT unknown. Tenders (Gov. auctions and Scaling Solar) Tax reductions only for local manufacturers
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Yes, PPA only with Ethiopian Electric Power (EEP) under auctions
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	No

ETHIOPIA			
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	0 - 0.5 (2017 - EEU). Net loss recorded in 2017.
Land Access	Yes / No	FAO	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes- East African Power Pool (EAPP)
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	41
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,846
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	-1,95
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	5,25
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	n.a

GHANA

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	2.202
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	1,48%; 5,86%
Population Size	Population	World Bank, 2018	29.767.108
Population Growth	Population growth rate	World Bank, 2018	2,20%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	GHS 5,76 / 1 EUR
Inflation Rate	%	IMF, 2019	7,21%

Investment Environment

Financial Risk	Financial Risk Index	SACE	68
	Ratings	S&P	B
Political Risk	Political Stability Risk Index	SACE	50
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	1,776
Ease of Doing Business	Ease of business index	World Bank	DB Rank 118 & DB Score 60
Corruption	Corruption perception index	Transparency International, 2019	41
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,74
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Partially convertible

GHANA

Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	FDI Restrictions established in 2017 (15% local ownership to be increased to 51% in 10 years), Local Content: 60% of the engineering and procurement contract has to go to Ghanian companies (exemptions available).
Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	> 15
International commercial banks	Number	Various	12
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	10, Including Thermal and Renewable Energy IPPs, excluding IPPs not currently operative)

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	15,9
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,38
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	8%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	82%
Electrification Target	% of population	Africa Energy Outlook, 2019	100% in 2030 (stated policy and Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	75
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	Medium - High

GHANA			
IPPs Market Share in the Generation Sector	% share	Various	44% of total installed capacity
RES Growth	CAGR past 5-10 years	IRENA	Current installed capacity for RE (solar PV) = 40MW (developed over the past 5 years).
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	Transmission Grid is extensive and covers all regions and districts. The current weakness of the grid is a challenge to RES Development
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	Ghana Energy Masterplan» updated targets in 2019
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	No
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Yes (no info on bankability) PPA with Electricity Company of Ghana (EEG) for FiT, but not applied
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	Yes, but not applicable Corporate PPAs allowed with wheeling (not applicable as no operational rules)

GHANA			
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	< 0 (Net Operating Loss recorded in 2018 - ECG)
Land Access	Yes / No	FAO	Yes, but 80% of the land is governed by traditional rulers.
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Poo
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	79
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,79
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	0,23
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	6,94
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	«Yes. Centre for Renewable Energy and Energy Efficiency – Kumasi Technical University Ecowas Centre for Renewable Energy and Energy Efficiency

IVORY COAST

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1716
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2,7%; 8,7%
Population Size	Population	World Bank, 2018	25.069.230
Population Growth	Population growth rate	World Bank, 2018	2,60%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	XOF 655,92 / 1 EUR
Inflation Rate	%	IMF, 2019	0,80%

Investment Environment

Financial Risk	Financial Risk Index	SACE	73
	Ratings	S&P	Ba3
Political Risk	Political Stability Risk Index	SACE	56
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	2,169
Ease of Doing Business	Ease of business index	World Bank	DB Rank 110 & DB Score 60,7
Corruption	Corruption perception index	Transparency International, 2019	35
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,55
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Fully convertible
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	No formal requirement for local partnership and local content.

IVORY COAST

Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	<15
International commercial banks	Number	Various	6
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	3 IPPs (fossil fuel generation). The Scaling Solar programme in Ivory Coast will enable IPPs to develop two solar power plants

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	10,3
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,28
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	6%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	67%
Electrification Target	% of population	Africa Energy Outlook, 2019	94% in 2030 (stated policies), 100% (Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	8
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	Medium for solar PV - Low for Wind
IPPs Market Share in the Generation Sector	% share	Various	Three IPPs use Ivorian domestic natural gas to generate electricity. CIPREL and AZITO Energie dominate the power generation market, with 50% of total installed capacity

IVORY COAST			
RES Growth	CAGR past 5-10 years	IRENA	34.6% of installed capacity is hydro power. No IPP currently operates in the power sector.
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	In October 2019, the Government engaged IFC as lead transaction advisor for a 60MW solar project under the Scaling Solar program
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	High grid losses (22% in 2016) are partly due to illegal connections. A number of national master plans exist.
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	34% (11% non-hydro) of consumption from RE by 2020 and 42% (16% non-hydro)by 2030.
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	No
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Limited (no info on bankability) Solicited tenders to procure BOO contracts are held by the Government in a destructured way. CIE as single buyer.
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	No

IVORY COAST			
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	N/A
Land Access	Yes / No	FAO	Yes
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Pool
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	54
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,698
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	-0,44
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	6,59
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Yes. Course of Environmental Sciences and Management at University of Nangui Abrogoua (Abidjan).

KENYA

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1.711
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	1%; 6,13%
Population Size	Population	World Bank, 2018	51.393.010
Population Growth	Population growth rate	World Bank, 2018	2,30%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	KES 117,05 / 1 EUR
Inflation Rate	%	IMF, 2019	5,20%

Investment Environment

Financial Risk	Financial Risk Index	SACE	66
	Ratings	S&P	B+
Political Risk	Political Stability Risk Index	SACE	58
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	2,375
Ease of Doing Business	Ease of business index	World Bank	DB Rank 56 & DB Score 73,2
Corruption	Corruption perception index	Transparency International, 2019	28
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	2,52
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Fully convertible
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	The Energy Act 2019 sets the requirements and imposes local content obligations on renewable energy projects.

KENYA

Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	>15
International commercial banks	Number	Various	14
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	12 IPP projects (1996-2015). Further 25 IPPs have approved PPAs; these have an aggregate capacity of about 4,000 MW (including a proposed 1,050 MW coal project in Lamu).

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	10,3
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,17
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	6%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	75%
Electrification Target	% of population	Africa Energy Outlook, 2019	100% in 2030 (stated policy and Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	1.179
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
IPPs Market Share in the Generation Sector	% share	Various	695MW of IPP installed capacity (30% of total national supply capacity and ~20% of production).

KENYA			
RES Growth	CAGR past 5-10 years	IRENA	67% of total installed capacity is from renewable energy
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes but not updated
Grid Status, Readiness and Access	Qualitative assessment	Various	'The transmission network, which comprise few very long lines is weak, faces several limitations.
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	No updates in RE targets since end of 2016. Previous targets (1.6 GW geo and 630 MW wind by end 2016) not achieved.
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	Yes
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Yes
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	Yes but not applicable
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No

KENYA			
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	1.27 (2018 - KPLC)
Land Access	Yes / No	FAO	No
Integration in the Regional Power Pool	Yes / No	Various	Yes - East African Power Pool (EAPP)
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	56
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,926
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	-1,2
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	6,85
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Yes. Institute of Energy Studies and Research (IESR)

MOZAMBIQUE

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	528
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2,2%; 4,7%
Population Size	Population	World Bank, 2018	30.066.648
Population Growth	Population growth rate	World Bank, 2018	2,50%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	MZN 70,5 / 1 EUR
Inflation Rate	%	IMF, 2019	2,80%

Investment Environment

Financial Risk	Financial Risk Index	SACE	77
	Ratings	S&P	CCC+
Political Risk	Political Stability Risk Index	SACE	73
	Country Risk Classification	OECD, 2020	7
	Global Peace Index	GPI, 2020	2,135
Ease of Doing Business	Ease of business index	World Bank	DB Rank 138 & DB Score 55.9
Corruption	Corruption perception index	Transparency International, 2019	26
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,41
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Fully convertible
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	51% (not regulated, only for public construction)

MOZAMBIQUE

Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	>15
International commercial banks	Number	Various	8
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	8

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	16,7
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,49
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	3%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	2017 - 26% ; 2020 - 38%
Electrification Target	% of population	Africa Energy Outlook, 2019	29%, 5,950MW by 2042
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	200
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
IPPs Market Share in the Generation Sector	% share	Various	Wind: NONE Solar PV: Mocuba Power Plant CSP: NONE Solar thermal: Very small Geothermal: NONE. Bioenergy (heat and/or power): 5-10 MW Hydropower: 2,075 MW
RES Growth	CAGR past 5-10 years	IRENA	N/A

MOZAMBIQUE			
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	Yes
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes (ARENE), but still not fully operational
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes
Grid Status, Readiness and Access	Qualitative assessment	Various	Two separate networks: one for the south and one for the center and north of the country. Access rate 28%
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	No official target available
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	Yes
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	No
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	Yes but not applicable
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	Yes
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	-0.33 (2018) - EDM
Land Access	Yes / No	FAO	Yes

MOZAMBIQUE			
Integration in the Regional Power Pool	Yes / No	Various	Yes
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	25
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,622
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	-0,09
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	6,24
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Yes. Nuffic Program

SENEGAL

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1522
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2,9%; 5,48%
Population Size	Population	World Bank, 2018	15.854.360
Population Growth	Population growth rate	World Bank, 2018	2,80%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	XOF 655,92 / 1 EUR
Inflation Rate	%	IMF, 2019	1,02%

Investment Environment

Financial Risk	Financial Risk Index	SACE	67
	Ratings	S&P	B+
Political Risk	Political Stability Risk Index	SACE	46
	Country Risk Classification	OECD, 2020	5
	Global Peace Index	GPI, 2020	1,824
Ease of Doing Business	Ease of business index	World Bank	DB Rank 123 & DB Score 59,3
Corruption	Corruption perception index	Transparency International, 2019	45
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,93
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Fully convertible
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	No formal requirement for local partnership and local content.

SENEGAL

Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	> 15
International commercial banks	Number	Various	10
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	4

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	4,9
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,26
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	6%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	67%
Electrification Target	% of population	Africa Energy Outlook, 2019	100% in 2030 (stated policy and Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	159
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
IPPs Market Share in the Generation Sector	% share	Various	IPP solar PV capacity = 122MW (~15% of total installed capacity). IPP fossil fuel capacity = 123.5MW (~15% of total installed capacity)

SENEGAL			
RES Growth	CAGR past 5-10 years	IRENA	The targets set in the LSPDE in 2012 and need to be updated: 15% of RES in electricity supply by 2025 (target reached already in 2020: will be updated for 2030 strategy).
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	Yes
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes but not updated.
Grid Status, Readiness and Access	Qualitative assessment	Various	- Lack of grid reliability - infrastructure obsolescence is leading to frequent shut-downs and transmission losses are estimated at around 21%
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	Targets set in the LSPDE in 2012 (no updates since then): 15% of RES in electricity supply by 2025.
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	Yes, FIT never implemented Auctions under Scaling Solar. RES projects developed under Senegal's rural electrification plan are exempted from import duty and VAT.
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Yes

SENEGAL			
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	No
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	No
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	0.18 (2015) - SENELEC
Land Access	Yes / No	FAO	No
Integration in the Regional Power Pool	Yes / No	Various	Yes - West African Power Pool
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	46
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,926
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	0,8
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	6,57
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Yes. Centre International de Formation et de Recherche en Energie Solaire (Dakar).

TANZANIA

Macro Economics

Criterion	Measurement Indicator	Source	KPI
Economy Size	(GDP in USDbn / per capita)	World Bank, 2018	1061
Economy Growth (expected)	GDP growth rate, %	IMF, 2020-2021	2%; 4,55%
Population Size	Population	World Bank, 2018	56.318.350
Population Growth	Population growth rate	World Bank, 2018	3,00%
Exchange Rate	Local currency / Euro (3-year average)	Public database, national databases where available	TZS 2607,48 /1 EUR
Inflation Rate	%	IMF, 2019	3,44%

Investment Environment

Financial Risk	Financial Risk Index	SACE	61
	Ratings	S&P	B1
Political Risk	Political Stability Risk Index	SACE	66
	Country Risk Classification	OECD, 2020	6
	Global Peace Index	GPI, 2020	1,85
Ease of Doing Business	Ease of business index	World Bank	DB Rank 141 & DB Score 54,5
Corruption	Corruption perception index	Transparency International, 2019	37
Attractiveness Score	Score of 1 to 5	BNEF Climatescope, 2019	1,99
Currency Convertibility and Transferability	Fully / partially / non convertible	Various (eg. Reuters, Investopedia)	Fully convertible
Local Content and Local Ownership Requirements for SPV	% + qualitative assessment	Various (e.g. BNEF, Enerdata)	(40% localization): (Procurement, services, resources). Policy has come in place at regional level (EAC).

TANZANIA

Presence of an EU Delegation	Yes / No	EEAS	Yes
Development Finance Institutions	Number (< >15)	Various	< 15
International commercial banks	Number	Various	~ 10
Presence of RE Investors / Developers / IPPs / EPCs	Number	Various	Significant in general, but more limited for on-grid renewable energy development

RES Development Potential

Electricity Production	TWh / year	IEA Energy Atlas / BNEF, 2017	8
Electricity Consumption per Capita	MWh /capita	IEA Energy Atlas, 2017	0,12
Energy Demand Growth	CAGR past, 2008-2018	Enerdata	5%
Electrification Rate	% of population + year	SE4ALL Global Tracking Framework led jointly by WB, IEA and ESMAP, 2018	36%
Electrification Target	% of population	Africa Energy Outlook, 2019	70% in 2030 (stated policies), 80% (Africa Case)
Installed RES Capacity (not including hydro)	MW	IRENA Capacity Statistics, 2019	96
RES Resource Potential	High / Medium / Low	Various (e.g. World Bank / IFC / ESMAP)	High
IPPs Market Share in the Generation Sector	% share	Various	4 IPPs operating in the thermal sector 22% of total installed power capacity
RES Growth	CAGR past 5-10 years	IRENA	Limited

TANZANIA			
Presence of Other Effective Instruments / Programs	Yes / No	Various (e.g. BNEF, Scaling Solar, GETFit)	No
Regulatory / Market Conduciveness			
Independent Regulatory Authority	Yes / No / Yes with limited independence	Various (e.g. Enerdata)	Yes
Presence of an Energy Master Plan	Yes / No / Yes but not updated or with short-term vision	Various (e.g. BNEF, MoE)	Yes, but with short-term vision
Grid Status, Readiness and Access	Qualitative assessment	Various	' - 17% total grid losses, due to old infrastructures, long distance transmission lines, high commercial losses. - 36% access to electricity (dispersed rural population, difficult to reach by power grid)
RES Target (if available)	MW or GW or % / target year	BNEF Climatescope	RES targets (50% of generation capacity from RES by 2020/21 and 70% by 2025/26) unlikely to be achieved
Existing RES Incentives (e.g. FiT, tenders, quota, tax reliefs on VAT and imports)	Yes / No	BNEF Climatescope	No
Route to mkt #1: Bankable PPAs with Dedicated off Taker	Yes / No / yes but not bankable	BNEF Climatescope	Limited (no info on bankability)
Route to mkt #2: Commercial / Direct PPAs	Yes / No / Yes but not applicable	BNEF Climatescope	Yes, but not applicable No Commercial PPAs in place despite the formal possibility to sell energy to eligible consumers due to lack of operational rules

TANZANIA			
Route to mkt #3: net Metering Associated to Direct PPAs	Yes / No	BNEF Climatescope	Yes but not applicable
Offtaker Solvency	Solvency ratio - Debt Service Coverage Ratio (DSCR)	Various	TANESCO has negative EBIT (2018 financial statement). TANESCO debt service is 0.2% of national GDP.
Land Access	Yes / No	FAO	n.a
Integration in the Regional Power Pool	Yes / No	Various	Yes - Member of SAPP and EAPP
Regulatory Indicators for Sustainable Energy	Score of 0 to 100	World Bank RISE	42
Electricity Regulatory Index	Score from 0 to 1	AfDB ERI Index 2019	0,905
Sustainability			
Human Rights	Human Rights Scores	Our World in Data	-0,26
Human Freedom	Human Freedom Scores	Human Freedom Index, 2019	6,26
Presence of Vocational Training Resources/ Technical Institutes / Universities / Research centers	At least 1 university with RE courses and research	Various	Yes. Course in Renewable Energy Technology at Dar Es Salaam Institute of Technology (DIT). RE Technology Center Tanzania (RETC).

RenewAfrica is an industry-backed initiative dedicated to boosting European private investments in Africa's renewable energy. Its 27 Signatories represent leading stakeholders from across the European renewables value chain, including finance, manufacturing, think tanks, consulting, Independent Power Producers, and industry associations.

The Initiative has been launched in Rome on June 4th, 2019, and RES4Africa Foundation has been entrusted with carrying out the duties of its interim Secretariat.

RES4Africa Foundation (Renewable Energy Solutions for Africa) mission is to create an enabling environment for scaling up investments to accelerate a just energy transition and transformation. It gathers a member network from across the clean energy value chain and supports the creation of an enabling environment for renewable energy investments and strategic partnerships.

See more: www.res4africa.org

renewAfrica Initiative

RES4AFRICA FOUNDATION