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FOREWORD

The consequences of climate change are evident across Africa. Recent years have seen higher temperatures, rising sea-levels, more variable rainfall, and increased extreme weather events. This threatens inclusive socioeconomic development across the continent, including food security, health, and livelihoods. Impacts are also most severe for those vulnerable populations least able to cope.

The cost of future inaction is clear. The World Meteorological Organization estimates that by 2030, up to 118 million extremely poor people on the continent may be exposed to drought, floods, and extreme heat. These effects will constrain national efforts for poverty alleviation, economic growth, and SDG achievement. As negative consequences increase, national capacity to adapt and build resilience will also become increasingly more challenging. There is thus an urgent need for action. Putting in place impactful responses requires evidence of what is already working.

The UN system is proud to present this compilation of good practices in climate action from across Africa. The report focuses on initiatives where national governments have partnered specifically with UN entities, often together with other international partners, local stakeholders, and the private sector. The examples provided are diverse, cutting across countries, sectors, approaches, and implementing partners. They cover successful practices in climate-sensitive sectors in need of urgent and scaled up responses: energy, agriculture, land restoration, water and sanitation, coastal restoration, tourism, waste, and transport.

The report also identifies important cross-cutting lessons. While tailored and context-driven approaches are crucial to success, some takeaways emerge from across the full set that are relevant for further action across sectors.

First, climate initiatives are more likely to be successfully scaled if the appropriate policies, regulations, political support, and partnerships are aligned. To this end, nearly all the examples included in the report link implementation with policy support and capability building. Second, partnerships at the local level can help increase impact and sustainability. This involves working closely through community groups, business associations, and local governments. Third, the integration of gender-sensitive planning and women's empowerment objectives is also a feature of effective design for responding to the needs of all people.

Moving forward, the key will be replicability and scalability. For this reason, the synergy report targets especially the identification of examples that have already been replicated or taken to scale. It also highlights those with strong potential to do so. To help support scaled up action, several priorities for the future are also identified: decreasing the gap between available funds and scale of needs, linking climate action to the structural transformation of African economies, and scaling up research and data.

The report has been developed under the overall guidance of H.E. Yasmine Fouad, Minister of Environment of Egypt and her team. It is the result of collaboration from across the UN system in Africa under the co-leadership of the Economic Commission for Africa and UN in Egypt. The report benefited significantly from the contributions of the Opportunity and Issue-Based Coalition on Climate Change (OIBC-5), including its co-conveners UNDP and FAO. This regional UN mechanism facilitates increased cooperation between UN entities and other partners on regional priority issues. The case studies included here represent partnerships for climate action involving more than 20 UN entities. The coordinating team is also grateful to the consultant who facilitated the compilation, Kate Rivett-Carnac for her consistent and determined efforts to source the information and her experience in bringing it all together in a compelling narrative.

This report does not cover all good practices in Africa. It instead offers a snapshot of what is working. We hope this approach to collect evidence may also inspire similar exercises, such as reviewing good practices led by a different set of partner institutions or those taking place in other regions.

The report provides important evidence of how targeted actions are already delivering positive developmental and climate change returns. We believe this study and others like it can be catalytic, helping unlock results beyond those described here. This report serves as a contribution to the global call to action on climate change.

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INTRODUCTION

Africa is a diverse continent of 1.2 billion people, spanning 55 countries, and many different ecological systems, cultures, and economies. Over the past two decades, the continent's average annual economic growth rate has been about 3.4%. Much of this growth has been reliant on climate-sensitive sectors such as water, agriculture, energy, transport, and tourism. But climate impacts in Africa have already led to loss and damage in key sectors and to critical infrastructure. COVID-19 has exacerbated these impacts, impeding socio-economic development progress and increasing debt levels. Some estimates show African countries potentially losing 5% of GDP per annum by 2030 based on an increase in temperature of 2 degrees¹. Climate action must confront the vulnerabilities experienced on much of the continent among people who bear a disproportionate share of climate impacts despite contributing relatively little to global emissions (approximately 4%). There are already many examples of good practices in climate action in Africa, This compilation of case studies demonstrates what is possible. In some instances, these good practices are already beginning to be replicated across countries on the continent.

The focus of this compilation is on projects where international organisations are partnering with national government and local stakeholders in implementation through funding, technology transfer, and capacity building. The case studies have also focused on opportunities to replicate at scale with the right investment.

Despite the lack of resources relative to identified needs, African countries have been able to pursue implementation which has brought meaningful action to communities. These impacts include expanded access to water and clean energy; improved livelihoods, incomes, and profits; enhanced access to job opportunities and new skills; improvements in health and education; reduced consequences from climate events; avoided emissions and sequestered carbon; and restored ecosystems, including of key species.

Selected projects cover a variety of countries, approaches, and partners. Taken together they demonstrate that socio-economic development can be supported through the expansion of climate-compatible infrastructure and activities. Underpinning transformative climate-resilient development are inclusive, equitable approaches that build upon local knowledge and strengthen existing institutions, networks, and capabilities. Demonstrating this, the compilation of good practices provides examples of partnerships and projects that are strongly informed by and designed to respond to local contexts and vulnerabilities. The case studies also show that, in practice, adaptation and mitigation nearly always go hand-in-hand.

It is hoped that this non-exhaustive list of case studies may provide inspiration for further climate action and partnerships across the continent.

ENERGY









At the same time, Africa has many sources of renewable energy including abundant sunshine and wind. These resources could meet the region's current and future electricity needs.

Investing in major electricity generation, transmission, and distribution infrastructure is expensive and not always viable for relatively sparsely populated and remote regions. In order to increase energy access in a major way, there

will need to be a dramatic increase in investment - as much as USD \$500 billion by 2030³. There will also need to be more investment in off-grid and smart-grid solutions, including Solar Photovoltaic mini and microgrids, and energy from existing waste streams. Improved cookstoves are also part of the solution and many rural off-grid energy projects combine these with clean energy provision.

CASE STUDIES DESCRIBE:

In Egypt, multiple clean energy and energy efficiency projects are underway.

In Eritrea, solar photovoltaic-diesel hybrid minigrids create energy access for 40.000 people.



In Sierra Leone, 94 solar minigrids cover 14 districts.



In Uganda, solar dryers are being used to prolong food shelf-life.

In Morocco, solar photovoltaic infrastructure has been developed for Bus Rapid Transit in Marrakesh.



In Mozambique, farmers' clubs and agribusinesses are supported with renewable energy.

GOOD PRACTICES IN CLIMATE ACTION IN AFRICA









MULTIPLE RENEWABLE ENERGY AND ENERGY-EFFICIENCY INITIATIVES

Examples of energy projects in Egypt include⁴:

Energy efficiency: With financing from the Global Environment Facility, the United Nations Development Programme initiated a comprehensive programme with the Ministry of Electricity and Renewable Energy to help Egyptians embrace energy-efficient appliances and lighting systems. The project catalysed the large-scale transformation of energy efficient lighting systems in Egypt. The government has also launched a national programme to convert street lighting systems into LED efficient lighting systems. 200 million LED Lamps have since been connected to the grid for buildings in different sectors providing an annual estimated energy savings of 20.177 GWh and 2.7 million LED street lighting fixtures have been introduced since 2015. Altogether the LED lighting investments amount to USD \$1.5 billion.

Small-Scale renewables: The Grid-Connected Small Scale Photovoltaic Systems "Egypt-PV", implemented by the United Nations Development Programme in partnership with the Industrial Modernization Center, Ministry of Trade and Industry and funded by the Global Environment Facility, supports the development of decentralised, grid-connected small-scale PV systems. Small-scale solar power stations can be seen today in cities on the rooftop of schools, supermarkets, car parks, hotels, and government buildings. Egypt PV won the British Energy Institute Award for Low Carbon Category in 2020. 100 MW of small-scale solar power systems have been connected to the grid since 2018.

Applications in agriculture: The Food and Agriculture Organisation working with Ministry of Water Resources and Irrigation delivered several solar-powered surface water pumping stations for irrigation across governorates. Solar irrigation water pumping contributes significantly to the reduction of water losses caused by evaporation in the canals, provides a more sustainable source of energy for irrigation, and reduces the negative impact on the environment, soil pollution from diesel spills, and greenhouse gas emissions. 75% targeted energy savings have been achieved through solar water pumping and a 30% increase in water use efficiency.







SOLAR PV MINI GRIDS FOR RURAL TOWNS

This energy project, which started in 2016 and where power was 'switched on' in June 2020, has both strengthened social services and contributed to climate change mitigation. The design of rural electrification responded to the difficult topography of the land and dispersed rural settlements. A 2.25 MW solar PV-Diesel hybrid generation system has been installed in Areza (of 1.25 MW) and in Mai dma (of 1.0 MW) at a total cost of Euro 11.762.778. The project

预览已结束,完整报告链接和二维码如下:

https://www.yunbaogao.cn/report/index/report?reportId=5_31967



With training, 20 installers and 56 energy agents are empowered to support the system, while over 40.000 people in the two rural towns and 33 surrounding villages now have access to energy. 500 enterprises, 15 schools (serving about 12.000 school age children), 2 kindergartens (500 children), 2 community hospitals (34.000 people), 5 health stations (25.000 people), and 10.000 households now have access to power. These energy interventions helped to ensure better illumination, better health service including at night, higher quality of education, and safe drinking water to ntaged communities. Local communities were involved in the project, such as digging

disadvantaged communities. Local commur holes and putting up power poles.

It is the first PV battery diesel mini-grid of this scale in the country. The project has addressed energy poverty and reduced the use of traditional biomass fuels, saving in kerosene for lighting. This has also reduced the emission of greenhouse gases that would have resulted from a purely diesel generator, estimated at 3.000 tons of CO_2 .

While it costs considerably less than extending the existing national electrification grid, more battery inverters are required for the power plants to fully exploit their potential and similar projects will need international co-financing to be replicated. This indicates that while small grids are good technical solutions, different kinds of concessional finance is needed to roll-out these solutions at scale.

