JUST TRANSITION

A CLIMATE, ENERGY AND DEVELOPMENT VISION FOR AFRICA

This report was co-authored by a collective of independent experts, under the leadership of Youba Sokona, including Yacob Mulugetta, Meron Tesfamichael, Fadhel Kaboub, Niclas Hällström, Matthew Stilwell, Mohamed Adow, and Colin Besaans. It builds on more than a decade of collaboration and experience that includes building institutions and formulating major regional and continental level initiatives. The report also builds on prior work and support through WhatNext? The authors thank Tetteh Hormeku for his work which provided inspiration to Part I especially, and Koaile Monaheng for his administrative support during the drafting process.

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PREFACE

Africa is bursting with possibilities and a vast endowment of natural resources. The continent's renewable energy potential is 50 times greater than the anticipated global electricity demand for the year 2040. The continent also has over 40% of the global reserves of key minerals for batteries and hydrogen technologies. Africa, also, has the largest tracts of arable land, and the continent is young, with 70% of the people under 30 years of age. It is time to tap these riches to achieve the aspirations of the people.

Opportunity beckons for Africa to make this century, the African Century, in which the continent's economies leapfrog by harnessing the vast endowment of clean energy resources. We are ready to leap into a future powered by Africa and demonstrate that the continent can industrialize in a low carbon and sustainable manner.

Realizing the continent's potential requires bold new approaches matched by the magnitude of the existential challenges posed by climate change which affects the continent disproportionately. The bold actions must be coupled with a strong sense of urgency, and avoid pitfalls and traps of maldevelopment pathways which in the past, have held back the continent. Replicating mistakes of the past and expecting new results, is not an option.

Such a vision is laid out in this seminal report from African experts on issues of climate, energy, and development. It looks at the intersection of the crises Africa is facing, explains how we got here, and outlines a way forward. It explains the development traps we must avoid and highlights the core pillars of a new way forward focused on achieving food sovereignty, 100% renewable energy sovereignty, and an afro-centric industrial policy that increases African collaboration and resource control. The report also goes beyond a vision, to outline ways to power the transition, and provide financing approaches that could make the new vision a reality.

Africa has demonstrated that climate change, energy access, poverty, development, and conflict are all tightly connected and are different dimensions of the same phenomenon. I believe by becoming more assertive and pursuing a climate and development agenda through unified approaches of the kind outlined in this report, Africa will be able to mitigate the climate emergency and propel itself to prosperity.

William S. Ruto
President of the Republic of Kenya
Chair of the Committee of African Heads of State and Government on Climate Change

JUST TRANSITION: A CLIMATE, ENERGY AND DEVELOPMENT VISION FOR AFRICA

Executive Summary

The world is undergoing major change that presents risks, uncertainties and opportunities for Africa. Without renewal of its strategic vision, the continent will remain a site of contestation by other global powers seeking to control its resources, markets and institutions. Change, at the same time, provides opportunities for Africa to control its own future. Achieving a better future will require unprecedented strategic vision — one rooted in Africa's shared history, responsive to its tremendous potential, and articulated with confidence.

Addressing intertwined challenges

With over a billion people and 55 countries, Africa is home to diverse economies, resources, ecosystems and cultures. Yet decades after independence African countries continue to face famine, energy poverty, regional conflict, patriarchal oppression, economic insecurity, indebtedness and a host of other impediments. These and other structural development crises are increasingly compounded by climate change. Underpinning both are challenges relating to energy. Africa must scale up energy production and access, while leapfrogging outmoded dirty-energy systems to modern, affordable, renewable energy systems.

Rooting its vision in history

Africa's structural crises are rooted in its history. Colonialism moulded Africa's economies and societies to meet the labour and material needs of Western industrialisation and development. Post-colonial efforts to correct these imbalances, increase independence and nurture infant industries were curbed by energy crises, indebtedness and structural adjustment policies. Today African countries continue to depend on exporting primary products, resulting in economies that are fragile, vulnerable to shocks, and highly dependent on external factors.

Addressing structural deficiencies

African economies suffer at least three structural deficiencies that constrain development potential: a) a lack of food sovereignty; b) a lack of energy sovereignty; and c) low-value-added content of exports relative to imports. These deficiencies in turn contribute to structural trade deficits, weakened African currencies and pressure to issue debt denominated in foreign currencies, resulting in more indebtedness. Faced with depreciating currencies and rising import prices, African governments typically resort to subsidising necessities and artificially maintaining exchange rates by accumulating more debt. The vicious cycle deepens.

Avoiding misguided development policies

Many mainstream "development policies" masquerade as solutions to these problems, but are in fact structural traps that exacerbate the crisis. Measures to increase low-value-added exports, increase tourism or encourage foreign investment often increase importation of costly food, fuel, intermediate inputs and capital equipment. Outbound immigration to increase remittances worsens the brain-drain. Liberalisation of financial services invites speculation and instability. Privatisation generates revenues for foreign entities that are repatriated abroad.

Government subsidies, tax-cuts and weak regulations to attract transnational corporations, in turn, result in a race to the bottom for African and other developing countries. Compounded by tax evasion, the result is a deluge of wealth transfer from Global South to North — upwards of USD two trillion per year. Added to these development traps are a host of new false solutions framed as responses to the climate and energy crisis — carbon markets, carbon capture and storage, geo-engineering.

A renewal of Africa's vision

To break free from these traps, and manage a rapidly changing external context, Africa needs a renaissance of endogenous ideas and leadership. Building on existing plans, such as Agenda 2063, can renew a vision of genuine people-centred development, framed in terms of African values and cultures, focused on meeting the needs of every African, and centred on social justice, feminist values, and meaningful progress. Africa's vision for itself can be complemented by a more assertive international role, including South-South collaboration and self-reliance, more robust engagement in geopolitics, and systematic reform of the international architecture to address African and global challenges.

The foundation is more resilient food, energy and industrial systems

Access by every citizen to nutritious, abundant, affordable and culturally appropriate food is a central objective of development. Africans can achieve food sovereignty by shifting away from export-oriented, cash-crop, industrial agriculture that has left Africa hungry, towards community-based agro-ecological systems that provide nutritious food, sustained yields, secure livelihoods, and climate resilience.

A second step is to escape the post-colonial trap of prioritising extractive industries, assembly-line manufacturing and low-value-added exports through a pan-African industrial policy that develops African resources and human capacities, expands internal markets and economies of scale, and prioritises strategic investments, planning and partnerships that enhance opportunity, generate employment, and secure a greater share of the benefits for Africans.

More resilient agriculture and industrial systems must be powered with energy, and Africa has an unprecedented opportunity to leapfrog the dirty and obsolete energy systems of the past towards more modern, people-centred, decentralised renewable energy systems.

Ensuring a just energy transition to underpin Africa's development

Energy plays a fundamental role across multiple sectors. The choices Africa makes about energy systems will determine many other aspects of development. Fit for purpose, modern and low-carbon, a new model of energy provision must address a number of important factors. The system must provide accessible, affordable, reliable and sustainable energy to around 600 million Africans that currently lack access to electricity as an overriding priority for development.

To achieve this goal, Africa will need to move away from outmoded models based on centralised infrastructure, towards more modern, integrated energy solutions that take advantage of Africa's massive renewable energy potential. The new energy system will embody a number of key principles and approaches that underpin a new African energy vision, including:

- Ensuring African ownership and agency in energy initiatives and plans
- Integrating energy systems design into wider development objectives and planning
- Establishing clear policy priorities, such as support for clean cooking and diversification of energy generation and ownership
- Provide scope for the delivery of energy as a common good and to genuinely foster energy democratisation
- Ensuring stakeholder participation, equity and sufficiency in terms of energy use

A genuine energy transition must move rapidly away from fossil fuel dependence

As a new model of energy provision comes into focus, old vested interests are reasserting themselves. The Russian invasion of Ukraine has intensified the "dash for gas" and European governments and industry are redoubling efforts to extract and export fossil fuels from Africa. These plans carry multiple risks and uncertainties, including potential for substantial stranded assets, especially since Europe has speeded up its decarbonisation journey. Rather than doubling down on fossil fuels, Africa's right to development would be better served through renewable systems that can achieve universal access, enable food security and regional industrialisation, while advancing African and global climate goals.

A just energy transition must also ensure the right choices about renewable energy

The transition to a new model of energy provision must also navigate multiple pitfalls. The mining of mineral inputs, and new energy infrastructure, must meet human rights, social and environmental standards. Scarce material resources must be managed to generate long-term prosperity. Proposed new technologies should be carefully evaluated. Africans will need to be proactive to ensure the narrative of "just transition" is not appropriated by polluters, and African initiatives are not captured or diverted to meet the interests of donor countries, transnational companies or other foreign interests.

Africa can fund the transition through domestic and international sources

The scale of resources required is unprecedented. The dominant narrative is that Africa lacks the resources, and so will need to borrow more to fund the transition. In fact, as well as addressing the highlighted structural traps, African governments have a range of tools at hand to enhance the generation of domestic resources over time. One is to address the lack productive capacity — such as skilled labour, technical know-how, capital equipment — to begin scaling up domestic production without adding to the need for external inputs and debt.

Complementing this is the creation of more accountable markets and institutions, by addressing market concentration and abusive practices that misallocate resources and corrupt institutions. While addressing internal factors, African countries can act in concert to address a range of external factors by calling for:

- Scaling up of finance through existing mechanisms such as multilateral climate funds
- Initiating new measures such as global programs to support renewable energy deployment
- Deploying innovative financial sources such as financial transaction taxes, redirection of subsidies and special drawing rights (SDRs)
- The systematic cancellation of unfair and odious debts
- Improved regulation of transnational corporations and tax evasion
- Reform of imbalanced and unfair international rules on trade, investment and technology
- Reform of the international financial architecture, drawing on historical processes such as the New International Economic Order, and new ones such as the Bridgetown Initiative
- Reparations for colonial atrocities, biopiracy and the appropriation of cultural heritage

Towards a renaissance of African vision and leadership

In a rapidly changing world, Africa can renew its vision to avoid the pitfalls of the past, tackle emerging challenges, and realise new opportunities. In this report we offer principles that can support this renewal, measures that can help it break free from structural traps, and proposals for a modern energy system to power people-centred prosperity, gender equality, and well-being in an era of climate change.

Through this report we invite all relevant stakeholders to join us in reimagining a new framework for African resilience and prosperity — one that can simultaneously tackle the linked challenges of climate, energy and development.

PART I
SETTING THE CONTEXT

INTRODUCTION

The world is undergoing major changes. In the midst of climate crisis, financial turmoil, the COVID-19 pandemic, and most recently the Russia-Ukraine war, the world's economic and geopolitical map is reshaping with risks, uncertainties and opportunities for Africa. Africa cannot remain passive during this process of structural shifts in the global economy.

On one hand, global restructuring establishes Africa as a renewed site of contestation. At least three major hubs — North America (dominated by the US), Western Europe (dominated by the EU), and Asia (dominated by China) — are renewing efforts to consolidate economic power, secure supply chains, invest in food and energy security, and expand strategic industries in their own and in other regions of the globe. All three are counting on Africa, and the Global South in general, to remain their source of raw materials, strategic mining products, low-cost labour for assembly line manufacturing, and a large market for consumer products.

Without a coherent and comprehensive strategic development vision for itself, Africa will remain subordinate to the strategic vision of others. This will mean a continuous struggle with external debt traps, poverty, youth unemployment, inflation, and a plethora of deficiencies in public health, education, water, food production, sanitation, transportation and beyond.

But change also provides new impetus and opportunity for African countries to assume control over their own destiny, and to engage with the rest of the world on African terms. Achieving a better future will require unprecedented strategic vision — one that is cognisant of the continent's history and responsive to its potential. Africa is immensely diverse and abundant, with a shared history and commonalities and much to offer the world and itself.

Africa and the world must also grapple with the existential threat presented by climate crisis, the urgency of decarbonising the economy, and the associated rush for new sources of energy, while redoubling efforts to end poverty and achieve prosperity for its people. Africa can become a prosperous continent, but only if leadership places the well-being for all its people, living together within thriving ecosystems and a stable global climate, as the primary driving force of its development agenda. This requires a proactive plan to address external risks and opportunities, while doing away with often simplified representations of the continent based on cultural and social stereotypes that have colonial roots and constraining mindsets.

Against this background, it is the purpose of this report to invite all relevant stakeholders — African leaders, government officials and negotiators, civil society, academics, private entities, media, and international partners — to reenvisage a framework for African resilience and prosperity that can simultaneously tackle climate, energy, and development challenges on the continent. It is our hope that the report generates debate and inspires the formulation of new visions, political strategies, and policy priorities — from local

levels up to the African union — that foster a renewed Pan-African mobilisation for the common good.

This report, in particular, spotlights the energy dimension of such an African development vision, recognising the fundamental role of energy across many sectors and as a critical enabler of sound economies and social wellbeing. It begins by sketching the context of the intertwined development, ecological, climate and energy crises facing Africa, followed by reflections on the historical circumstances that have brought us to this point. In responding to the question: 'where are we now,' the report then outlines and critiques the structural deficiencies and associated economic and climate responses that have given rise to the systemic crises the world faces today, with Africa shouldering the full force. The latter part of the report elaborates on possible ways forward by offering elements of an alternative development vision and reflections on how to make such a vision a reality through concrete measures across food, industrialisation, and energy systems.

African Union Headquarters, Addis Ababa, Ethioipia

Intertwined crises and challenges

As a continent of more than a billion people and 55 nation states, Africa is composed of countries with diverse economic structures, resources and cultures. However, decades after independence, all African countries continue to face **development and ecological crises** that threaten lives and livelihoods. Many countries face among the highest rates of undernutrition in the world. Ongoing conflicts, surging food prices, inequality, and weak infrastructure continue to be the main drivers of hunger in many communities across the continent, where some 278 million people — roughly a fifth of the continent — do not have enough to eat.[1] Many countries face high poverty rates, low life expectancy, and lack of basic public services and infrastructure facilities.[2]

After more than half a century since independence, hundreds of millions of Africans still face abject poverty, crippling their ability to live in dignity. Thirty-three of the world's forty-six least developed countries,[3] and thirty-four of the thirty-six 'heavily indebted countries' are found in Africa.[4] At 61 years, life expectancy in Africa remains well below the global average of 72 years.[5] Rapid urbanisation is accompanied with rising numbers of young people without jobs, homes, and adequate health services. Women face disproportionate burdens, while continuing to carry the main responsibilities for keeping families and communities together.

Increasingly, these development challenges are exacerbated by **climate change**, which poses a fundamental threat to sustainable development. The scale of the threats posed by a warming climate is particularly alarming in Africa, which is especially vulnerable to the adverse impacts of a rapidly warming world and has the least capacity to withstand these impacts.[6]

Africa's contribution to carbon dioxide emissions amounts to less than 4%, yet the continent and its people exist on the front lines of the climate crisis. Climate change is already exacerbating health impacts, water stress and food insecurity, which are likely to increase social unrest, political instability, and armed conflicts.[7] Already, millions of Africans are escaping and migrating from their countries as a direct result of worsening

climate conditions. As warming and climate impacts worsen, the situation will further escalate. The 2021 Groundswell report from the World Bank conservatively predicts that by 2050, Africa could see 105 million internal climate migrants (86 million in Sub-Saharan and 19 million in North Africa).[8] These numbers would be dwarfed by the consequences of full far-reaching societal breakdown that is bound to happen if current trends of warming by several degrees continue.

There is a narrowing window left to phase out fossil fuel production and reduce greenhouse gas emissions to levels as close to zero as possible, and there is not much time. Such rapid reduction of global emissions must be complemented by measures to restore natural ecosystems and their functions as natural carbon sinks. This means there is no scope for any country — even for African countries — to build fossil fuel-based societies. The International Energy Agency has confirmed that developing new fossil fuel resources is incompatible with limiting warming below 1.5°C.[9] Yet, governments and corporations are, in aggregate, planning to produce in 2030 more than double the amount of fossil fuels than would be consistent with limiting global warming to 1.5°C, and nearly four times the amount by 2040.[10]

Since the birth of the Climate Convention in Rio in 1992, there has been more than three decades of failure to take meaningful action.[11] The Intergovernmental Panel on Climate Change (IPPC) sixth assessment report of Working Group III concludes that only 400 Gt (less than 10 years at current emissions levels) remained in 2020 for a 67% chance of keeping warming below 1.5°C.[12] While a certain amount of additional warming is inevitable even under the most stringent climate action, failure to take such action may tip the world into non-linear climate disruption with incomprehensible consequences.

Underpinning both the development and climate crises is the crisis of **energy**. Access to energy is a prerequisite for any meaningful development and good lives. Currently, millions of Africans lack access to sufficient, affordable energy, about 600 million Africans lack electricity, and 970 million lack access to clean cooking, forcing many to

spend much of their days searching for wood for cooking. Harmful fuels aggravate health challenges, especially for women.[13] Lack of electricity access also creates a significant barrier to quality, accessible and reliable health care, education, and energy for farming and other income generation. In the absence of stable policies and effective measures, the International Energy Agency estimates that by 2030 there will still be 565 million Africans without access to electricity and around one billion people will still have no access to clean cooking.[14] Addressing the energy crisis requires energy that is accessible, affordable, reliable, and sustainable. The good news — as explored below — is that Africa is endowed with substantial capacity for renewable energy to underpin its development.

These issues of **climate, energy, and development are closely intertwined** and must be addressed in an interconnected and coherent way. While fundamental for development and meeting basic needs, energy is simultaneously a core cause of the climate crisis. Fossil fuels still dominate the energy systems of most countries in Africa and the world at large. While African countries have contributed only a small share of the world's accumulated historical emissions, it is clear that the world must decarbonise and reach essentially real zero emissions within a very short timeframe if global warming is to be limited to well below 2°C. With CO_2 concentration at around 420 ppm, there is no carbon budget left to ensure a safe climate and avoidance of crossing detrimental tipping points. Emissions — and hence also fossil fuel production — need to be minimised everywhere. New investments in fossil fuels risk soon becoming stranded assets. At the same time many African countries are increasingly tempted and enticed to embark on or expand their fossil fuel involvement, further fuelled by the current energy shortage caused by Russia's war in Ukraine. Many African countries currently find themselves at the epicentre of highly contested geopolitical energy battles as major foreign powers are looking to secure their own supplies of fossil gas, hydrogen, and critical minerals for renewables from Africa. This scramble to secure Africa's resources comes at a time when African countries face critical choices about their own energy and development paths that will determine possibilities to deliver well-being and prosperity for decades to come. Navigating these issues requires an understanding of how we got here, and the risks and opportunities offered by our current reality.

How did we get here?

The structural crises African countries face today cannot be understood without recognising the legacy of Africa's history — including how institutions and systems were designed to extract primary commodities to supply markets in Europe.[15] Colonisation restructured African economies away from serving the needs of their people domestically, and toward being sites of extraction and supply for the industrialisation of European powers. This process devasted many thriving societies, embedded systems of patriarchy and racism, and left structural dependencies and value-chain lock-ins that long outlasted formal independence.

As the continent became supplier of raw materials for Europe, the chain of processes, skills, and knowledge of these products and their uses through the domestic economy was broken and the relationships that existed between different types of economic activity and 'sectors' were fragmented. This meant that economic activities no longer reinforced one another or evolved according to domestic needs.

Colonial investments in extractive economies, especially in large scale infrastructure, has not only reorganised communities' life but also produced path-dependencies. Today, much of the inequality and wide gaps in access to infrastructure, both between African regions and within countries, can be attributed to the colonial past. The energy system, too, reflected this unequal arrangement of resource access and unequal development at the global and national levels. The largely urban and extractive industry-oriented electricity system in sub-Saharan Africa, for example, was designed as part of the integration of the continent into a global capitalist order, neglecting the large rural, informal and subsistence production system, which received only limited attention.

In the early post-independence period, there was a period of wide recognition from governments, across Africa and across ideologies, that the key task for development was to confront primary commodity dependence and its binding economic constraints. Their approach, therefore, centred on industrialisation: building African capacity to meet Africa's needs rather than relying on import of high-value products from the North. These efforts, however, had limited success.

Import-substitution approaches to favour domestic industrialisation were met with resistance from former colonisers. The 1970s oil crises, and subsequent rise of international debt, created conditions under which international financial institutions responded by creating new loan packages for highly indebted poor countries under conditions requiring them to change policies away from promoting their own industrialisation, and to reduce their spending on health and education in favour of debt repayment. Under the process termed as 'structural adjustment programmes', industrialisation was replaced by trade liberalisation, deregulation, and the retreat of the state to usher in the free market.

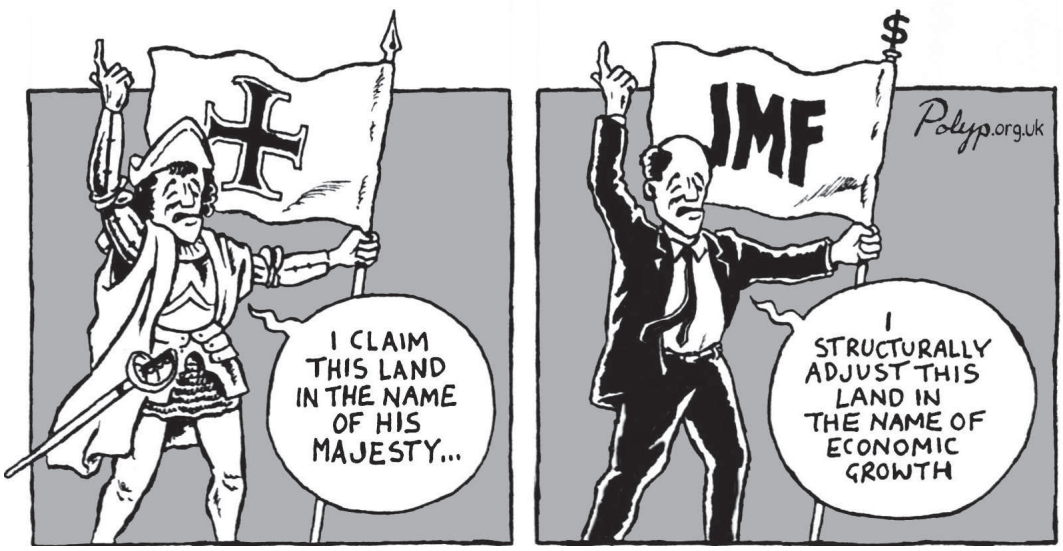
While Africa was a major food exporter during the colonial period, as soon as African countries gained independence, it become very clear for European countries that they needed to invest in their own food sovereignty to reduce their dependence on food imports from former colonies and the Global South in general.[16] This led to the introduction of

major agricultural subsidies in Europe via the Common Agricultural Policy[17] (CAP) in 1962, and similar measures in the U.S., Canada, Australia, Japan, and the former Soviet Union (Russia and the Ukraine in particular). In addition, the international trade agreements that were negotiated at the time (GATT then WTO) were based on the principle of free trade in 'everything but arms', but in practice[18] it was 'everything but arms and farms'. This put African farmers at a significant disadvantage since their governments were unable to match those subsidies.

As a result, African farmers were forced to either switch to producing cash crops for exports (which led to unsustainable farming practices causing soil degradation, substantial water use, and imports of foreign seeds, fertilizers, and pesticides), or giving up farming altogether and move to urban areas in search of jobs in tourism, construction, and manufacturing. Subsequently, most African countries became more food insecure, and increasingly vulnerable to global food price fluctuations caused by all sorts of disturbances. from wars to economic disruptions.

It is worth remembering that the oil crisis of the 1970s created a substantial cashflow for oil-rich nations who then invested heavily in Western financial institutions. The latter needed to recycle those petrodollars into high-return investments in countries with high growth potential and found such opportunities in the Global South. In fact, the 1970s was a period in which Western banks were begging (and sometimes even bribing) African nations to borrow in order to finance their post-independence economic development boom. However, by the 1980s, the fight against inflation sent global interest rates skyrocketing in double digits territory (e.g. 20% in the U.S.), thus rendering Africa's loans impossible to refinance, and making external debts unsustainable.[19]

Coincidently, Africa's failed aspirations for a higher degree of food sovereignty compounded the food insecurity already driven by the external debt crisis. This ushered-in the IMF prescribed 'structural adjustment programs' with austerity measures to cut state spending on social services, which further weakened Africa's capacity to invest in vital infrastructure related to agriculture, energy, health, education, and sanitation.[20] Debt-strapped countries became obsessed with export-oriented economic activities to generate the foreign currency needed to pay the external debts on time and import vital resources such as food, fuel, and medicine[21]. This vicious cycle continues to this day.[22]



Where are we now?

Three structural deficiencies

As a result of these measures, most African economies continue to overy depend on producing and exporting a narrow range of primary products, including unprocessed crops and minerals.[23] Economic activities remain constrained and vulnerable to shocks due to low productivity, high dependency on primary products, and high rates of poverty.

The overall economic situation is characterised by fragility and uncertainty as African countries are highly dependent on external economic conditions, commodity prices, financial flows, and investment in natural resource projects and infrastructure. The booms and busts in commodity prices experienced during global crises such as the 2008 financial crisis, the 2020 COVID-19 pandemic, and the 2022 war between Russia and Ukraine have further exposed African countries' vulnerability and their limited capacity to respond to market and climatic shocks.

Today, because of this historic and current context, African countries suffer from at least three major structural economic deficiencies: **the lack of food sovereignty, lack of energy sovereignty, and the low value-added content of exports relative to imports**. These contribute to structural trade deficits, weakened African currencies and a pressure to issue debt denominated in foreign currencies (typically U.S. dollars) with increased and perpetual indebtedness as a result. The depreciation of African currencies means that imports of basic needs such as food, fuel, and medicine become more expensive. This type of (imported) inflation often leads to social and political instability that governments typically try to suppress by subsidising the price of basic necessities, and by artificially trying to maintain their exchange rates via the accumulation of further debt denominated in foreign currencies.[24]

This external debt accumulation is portrayed as a solution when it is, in fact, a quagmire. Prioritising debt payments often means reducing budget allocations for education, health, and critical infrastructure investments. Furthermore, the policies that are designed to increase foreign currency earnings to pay off this external debt generally end up being entrapments that deepen the quagmire — creating a vicious spiral. The mainstream prescriptions to deal with this situation — measures to gain export earnings to pay the debts — constitute structural traps into which African countries repeatedly fall.[25]

Perpetuation of economic entrapments as misguided policy responses

Traditional economic development strategies consistently prioritise activities that promote the *increase in foreign currency earnings* to service the external debt, finance the imports of strategic products, and build up foreign currency reserves to protect countries from external economic shocks.

Africa's total exports in 2020 amounted to USD 457 billion, dominated by a few commodities with low value-added content; whereas the continent's imports reached USD 627 billion. Most of Africa's imports are complex products with high value-added content. The discrepancy between imports and exports creates a structural trade deficit that weakens the value of African currencies and leads to unsustainable external debt accumulation by all African countries. The figure also shows that Africa is a net importer of food, and that it imports back a significant share of the fossil fuels it exports. Figure based on Atlas of Economic Complexity, Harvard University, https://atlas.cid.harvard.edu.

Unfortunately, these policies have not succeeded in reducing Africa's external debt, nor have they resulted in increased resilience to economic turbulence. As a result, the continent is incapable of addressing a multitude of crises and is more vulnerable than ever to impacts of both climate change and global economic disruptions.

Ironically, many of the supposed solutions and development strategies to generate foreign earnings are, in reality, traps.

- For instance, policies that encourage **tourism** for hard currency earnings often end up increasing food and fuel imports to feed, transport, house, and entertain millions of tourists in ways that result in net outflow of dollars.[26]
- Policies that encourage low value-added **exports** often end up leading to more imports of fuel, capital equipment, and intermediate inputs.[27] In the case of fossil fuel exports, the associated fossil fuel production infrastructure threatens to become stranded assets.
- Policies that promote **foreign direct investment** (FDI) often end up increasing imports of fuel for energy generation and transportation, as well as payments in foreign currencies for intermediate inputs, equipment and investment-friendly infrastructure and tax alleviation in special economic zones — all the while transnational corporations repatriate much of the profits to the Global North.[28]
- Policies that encourage outbound immigration to increase **remittances** of foreign currencies end up promoting brain drain and associated costs in expensive education provision that does not serve the needs of the country.
- Policies that promote the **liberalisation of financial services** end up hurting domestic investors and often attempt to compete with established financial service hubs through more lax regulations, which, in turn, invite speculative attacks from abroad. The resulting booms and busts soon leave countries deprived of foreign currency, rather than the opposite.
- **Privatisation of state-owned enterprises** to foreign entities may generate foreign currency reserves in the short-term, but generally leads to loss of employment, loss of control over critical resources, and repatriation of profits by the now foreign owned corporations. In the long-term, this effectively means a draining of foreign currency reserves from Africa.

These traditional policy 'solutions' are furthermore generally accompanied by large-scale tax cuts, direct and indirect subsidies, and liberal regulations favourable to transnational corporations, which are further aggravated by Investor State Dispute Settlement mechanisms where corporations can sue countries for lost future profits due to policy changes. Such policies provide perverse incentives that hurt domestic investors and increase Africa's dependence on foreign investors and speculators.

All these policies masquerade as solutions when they are, in fact, **structural traps**. These traps are further amplified through a global race to the bottom where African and other developing countries are forced into lowering labour and environmental standards, more regulatory and fiscal concessions to foreign investors, and ever more dependence on the Global North.

Compounded by large-scale tax avoidance by foreign corporations, these policies have resulted in an ever-increasing amount of **net transfer of resources** *from* the Global South *to* the Global North. Flowing the wrong way, these transfers, amount to a staggering two trillion dollars annually as of the latest data available.[29] Continuing with the same policies will not only deepen these structural traps, but also make it impossible to tackle the threats of both climate change and other intertwined crises.

Danger of misguided climate and energy policies

While addressing economic development traps, African countries likewise need to stop walking into the traps of misguided climate and energy policies.

Just as with economic policies, measures portrayed as climate and energy solutions often turn out to cause new problems, without addressing the core challenges they are supposed to tackle. In many cases, Africa risks once again serving the interests of wealthy countries and former colonisers through the use of its lands and resources. In several cases, measures may result in an increase and worsening of greenhouse gas emissions or in making Africa more vulnerable to climate impacts and shocks.

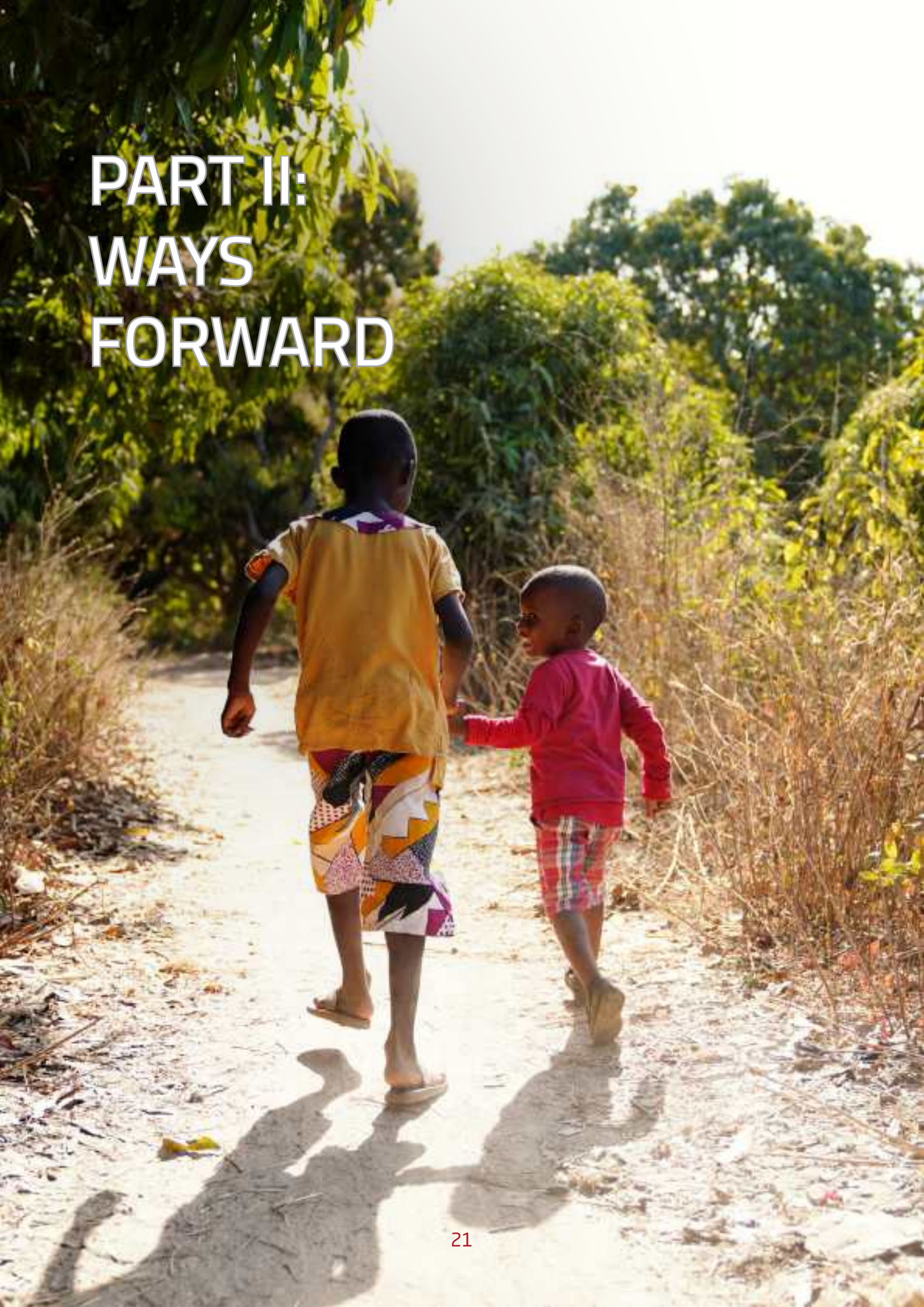
Examples of traps that African countries need to avoid include:

- Expansion of **fossil fuel extraction** for export markets and the locking in of fossil fuels in domestic energy systems, which ensure further climate impacts and risk becoming stranded assets. This includes dangers of hypothetic carbon, capture and storage (CCS) as justification for prolonged production and use of fossil fuels.
- The promotion of '**offset markets**' where African forests and lands are supposed to remove carbon dioxide to justify further emissions mainly in wealthy countries (often driving greenwashing efforts by corporations and countries to declare themselves 'net-zero').[30]
- **Corporate monopolisation of farming** through digitalisation, and genetic modification, in the name of climate action.[31]
- **Large scale geoengineering schemes for carbon dioxide removals** such as Bioenergy with Carbon Capture and Storage (BECCS) that would require massive land areas and risk severe harm to human rights, ecosystems, and peoples' livelihoods.[32]
- Propositions for experimentation and deployment of **solar geoengineering** — an inherently ungovernable, unpredictable, and likely catastrophic speculative technology. Africa can instead champion a strengthening of the existing moratorium on geoengineering under the Convention on Biological Diversity and the establishment of an International Non-use Agreement on Solar Geoengineering.[33]

African countries also need to consider the risk that ill-conceived renewable energy projects present to human rights and the environment, particularly when the imperative of 'climate emergency' is used to justify actions such as land grabs for large-scale wind and solar projects and the mining of critical minerals[34]. As the renewable energy revolution takes off, so, too, is the potential for increased negative environmental and human rights impacts.

Overall, African countries would benefit from greater capacity to apply the precautionary principle, agreed at the Rio Conference in 1992, and to build their own expertise for anticipating new challenges and opportunities. African development aspirations could include the creation of Pan-African knowledge and educational institutions[35] and strengthened capacity for technology assessment and horizon scanning involving African civil society, experts, and governments.[36]

PART II: WAYS FORWARD



An alternative development vision

As a first step in changing path, Africa needs a renaissance of Africa-based, endogenous ideas and leadership that clearly envision the connections and interdependencies between energy, food, industrial, and other systems and development pathways that respect climate constraints. In practice, this means redefining what progress and well-being mean for Africa and asserting new and independent visions of genuine people-centred development[37].

At the heart of this shift is openly exploring alternative directions for creativity and inspiration that are nourished by Africa's rich cultural variety and regional diversity, and that open new political spaces. At the same time, ideas need not necessarily be new but can be inspired by a long tradition of African original thinking and the need and desire to leave behind structures that reproduce colonial relations and dependencies.

What needs supporting is the inspiring vision of an 'integrated, prosperous and peaceful Africa, driven by its own citizens, representing a dynamic force in the international arena' as set out in in the African Union's Agenda 2063: 'The Africa we want'. This vision should be underpinned by concrete analysis and understanding of structural deficiencies and traps, as well as the risks and opportunities presented by a rapidly evolving reality. Such a route can steer Africa away from the precipice of despair and towards a renewed vision of well-being and prosperity centred around elements such as:

- **Development framed in terms of endogenous values, cultures, and resilience**, so that is has authentic meaning for each society such that it builds on specific histories and contexts, ecological systems and resources, and cultural heritage. Development must be centred in the creativity and aspirations of the people who live at a place and must not be imposed from outside.
- **Setting basic needs, sufficiency, and solidarity** as core priorities. All Africans have a right to energy, health, food, shelter and social protection, and caring communities living in harmony with healthy ecosystems. These rights should be the cornerstones of a good life and at the centre of policymaking where the ideas and values of sufficiency are firmly embedded.
- **Centring feminism, equity and social justice at the heart of society**. Equity between and within nations, across generations, gender, class, race, sexuality, and religion is necessary for thriving, resilient societies where all people can flourish.
- **Measuring meaningful progress**. African economies will grow in size and complexity as they build systems that genuinely cater to the real needs of people. However, economic growth, in terms of GDP only, means little and tends to favour the wrong priorities. African countries can take inspiration from existing examples that measure well-being, prosperity, and good lives to guide their priorities.
- **Building broad-based collective power and participation for thriving local economies**. Development must stem from and be anchored in community

participation. Together, Africans can foster thriving local economies and caring societies. African experts, civil society, and social movements are key both for the development of flourishing local economies and for generating necessary political pressure for change. African women, youth, and indigenous communities have historically been, and continue to be, primary drivers of change and progress.

- **Enhancing self-reliance** and enable economic diversification. African countries can and must break away from current entrapments with international debts and prescriptions that only aggravate unhealthy dependencies. African countries can diversify their economies and prioritise energy and food sovereignty to enhance autonomy and self-reliance.
- **Avoiding destructive extraction of resources**. Africa can build regenerative societies that draw on what nature replenishes while minimising extraction. Minerals and metals critical for the zero-carbon and renewable energy transformation need to be extracted in ways that truly benefit Africa, create real opportunities, and minimize impact on ecosystems. Opening societies up to short-term extraction and profiteering sets Africa on a path to unsustainable resource mining that undermines the very basis of societal well-being.
- **Respecting environmental limits and precaution**. All human activity is bound by environmental as well as natural resource limits that cannot be compromised without adverse impacts. All decision-making must be subjugated to the precautionary principle and a commitment to ensuring that Africa is not a testing ground for unproven and potentially risky technologies and that development does not infringe upon the complex and intersecting natural planetary boundaries (including climate change, ocean acidification, ozone depletion, phosphorous and nitrogen cycle disruption, biodiversity loss, freshwater use, land-system change, aerosol loading, and chemical pollution).[38] Crossing any of these boundaries would put functioning of human societies at major risk.

- **Building South-South collaboration and collective self-reliance**. African societies have plenty to share and learn from the experience of others in the way they benefited from having built autonomous policies and practices, especially examples from regions of the Global South. There is tremendous scope for pan-African and South-South collaborations where new forms of industrialisation drive the creation of value and wellbeing, rather than merely responding to markets.
- **Engaging in the world with assertiveness and skilfully navigating geopolitics**. Collectively, Africans need to navigate and engage in world politics with assertiveness and confidence, grounded in placing people first. An Africa united on strong principles and values can secure its space in the development of a shared future that counters the hegemony of world powers. A self-confident Africa can offer much needed voice and action towards the important global mission of building climate compatible, zero-carbon societies based on egalitarian principles.
- **Asserting African agency and building equity-based and reformed international structures**. Africa is a victim of historic and deeply fortified colonial structures that persist to this day. Africans can only truly succeed if they address the international conditions around trade, investments, international debts, and other structural constraints. Rather than aid, Africa needs reparations at scale. This calls for Africans to drive and realise the possibilities for profoundly changing the course of their development.
- **Embracing structural transformation and systems change**. Together, these various dimensions of Africa's development vision signify a need for far-reaching change to the way societies and the capitalist, economic system function today. It necessarily calls for deep, structural transformation, where whole systems of economics, governance, production, social services, foreign relations and, not least, energy, are re-shaped. While this may appear far-reaching, it is less radical than believing that business-as-usual presents a viable option. By remaining on the current path, the escalation of intertwined crises will cause much larger, faster, and more disruptive change.

These elements of a vision constitute a significant challenge and contrast to the prevailing, mainstream model of development, which has reigned and shaped the global order for many decades. It is in the power of African societies to formulate their own long-term vision rather than being subjugated to the agenda of former colonial powers, other emerging countries, or large corporations. A Pan-African vision must be centred on economic strategies that undo the structural traps of external debt and dependence on the Global North, and that ensure Africa's abundant natural resources and human capabilities are prudently used to enhance Africans' quality of life in a just and equitable way for generations and centuries to come.

Box 1: **Re-envisioning development**

The mainstream understanding of 'development' runs deep and cuts across traditional left-right dichotomies. Strategies to tackle current crises need to acknowledge these deeper roots, while simultaneously operating with hands-on approaches within existing political spaces.

Mainstream thinking about 'development' commonly presumes all societies of the world are moving along the same track, with some countries in the lead and many others — particularly African countries — lagging behind with the hope and ambition of eventually 'catching up'.

Mainstream notions of development based on modernisation often see development as a linear process, in contrast to the cyclical worldviews that have informed human history and most traditional and indigenous cultures. In this linear view, there is an assumption of 'natural' progression towards higher and more 'advanced' stages of development (with the 'developed' countries in the global North as models to aspire to for all). Core ideas include the notions of 'progress' as an unstoppable and unidirectional force and the belief in the possibility and desirability of continuous economic growth.

In reality, conventional development approaches have often led to maldevelopment, with increasing alienation and wasteful excess among the rich, and ever-increasing inequality both between and within countries.

Development is often characterised as a spontaneous, unavoidable or irreversible force, driven to a considerable extent by science and technology, and primarily led by either markets or governments (depending on political orientation) rather than through the forces of the 'third system' of civil society, social movements, engaged citizens, and the public.

Many of these 'modernisation ideas', when viewed from the perspective of those oppressed and colonised, can also be seen as European philosophical rationalisation of conquest, enslavement, displacement, and genocide of non-white societies.

As a counterpoint to this mainstream notion, 'alternative development' approaches challenge many of these assumptions and resonate with the transformative approaches to development and just transition presented in this report. They highlight the need to envision a diversity of futures and development trajectories with different ideas of what kind of economic diversification is desirable. These development alternatives are naturally diverse, do not fall under any single blueprint and depend on the specific cultural, historic, economic, ecological, and other conditions of each society.[39]

Such ideas of development alternatives were eloquently captured by African and other Third World thought leaders in the report *What Now: Another Development,* published already in 1975 for the special session on Development at the UN General Assembly — as a result of an extensive process involving scholars and activists from both the Global South and Global North.[40] The report is still highly relevant today and merits careful reconsideration.

What Now was issued one year after the UN General Assembly resolution on the establishment of a New International Economic Order (NIEO) at a time when the Third World was asserting itself with confidence, and unprecedented unity.[41] *What Now* concluded that:

> '[D]evelopment is a whole; it is an integral, value-loaded, cultural process; it encompasses the natural environment, social relations, education, production, consumption and well-being. The plurality of roads to development answers to the specificity of cultural or natural situations; no universal formula exists. Development is endogenous; it springs from the heart of each society, which relies first on its own strength and resources and defines in sovereignty the vision of its future, cooperating with societies sharing its problems and aspirations'.[42]

In addition to the principle of endogenous development, other core principles of Another Development highlighted that development must a) provide basic needs, equity, and well-being for all; b) respect the ecological 'outer limits' (the idea of planetary boundaries several decades ahead of its time); and c) ensure that development must treasure self-reliance in the sense of cooperation and exchange with others, but with energy, food, and other systems not at the mercy of other commercial or geo-political forces. It also highlighted the notion of 'collective self-reliance' as a key force for Third World countries to exercise collective power to change the current economic and political world order, including controlling and reigning in the power of Transnational Corporations. A fifth, concluding principle underscored the need to understand that all societies, in order to achieve the four other principles, would need to undergo deep transformations — and that there are no 'developed' societies.[43]

Making the development vision a reality

Realising a renewed vision for development must start with an effort to break out of structural traps and dependencies as outlined in earlier sections. Africa must secure the foundation of its development by ensuring its people have access to food and energy and opportunities for socio-economic development.

Three key ways to break out of structural traps are: 1) invest in food sovereignty at the national, subregional, and regional levels; 2) invest in energy sovereignty by harnessing the huge potential of renewable energy in the continent; and 3) develop a pan-African industrial policy that capitalises on the complementarity of African resources and capabilities. Such a Pan-African approach to industrial policy takes advantage of economies of scale within Africa, and prioritises vital environmentally and socially appropriate industries for the continent's resilience to external shocks. Integrating these three approaches is also important because energy underpins and powers all sectors.

The existing African Union Agenda 2063 highlights a long-term, pan-African vision of a prosperous continent that has defined its own destiny.[44] This agenda needs to be operationalised with the kind of African-centred food, energy, and industrial policies and approaches outlined here —rather than becoming defined and distorted by conventional, mainstream development prescriptions that maintain current dependencies and entrapments.

Ensuring food sovereignty

A central objective of development is ensuring that every African has access to abundant, affordable, nutritious, and locally preferred food; and Africa has huge potential to produce food in a way that meets the needs of its people, in harmony with its natural systems and environment. Not only does investing in food sovereignty improve Africa's food security, agricultural sustainability, and carbon footprint, but it also reduces its external debt burden and builds one of the most important pillars of Africa's economies.

Yet, Africa is today a net importer of food, and current trends show that African countries' food imports will soar, unless they consciously invest in their food systems in ways that serve people's needs and prioritise food sovereignty. The African Development Bank estimated that Africa's net food imports reached $35 billion in 2015, and expects it to triple by 2025, reaching over $110 billion.[45] Today, too much of African farmlands grow crops such as cocoa, coffee, and tea for export, while several staple crops such as wheat and rice mainly come from outside of the continent. Rising imports of cheap (and frequently subsidised) surpluses from industrialised countries have glutted local markets, driven down prices and farmers' incomes, weakened communities and local agricultural production, and reshaped the nature of food provision in Africa.

In addition to re-thinking colonial-era assumptions about cash crops, the way forward requires adoption of environmentally and health-wise sound food production through

agroecological practices that are not dependent on expensive and energy-intensive inputs of chemical fertilisers, pesticides and patented seeds and machinery. The transformation of food systems towards agroecology, ecosystem approaches and environmental principles offers many advantages. They can promote food sovereignty; maintain ecosystem functions; conserve, use, and enhance biodiversity; protect local varieties and knowledge; provide nutritious food, sustain yields, and secure livelihoods; protect smallholder farming communities; strengthen local and territorial markets; and are resilient to climate change.[46]

Such small-holder agricultural practices form the backbone of food sovereignty, which in turn, as earlier discussed, form a key part of development economics strategies to break away from dependencies, structural deficits, and further indebtedness.[47] Agroecology is also gaining major traction as a climate strategy, as highlighted in the 2019 IPCC special report on climate change and land — both in terms of reduced emissions and enhanced [farmer] resilience and adaptation capacity.[48]

Through deliberate interventions in the form of supportive policies, funding, debt relief and, not least, provision of energy, small-holder farmers (who already feed approximately 70% of the world's population) can enhance their farming conditions.[49] Ecologically appropriate multi-cropping, seed exchanges, integrated pest management, solar powered irrigation, electrification of light farming machinery can strengthen food sovereignty and resilient livelihoods for hundreds of millions of African farmers. On-farm storage and food processing, in particular, can reduce food loss and waste, and improve communities' potential for value addition and increased earnings.

African countries stand at a crossroads in terms of their food systems. On one hand, they can move towards food sovereignty and increased self-reliance, or, on another, become further integrated in an industrialised globalised food system controlled by large agribusiness and measures that tighten control over African farming for external interests and profits.

Aiming for a higher degree of food sovereignty in Africa requires substantial investments in rural development, including infrastructure, irrigation, flood control, energy, logistics, transportation, storage, processing facilities, sanitation, and other technical capabilities. Currently, all of these investments require substantial imports, access to foreign currency reserves or foreign direct investment. However, this opens the door for prioritising the production of agricultural equipment and resources as part of a pan-African industrial policy that capitalises on the substantial demand for such resources across the continent. A coordinated effort on the industrial front can be designed around the manufacturing of renewable energy and agricultural equipment, which will, in turn, directly tackle the structural deficiencies around food, energy, and manufacturing outlined in the section *Where are we now?* above.

"African countries stand at a crossroads in terms of their food systems. They can move towards food sovereignty and increased self-reliance, or become further integrated in an industrialised globalised food system controlled by large agribusiness and measures that will further control African farming for external interests and profits."

Formulating and implementing pan-African industrial policies

A pan-African industrial policy must avoid reproducing the post-colonial industrialisation trap that embedded patriarchy and exclusion of women, and prioritised extractive industries, assembly line manufacturing, and low-value added export-oriented industries.

The industrialisation model that Africa has pursued from the early post-colonial days has been a model of assembly line manufacturing that imports capital, intermediate components, and energy and relies on low-cost labour to produce low-value added content for exports. These would be either as finished goods, or as intermediate goods for final assembly in a global supply chains system controlled by multinational corporations in the Global North. In essence, African countries end up serving a subcontracting role in the industrial policies of the Global North rather than having their own industrial policies that allow them greater proportion of the benefits. Therefore, the lack of industrial policies in Africa deepens the low-value added structural traps, heightens Africa's dependence on food and energy imports and subsidies, and ensures that the cyclical nature of economic systems are always dependent on economic activity in the Global North.

Africa's industrial policies[50] have to build and strengthen pan-African horizontal and vertical linkages that allow the continent to produce and retain most of the value-added content of manufactured goods. Furthermore, it must prioritise the manufacturing of strategic inputs for Africa's new economic foundations, starting with renewable energy infrastructure, agricultural equipment, water and sanitation, public transportation, healthcare facilities and equipment, housing, education, and technical training. Africa cannot continue to act as the base for low-cost manufacturing and extraction of raw materials for the global economy.

Africa's pivot to a different model of African industrialisation requires five strategic components:

1) Building African markets that allows for the achievement of economies of scale for African manufactured products, while respecting ecological and environmental constraints. This also requires the development of pan-African critical infrastructure, logistics, finance, insurance, supply chains systems, and stringent environmental safeguards;

2) Mobilising and optimising complementarity of African resources and human capabilities. Geographic distribution of manufacturing units needs to be carefully selected to ensure efficient access to critical resources. Distribution of both employment opportunities and output produced is necessary to ensure a pan-African just transition. Empowerment of women across all geographies is critical to maximising Africa's industrial potential.

3) Prioritising and sequencing strategic investments in key sectors such as energy and agriculture as core building blocks for economic resilience. In other words, the first key items produced within this pan-African industrial policy should begin with renewable energy products (LED lights, solar panels, wind turbines, heat pumps, ventilation

equipment, etc.), and agricultural sector products (irrigation equipment, water pumps, electric tractors, spare parts, etc.) rather than just products destined for exports and consumption in the Global North;

4) Commitment to long-term planning with periodic performance assessment of strategic targets related to productivity, product quality, efficiency, and overall competitiveness. It is important to avoid the mistakes of earlier industrialisation policies that provided unconditional subsidies and protection to infant industries in ways that led to corruption and abuse of power, and that did not anticipate the subsequent collapse of propped up industries as they faced crashing competition from the Global North when trade barriers were eventually removed; and

5) Formulating strategic technological partnerships, technical assistance, research and development, and trade relations on pan-African and regional terms. In other words, avoiding the recreation of new forms of dependency[51]. This is where a united and coherent pan-African economic diplomacy becomes critical in navigating the geopolitical tensions between the US, EU, China, and Russia. Positioning Africa as a strategic partner with global players must mean transformational benefits for Africa, on African terms, rather than reproducing structural debt traps and economic dependency.

African Union Headquarters, Addis Ababa, Ethioipia

Ensuring energy sovereignty and people-centred energy systems

African countries, with most of their energy and other infrastructure yet to be built, have a unique opportunity to leapfrog towards renewable energy systems, guided by principles of energy sovereignty and people-centred development. African people and their leaders can make their mark in history by pursuing energy measures that avoid locking countries into outdated, centralised, fossil fuel-based energy systems that threaten to generate stranded assets, perpetuation of debts, unhealthy concentration of ownership, and a worsened environment and climate.

While power generation at scale will continue to play an important role under a low carbon energy regime, large power plants will need to be increasingly integrated into smart, distributed multi-directional systems that can harness a diverse array of energy generation options at scale. People-centred, distributed, and renewable energy systems offer potential solutions to multiple needs — including breaking economic dependencies and debt spirals, ensuring energy access to all Africans, and creating less polluting and more healthy energy systems. They can also foster participation and democratisation energy decisions, provide conditions for thriving local economic development, avoid aggravating climate change, enhance resilience to natural disasters and the impacts of global warming, and drive domestic socially and environmentally appropriate industrialisation. Additionally, these energy systems are modular in nature, making it possible for energy to be harnessed almost everywhere, to the required size and by a large diversity of actors.

PART III: A SPOTLIGHT ON ENERGY

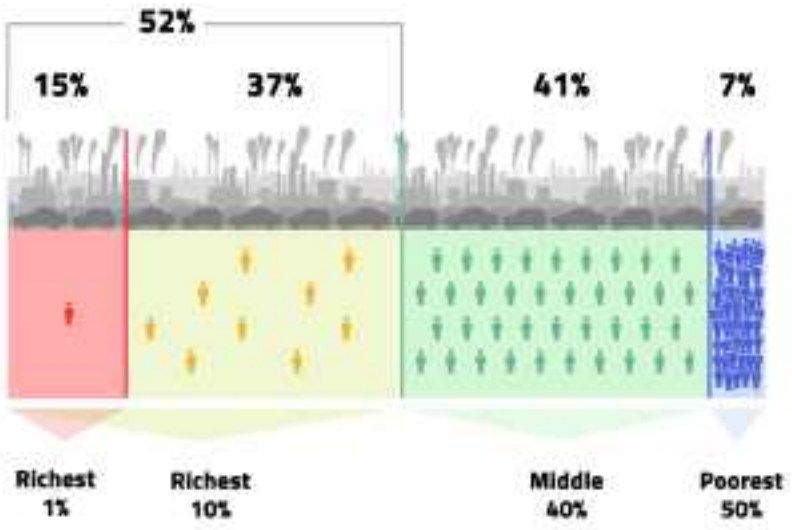
An African energy agenda

Without diminishing the importance of other sectors, this report spotlights energy as a crucial piece of the puzzle to deliver a people-centred and sustainable development vision for Africa. As societies tackle the intertwined crises outlined above, energy is at the core of both problems and solutions. With the right approaches, values and visions, the African energy systems of the future can unlock tremendous potential. To do so, a number of principles and approaches need to be acknowledged.

Ensuring energy access and sufficiency

African energy plans must recognise the vastly different realities and starting points of each African country in terms of both current energy access levels, energy mixes, and current roadmap choices.[52] The energy access challenges of Africa cannot be overstated. While North African countries have close to universal access to energy, the total power generation capacity of the 48 sub-Saharan African countries amounts to 45 GW in 2021, which is less than that of Spain.[53] About a quarter of this capacity is currently unavailable, mainly due to aging power plants and lack of maintenance, which means expensive back up diesel generator systems make up for the shortfall. This serious case of crippling underinvestment means that around 600 million people, about 43% of all Africans, live without access to electricity.[54]

In terms of energy use, the per capita electricity consumption in sub-Saharan Africa, excluding South Africa, amounts to 180 kWh per person, compared with those in rich advanced economies of 6500 kWh/person in Europe and 13,000 kWh/person in the US.[55] Hardly anywhere are global inequalities more apparent than in terms of energy use.[56] These gross inequalities in energy use also translate directly into corresponding injustices in relation to emissions, with the world's 10% wealthiest people responsible for

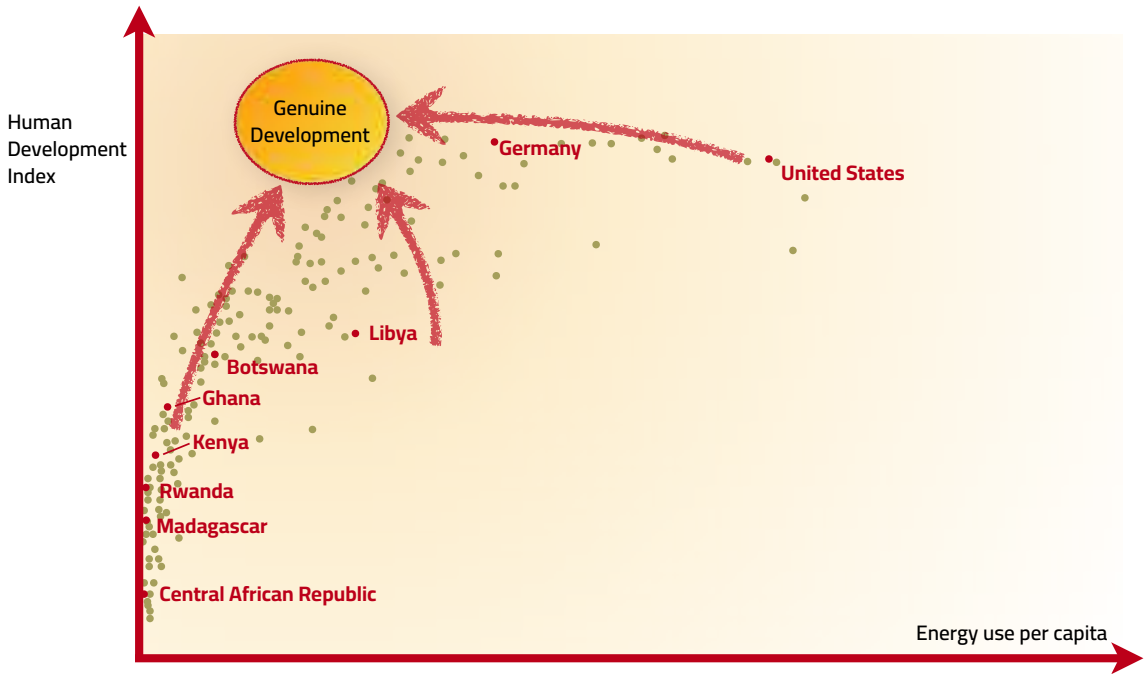


Cumulative emissions 1995-2015: Inequality in energy use also translates into inequality in emissions of greenhouse gases.[57]

more than 50% of the world's emissions, and the 50% poorest — many of them Africans — emitting less than 7%.[58] The typical billionaire is responsible for a million times more greenhouse gas emissions than the average person.[59]

For those with little consumption, every additional kWh represents an increase in quality of life, while for high consumers of energy, there is hardly any such correlation. Beyond a certain level of per capita energy consumption, there is even zero or negative correlation with quality of life.[60] For example, the average US citizen consumes almost double the amount of energy than the average German, but scores lower on the Human Development Index.[61]

Globally, there needs to be a convergence of energy use levels towards a zone of 'genuine development.' Poor people need to see a significant increase in their energy access and use, while those in the wealthy, high-consuming part of the population need to decrease their energy use.



All countries need to converge to a zone of high human development levels coupled with sustainable and renewable energy consumption — a zone of 'genuine development'. Countries conventionally refered to as 'developed' have just as much work to do as those considered 'developing'. Those richer countries must maintain or improve development outcomes while reducing excess and harmful consumption.

The current levels of energy consumption by the wealthy are excessive and cannot constitute a global goal. Even if all energy is eventually generated from renewable sources, there are absolute constraints in minerals and other materials, as well as unsustainable implications on biodiversity, pollution, and land requirements from the higher throughput of materials that come with increased energy use. It makes sense for Africans to advance the global discourse around limits to growth, degrowth, and steady-state economics — particularly for wealthy countries and affluent segments of the population in all countries — to make it possible for all Africans to live well and sustainably.[62]

Designing appropriate energy systems

The need for a new model of energy provision for African societies is long overdue. For far too long, energy planners in Africa have been locked into a model that only considers centralised systems as the norm in the design of electricity systems. The coming of age of renewables, in terms of technological maturity and increasingly favourable costs, together with the modular nature of solar systems, have opened opportunities to consider a broad spectrum of delivery models. Integrated energy solutions that bring together the advantages of both centralised and decentralised approaches are sensible ways to address the range of energy requirements across African societies. This implies that new institutions and new thinking are needed. This also implies a need to direct efforts and plans that facilitate and enable local and diverse ownership, broad-based involvement of both public and private African entities, and strategies and policies that purposefully set the basis for African manufacturing of renewable energy equipment as a key feature of industrial policy.

These energy systems offer the potential to involve households, farmers, cooperatives, small and medium-scale enterprises, schools, hospitals, universities, and many others, as producers of energy, in addition to traditional energy providers in the form of larger energy companies and utilities. These new energy systems provide scope for the delivery of energy as a common good and to genuinely foster energy democratisation. To this end, measures and forward-looking policies will need to be put in place that can effectively enable millions of people and institutions to benefit directly across the value chain of the energy system. New and strong institutions will need to emerge to ensure participatory decision making that places social well-being and environmental protection at the heart of Africa's energy future.

Box 2: **The renewable energy potential**

A growing number of studies document how there is considerable potential for renewable energy to drive the world's energy systems, and how Africa is particularly well endowed with renewable sources of energy.[63]

Recent studies by a team led by Professor Sven Teske at University Technology Sydney shows how renewable energy could provide all the world's energy needs in ways compatible with keeping warming below 1.5°C. Scenarios include both global analyses and detailed country trajectories.[64]

A study by Professor Mark Jacobson's team at Stanford University examines 145 countries and concludes that 100% renewable energy is possible to reach with the renewable energy technologies available today. The study suggests a global goal of reaching 80% renewable energy by 2030 and shows that the estimated total investments of USD 62 trillion would be paid back within six years based on an estimated 11 trillion in net annual social savings.[65]

Numerous analyses show how Africa is the continent with the most favourable conditions for harnessing renewable energy, with potential far outstripping any projected needs.[66]

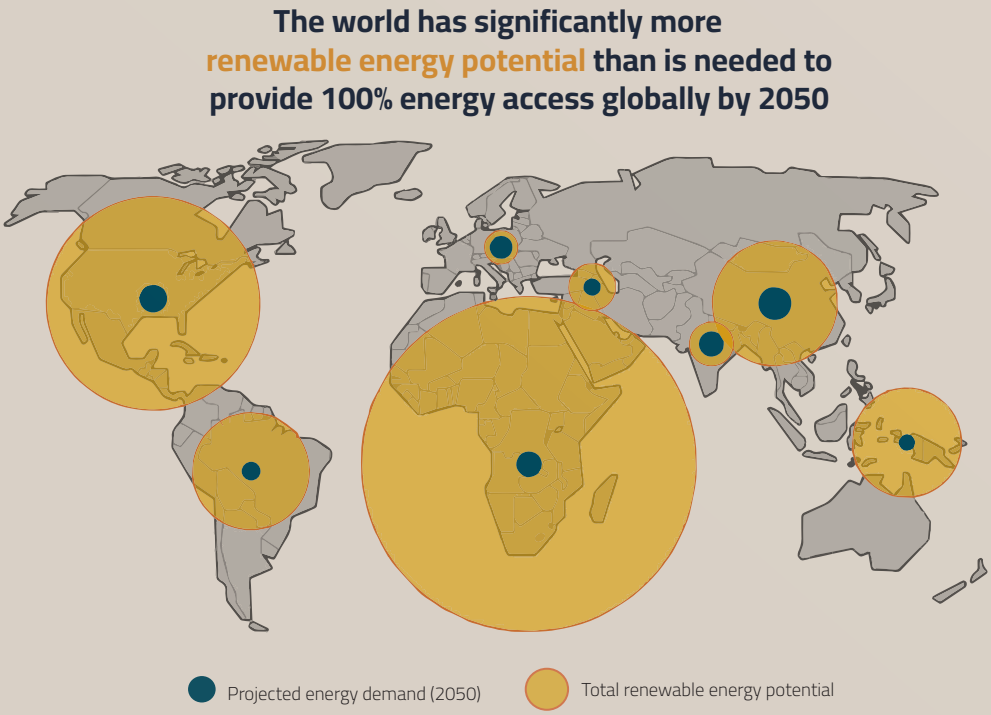
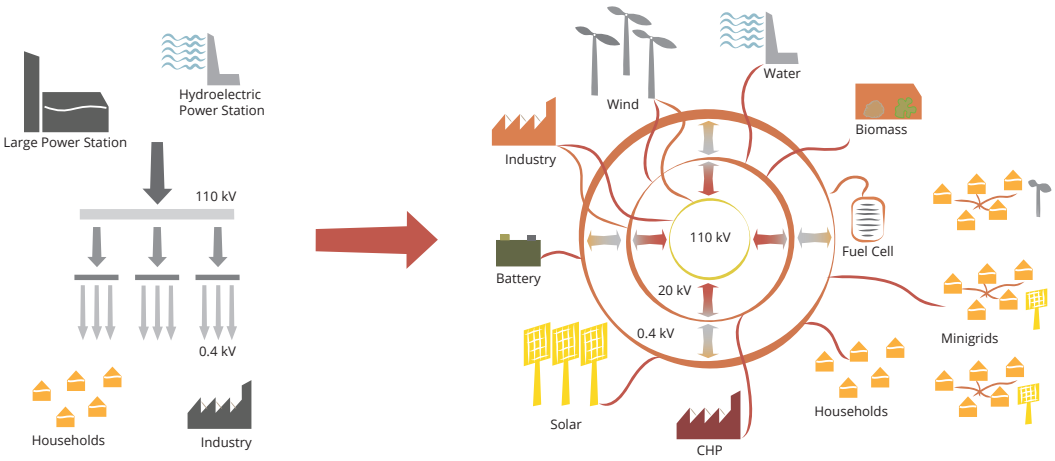


Figure from the report *Fossil Fuel Exit Strategy*[67]

People-centred and increasingly renewable energy powered systems are well suited to effectively tackle energy access needs as electricity generation can take place close to the point of use. For example, the long-standing problem of finding clean cooking solutions can be addressed through electrification based on renewable energy systems at speed and scale. But energy access is about much more than meeting current demand.

It means providing access to energy at levels that truly meet energy needs for decent lives with 24/7 access that meets basic needs and provides resilient livelihoods — for all. It means making energy available to power local firms and social service providers that enable thriving local economies and small industries. It means energy to enable healthy, agroecological farming for food sovereignty where small-holder farmers can harness much more value from their efforts and resources by irrigating, storing, processing, and transporting food. It also means achieving these goals through intelligent management of demand, smart grids, and interconnected small and large renewable energy generation sites that effectively power all industrial needs, including heavy industry. Such 'virtual power plants' that interconnect numerous smaller renewable energy generation sites can effectively provide powerful baseloads and unprecedented resilience in ways that cater to the most demanding needs.[68]



From one-directional centralised fossil fuel-based energy systems to multi-directional, renewable energy provision at all scales. Historically, electricity demand was supplied by large, central power generators with a high-voltage backbone and an ever finer grid. In the future, because of cost-competitiveness of distributed renewables, the system architecture can be based on interconnected and multi-directional, smart grids and island grids. Solar PV (roof and ground-mounted) will be installed literally everywhere. Wind turbines will complement where economically viable. Dispatchable generators (biogas, biomass, hydro, and battery storage) will complement the local island grid. Each island grid can in principle run on its own but higher reliability and lower costs are achieved by interconnecting over time.
Source: CSIR [69]

"These energy systems offer the potential to involve households, farmers, cooperatives, small and medium-scale enterprises, schools, hospitals, universities and many others as producers of energy... measures and forward-looking policies will need to be put in place that can effectively enable millions of people and institutions to benefit directly across the value chain of the energy system."

Achieving all of this is already becoming increasingly feasible as smart grids, renewable energy generation, and storage technologies improve and become cheaper.[70] Renewable energy is already cost-competitive amidst a seemingly perennial crisis in the fossil fuel sector. IRENA estimates that almost two-thirds or 163 GW of newly installed renewable energy power in 2021 had lower costs than the cheapest coal-powered options in G20 countries.[71] However, hurdles remain for African countries in accessing affordable finance as current finance instruments are designed primarily to attract private sector investors who perceive African countries as high-risk investment destinations. This plays to the disadvantage of Africa as countries will need to face the burden of entering into de-risking partnerships and market-correcting arrangements to create investable assets, exposing countries to contend with a range of hazards from liquidity to political and exchange rate risks.[72]

Moreover, additional burden is placed on off-grid and smaller scale solutions, which tend to be more costly due to the fact that almost all forms of renewable energy technologies entail relatively high upfront costs for buying and installing equipment. For many involved in renewables, and in particular smaller and less experienced actors, there is need for policies and provisions that make sure the initial investments can be made in straightforward and secure ways, and with easy access to upfront capital. For many Africans, however, even with the best 'enabling environments', they simply do not have the economic means to either consume or invest in appropriate energy, which means progressive measures to ensure energy access as a right also need to be provided and supported through public means.

The renewable energy transformation will not come at the required pace by itself. African energy efforts need to be based on careful analysis and directed through clear and deliberate plans, polices, and regulations, as well as appropriate provision of funds at scale if outcomes are to justly benefit people and nature. Such an energy transformation requires enhanced African strength and full mobilisation of capacity.

An Energy Vision — key principles and approaches for the energy transition

As Africa moves forward in building its energy future, it is essential that energy efforts are informed by a number of key principles and approaches. An overview of some of these are reflected below and can serve as points of reference for evaluating, assessing, and informing both African continental energy initiatives and domestic energy plans:[73]

African ownership

Ensuring African agency. Currently numerous energy systems and 'just transition' initiatives are being launched that relate to Africa. Few of these fully emanate from Africa, and fewer yet are informed by the broader, integrated development perspectives and visions outlined here. Well-intended efforts also often get distorted and controlled by powerful and vested interests. Africa needs to find its own voice whereby the questions it asks about its energy and development challenges (and the solutions to these questions) are internally generated, debated, and acted upon.

Energy systems design

Energy systems are some of the most substantial and complex infrastructure achievements of human societies and take considerable effort to change. For countries with already extensive energy generation and distribution structures, the task at hand involves transitioning from one system to another, including the decommissioning of outdated fossil fuel infrastructure. For many African countries, with the bulk of energy infrastructure yet to be built, the task is rather to leapfrog directly to the energy system of the future, similar to how African countries have bypassed outmoded wired telephone lines to build mobile systems. Regardless of their starting point, societies need to undertake the energy system transformation with the agility to continuously adjust course of action as needs and social and technological realities change.

Mapping and long-term plans and trajectories. It is critical for African countries to undertake their own, solid analyses of long-term energy planning options in ways that question and challenge business-as-usual and old assumptions. Such scenario building and planning need to include pathways towards 100% renewable energy, and draw on best available knowledge, particularly by African experts from across government, civil society, academia, and the private sector. Few such scenarios have been developed for African countries and even fewer with inputs from a broad representation of actors.[74] These long-term plans will need to go beyond showing feasibility and overall cost savings, and incorporate social wellbeing and ecological constraints at the core of the assumptions. They also need to be produced through deep and deliberative processes to ensure meaningful, integrated energy systems planning and research.[75]

Envisioning people-centred energy systems. As outlined, the new and future energy systems in Africa offer possibilities that go beyond a simple replacement of fossil fuels with renewables. The articulation of such energy models would need to be built on, for example, cooperative measures around common standards as well as sharing of experiences and innovative ideas that include grid design, smart, demand-side management, and new ownership models. The purpose of this effort is so that in the future, African energy systems, along with their utilities, can benefit from broad participation of diverse players that include both producers and consumers. While such a process has the potential to create democratically determined green structural transitions, the technical benefits include the flow of energy in multiple directions at different scales with batteries and other forms of storage effectively addressing peak demand and intermittence.[76]

Energy sovereignty as a development strategy. Avoidance of costly fossil fuels can constitute an effective measure to break out of current patterns of perpetual economic entrapment and indebtedness. It is imperative, therefore, that energy sovereignty constitute a key objective in African energy planning. Even countries that produce and export fossil fuels such as Nigeria, Angola, and Sudan tend to import back more costly, refined fossil fuel-based products. The imperative of African energy sovereignty also applies to renewables. Countries will need to move away from getting stuck as providers of raw minerals for the global green transition in order to become serious players across the renewable energy value chain. Manufacturing of renewable energy technologies can be a key driver for African industrialisation and constitute an effective pathway towards energy sovereignty. By swiftly moving toward socially acceptable and environmentally appropriate processing of minerals and production of renewable energy technologies, African countries can cut the need for foreign currency, and simultaneously stimulate domestic economies, employment, and expansion of the internal taxation base. Effective renewable technology manufacturing necessitates comprehensive, long-term approaches that include efforts to build capacity both in terms of African innovation

and technology development capacity, and general skills among the workforces. It also necessitates demands for access to technology, and where necessary, overturning current restrictions by patents and other intellectual property rights restraints. Much of this also requires individual countries to join forces to collectively demand technology access and to set up internal, pan-African or regional markets and industrial policies to create economies of scale.[77]

Policy priorities

The overall development vision helps define criteria for human, social and economic development, but needs to be broken down into strategic components and action plans, providing the roadmap (or policies) to navigate both the short- and longer-term directions. Much of the experience across Africa demonstrates, however, a disconnect between vision and policies, largely due to the combination of structural impediments exerted by global processes and the lack of coordinated, transparent, and inclusive governance systems at national levels.

While policies towards investment in renewable energy sovereignty will need to be integrated with the other two building blocks to break out of structural traps — ensuring food sovereignty and formulating and implementing pan-African industrial policy — some energy-specific policy priorities include the need for:

Comprehensive, programmatic policies that enable renewable energy investments and deployment everywhere — also by smaller and less experienced actors. Such measures can have transformative impact and go far beyond approaches that only target large, individual energy projects. Transformative policies such as pay as you go, feed-in tariffs, and other variations of payment guarantees, have proven potential and can, if connected with substantial international funding, drive wide-scale, rapid deployment (see also Box 3). Such approaches can bridge large-scale provision of funds to a country with mechanisms that enable many projects on the ground in straight-forward, transparent manners.

Capacity mobilisation and -building. While too often neglected, both short-and long-term capacity mobilisation and -building need to be prioritised. Lack of capacity is a major bottleneck and can only be addressed by concerted efforts and planning. Immediate capacity mobilisation of African expertise is key, as is steady building of pan-African cohorts of young African professionals and experts over time. Credible African energy and development initiatives should include provisions for African education and knowledge platforms and creation of continental knowledge institutions equipped to tackle the systemic nature of interlinked crises.[78] There is need for substantial public investments in large-scale training of the workforce for manufacturing, deployment and maintenance of renewable energy technologies across all areas and regions.

Box 3: **Transformative policy approaches to unleash renewable energy investments by all kinds of actors**

With costs for renewable energy infrastructure rapidly dropping, and with no costs for fuels (and consequently no risks associated with volatile fuel prices) for solar, wind, hydro or marine sources of renewable energy, the economic case for renewable energy is getting stronger by the day.[79] Already, in many cases, new built solar PV and wind are cheaper than both new constructions of coal and even continued operations of existing coal plants.[80]

Yet, hurdles persist that prevents renewables from the large-scale deployment one would expect from cost considerations alone. One key aspect is the high proportion of capital investments required for renewables compared to traditional fossil fuels. Almost all of the costs for renewables lie in the upfront costs to build the necessary infrastructure (windmills, solar PV modules etc.), with very small operating and maintenance costs. The initial investment requires access to almost all capital right away (rather than the costs of fuel spread out over decades), which creates debt that must be paid back over the lifetime of the power plant. Those investing in renewable energy put all their eggs in one basket, and need to know that they will obtain continuous returns on their investments (i.e. payment for all they produce at prices high enough to cover the costs of capital). These economic uncertainties, and ironically even the continued positive trend of renewables getting cheaper, tend to discourage investments since there may not be enough certainty of sufficient returns in the future.

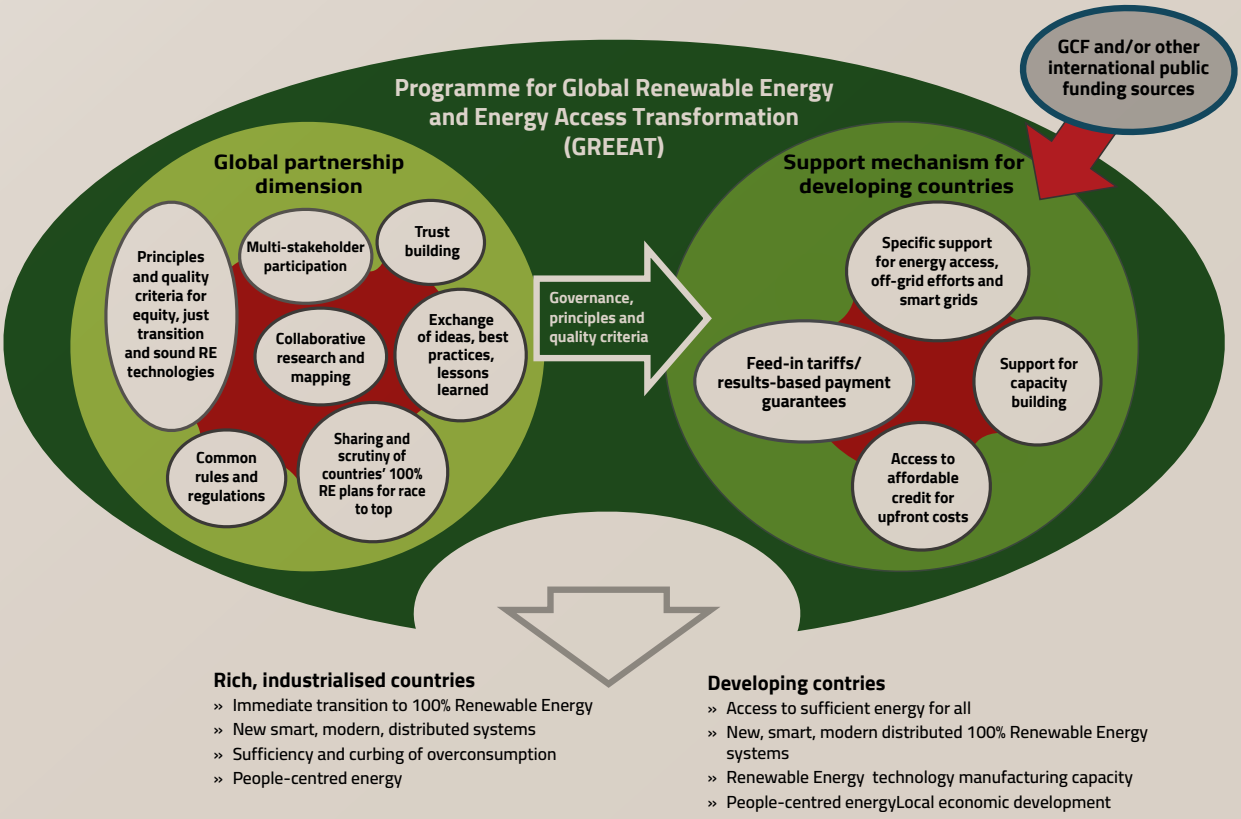
The establishment of public policies that create safe and predictable long-term investment conditions are therefore key, proven measures. By ensuring that payments (Power Purchasing Agreements) over 20-30 years will be made at levels (tariffs) that will ensure cost recovery for the initial investment, and by ensuring that all renewable energy produced will be purchased, the developer of renewable energy is provided secure conditions to move ahead. This is particularly relevant for smaller and less experienced developers, e.g. farmers, cooperatives, small/medium-scale businesses, public entities such as schools and hospitals, and of course individual house owners, who do not have the experience or means to bid and compete on the market. Public policies are needed that generate investments, and enable everyone interested to take part in the renewable energy revolution in safe and secure ways.

There are many current and past experiences of these kinds of payment guarantee schemes, with much to build on and refine. Feed-in tariffs, which are one example of payment guarantees, have been widely regarded as one of the most effective policy measures to promote renewable energy across numerous country contexts.[81] They combine a set tariff (payment level to the producer of energy) and a legal right for the renewable energy to feed-in to the grid and always be bought, hence creating a safe and easy way for developers and investors to enter the renewable energy market.

For renewable energy development that may not yet be competitive, payment guarantees can play an even more important role in also subsidising, or paying for risk mitigation,

or ensuring that higher costs are not passed onto poor consumers. This may be the condition in some African countries, not least in rural areas not yet connected to the national grids. Investments here through mini grids, and additional costs for connections as well as higher relative costs associated with less favourable economy of scale for smaller entities would need to be made safe through direct policy schemes such as various forms of payment and connection guarantees.[82]

In 2014, The African Group of Negotiators called for 'A global partnership to accelerate the Energy Transformation required for a well below 2° Celsius World by supporting renewable energy feed-in tariffs and other incentives'.[83] Years later, the establishment of such a support scheme with associated international public funding is more relevant than ever.



The world needs a comprehensive programme to effectively drive people-centered renewable energy deployment everywhere, across every community. Countries need to cooperate, share best practice and execute robust, bold funding schemes that can enable all developing countries to rapidly move towards 100% renewable energy. A globally funded scheme for feed-in tariffs/ payment guarantees could provide an essential motor for such efforts as presented in the GREEAT framework.[84] Such ideas were also proposed by the African Group of Negotiators in 2014 and are integral to the Frameworks of the original Africa Renewable Energy Initiative, and the LDC Renewable Energy and Energy Efficiency Initiative for Sustainable Development.

Clean and healthy cooking. No other energy issue illustrates energy injustice more than the challenge of cooking in Africa where 970 million people rely on wood-fuel, waste and charcoal, especially in rural and peri-urban areas of the continent. This has considerable human cost with about 4 million globally, and at least 500 000 Africans dying each year due to respiratory illnesses caused by indoor air pollution from cooking, in addition to other safety and health hardships that women face while collecting wood often far away from home.[85] Energy for cooking is also a major cause of deforestation and land degradation, and a contributor to greenhouse gas emissions.

In recent years, the electrification of cooking (grid or off-grid approaches) has emerged as a serious alternative to traditional biomass-based cooking. This is largely driven by the significant progress that has been made in increasing access to electricity as well as advancements in energy efficient cooking appliances. Furthermore, mini-grids and solar home systems are forming part of the solution not only to increasing access but also in making electricity-based cooking possible.[86] However, accelerating access to clean and modern cooking will require breakthrough in three key interlinked areas: political commitment, investment and knowledge and innovation. It also needs to be supported by policies and multi-sectoral partnerships.

Energy efficiency. The potential for energy efficiency exists across all sectors in Africa, and across both the demand and supply sides of the energy system. Given that Africa's energy system is still evolving, and despite relatively low levels of energy production and consumption, leaping into an energy efficient economy helps avoid the wasteful path taken by developed countries, saves money and delivers more energy services faster to the end user. Several benefits can be harnessed by simultaneously integrating energy access, energy efficiency, and renewable energy policies.[87] For example, higher energy efficiency improvements allow for a wide range of services with distributed systems, while distributed renewable energy expansion reduces conversion and transmission losses by employing cost-effective, energy efficiency measures and programmes. It means that integrating energy efficiency into infrastructure development plans and policies helps avoid unnecessary extra capacity and expenditures. Clearly, efficiency measures need to be integrated with other policy measures from the outset.

In addition to efficiency, energy sobriety should be given special importance because it reinforces and amplifies the impact of efficiency. Energy sobriety, i.e. consuming less energy while not sacrificing the quality of life, should now be an important axis of any energy or climate policy. As clearly indicated in the recent IPCC WGIII report, sobriety is a set of everyday actions and practices that avoid demands on energy, materials, land, and water while ensuring well-being for all within planetary limits.[88]

Box 5: **Electrification of cooking as a top development priority**

As the rate of electrification rise, electric cooking is increasingly becoming a viable option. In recent years, driven by energy-efficient appliances, opportunities for electrification of cooking are offering alternative to biomass-based cooking.[89] However, over 80% of Africans continue to cook with polluting fuels and technologies that have severe health, economic, environmental, and climate impacts. Even among those that have access to grid electricity, for example, in urban areas, only a small minority have made the transition to cooking with electricity. The lack of access to reliable and stable power supply, adequate end-use appliances, and the cost of electricity are the most common reasons. However, the reason behind this lag is not only concern about infrastructure but also limitations within the political and policy space.

Electricity is overlooked as an option for clean cooking mainly because energy planning policies and strategies continue to ignore it. The cooking sector continues to be treated separately to other energy access initiatives. In other words, investment in infrastructure for electricity access is disconnected from the enduring problem of clean cooking. This neglect represents the lack of a people-centred approach to energy planning, a phenomenon that has its roots in the history of electrification in Africa. Historical accounts show that British colonialists were the most ardent dam builders in Africa, however, dams were not built to provide access to African households, but to meet the financial and political interests of the Crown.[90] This is different from what was going on

in Europe and North America during the early 20th century, where electric cooking was not only marketed as clean, efficient, and economical but households were supported with different financial schemes.[91] In most African countries, these early electricity policy choices created path dependencies.

Today, cooking with electricity suffers from inadequate institutional and policy support. Although the benefits of modern and clean cooking cut across multiple socioeconomic sectors, as a policy area, it remains essentially an 'orphan' sector. Although it cuts across a range of sectors — energy, health, climate, gender — clean cooking is rarely owned or prioritised by any.[92] Moreover, among households the fear of running up a huge bill dissuades many from cooking with electricity. In most cases, these concerns are valid as residential tariffs in Africa are relatively high, if not higher than prices in developed countries. In some cases, this is because countries have prioritised improving cost recovery, thus failing to achieve the social objectives of affordability and equity. In many countries residential consumers cross-subsidise electricity costs for industries, with industries paying less per kWh than households.[93]

There are multiple benefits associated with electric cooking ranging from improving health to reducing emissions and deforestation. Unlocking electric cooking requires rethinking the household energy needs and its place in a wider, more holistic, energy access framework. Hence, placing access to clean cooking and access to electricity on equal footing is an important aspect of facilitating transitional pathways to electric cooking. This approach needs to be rooted in people-centred and equity-based approaches to energy policies and planning. Consumption cannot be separated from the technologies, institutions, and infrastructures that are required by a community. Thus, energy planning that puts people at the centre must also encourage the development of contextualised solutions and consider differences in cultures.

Rural energy access, including mini-grid/off-grid solutions. What the history of electrification across Africa informs us is that the electricity system in sub-Saharan Africa was designed as part of the integration of the continent into a global economic order, leaving aside the large rural, informal and subsistence production system that only received limited technological input from outside. This policy negligence would need to change if African counties are to seize the opportunities to invest in rural transformation (and agriculture) to deliver food sovereignty while creating high quality jobs and improved wellbeing. Approaches to address this can include both creation of isolated 'island' mini-grids that serve energy access needs in short time (that may or may not be interconnected over time), as well as direct grid-connection when appropriate and cost-effective. programmatic policies with connection guarantees combined with tariff guarantees, subsidies, and credit access support can enable rural households, communities, farmers, and SMEs to gain energy access.

Productive and social sectors. One of the major challenges for industries and other productive economic sectors such as mining and farming is reliability of power. Blackouts cost significant loss of production and revenue, and many use polluting and expensive diesel back-up generators. Distributed (decentralised) renewable energy powered systems can offer a distinct advantage to overcome reliability problems. Moreover, by owning their own generation capacity, enterprises would be able to reduce the risk of production loss as well as reduce their energy expenses by selling power to the grid when they do not need all generated energy themselves. Another advantage in distributed systems is their proximity to the site of use, which can reduce losses associated with transmission, improve energy efficiency, and also serve as anchor loads to provide power to surrounding communities with lower demand profiles. Micro, small, and medium sized enterprises and small-holding farming forms the backbone of African economies and need to be explicitly targeted and supported, along with social service providers such as schools, health provision, and public administration facilities.[94]

Equity, process, and stakeholder participation

It is commonly argued that renewable energy developments have the potential to decentralise power and contribute positively to equitable and just outcomes.[95] However, the achievement of equity and fairness through the renewable energy transition is not guaranteed. Indeed, there is also the distinct potential for renewable energy infrastructure to be deployed in ways that have negative equity outcomes, unless deliberate measures are taken to ensure distributional considerations are woven into the fabric of energy and development policies. In short, there is a need to radically democratise the governance of energy systems, which calls for considerable institutional agility and political leadership as well as the widest possible stakeholder and public participation in shaping the energy direction of countries. Legal and regulatory mechanisms, while essential for implementing actions and safeguarding rights, will not deliver energy justice on their own. The following principles and approaches are necessary:

Equity and leaving no one behind. Access to sufficient energy is a right. Article 25 of the Declaration of Human Rights promotes equality and the right to an adequate standard of living to promote health and wellbeing.[96] Whilst the responsible agent is not explicitly stated in the declaration, national energy polices and plans must ensure all communities are reached, and at a continental level that no country is left behind. Convergence of energy use levels to levels of sufficiency for well-being is relevant both within and between countries, North and South. International initiatives must not entail cherry-picking of certain countries for geo-political and other motivations by donor countries. Moreover, given the importance of energy as an essential input to enhancing the quality of life, equity issues and energy poverty must be considered across social policy as well as energy and climate policy spheres. Lack of access to modern and sufficient energy services impose hardships on individual citizens, maintain poverty, and exacerbate social inequality, but also have wider societal implications. In societies where basic needs are met and inequality minimised, the quality of life of the well-off also improve.[97]

Ensure the whole value chain of energy production is available, sustainable and causes no harm. Both existing fossil fuels and renewable energy systems face challenges of pollution, biodiversity loss and human rights abuses of frontline communities. Stringent rules, safeguards, precaution, and compliance must be integral to all forms of energy production.[98] The rapid expansion of renewable energy and battery production must not lead to socially and environmentally harmful extraction and land grabs. Moreover, energy choices surrounding renewables are often framed as choices in favour of increasing returns (based on manufacturing) set against choices in favour of diminishing returns activities, usually involving extraction of fossil fuels.[99] However, as yet this choice only applies for countries/regions that are active in high value-added part of the renewables value chain (manufacturing). African countries are denied this licence. In the current arrangement, their involvement in the renewables value chain is restricted at the extraction end of minerals to supply raw materials to countries who process and manufacture renewable energy technologies. This unfavourable structural relationship has to change. African countries cannot remain captive to the logic that they export raw minerals on the cheap and import highly priced technologies.

Diverse ownership, participation, and energy democratisation need to be enabled through appropriately designed policies, strategies, rules, and effective support schemes. While the private sector has an important role to play, unhealthy concentration of ownership through foreign direct investments and indiscriminate emphasis on private sector profit maximisation to be effectively controlled and regulated. The new energy systems need to be powered by a large diversity of actors, not least common good oriented and non-profit maximising entities such as households, farmers, cooperatives, community associations, schools, universities, hospitals and other public service entities. For many companies, small and large, renewable energy generation can provide important energy security as well as extra revenues. There is enormous scope for democratisation of energy systems, with numerous concrete examples also involving utilities and municipal power services through, for example, 'community choice' models where citizens and community involvement direct the local energy systems to be more locally based, renewable, and efficient with reduced demand.[100]

"A model of policy- and decision-making needs to be put in place that truly recognise the importance of public participation and where civil society, communities, academics and other stakeholders are recognised as key actors with ideas, visions and expertise who can actively co-generate both policies and implementation on the ground."

Cooperatives and community energy. There is major scope for cooperatives and community-owned energy in the African energy model. Such approaches connect well with traditional, collective ways of organising African societies and can effectively cater to real needs. Cooperatives have indeed often played a key role in the evolution of energy systems and formed the back-bone of early energy systems in both North America and Europe. African countries can examine current resurgence of such approaches from other continents and, more importantly, develop its own culturally appropriate approaches.[101] Cooperative approaches can range from small projects with a handful of actors to large, utility-scale energy generation with tens of thousands of cooperative members. Examples of energy cooperatives and other forms of community energy are often stories of sustained struggles and persistent efforts by dedicated citizens and groups to counter corporate power and utility monopolies. An African energy agenda needs to proactively ensure that policies, regulations, and support system are conducive to community energy as a key to both energy access and overall democratisation of societies.

Just transition measures for workers and affected communities. As societies transition away from fossil fuels, transition plans and policies need to ensure adequate just transition measures for workers in both the fossil fuel industry and related sectors such as industrial agriculture and transportation. Such measures need to be in alignment with principles long championed by trade unions and the International Labour Organisation, including social dialogue, social protection, promotion and protection of labour rights, re-training of workers, job guarantees, compensation, as well as other key measures.[102] Just transition measures must also cater to the workers and communities affected by extraction and mining, and expansion of renewable energy.[103] This means that clear guidelines, regulations and safeguards will need to be put in place, and that these need to be effectively monitored and watched through adequate and well resources schemes. Such monitoring and watchdog functions is the responsibility of governments, but cannot be left to governments alone. Trade unions, civil society, and independent experts need to be engaged and mandated to intervene at every step in the value chain.

Accountability, transparency, and involvement of stakeholders in all processes. Energy plans, policy formulation as well as decisions around deployment of energy generation facilities at all scales, locations and stages of decision-making need to ensure genuine involvement and participation of stakeholders.[104] A model of policy- and decision-making needs to be put in place that truly recognises the importance of public participation and where civil society, communities, indigenous peoples, academics, and other stakeholders are recognised as key actors with ideas, visions, and expertise who can actively co-generate both policies and implementation on the ground. Their active involvement, transparency, and access to relevant information is also key to ensuring sound processes and avoidance of undue behaviours and corruption. The principle of Free and Prior Informed Consent need to be strictly adhered to.[105] Criteria and principles for social and environmental soundness as those originally developed and approved by the Africa Renewable Energy Initiative should be revived and effectively monitored and implemented through public participation.[106]

Technology assessment, precaution and horizon scanning. The precautionary principle must guide all decision-making and planning around energy, including anticipation of side-effects and negative social and/or environmental impacts of new technologies. Active technology assessment and horizon scanning for new risks and challenges need to be systematically incorporated in national and continental energy programmes.[107]

Box 5: **The LDC Renewable Energy and Energy Efficiency Initiative for Sustainable Development**

Minsters from the 33 LDCs in Africa, together, with the non-African LDCs, endorsed the Framework for the LDC Renewable Energy and Energy Efficiency Initiative for Sustainable Development (LDC REEEI).[108] This Framework presents an overriding vision and implementation strategy for the LDCs to transition to renewable energy societies in ways that foster people-centred development and prosperity in alignment with this report. The framework outlines modalities for the effective sharing of experiences and mutual support, as well as concrete actions across eight work areas spanning mapping, capacity, long-term planning and policy, and funding as well as multi-sectoral engagement, equity, outreach, and communication. LDC REEEI seeks to support and highlight pioneering countries to set positive examples that others can benefit from, and can, as a whole, also inspire the revival and establishment of other regional initiatives.

Africa at energy cross-roads — Ensuring a just energy transition

The transformation to the people-centred, climate friendly and equitable energy systems outlined above — a Just Energy Transition — is possible but necessitates manoeuvring through a terrain of multiple threats, traps, and critical crossroads. There are major issues and choices about Africa's energy agenda that will have long-term implications for the continent. Some of these are explored below through a justice-oriented energy transition lens.

Renewables vs Fossil Fuels

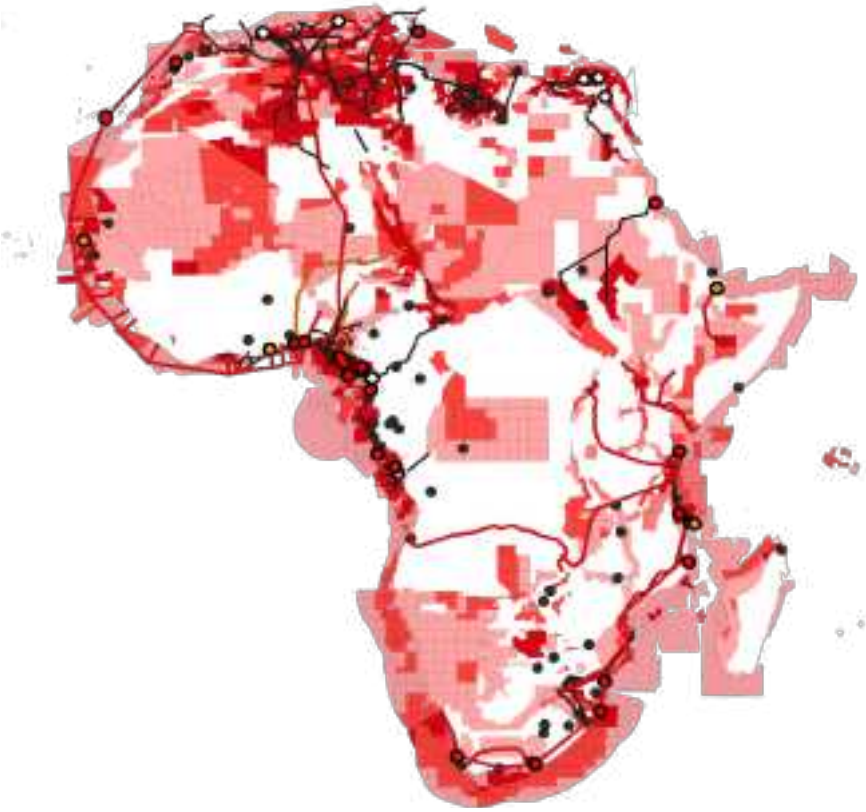
As already emphasised, much of Africa's energy system is yet to be built, allowing countries to make informed and people-centred decisions about the character of their energy future. At one level, African countries need to make over-riding choices between pursuing the traditional fossil fuel-based energy model of former colonial powers and emerging economies versus moving strongly in the direction of renewable energy. The need to take action on climate change at the global level has created a polarised debate over the character of the decarbonisation pathway by major global powers. This battle is being fiercely fought at this very moment, with Africa as one of the epicentres of the planned expansion of fossil fuel production. This places African countries in a major dilemma, especially those that have recently discovered new oil and gas fields such as Senegal and Mozambique. These plans for exploration and production are expansive, expensive and risky, and, if implemented, would lock Africa deeply into fossil fuels for decades to come.

The recent quest for fossil gas expansion in Africa to serve European markets and meet short-term gas deficits is a clear demonstration of policy neglect in taking sustained and systemic climate action by governments in Europe and North America. The Russian invasion of Ukraine has intensified existing plans by the fossil fuel industry, now moving at full throttle to invest in new fossil (or 'natural gas') infrastructure in Africa with the pretext of supporting Africa's development aspirations while addressing Europe's domestic energy demands. They have found willing partners among some African leaders who justify the mission of expanding fossil fuel production as their 'Right to development'. In particular, investments in gas and various kinds of hydrogen production are portrayed as indispensable 'transition fuels'.[109]

Such propositions are troublesome in several ways. From both a climate and development point of view, African governments need to seriously reflect the long-term viability of pursuing the fossil-fuel pathway, especially since there is a distinct possibility that such expansions carry technological, economic, financial, and social risks and uncertainties.[110]

Africa's Right to Development is real, but must not be used to justify measures that, in effect, threaten to lock African economies into increased dependencies and

economic losses from soon to be stranded assets. As the imperative of climate change increasingly hits home and current loopholes through off-sets and distant net-zero targets are addressed, the European and other markets for gas will probably be curbed much sooner.[111] Surplus gas supplies in the global market will mean those who have a competitive advantage in gas due to their long-term experience and expertise in the industry will be favoured, casting aside new players in the market. Furthermore, carbon boarder tax adjustments and other discriminatory measures against fossil fuels are likely to be imposed, placing at risk, new African suppliers of oil and gas.



The map shows both current and planned fossil fuel infrastructure across Africa, including oil and gas pipelines, liquefied natural gas terminals, and coal mines. It also highlights oil and gas lease blocks to show where land is available for licensing, currently licensed for ongoing exploration, and already leased for production. The map shows both the intense scale of the fossil fuel infrastructure, covering the entire continent, as well as the density of export related infrastructure, especially in North Africa, visualising how Europe's demand for African fossil fuels has driven much of the investment. This map has been prepared in collaboration with the Fossil Fuel Atlas project, a project of Stockholm Environment Institute, Global Energy Monitor, and Institute for Governance & Sustainable Development.

From an African perspective, as a historically small contributor to climate change, the key arguments against fossil fuels and for renewables lie in the latter's benefits to foster genuine well-being and prosperity for African people.

African countries could show foresight and define an African Just Energy Transition that forcefully outlines African countries' own renewable energy plans, economic diversification and development plans and measures that ensure the transition is just for affected workers and communities. The right to development does not mean right to add harm, but the right to pursue one's own development agenda, the right to repayment of climate and other debts, access to crucial technologies, compensation and reparations for climate induced damages, and the financial support required to undertake the just transition according to these plans.[112]

In addition, the IPCC has warned that there is no headroom for fossil fuel expansion anywhere. Further, the UNEP Production gap report concludes the already planned fossil fuel production by 2030 is more than double what can at best be compatible with keeping warming below 1.5°C.[113] The International Energy Agency (IEA) likewise concludes in its last two World Energy Outlook Reports that there is no room for further expansion of fossil fuels.[114] With the world already at 420 ppm — vastly higher than the 350 ppm generally considered a relatively safe level — there is no scope for worsening the problem. While pressure must indeed be directed to historic big and wealthy producers in North America and Gulf states who also have the biggest expansion plans, current extensive expansion plans in Africa cannot be ignored.

Rather than moving into and expanding fossil fuel production, African countries could show leadership in pushing for measures for a Global Just Transition. This would be anchored on an agreement to immediately stop all further expansion of fossil fuel extraction, and a commitment by countries to undertake a phase out of existing fossil fuel production based on clear equity principles, such as the proposed Fossil Fuel Non-Proliferation Treaty.[115] Developing country producers with high dependency on fossil fuels for their state revenues (i.e. African producers) would secure support in gaining access to technology and finance and have more time than wealthy producers who would need to phase out earlier and at faster pace. Several African countries have also already acknowledged and begun using the 'Fair Shares' metric for calculating the level of support through international cooperation that African countries should be entitled to.[116]

Good vs bad renewables: the battle over the meaning of global just transition

A second major crossroads involves what kinds of renewable energy systems Africa will deploy in its energy transition. African energy efforts need to be directed through clear plans and analyses, polices, regulations, and appropriate provision of funds at scale that are guided by strong principles aligned with the development and energy vision articulated in this report.

The transformation to renewable energy societies is imperative from a climate point of view and offers many benefits. However, it may also bring considerable negative impacts to people, communities, biodiversity, and ecosystems unless pursued with precaution, and under strict rules and regulations. Unregulated market forces and laissez-fare provisions will create new problems, as will consolidations of new centres of power that capture political spaces in the name of renewables for their own, vested interests. There is also significant risk that Africa will miss out on opportunities to create economic and social value by stimulating industrial development through renewables manufacturing.

There are several pitfalls that African societies must be aware of and navigate to ensure a truly just transition: These are named and examined below.

Curbing environmental destruction and human rights abuses from mining and deployment of renewable energy

The deployment of large wind farms and solar PV and CSP plants, much like the murky record of large mining, fossil fuel, and hydropower developments has already resulted in human rights violations and harmed communities. Without reflection on the social conditions in which the current energy regime thrives, the transition to a renewable energy regime may usher in very few social benefits and little, if any, political and economic transformation.[117]

More generally, the framing of the 'climate emergency' in conventional terms, without involving perceptible disruption to the business-as-usual regime that has directly contributed to the climate, social and economic crises that the world faces today, opens the door for new problems. The same actors with economic and political power, including policy makers, business leaders, financial players, and other institutions will continue to frame the narrative and shape policies to a renewable energy transition with minimal social benefits and acceptance of human rights violations in the interest of global decarbonisation. Already, there is ample evidence that the renewable energy industry, on the whole, has a weak track record in terms of workers' rights, human rights and level of unionisation.[118]

In a similar vein, the impacts of the dirty extraction of minerals and precious metals for the production of renewable energy generation technologies and batteries are already causing harm to communities and workers. With the rapidly increasing material requirements for the global decarbonisation efforts, such negative harm will likely escalate unless stringent frameworks, regulations, and monitoring and compliance mechanisms are in place. Just transition approaches must be global in reach, ensure that

"Both existing fossil fuels and renewable energy systems face challenges of pollution, biodiversity loss and human rights abuses of frontline communities. Stringent rules, safeguards, precaution, and compliance must be integral to all forms of energy production. The rapid expansion of renewable energy and battery production must not lead to socially and environmentally harmful extraction and land grabs".

burdens are not passed onto workers and communities in far-away places, and extend across the renewable energy manufacturing value chain. There is a need for stringent government regulations but also effective civil society-led Global and African Energy Watch mechanisms in this regard.

Addressing material constraints and their geopolitical implications

African countries need to understand the implications of the world's material resource constraints. It is technically feasible to power the entire world through high share of renewable energy in ways that serve real needs and enable good lives for everyone, but this does require prudence and planning.

As a continent, Africa sits on considerable resources critical for the renewable energy revolution, and must assess how to best make use of these over a longer time perspective, and in ways that do not lead to further exploitation and environmental degradation. Essentially, African countries are well advised to cooperate and assess their material and resource needs for decades to come, and to set in place policies and approaches that ensure they will maintain control over these required resources rather than falling into the export trap of quickly selling out their precious resources for short-term gains. Without such long-term planning, African countries may find themselves further financially entrapped, and in a situation where material constraints prevent them from developing necessary infrastructure for future public good.

A conscious resource and minerals strategy with collective self-reliance at its core must be tightly integrated with the kinds of pan-African industrial policy approaches outlined earlier. It is in Africa's best interest to furthermore champion the most ambitious, comprehensive and uniform global recycling schemes for minerals and other precious materials. Such schemes may also make possible new, innovative rental schemes as part of a just transition where materials not immediately needed in Africa can generate export earnings in the near term, to be recaptured for future use as African countries expand their infrastructure expansion.

Exposing improper use of 'clean' and 'renewable' as justification for problematic energy propositions

As increasing numbers of actors take up the Just transition narrative, a range of energy technologies such as nuclear power, large-scale hydropower and hydrogen are being put forward and justified as 'clean' and 'renewable', with little analysis on the effect they are likely to have on communities, and how they may possibly cause new problems and delay the transformation to genuine renewable energy societies.

Several European governments and investors have recently increased their commitments to investing in hydrogen infrastructure in Africa with the intent of exporting most of it for use in Europe. 'Green hydrogen' is often considered the cleanest form of hydrogen because it uses solar and wind energy to fuel the electrolysis of water molecules (H_2O) that are split into hydrogen and oxygen.[119] Yet there are several potential problems also with this so-called 'green hydrogen'.

First, green hydrogen has a very low energy density. It is estimated that the production of 1kg of green hydrogen requires 9kg of water[120], but when taking into account the full process of demineralisation, it actually requires between 18 and 24kg of water per kg of 'green' hydrogen. For water stressed countries in Africa that already struggle with intense droughts and freshwater scarcity for agriculture and human consumption, the 'green' hydrogen option will likely exacerbate existing problems.

Second, using seawater desalination via wind and solar energy to produce the water needed for the green hydrogen industry creates further social and ecological problems (substantial land use, displacement of rural communities, and marine life pollution from the salt brine that will be discarded from the desalination process).[121] Desalination also requires significant energy input, creating further pressures on energy resources and materials and skewing energy production away from other productive uses.

Third, the export-oriented nature of the green hydrogen industry continues the existing extractive economic model and leaves Africa subject to endemic energy shortages. Furthermore, at-scale exports of 'green' hydrogen is a process notorious for its energy 'destruction' during the transmission and conversion phases (up to 40-50% loss in useable energy depending on the final use).[122] In other words, energy that could be used locally to address real and immediate energy access and growing needs will be directed to produce hydrogen for use in Europe. It means while the impacts are absorbed by African countries, the benefits from the energy will be garnered by European users.

Fourth, even if these challenges are overlooked or overcome, in the case of using 'green' hydrogen as a fuel for green industrialisation within Africa, it may still contribute to exacerbating the structural traps of low value-added manufacturing unless it is coupled with strategic industrial policies designed to avoid those traps.

Hydrogen produced by renewable energy has a targeted and limited role to play in future energy systems (particularly for industrial processing, heating, and energy provisioning in places that cannot be connected through grids and do not have enough renewable energy potential locally). However, exporting hydrogen only makes sense when domestic energy needs have first been met.

Countering appropriation of the 'Just Transition' narrative

African countries will also need to manoeuvre the various interpretations and narratives around 'Just transition', as the use of the term proliferates with vastly different meanings. The concept of just transition was coined by trade unions in mid-1990s to ensure that workers would not be negatively harmed by highlighting features such as the promotion of labour rights, re-training of workers, job guarantees, compensation, and other measures championed by unions and the International Labour Organisation.[123] The use of the concept has since broadened considerably, and increasingly entails the recognition that deep societal transformation is required beyond workers' rights and the need for all societies to undergo deep social, economic and political transformation.[124]

International labour movements have emphasised the relationships between climate, energy and development. The New Social Contract declaration adopted by the International Trade Union Confederation in 2022 states:

> "Neoliberal climate and energy policies, which are tied to privatisation and commodification, have failed to halt the rise of greenhouse gas emissions and are contributing to major energy cost increases for consumers and industry. The increasing phenomenon of energy poverty must be tackled through development of renewables capacity and efficient transmission systems which bring energy to all. Governments and public authorities need to ensure that the obligation to eradicate energy poverty and precarity is met. Access to energy must be seen as a human right."[125]

Despite efforts to clearly define what constitutes a just transition, the term is increasingly used in a variety of different ways. The decision at COP27 to establish a Just Transition Work Programme and a proliferation of 'Just Energy Transition Partnerships' (JETPs) mainly driven by an International Partner Group of G7 countries have created new arenas for contestation around the Just Transition narrative.[126] Critique of the first set of JETPs is mounting as it is becoming clear how most of the promised resources will be in the form of loans (less than 3% as grants in the case of the JETP with South Africa), and how they lack transparency, stakeholder participation and focus on the justness aspects of the transition.[127] Moreover, there is increasing concern that the JETPs constitute a cherry-picking of countries considerably influenced by the geopolitical interests of G7 countries, rather than provisioning of international support guided by clear equity principles that address all developing counties.

Box 6: **Just Transition and a new social contract**

In 2022, international labour unions called for a New Social Contract including a job-creating industrial transformation to address climate change.[128] Adopted by the International Trade Union Confederation (ITUC), it includes five key demands:

- Creation of climate-friendly jobs with Just Transition. Job-creating industrial transformation to achieve net-zero carbon emissions, along with jobs in health, education,and other quality public services.
- Rights for all workers, regardless of their employment arrangements, to fulfil the promise of the ILO Centenary Declaration with its labour protection floor including rights, maximum working hours, living minimum wages, and health and safety at work.
- Universal social protection, with the establishment of a Social Protection Fund for the least wealthy countries.
- Equality. Ending all discrimination, such as by race or gender, to ensure that all people can share in prosperity and that the appalling concentration of wealth in the hands of a few at the expense of the many is undone.
- Inclusion. To combat the growing power of monopolies and oligarchs, ensure that developing countries can develop their economies, and guarantee tax systems that provide the income vital for governments to meet the needs of people and the planet. An inclusive approach to tackling the COVID-19 pandemic is paramount, both in terms of economic support as well as universal access to testing, treatment, and vaccines.

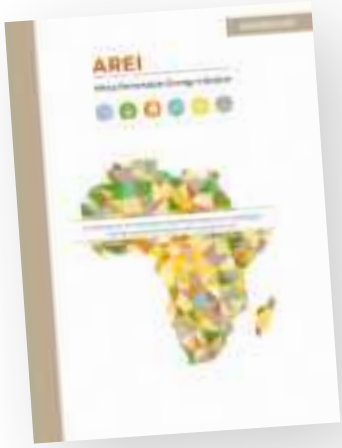
Avoiding hi-jacking of initiatives and maintaining African ownership

Amidst many largely donor-driven energy initiatives and programmes targeting Africa it makes sense for African countries to set their own agenda and jointly formulate their own pan-African just transition framework.

African leaders have indeed already formally embraced considerable elements of the energy vision outlined here. In 2015, all African heads of state agreed, under the African Union, to the Framework and Action Plan of the Africa Renewable Energy Initiative (AREI). Authors of this report constituted the drafting group behind AREI and were set to operationalise the implementation of this African-initiated and African-owned initiative, seen by some as the most significant announcement at the Paris COP21 Climate Summit. In Paris, G7, Sweden, Netherlands, and the EU jointly committed USD 10 billion to support the initiative.

The progressive AREI Framework outlines a model of programmatic policy and regulatory approaches that would enable a wide set of primarily African actors to deploy renewable energy generation in ways that diversify ownership, directly cater to energy access, ensures sound renewables through stringent social and environmental criteria, and maintains that international support be provided as new and additional, grants-based funds in accordance with equity and common but differentiated responsibilities.

Regrettably, the high hopes of AREI were soon eroded through numerous overlapping forces, involving both non-African and African actors. The case of AREI illustrates that deep-seated colonial and neo-colonial mindsets and practices still reside among both international partners and African elites.[129] Yet, the original AREI Framework and Action plan are still just as relevant now. The initiative's core, original values and principles need to be reclaimed and operationalised in alignment with the endogenous, African and equity-based approaches this report highlights.



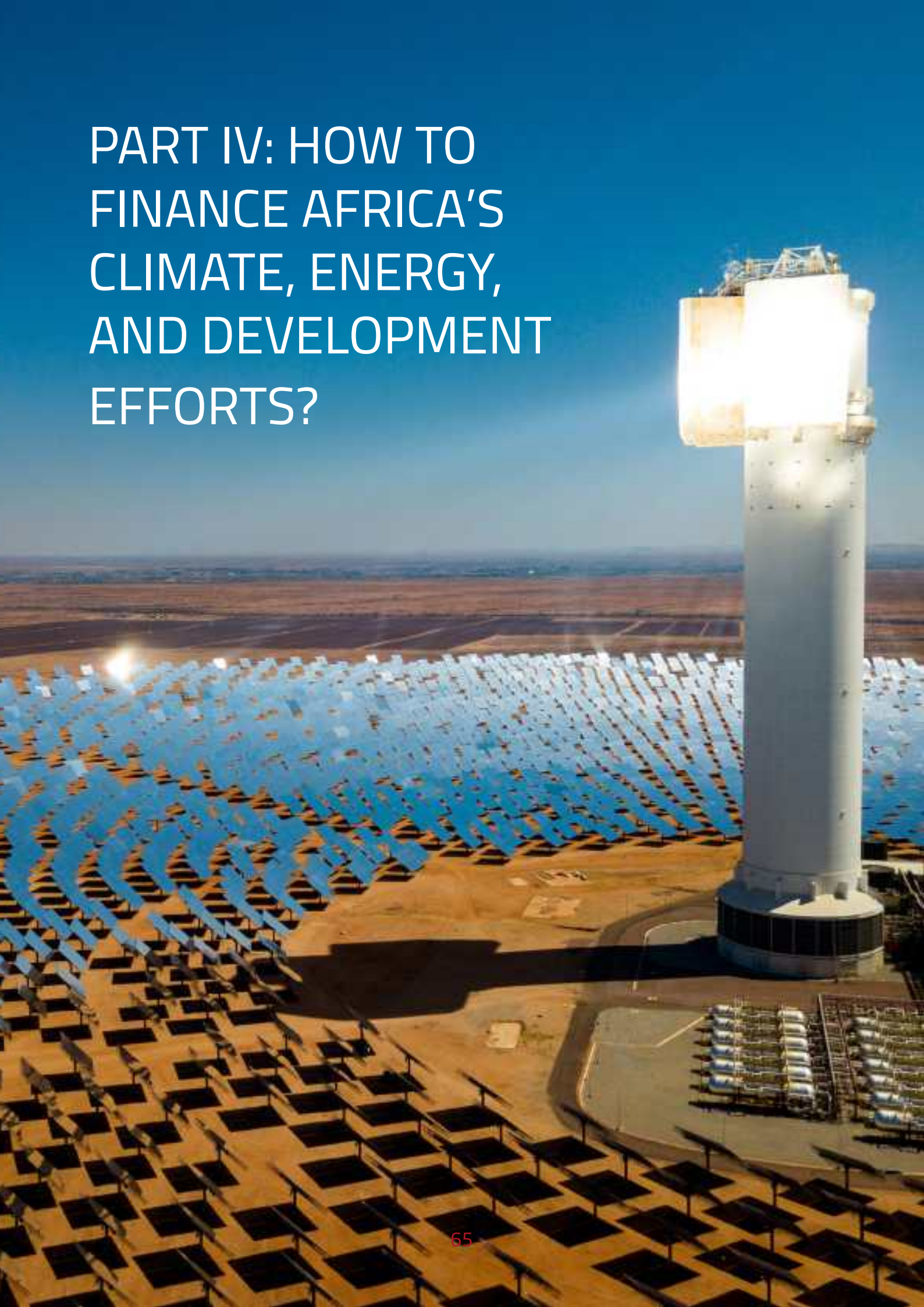
Box 7: **Development, decarbonisation and degrowth: Do the numbers add up?**

From an African perspective, the concept of 'just transition' needs to be fully unpacked to ensure it is a genuine effort to transform the global economy into a sustainable, prosperous, and equitable system, rather than a make-belief concept designed to preserve the status quo. The fact of the matter is that we can either decarbonise the Global North or develop Africa, but we cannot do both, unless the Global North gives up its obsession with economic growth and consumerism and embraces a genuine degrowth approach to its economic policies.

There can be no development without energy. There can be no net-zero without renewables. There can be no renewables without critical minerals; and the majority of these minerals are in Africa (and in the Clarion-Clipperton Zone in the Equatorial North Pacific, the home of so-called 'Large Ocean' developing states, who are now courted by the largest mining companies for deep sea mining). The sheer volume of critical minerals needed for decarbonising the Global North (and its growth path) will simply not leave any room for developing renewable energy infrastructure for Africa and the rest of the Global South. To put it bluntly, the numbers just don't add up.[130]

In other words, if Africa decides to commit to a renewable energy transformation, it must assert its sovereignty over its critical mineral resources, and develop its industrial policy accordingly. This also means that the Global North cannot do a Tesla-style decarbonisation. It must prioritise mass transportation and rethink its urban planning in line with a degrowth vision for a circular economy. Decarbonising transportation in the Global North requires an explicit strategy that avoids dumping combustion-engine cars in Africa. Decarbonising transportation must come with a Global plan for public transportation infrastructure rather than shifting emissions from the North to the South. Living within material constraints means lowering throughput of energy and material in wealthy societies and hence a strategy for degrowth that enhances quality of life and genuine well-being.

PART IV: HOW TO FINANCE AFRICA'S CLIMATE, ENERGY, AND DEVELOPMENT EFFORTS?



How to finance Africa's climate, energy, and development efforts?

Development can no longer wait and the timeframe for climate action is short. The scale and financial costs of the necessary transformation will be substantially higher than anything that has been undertaken before on the African continent. These costs will, in turn, only become higher the longer one waits. A critical question is: **How will African countries finance the transformative policies and measures of the kind outlined in this report without bankrupting themselves and without spiralling into inflationary (or even hyperinflationary) cycles?**

The dominant narrative about financing ambitious, large-scale programs is that African economies lack the financial resources, their domestic private sectors have low savings rates, their governments have low tax revenues, and additional external borrowing is unsustainable. In other words, governments must, first, grow their economies in order to generate larger tax revenues, increase exports, and attract more foreign direct investment. The problem with this is that these are exactly the structural economic traps that have constrained Africa's development, as discussed earlier in this report.

Instead of falling into these traps, African countries have a series of financial mechanisms at hand that can allow their economies to prosper and drive their development. These mechanisms entail building a resilient Pan-African economic approach by reducing external indebtedness over time and taming inflationary pressures throughout the continent. The proposed financial mechanisms below address domestic and external factors and are designed to create additional fiscal policy space so that each African country can contribute to financing this structural transformation.

Addressing domestic factors

To begin, countries must delineate the factors that determine their fiscal spending capacity, identify actual constraints on government spending, and elaborate strategic policies that can help expand fiscal spending capacity over time. The main risk that a sovereign government faces when it runs large fiscal deficits domestically is the risk of inflation. Inflation is always the ultimate constraint on government spending and is exacerbated by two key factors:

Productive capacity

The first constraining factor involves the lack of productive capacity such as skilled labour, technical know-how, capital equipment, raw materials, intermediate inputs, supply chains, and logistics. If a government runs a large budget deficit, it will inject additional income for consumers who will boost demand for goods and services beyond the productive capacity of the domestic producers. This will inevitably drive more imports, which induces more pressure on the exchange rate (currency depreciation) and renders

all imports more expensive (imported inflation), unless the government resorts to more external borrowing and adds more food and fuel subsidies to prevent social unrest; and hence, a worsening external debt trap.

Market and policy conditions

The second constraining factor constitutes market concentration and abusive price-setting behaviour by companies that manage to circumvent anti-trust regulations or engage in corruption to maintain their market power.

Market concentration allows importers to use their economic and political influence to discourage domestic investments that could reduce their market share. Market concentration also allows exporters to use their economic and political influence to monopolize the use of critical resources, government subsidies, and tax breaks. For instance, exporters of strawberries use scarce water resources and the most fertile land, in addition to fiscal subsidies and subsidized loans, to promote exports of a cash crop instead of producing strategically important food crops such as wheat or corn, which must instead be imported. This adds pressure on the exchange rate and again fuels further external indebtedness. Similarly, importers of basic necessities like food, fuel, and medical supplies tend to enjoy exclusive import licenses (quasi-monopoly power) that are often granted via questionable if not corrupt practices.

The good news about productive capacity is that it is producible — it can be deliberately enhanced by targeted interventions. With strategic investments using one's own currency, know-how, and materials to strengthen key areas in the economy (such as agriculture, energy, housing, transportation etc), it is possible to direct investment to boost productive capacity. This can create millions of jobs and decreases the risk of inflation emanating from food and energy imports — for which there is now less need (and thus reducing external debt over time).

The risk of inflation that emerges from undue market concentration, on the other hand, can only be eliminated by taxing and regulating such behaviour out of existence. In other words, this necessitates democratising the economy, updating and enforcing anti-trust regulations, and eradicating corruption.

Addressing these two factors are critical in their own right, while also constituting prerequisites for African countries to substantially increase their domestic fiscal spending capacity to fund climate, energy, and development policies to effectively implement the kinds of transformative energy and other measures outlined in this report.

Most African countries have a significantly spending capacity for public investments through their domestic currencies than generally believed, as long as those investments are made in ways that genuinely enhance productivity and increase their productive capacity in strategic sectors such as investments in renewable energy and agroecology. Such investments lessen the need for imports, strengthen their exchange rate, reduce the external debt burden, cater directly to real needs, and lay the foundation for African industrialisation, without increasing the risk of inflation.

Addressing external factors

Beyond internal factors that affect a country's domestic productive and fiscal capacity, African countries have to deal with burdensome external factors including crippling external debts. Several measures exist that can substantially reduce such debts and bring in additional external financing to accelerate both the energy transition and other pressing development priorities. This is an important component because necessary imports of technology, capital, and other resources require foreign exchange resources beyond what African countries earn from international trade. A number of specific financing instruments and opportunities exist. These in turn must be guided by a number of general considerations relating to equity, the scale of the transition required (e.g. by climate change), and the need to redress historical wrongs as a foundation for future cooperation.

The case for holistic and equitable approaches

The way forward to finance effective and appropriate responses to the intertwined climate, energy, and development challenges requires a combination of domestic and international measures. These need to be guided by clear principles of equity, with the external, international component guided by core equity provisions such as the principles of polluter pays and common but differentiated responsibilities and respective capabilities (CBDR-RC), as enshrined in the Rio conventions. Global North countries need to repay both colonial and climate debts and agree to transform the international financial architecture in ways that foster genuine cooperation and end perpetual entrapment and indebtedness for African and other developing countries. In other words, there needs to be a bold and holistic, rather than piece-meal approach to reforming the financial system.

As a matter of fact, since the early days of the post-independence era, a New International Economic Order (NIEO) has been recognised as a fundamental requirement for equitable development and prosperity for the Global South. Nearly 50 years after the original UN General Assembly resolution to establish an NIEO, calls are increasingly being made to redesign the global trade and finance architecture. We are today observing the revival of such demands emerging from different corners of the Global South and under the leadership of several coalitions. Notable among those initiatives is the Prime Minster of Barbados Mia Motley's leadership on the climate and development front via the Bridgetown Initiative UNCTAD's call for a Global Green New Deal with a new trade and financial architecture and initiatives to revive the spirit of the New International Economic Order.[131,, 132, 133]

Such reforms must not be seen as aid or charity, but rather as clear-sighted acknowledgements that it is in everyone's interest to enable all countries to gain prosperity, and to avoid aggravating climate, biodiversity and environmental crises. International equity is an imperative for collective self-interest and survival.

Financing climate action at the scale required

This is not least apparent in the context of climate action. The Global North has vastly exceeded its carbon budget and owes the rest of the world a climate debt. However, wealthy countries are evading the rapid and deep emissions reductions required in their own countries, and increasingly shuffling responsibility onto developing countries. While

African and other developing countries need to plan for deep transformation to fossil-free societies, they cannot be expected to finance the bulk of the efforts needed. Wealthy countries and historically significant emitters need to, in accordance with their 'fair shares', reduce emissions as fast as possible while simultaneously providing finance to enable similarly deep and rapid reductions (mitigation) in poorer countries (beyond their much smaller fair share), as well as providing finance for both adaptation and loss and damage.[134] Essentially, mobilising these resources is a matter of reparations by those who have largely caused the crisis (and benefit from the infrastructure created in this process), but can also be framed by wealthy countries as a matter of enlightened longer-term, existential self-interest.

Reparations for colonialism, biopiracy, and appropriation of cultural heritage

Despite the fact that colonial atrocities on the African continent are well documented, very little redress has been made in terms of direct financial compensation to individuals, tribes, or nations.[135] Africa has suffered from decades of colonial pillage and neo-colonial extractivism that was not limited to the theft of minerals, timber and other raw materials, countless hours of unpaid labour, priceless artifacts, and the appropriation of cultural heritage, but also the biopiracy and theft of African indigenous knowledge, seeds, plants, and medicinal know-how.[136] As noted earlier, a staggering net USD 2 trillion is annually flowing to the Global North from the Global South. The appropriation of African assets must be returned, on African terms, in manners that are appropriate and do not bring further harm.

Approaches and opportunities for international financing of African climate, energy and development priorities

There exists an array of financing possibilities that need to be carefully considered, each with its advantages and drawbacks. Importantly, approaches need to genuinely serve the interest of African countries, and constitute components of a larger package of interventions that together addresses all essential needs.

The majority of finance should come from public sources, including as various forms of reparations, rather than as loans, aid, charity, or market-based approaches. They must not entail a geo-political cherry-picking by wealthy countries — all African countries need to be addressed. Interventions must also include partial or full cancellation of bilateral and multilateral external debts, as well as the establishment of financing mechanisms and institutional capacity that can enable climate policies to effectively drive appropriate, people-centred renewable energy projects, climate resilient infrastructure, transformational economic development policies for agroecology and food sovereignty, as well as pan-African industrial policies. Interventions also need to include in-kind payments, transfer of technology, and exemptions from TRIPS restrictions.

The following overview of possible financial mechanisms and interventions provides a menu of options that can contribute to a new global financial architecture and contribute towards the undoing of extractive post-colonial development models. Well executed, these measures can provide essential additions to domestic measures to accelerate strategic investments in pan-African food sovereignty, renewable energy sovereignty, and industrial policies towards resilience and prosperity.[137]

As with all mechanisms involving substantial financial flows it is crucial to ensure even the best intended schemes do not end up creating new problems and misappropriation of resources by vested interests and others positioned to take advantage for their own interests. Transparency and accountability are key. It is also imperative that African countries get better in realising and making use of existing funding opportunities and strengthen their capacity to handle these.

Multilateral financing through new schemes

In order to meet the financing needs for the African climate, energy, and development agenda, establishment of new, multilateral public financing schemes are motivated. Such initiatives may include:

An African or Global Renewable energy and energy access transformation programme that can pool financial contributions from bilateral and multilateral sources to enable countries to establish bold, transformative payment guarantee (feed-in tariff) policy schemes to make investments in renewable energy safe and straight-forward for all kinds of actors. Such a scheme was already at the core of the African 2014 submission to UNFCCC calling for a global renewable energy partnership and also constitutes the backbone for the proposed Global Renewable Energy and Energy Access Transformation (GREEEAT) scheme.[138]

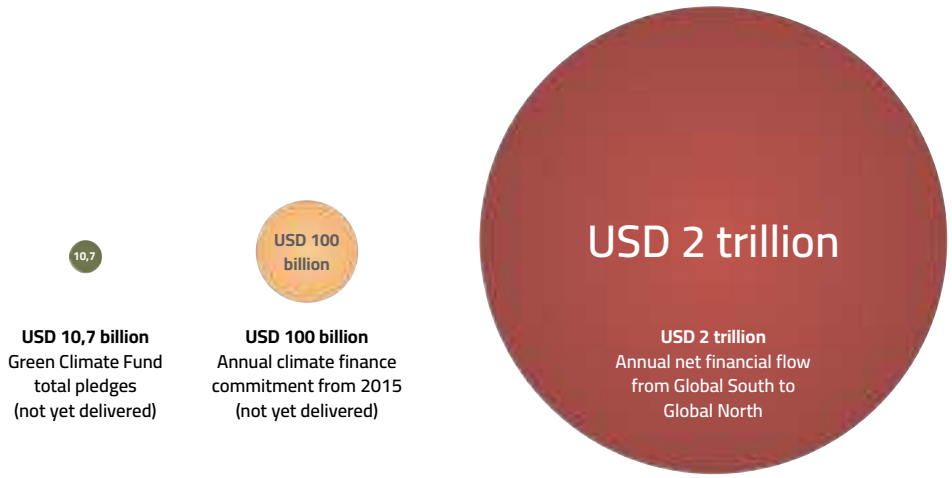
Funding schemes for economic diversification that can support African and other developing countries diversify their economies away from dependency on fossil fuels and other export commodities. Opportunities for such arrangements could be advanced in various policy spaces, such as the UNFCCC negotiations around Implementation of Response measures and the newly established Just Transition work plan, but also in the context of, for example, the call for a Fossil Fuel Non-proliferation Treaty and its core premises to ensure equitable fossil fuel phase out where less wealthy and highly dependent producers of fossil fuels are supported in their economic diversification away from fossil fuels by wealthy and less dependent producers.

Social protection fund. As promoted by ILO and trade unions world-wide, the call for establishment of a global social protection fund or a 'Global Accelerator on Jobs and Social Protection for Just Transitions' is gaining traction.[139] The importance of government-provided social safety nets and social protection such as employment guarantees, health care, sick pay and cash transfers are of critical importance for any society, and become particularly apparent at times of crisis such as during the Covid pandemic and when whole sectors of economies undergo profound change. It makes sense for African countries, with their limited resources and domestic tax base, to actively join the call for the establishment of internationally supported social protection schemes and consider wider calls for universal basic income schemes as a means to facilitate the transitions to people-centred 'another development' pathways in alignment with this report.

Climate specific multilateral finance

Several climate related multilateral financing schemes already exist but require scaling and proper capitalisation.

The Green Climate Fund was established through the UNFCCC in 2010 to help developing countries reduce emissions and address climate risks. Until today, the fund has only been allocated $10.7 billion, which reflects the limited level of political commitment by



The annual net financial flows from the Global South to the Global North vastly exceed the climate finance commitments by wealthy countries (which remain undelivered)..

the Global North countries to finance climate action and address their historical climate responsibilities. The provisions to GCF is only a fraction of the often cited 'USD 100 billion' — an arbitrary and wholly inadequate figure announced by the US in the lead-up to the Copenhagen climate summit almost 15 years ago (Oxfam estimates that, in total, just $21-24.5 billion was provided as 'true value' climate finance in 2020, against claims by wealthy countries of having delivered $68.3 billion in public finance).[140] These numbers need to be put into perspective of actual needs. The UNFCCC Standing Committee on Finance has estimated that costs for even a limited set of climate actions reported by countries exceed USD 11 trillion - a factor 1000 compared to the GCF capitalisation so far.[141] While a properly funded GCF is one important component of a wider effort to bridge the funding gap and resource Africa's climate, energy and development priorities, it is also key to substantially reforming GCF in light of growing critique of its private sector bias and support for problematic projects.

United Nations Framework Convention on Climate Change (UNFCCC) negotiations (COP27)

Adaptation financing. Adverse climate impacts are imposing large and growing costs on developing countries. The cost of recovery from recent extreme weather events and flooding in Pakistan alone are expected to cost in excess of $16 billion.[142] Adaptation funding is currently available from the Green Climate Fund, the Adaptation Fund established under the Kyoto Protocol, as well as a number of other multilateral regional and bilateral sources. The scale of finance, however, falls short of the level required.[143] African institutions, such as the African Adaptation Initiative, need rapid and significant scaling up of finance to address rising impacts in Africa.

Loss and Damage Funding. Climate induced loss and damage is harming communities and undermining Africa's development. Funding to address loss and damage must be increased and provided to African and other particularly vulnerable countries and communities. This should be included as an essential component, or 'third pillar', of the new Collective Quantified Goal on Climate Finance to be agreed by 2024 as part of the UN climate change negotiations. This funding should, in turn, be made available via the new financial arrangements and fund that was agreed at COP27.

Other sources for multilateral financing

In addition to direct public funding contributions to the various multilateral funds directly from wealthy country governments — as key contributions to meet their fair shares — financing can also be generated from a range of so-called 'innovative' sources. These should be explored but must not provide pretext for Global North countries to avoid direct contributions. Several of these funding sources may also carry equity concerns that need to be carefully assessed.

Financial Transaction Taxes offer scope for substantial generation of public funds through a small taxation of the massive money flows within the financial sector. In addition to the generation of funds, an FTT provide additional benefits in discouraging some of the speculation within the system. Variations of FTTs already exist but have considerable potential to generate public funds if scaled to a global level.

Redirecting harmful subsidies provide substantial scope for instead supporting beneficial activities. This can be done both in domestic and international contexts. IMF estimates that, in 2020, governments subsidised fossil fuels with USD 5.9 trillion with the prediction they will increase from 6.8% to 7.4% by 2025 unless decisive policy shifts take place.[144] Redirecting these subsidies towards renewable energy and social protection in equitable ways presents significant scope for driving a people-centred development agenda.

Special Drawing Right (SDR) Allocations. SDRs are an international reserve asset created by the IMF in 1969 to supplement other reserve assets of member countries.[145] The largest SDR allocation took place in response to the COVID pandemic in 2021 when SDR 456.5 billion (equivalent to about US$650 billion) was allocated. Unleashing large scale and regular SDR allocations to support climate, energy, and development policies in Africa could, if done right, constitute a suitable mechanism to support unconditional long-term transformative policies without adding to the external debt burden of African countries, and without triggering inflation pressure points related to exchange rate

depreciation. This is also an element of the Bridgetown Initiative that should be carefully and critically explored. Global North countries who have the largest quotas in the IMF, also have the largest share of SDR allocations, and should be encouraged to transfer their unused SDR allocations as grants without conditions, to Global South countries as a form of climate debt payment, without conditions. It is critical to understand, however, that SDR allocations are policy decisions controlled by the Global North and are based on the IMF Articles of Agreement. Financing these transformative policies in Africa is not about 'finding the money', but rather finding the votes in the IMF governance system for the right decisions. Further, there are numerous ways of using SDR allocations that will not necessarily benefit Southern countries, and these should be avoided.

IMF Resilience and Sustainability Trust. In 2022, The IMF introduced the Resilience and Sustainability Trust (RST) with pledges from 23 Global North countries to allocate $45 billion worth of SDR funds to provide low-cost financing to low-income and vulnerable middle-income countries to invest in climate resilience and pandemic preparedness projects. Three quarters of IMF member countries would qualify for these loans with a 20-year maturity and 10.5 years of grace period. Each country would qualify for up to $1.4 billion. The establishment of the RST is a step in the right direction but needs to addresspresents several shortcomingsissues which must be addressed. First, these are loans, not grants. Second, countries qualify for these loans after they sign a standard IMF austerity-based structural adjustment program, which tend to reenforce the structural traps discussed earlier. Third, the pledged amounts from the Global North is small given the scale of the problems faced by countries today. All African countries qualify for RST financing. Addressing these three fundamental deficiencies could potentiallyissues are vital requirements if the RSTs are to unleash a significant amount of transformative financing for climate, energy, and development policies.

African Development Bank, Abidjan, Côte d'Ivoire

Central Bank Swap Lines. Central Bank Swap lines are bilateral and multilateral agreements between central banks to provide liquidity to each other for a specific time period (e.g. 1 day, and up to 3 months) at a fixed exchange rate. The U.S. Federal Reserve banks successfully established these swap line mechanisms in the aftermath of the 2008 Global Financial Crisis and the 2020 COVID19 pandemic. This is typically an exclusive privilege that central banks offer to each other based on mutual political and economic interests. There is, however, a case to be made for democratising the use of this policy mechanism in a non-exclusive, multilateral way to enhance the financial stability of African countries as they engage in these large-scale climate, energy, and development measures without adding stress on their exchange rate, foreign currency reserves, and inflation pressure points.

Multilateral development banks. There are currently many discussions and several proposals for reforming multilateral development banks (MDBs) such as the World Bank and the African Development Bank to make them "fit for purpose" for scaling up financing for development and climate. The core business of multilateral banks is lending - both in concessional as well as non-concessional terms. Loans from MDBs as well as the IMF come with policy conditionalities, sometimes direct and in other instances implicit in country strategies which loans are intended to be aligned with. Any proposals for positive roles the MDBs and the IMF can play in sustainable finance for climate and development justice must address these two issues - 1) how can financing by these institutions be prevented from exacerbating the debt burdens of developing countries? and 2) how can financing from these institutions respect and uphold sovereign decisions of developing countries on their development and climate framework, strategies and policies?

Debt cancellation

As demonstrated, African countries are currently stuck in structural traps of perpetual indebtedness. It is estimated that in 2020, 49 of the 55 African countries carried a combined debt of USD 696 billion.[146] In addition to addressing continuous debt entrapment through the kinds of actions and priorities highlighted in earlier sections, African countries also need to get out of the current debt traps through debt cancellation.

Cancellation of Illegitimate Debt. There has been a lot of international debate and attention on Illegitimate Debts in the past two decades, asserting illegitimacy a a firm basis for debt cancelation. One of the types of illegitimate debts is "Odious debt" which is is a well-established legal doctrine used in international law to cancel illegitimate debts that often burden countries after their transition to democracy. Debts are considered illegitimate when any of these conditions apply: a) a loan was acquired without the consent of the people, b) when a loan was contracted in violation of constitutional and other laws c) when the loans financed harmful projects and policies d) the loan did not benefit the people e) when the loans were accompanied by terms grossly unfair and disadvantageous f) when the borrower is an illegitimate regime. In all cases, there is recognition of creditor responsibility, not just of the borrower. Many African countries would qualify for substantial debt cancellation based on illegitimacy of debts.

Further debt cancellations. A rigorous debt audit would be needed for all African countries to accurately identify historical debts that should be cancelled.

Jimmy Domingo

Tax justice and regulation of Transnational Corporations

A substantial amount of public revenue is lost to African countries due to tax avoidance and a race to the bottom to attract foreign corporations through lax rules and low taxation. Estimates indicate that corporate tax avoidance ranges from 2-3% of overall GDP across all African regions.[147] The State of Tax Justice Report 2021 concludes that at least USD 17 billion are lost annually from corporate tax abuses and offshore wealth schemes.[148] Efforts to rectify this are urgent and can be pursued by a coming together of African countries to demand international agreements that address both the international tax architecture, illicit financial flows, and regulation of transnational corporations overall. Concrete measures entail:

Establishment of a UN Tax Convention to address tax havens, tax abuse by transnational corporations and other illicit financial flows. The Africa group in the UN has already taken some leadership in such calls, including calls for the establishment of a UN Intergovernmental Global Tax Body.[149]

International regulation of Transnational Corporations in relation to Human Rights abuses and other harmful activities. Most African countries have economies much smaller than large corporations and are often ill equipped to set proper conditions, rules and compliance measures for corporations, and often feel complied to compete by a race to the bottom in terms of standards and safeguards (in order to attract foreign investments). African countries can take a more active role in ensuring successful completion of the UN negotiations to establish a legally binding instrument to regulate transnational corporations and other companies with respect to human rights, but also develop their own pan-African approaches to establish common rules and conditions.[150]

Other international policies and mechanisms which have long been advocated for by many governments and civil society organizations to enhance transparency include: country by country reporting; international public registry of beneficial owners of corporations, global asset registry, and international regulations against practices of base erosion and profit shifting (BEPS) among others.

Trade, investments and access to technology

As exposed in this report, the current economic system with its trade rules and universal message to African and other developing countries to export their way out of poverty does not serve Africa well. The neo-liberal framework that still dominates the World Trade Organisation, Multilateral development banks (including the World Bank), and the IMF needs to be replaced with different economic frameworks that acknowledge limits to economic growth (for the wealthy), emphasise sufficiency, equity, and quality of life, and put public interests first. Particular, structural reforms of trade, investments and technology access related financial structures include:

Reforms of Trade-Related Intellectual Property Rights (TRIPS) under WTO to enable free access by African countries to essential goods and services such as vaccines, and renewable energy technologies (including for African manufacturing).

Overhaul of current Investor-State Dispute Mechanisms (ISDS) that allow corporations to sue African and other countries for compensation if climate and other policies for the common good impact their anticipated profits.

African manufacturing of renewable energy infrastructure require both capital, know-how and access to essential technologies

South-south cooperation

South-South cooperation ought to be thought of as an interlocking system of policy tools and collective self-reliance strategies aimed at enhancing regional and sub-regional collective resilience to external shocks and excessive dependence on external debt. These

tools can include collective bargaining on purchasing agreements for global suppliers of food, pharmaceuticals, and critical items to reduce the cost of imports. Collective bargaining can also be used to negotiate more favourable terms on new loans, and even on debt reduction or restructuring. Central banks can also provide swap lines in national currencies to each other to minimize the use of dollars and euros in intra-regional trade and to enhance regional economic integration. Furthermore, South-South cooperation to crack down on cross boarder trafficking, especially trafficking in essential items like food and fuel, which creates artificial scarcity and allows powerful distributors to engage in corruption and abusive price-setting behaviour that exacerbate inflation pressure points throughout the economy. In addition, South-South cooperation may also entail technical assistance and grants provision between countries, both within Africa as well as between countries in the Global South and Africa.

Moving forward and what to avoid

These examples provide a sample of interventions that can be undertaken and where African governments can take leadership both individually and in united fronts, including through the African Union. Advancing such reforms of the international financial system would constitute key conditions for the successful implementation of the African Agenda 2063 and the development vision outlined in this report.

While pursuing such efforts, it is equally important to be clear on what should not be promoted as sensible avenues for funding.

Climate (and biodiversity) offsetting are, for example, not acceptable routes. In a world that needs to reach zero emissions everywhere, as soon as possible, there is no room for off-setting. Such schemes help prolong destructive practices by allowing polluters to pay others to reduce or avoid emissions. In best case they lead to a mere shuffling of actions with no net reductions, while in practice they are often scams, leading to increased emissions.[151] Genuinely good projects on the ground that are socially and environmentally beneficial should rather be directly funded through other means.

Similarly, it is important not to confuse loans and private sector investments with public funding for the common good. All too often, initiatives and programmes are presented as major financing efforts that are in effect additional loans that add to the problems with accumulating indebtedness including some of the proposed components of the Bridgetown Initiative. There is obviously need for the provision of credit for investments in people-centred development, and concessional loans with favourable conditions have an important role to play. The current gross imbalance between provision of grants and loans must however change dramatically.

It is essential for African countries to actively and strategically engage in the efforts to tackle and reform these external economic and financial factors, but it is just as important to take decisive, direct action to break dependencies and set a new course within the considerable scope that exists domestically and through pan-African collaboration.

CONCLUSION

Africa stands at a crossroads. The continent can continue pursuing its development plans and relations with other parts of the world in similar ways as has been the case for the last several decades. This means repeatedly falling into the same traps with continued dependencies, indebtedness, and unfulfilled promises of well-being and prosperity as a result. Or, African societies can choose to formulate another development vision that builds on the rich tradition of African collective, endogenous cultures, and breaks dependencies and fosters enhanced self-reliance.

As outlined in this report, people-centred, smart, renewable energy systems with millions of diverse African producers of energy will be a key component for the latter choice. Through such energy systems, African societies can foster more democratic societies, power thriving local economic development, and lay the ground for social services and social protection for all. Such energy systems can also drive the development of healthy, agroecological, resilient and ecologically sound food production where locally harnessed energy powers irrigation, light electric machinery, food processing, and storage as well as transportation to markets for the hundreds of millions of African farmers.

Combined, the resulting energy and food sovereignty reduces dependence on foreign imports, caters to genuine, basic needs, and builds productive capacity. African industrialisation can both benefit from the new, resilient provision of clean energy, as well as use renewable energy technology production as strategic early drivers in industrialisation efforts. It is in the hands of African societies to set out a new model of value-added industrialisation centred on meeting domestic needs that is built around values of care and minimal impacts on resources, environment and climate change.

Such efforts require clear visions and long-term planning as well as cooperation across African sub-regions and the continent. Breaking dependencies and charting new courses is easier through collaboration and unity.

The scope for African agency must not be underestimated. African governments can, as discussed in this report, invest considerable resources in renewable energy and renewable energy technology production, through their own means and currencies. At the same time, such domestic financing can only go so far. The remaining investment needs must be made possible through international support and reparations, in accordance with principles of equity and fair shares. African countries can formulate bold, long-term climate, energy, and development plans that the international community needs to enable, on African terms.

This is not charity but a responsibility of wealthy countries. It is also in their direct self-interest to ensure that African countries do not slip into fossil fuel powered development trajectories that soon lead to significant additional emissions. And it is in their direct own interests to ensure that African countries are able to enhance climate adaptation capacity

and respond to losses and damages in ways that make it possible for Africans to remain and lead good lives in their communities and countries.

The measures and principles for staking out new development trajectories and specific features of the new people-centred renewable energy systems presented in this report indicate what can be done by African peoples and leaders. Such efforts will meet resistance, both from vested African interests and external powers and commercial interests. This vision can only be fulfilled if large parts of African societies come together, share the excitement of a positive vision, and mobilise pressure for change from below. African leaders can and must respond to this in the most constructive and supportive manner. This is the time to honour the proud tradition of African independence and post-colonial leadership, where Africans showed courage to challenge status quo and chart new development aspirations on their own terms.

Importantly, this goes beyond Africa. Through the kinds of approaches outlined in this report, Africa can contribute to and inspire similar and much needed questioning of the mainstream development paradigm on other continents. The set of intertwined, existential crises all societies face — climate breakdown, biodiversity collapse, environmental destruction paired with increasing inequality, patriarchal oppression, social insecurity, and alienation — calls for a deep reset of the very meaning of 'development' and progress, everywhere. Conventional economic theory and its blind focus on economic growth and private sector profit maximisation as over-riding imperatives are clearly part of the root problems. Notions such as sufficiency and degrowth need to be honestly and seriously considered, particularly by wealthy, 'over' or 'mal-developed' societies.

The stark conclusion is that there are no 'developed' countries — all societies need to embark on a quest to define new, genuine people-centred and sustainable development paths that respond to their particular needs and contexts. It is our hope that this report can contribute to the urgent need to define and implement such climate, energy, and development visions.

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