





EXECUTIVE SUMMARY

Structural transformation in Africa's economies remains the highest priority, and industrialization is the top strategy for achieving it in practice.

Achieving the African Union's Agenda 2063 and fulfilling the Sustainable Development Goals will demand a major re-design of growth strategies across the continent.

The big opportunity for Africa in 2016, as a late-comer to industrialization, is in adopting alternative economic pathways to industrialization.

This requires governments to take on-board the drivers, challenges, and trade-offs in pushing for a greening of industrialization—and to build them into the vision and route-map for action. Seizing the momentum of the Paris Climate Agreement and the SDGs provides the ideal timing for such a shift in economic strategy.

Dispelling the myths currently surrounding green growth will promote the re-shaping of Africa's economic growth in favour of sustainable development.

Investing in environmental standards should be seen not as an obstacle to competitive manufacturing, but as underpinning competitiveness, making more efficient use of energy, and de-coupling resource use from output growth. While some individual countries have taken the lead, there would be far greater benefits from a regional approach to greening the essential infrastructure, industrial structures, and major trade flows that span each region.

Africa's growth has been characterized by heavy reliance on natural resources and low productivity across most sectors. It has been accompanied by high energy and material intensities, as well as waste generation. These factors drive the resource

scarcity and contribute to the high production costs that undermine the global competitiveness of Africa's industrial sector.

Greening industrialization is an opportunity for Africa to achieve the type of structural transformation that yields sustainable and inclusive growth, creating jobs while safeguarding the productivity of natural resource assets.

Growth in the region has been largely jobless and associated with the degradation of Africa's valuable natural capital. Structural transformation through industrialization will inevitably and justifiably increase the uptake of resources. But a strategy for greening this process, in its many dimensions, will deliver a more competitive and resource-efficient industrial sector—one that provides employment, is climate resilient and is decoupled from environmental degradation. There is now a growing commitment among African countries to pursue inclusive green development. A collective commitment from across the African Union would strengthen the speed and effectiveness of such a strategic shift.

Governments are central in mapping out the pathway to green industrialization.

Long term, consistent, and clear directions are required of policy makers to provide the institutional design and credible incentives at the heart of this structural transformation. Such a shift in economic strategy requires not a marginal tweaking of current policy tools, but a step-change in direction. Leadership at the highest level of government is needed to confirm this step-change. In addition to the adoption of effective inclusive green economy policies and strategies, greening industrialization will need relevant measures to create a policy environment characterized by good governance

and institutions, available financial resources and technologies, and high quality human capacities. But this is not just a task for government. Indeed, it will be achieved only by a partnership between government, business, civil society, producer groups, neighbourhood organizations, municipal government, researchers and technical experts.

Greening industrialization provides the impetus for turning current supply chains linking natural resources to markets, into value chains that diversify Africa's economies and ensure greater value added. In an era of growing scarcity, resource-rich Africa must shift away from being a marginal supplier of raw commodities, to harness the full potential of natural resources by diversification into greater value addition, through processing and marketing. The Africa Mining Vision offers a good example for making this step-change.

Taking stock of current economic trends, global economic growth slowed in 2015, reflecting a range of problems in the euro area, China, Brazil, and the Russian Federation, combined with the collapse of oil prices. This slowdown among Africa's largest trading partners has inevitably hit economic performance on the continent, with growth moderating from 3.9 per cent in 2014 to 3.7 per cent in 2015. Africa's reliance on exports of raw materials to other regions of the world has led to falling revenues for government and a decline in investment. Growth in many African countries has been underpinned by increased private consumption over the last few years, due to rising domestic demand, stemming from increased government spending in infrastructure projects and growing incomes among the middle class. An increase in inward investment has also spurred growth, thanks to improvements in the commercial environment and lower costs of doing business. But falling commodity prices now mean that most countries are experiencing growing fiscal deficits, especially those reliant on oil and gas exports, and will have to revise government spending plans.

Africa's vulnerability to these external shocks calls for a rethink of its growth and broader development strategy along four critical dimensions.

- ▶ First, economic growth in Africa has not been inclusive: the number of Africans in absolute poverty has risen, and inequality remains a major concern.
- ▶ Second, growth has been associated with increased exploitation of non-renewable natural resources, incurring heavy costs to the soils, water, forests and biodiversity which make up Africa's rich and diverse natural resource base.
- ▶ Third, the structures of African economies have remained largely based on raw material extraction, with very little value addition and limited employment generation.
- ▶ Fourth, Africa trades more with other parts of the world than within the continent. A strategic re-think across Africa's regions could build much stronger domestic and regional linkages—reducing large and growing food imports, greatly improving the use of renewable resources, particularly water and energy, and establishing competitive industrial activity.

The challenge facing African leaders is to transform their patterns of production, and to build system-wide infrastructure in order to ensure secure supplies of water, food and energy. Green and inclusive industrialization provides a pathway to attain such goals. And since most African countries share common environmental challenges, greening Africa's development would promote regional integration, cooperation and the growth of continent-wide innovation capabilities, putting Africa's development on a more robust, technologically smart and sustainable foundation.



The time has never been better for African countries to follow this route to development. The past year has seen three landmark global agreements that align well with Africa's need to industrialize, by generating greener and more inclusive growth. The first was the 21st annual Conference of the Parties (COP21) during the United Nations Climate Change Conference in Paris in December 2015. At COP21 all nations signed an agreement that—if the terms are carried out—will lead to a worldwide low-carbon economy and a shift away from fossil fuels. The agreement puts the global economy on course for transforming its energy systems. All countries have pledged “to keep a global temperature rise this century well below 2°C and to drive efforts to limit the temperature increase even further to 1.5°C, above pre-industrial levels” (UNFCCC, 2015). All countries of the world have submitted plans laying out their intended contribution to achieving the global target of less than 2°C, and those plans will be subject to five-year review to ratchet up the ambition gradually. The second agreement—on the Sustainable Development Goals (SDGs), in September 2015—places equality, sustainability and universal basic needs at the heart of our common global economic strategy. The Addis Ababa Action Agenda, the outcome of the Financing for Development summit in Addis Ababa in July 2015, offers a comprehensive framework for financing Africa's industrialization and structural transformation, with an emphasis on domestic resource mobilization.

Properly aligned, these global agreements set the stage for international and regional partnerships that can transform Africa's growth prospects. They confirm a shift in the direction of the global economy towards a sustainable, low-carbon future based on green and inclusive growth.

Africa is blessed with abundant land, water and energy sources and with a young and increasingly better educated population. Such abundance, when combined with capital investment, can

generate the prosperity, employment and sustainability needed to achieve the promise laid out in the African Union's Vision 2063. Some African countries are making good progress, with a focus on water, energy and agriculture, systematically building low-carbon development and climate resilience into their plans and decision-making. But many countries have yet to focus on how best to harness the post-2015 momentum in climate and sustainability and use it to accelerate their own plans for growth, structural transformation and sustainable industrialization. The year 2016 is the ideal time to redesign long-term growth plans to deliver green and inclusive industrialization.

A low-carbon economic pathway must be followed worldwide if the world is to keep the mean global temperature increase to less than 2°C. A perspective to 2050 and beyond means that all countries should plan their routes to deep decarbonization to achieve 80 per cent emission cuts by 2050 and net zero carbon by 2070. African nations have contributed very little to global greenhouse gas emissions, and perhaps should not, therefore, be expected to take the lead on low-carbon development.

African countries can stand back and watch others take the lead in building a green economy—or they can benefit from their current low-carbon position and leapfrog the process. Following the latter strategy means that many African economies can get it right the first time; infrastructure does not have to be retrofitted to make it climate resilient, and high dependence on volatile fossil fuels can be avoided, bringing significant co-benefits for health and energy security.

Africa's move to greener industrialization is not just a step towards meeting global carbon emission targets—it is a precondition for sustainable and inclusive growth. The Intended Nationally Determined Contributions, prepared by each country in advance of COP21, offer the ideal

framework for practical steps over the next 5 to 10 years, aligning with long-term goals of de-carbonizing, building climate resilience and delivering sustainable development.

Africa can explore many ways to achieve green industrialization—starting with existing enterprises. Because of current high levels of waste and inefficiency at the plant level, supporting business to become more resource-efficient provides multiple opportunities for win-wins. And working at the systems level offers big opportunities for greening supply chains, infrastructure and, above all, energy generation.

Government has the central role in taking the long view—out to 2030 and beyond. Policy stability, effective public institutions and consistent implementation make all the difference in creating credible incentives to unlock private investment by small, medium and large enterprises. And while government must take the lead, it cannot hope to design, fund and achieve a green and inclusive economy on its own. Strong, long-term partnerships are needed with business, civil society organizations, community groups, municipal government, finance and research sectors. Each one brings its own skills, networks and interests to construct a shared vision for an inclusive green economy.

Africa has a bright future that is within reach. The continent is a 'gold mine,' a world region with very significant natural resource assets, and significant growth and industrialization opportunities. Building on previous editions, this report emphasizes effective policy frameworks and actions that will enable Africa to leapfrog in the industrialization process, particularly through good resource use and governance and the construction of green infrastructure. This report's work on alternative scenarios makes this starkly clear. Africa is also fortunate to have excellent examples of what bold, informed decisions about green industrialization can achieve.

How best to stimulate growth and ensure it is both inclusive and environmentally sustainable? Africa cannot continue on a business-as-usual (BAU) trajectory if it truly wishes to industrialize and scale up broad-based development. Looking forward to 2050, and using a set of green agenda policy tools, many of the supply-demand gaps in energy close considerably if major investments tap into Africa's vast renewable energy resources. Even water scarcity becomes manageable, largely as a result of improved governance, regional integration and green infrastructure. Critically, urban populations generate big dividends where investment is made in green infrastructure, and enhanced skills and innovation.

African governments have clear policy options to follow.

- ▶ First, they need leadership at the highest level to achieve this structural change. This leadership needs to translate a broad vision into strategy and policies. A credible and long-term plan is vital, which is shared and communicated clearly.
- ▶ Second, while current capacity may be limited, steps should be taken to build the ability to deliver. This means investing in domestic resources and learning lessons on greening industrialization from elsewhere. Many other governments are pursuing similar challenges—so there is much to be learned.
- ▶ Third, if governments really seek a step-change in economic strategy, some interests are bound to block progress. Inevitably, such a shift in strategy will not please everyone, and government needs to be ready for this.
- ▶ Fourth, the enormous size of the informal sector means it cannot be wished away. Instead, government needs to find ways of engaging and bringing its energy and innovative capacity on board.



- ▶ Fifth, it can sometimes be tempting to consider large-scale initiatives as the only ones that really count. But in practice, lots of small initiatives add up to a big impact. A decentralized pattern of economic innovation can also be more resilient to shocks than a small number of large enterprises.
- ▶ Sixth, if government policy is to be credible, some fundamental institutions have to be strengthened—among them, local government administration, land and property rights, and access to law.
- ▶ Seventh, it is important to decentralize economic activity across the country to avoid having everything happen in the capital city. In practice, much of the innovation is likely to be at the local level, since this is the arena where people, enterprise and the government administration have the closest connection.
- ▶ Eighth, if policy is to adjust to circumstance, there must be means to assess progress through regular data collection, review and adjustment to the strategy.

Central in all this is an approach focused on decoupling energy. Many industrial energy decoupling programmes in Africa show the scale of savings achievable in energy use. In Tunisia and South Africa big savings offer profitable opportunities to industries, and broader targets for greening in government strategies.

At the heart of green industrialization is infrastructure investment. Greening Africa's infrastructure enables leapfrogging in the green industrialization process. Decisions today will have long-lasting impacts on patterns of growth and consumption. So getting it right the first time is vital to avoid retro-fits, which are always more expensive. It is also a no-regret investment option under any scenario or growth pathway for Africa, since at a minimum it will build Africa's resilience to climate change. Bold expansion of renewable energy can help resolve Africa's energy deficit, providing a cornerstone for Africa's industrialization.

Greening African cities is another cornerstone of Africa's green industrialization and another opportunity to leapfrog the green industrialization process. Cities bring together social innovation, skills, infrastructure, and energy, food and water security, making them a natural focal point for fueling green industrialization while making urbanization inclusive.

The year 2016 offers a valuable opportunity for a step-change in the direction taken by any African economies, in favour of structural transformation which delivers green, inclusive growth which builds industrial capacity, value added and quality employment.

