

Achieving Sustainable Development in Africa through Inclusive Green Growth

Agriculture, Ecosystems, Energy,
Industry and Trade

*The Sustainable Development
Report on Africa*

Fifth Edition



Achieving Sustainable Development in Africa through Inclusive Green Growth

Agriculture, Ecosystems, Energy,
Industry and Trade

*The Sustainable Development
Report on Africa*

Fifth Edition

Introduction

The Sustainable Development Report on Africa

1. The Sustainable Development Report on Africa (SDRA) is produced by the Economic Commission for Africa (ECA) in collaboration with partner institutions. It serves as a tool for monitoring and assessing progress on sustainable development, and for engagement on topical issues relevant to the region's development aspirations. Four issues of the report have been produced to date. The first issue of the report was produced under the theme "Managing Land-Based Resources for Sustainable Development". The theme of the second issue was "Five-Year Review of the Implementation of the World Summit on Sustainable Development Outcomes in Africa (WSSD+5)". The theme of the third was "Sustainable Consumption and Production (SCP) for Sustainable Growth and Poverty Reduction", and the fourth, "Managing Africa's Natural Resource Base for Sustainable Growth and Development".

2. This fifth issue of the report (SDRA-V), produced under the theme "Achieving Sustainable Development in Africa through Inclusive Green Growth", is a joint publication of ECA, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO) and the United Nations Development Programme (UNDP). The report explores a theme that has a particular significance for Africa, inclusive green growth, given its implications for the region's transformation and sustainable development.

3. SDRA-V is expected to enhance awareness and appreciation among policymakers of the need for a balanced integration of the three di-

mensions of sustainable development (economic, social and environmental) in the development and implementation of policies, strategies and programmes. It examines the challenges and opportunities for inclusive green growth in selected sectors of the economy, where targeted investments with accompanying enabling measures could spur inclusive green growth to contribute to transformative objectives and sustainable development. The report is targeted at African countries, regional and subregional organizations, the nine major groups recognized by the Rio Conference in 1992, and development partners.

4. SDRA-V comprises two parts. Part I contains an assessment of progress towards sustainable development in Africa based on key indicators covering the economic, social and environmental dimensions of sustainable development, as well as governance aspects. In part II an analysis is presented of the trends, challenges and opportunities for promoting inclusive green growth in selected sectors in Africa. The selected economic sectors were deemed to offer opportunities to drive inclusive green growth and contribute to the realization of sustainable transformation and development. The aim is to guide countries in making choices for the transition to a green economy.

5. The selected sectors are: agriculture; ecosystems goods and services; energy; industry; and trade. The good practices showcased are intended to promote learning, as well as upscaling and out-scaling. Part II contains an exploration of enabling measures that could foster inclusive green growth in the region. Cross-cutting issues such as climate change, gender, employment, science and technology and poverty are analysed as cross-cutting issues in the report.

Key messages

Part I: Assessing status and trends towards sustainable development

6. **Progress on governance in Africa has been mixed.**

While countries have made appreciable progress in establishing democratic governance systems, concerns about insecurity remain. Commitments on environmental governance are progressively being implemented, but capacity challenges persist. Steady progress is being made on governance for sustainable development at the regional and subregional levels, but more needs to be done at the national level. Considerable efforts and country-level commitments are needed to consolidate good governance and build lasting peace in the region. The post-2015 development agenda and the Rio+20 follow-up processes provide opportunities for revamping sustainable development governance at all levels.

7. **Africa continues to record robust economic growth, but this has not translated into tangible sustainable development outcomes.**

The performance of African countries in terms of adjusted net savings continues to show negative trends and most countries continue to run trade deficits. The share of agricultural exports in total exports has been rising, but value addition in manufacturing, agriculture and service sectors continues to decline. The stepping up of inclusive green growth approaches, support for a vibrant private sector and the adoption of innovations in the area of information and communications technology remain potential areas of focus for harnessing positive aspects of economic growth.

8. **Progress towards sustainable consumption and production has shown mixed results.**

Through the actions of governments and other stakeholders, sustainable consumption and production practices are gradually being adopted. However, the level of resource and material pro-

ductivity remains low, and there are declining trends in sustainable consumption due to the changing consumption patterns of an increasingly affluent middle class. Although there has been an increase in infrastructural development, many challenges remain with regard to road fatalities, poor transport governance, connectivity and increasing greenhouse gas emissions from vehicles. To increase the pace of progress towards sustainable consumption and production, more coherent policy frameworks and improved implementation of the existing frameworks are needed.

9. **Progress has been registered in terms of energy infrastructure and diversity of sources, but the region continues to suffer from energy insecurity.**

While there has been an increase in renewable energy, energy security remains a challenge and prices remain high. There is a need for a substantial increase in the rate of investment in the energy supply infrastructure to meet the ever-growing energy demands, and to deliver access to electricity and clean cooking facilities to the millions without it. Regional integration to create economies of scale and reduce the costs of generation and distribution will contribute to enhancing energy security in the region.

10. **Progress towards poverty eradication in Africa has been slow.**

Africa is not on track to achieving the Millennium Development Goal target of halving the number of people living in extreme poverty by 2015. Income inequality persists, with the poor and vulnerable still unable to access opportunities for poverty eradication. Africa's performance regarding access to clean water, sanitation, energy and decent housing remains inadequate. Disparities continue between rural and urban areas. Addressing poverty in all its forms in Africa will require complex institutional and governance reforms to enhance the accountability of the State, raise the quality of service delivery, and

improve the overall economic and social environment, including in education, health, energy and housing.

11. Africa's population is projected to reach the 1.6 billion mark in 2030. There will be a steady increase in the working-age population and in urban dwellers. Further challenges arising from demographic changes will include a high dependency ratio and increased pressure on natural resources. Urban areas will account for more than 90 per cent of future population growth. However, the changing population structure provides an opportunity to leverage the benefits arising from the demographic dividend. This can be exploited for rapid economic growth if the right policies are put in place, and the right social and economic investments made. Lessons can be learned from Asia and Latin America, where countries responded to similar challenges by improving health and education, attracting foreign investments, and adopting economic policies that created jobs and resulted in accelerated economic growth.

12. Gender equality and women's empowerment is gradually improving in Africa but the challenge is still real. The percentage of parliamentary seats held by women is increasing in all subregions of Africa. With the exception of North Africa, the percentage of women in non-agricultural wage employment is increasing. Gender parity in primary, secondary and tertiary education has improved over the past 10 years. Other gender issues that need attention include the gender wage gap and women's ownership of land and access to credit. Countries must take measures to generate greater economic opportunities for women and young people by creating conditions that enhance their participation in decision-making and development endeavours. Also important are the political and social reforms that enhance women's human rights, including those related to freedom, dignity, participation, autonomy and collective action.

13. Africa's performance in the education sector has been improving. The increasing level of public and private investment in education is already yielding results. Completion rates in primary and secondary schools are improving. Literacy levels are also improving as access to education increases. Gender parity has improved at primary and secondary school levels, but remains a concern at tertiary level, and in adult education programmes. A higher gender parity index is being recorded in most subregions and countries. Achieving sustainable development, including the capacity to innovate, depends on a critical mass of educated and skilled people, hence the need to consolidate gains made in the education sector.

14. Africa has been making steady progress on the health front. Life expectancy at birth has improved markedly as health facilities and access to health services for a broad section of the population improve. There is a substantial decline in the prevalence of key diseases such as malaria, HIV/AIDS and tuberculosis. There has been a reduction in the mortality rate of children under five, and of pregnant mothers. This is attributed to improved health care, immunization coverage, education, preventative measures and treatment. Despite the progress in the health sector, Africa is confronted with the world's most dramatic public health crisis; hence the need to further strengthen its health systems to consolidate gains through, among other things, enhanced public and private investments.

15. Agricultural productivity is increasing but food security remains precarious. The food production index has increased in almost all countries in Africa. However, Africa still lags behind other regions in attaining food security and this may worsen, as the population is set to double by 2050. Sustainable intensification and wider adoption of improved technologies will spur agricultural transformation. The greening of agriculture is necessary to contribute to reducing the risks associated with agricultural intensification. The

sector also presents other important opportunities for climate change mitigation and adaptation.

16. Progress on the sustainable management of Africa's natural resource base has been mixed. Africa is increasingly leveraging its natural resources endowment for wealth creation and livelihood sustenance. The rate of loss of forest cover has declined. However, while the overall change in forest cover is positive, it remains insignificant. The number of threatened species of birds, mammals and fish remains high and 25 per cent of Africa's land resources is categorized as "wasteland", with a significant number of people still living on degraded land. Water abstraction is increasing due to increasing demand coupled with insignificant change in water use efficiency. The number of threatened fish species is increasing and more fish stocks are exploited outside their safe biological limits. Inclusive green growth opportunities abound for natural resources management, use efficiency and conservation.

17. Climate change impacts on Africa are exacerbating the challenges in natural resource management and overall sustainable development. While Africa's greenhouse gas emissions still remain relatively low, both adaptation and mitigation efforts are gaining ground in the region. Efforts put into implementing adaptation measures are encouraging, with more countries implementing their national adaptation programmes of action. The number of countries that have developed nationally appropriate mitigation actions in a sustainable development context is also increasing. The cost of adaptation is projected to increase fourfold to about 4 per cent of Africa's gross domestic product under presently planned and implemented mitigation measures, assuming that all necessary adaptation measures are taken. The pursuit of low carbon development trajectories will minimize greenhouse gas emissions,

and contribute to inclusive green growth and the achievement of sustainable development.

18. The severity and frequency of natural disasters is increasing. The human and economic losses due to disasters are increasing. An increasing number of countries have established national platforms for disaster risk reduction and preparedness, but capacity issues continue to constrain preparedness and response measures. The percentage of the population living in natural disaster/hazard-prone areas is increasing, thus making them more vulnerable. Disaster management must be made a priority to avoid decades of setback in development gains and secure a sound sustainable development pathway.

19. Progress on means of implementation has been mixed. In many countries, there has been an improvement in the indicator that assesses the percentage of the budget from domestic resources. There has also been a surge in remittances received from the African diaspora, but little has been directly channelled to sustainable development investments, while the cost of remittance continues to be high. The net official development assistance as a percentage of gross national income is declining in relation to the rest of the world but is higher on average compared with all other developing regions of the world. Foreign direct investments, especially those targeting environmental goods and services, are declining. Expenditure on research and development continues to be low, while the increase in patents in environmentally-related technologies remains insignificant. Most countries do not have national capacity development strategies. Coherence in policies, coupled with an innovative mix of the various means of implementation, will ensure the success of sustainable development initiatives.

Part II: Promoting Inclusive Green Growth in Selected Sectors

Agriculture

20. Agricultural productivity in Africa has been increasing, but has not translated into food security for most Africans, and environmental degradation continues unabated.

While agricultural gross domestic product has been growing at an annual average rate of 3.3 per cent, setbacks such as food insecurity, soil degradation, loss of vegetation cover, including forests, grasslands and rangelands, remain widespread. For that reason, inclusive green growth in the agriculture sector needs to be fostered by the adoption and implementation of policies that promote agricultural development activities and enhance social inclusion and environmental sustainability.

21. Improving the weak functioning of African land markets could be a trigger for inclusive green growth in agriculture.

For farmers to be able to invest in their land and adopt sustainable agricultural practices, legal ties to land need to be recognized without discrimination as to gender. Such ties need to be clearly defined, identifiable on the ground, and enforceable at low cost.

22. The creation of a conducive environment for agribusiness should be promoted.

This can be achieved by, for example, connecting all the actors in the agricultural value chain in order to improve the efficiency of the agricultural sector. This would reduce the cost of operation and free up money for investment in higher value activities, thereby creating more jobs.

23. Transforming wasteful subsidies into market-smart and sustainable systems would increase agricultural productivity.

These subsidies include those for addressing market failures

in the input market, crop and livestock insurance, and the microfinance sector. They should be designed to build markets by providing input vouchers that are redeemed through private input dealers. The vouchers should be targeted as far as possible to those who do not currently use a particular product due to lack of credit, knowledge, or ability to withstand risks. The subsidy should be modest in relation to other critical public expenditure such as research and development, and there should be a clear exit strategy.

24. Developing carbon project extension services for agroforestry and crop production would increase carbon revenue and create jobs.

Extension experts could be selected from existing government employees with training in forestry and/or agroforestry or could be hired from an existing successful carbon project in the country. The selected experts could then be trained to ensure that they are equipped with the requisite knowledge and expertise for extension services.

25. Technical and institutional capacity to promote inclusive green growth in the sector should be strengthened.

Inclusive green growth should be integrated into agricultural development policies and programmes at all levels. To ensure good leadership and quick delivery, a dedicated and highly skilled delivery team must be established. The delivery team should have sufficient stature and experience to effectively engage in dialogue with government entities and the private sector, including multinational firms.

Ecosystems goods and services

26. The role of ecosystem goods and services in advancing sustained and inclusive green

growth is now recognized at the global, regional and national levels. Trends throughout Africa and elsewhere highlight the intrinsic link between ecosystems goods and services (EGS) and inclusive green growth initiatives. National governments are investigating ways to include natural capital in gross domestic product measurements; private and public sector relationships to promote ecosystem services are growing; and key international institutions have begun to establish mechanisms for investing in EGS. Several decisions of the African Ministerial Conference on the Environment clearly indicate the centrality of EGS in fostering inclusive green growth and the green economy in achieving sustainable development.

27. Ecosystems goods and services-based inclusive green growth can support the livelihoods of the poor and promote the realization of sustainable development in Africa. Millions of people in Africa earn most of their income from EGS. Inclusive green growth realized through EGS would enhance water quality and provision; promote the development of clean and renewable energy sources; enhance food security; improve gender integration; promote sustainable use of natural resources; and stimulate innovation, employment creation and sustainable economic development. Other potential benefits include natural disaster risk reduction, climate change adaptation and mitigation, and human security.

28. There is a need to focus on value addition for upscaling ecosystem services. Enhancing the benefits that rural dwellers and the urban poor are able to derive from natural resources can promote inclusive green growth and address inequality and unemployment. Examples include promoting policies that encourage urban gardening and urban water harvesting to provide for basic needs; and, in rural areas, promoting higher quality production methods to generate additional income.

29. Enhancing ecological integrity and productivity is fundamental to sustained provision of ecosystem goods and services. Payment for ecosystem services schemes should be developed, enforced and scaled up. Sustainable water resources development and management should be reinforced through integrated water resources management. Efficient and effective land-use management should be encouraged in order to reduce deforestation, land degradation and soil erosion, and enhance resilience to climate change. In addition, policies and legislation on sound natural resources development and management should be strengthened and enforced to enhance ecological assets and benefits derived from ecosystem goods and services.

30. Sustainable management and sound governance of natural resources should be accorded a high priority to enhance the benefits derived from ecosystems goods and services. Weak governance and “business as usual” policies undermine the potential of EGS to enhance inclusive green growth. Policy decisions on effective governance of EGS should be based on sound scientific evidence, provide tangible benefits to people and be relevant to overall development. Supportive policies and incentives, and evaluation systems such as strategic environmental assessment, would allow higher-order or strategic decisions to be subjected to environmental and social scrutiny.

Energy

31. Fostering inclusive green growth can contribute to addressing Africa’s energy-related challenges. Despite Africa’s abundant fossil and renewable energy potential, severe energy-related challenges persist, suggesting that current approaches to energy development and deployment have not delivered the desired levels of energy services and security. Inclusive green growth policies and practices can contribute to meeting the challenges of energy insecurity and

poverty; reducing energy intensity; enhancing the clean energy mix; increasing energy access and consumption; reducing energy prices; and reducing environmental impacts, while improving human welfare.

32. Trends in energy efficiency, deployment of renewable energy, supply of modern energy services, and efforts to address social and environmental concerns all point to the application of inclusive green growth principles in the energy sector, but more needs to be done.

Energy efficiency and demand-side management practices need to be enhanced. Renewable energy deployment has received significant attention but not enough for it to displace conventional fossil energy sources. Energy supply to the productive and social sectors of the economy is low compared to that in other regions of the world and the low energy consumption in the agriculture and industry sectors has translated into low agricultural outputs and low levels of industrialization.

33. Positive results are emerging from mainstreaming inclusive green growth principles in the energy sector.

Emerging policies and strategies, for example, feed-in tariffs, as well as reforms, such as fossil fuel subsidy removal, the creation of cost-reflective tariffs and the liberalization of the sector to involve independent power producers, have demonstrated positive results across Africa. However, adequate measures need to be put in place to mitigate the potential political and social impacts. The savings and benefits to all should be analysed and disseminated widely.

34. Further development of the renewable energy sector presents considerable opportunities for inclusive green growth.

Africa's considerable renewable energy potential, which could be a major contributor to clean energy, improved social well-being and jobs, remains largely untapped. Renewable energy can create up to 25 per cent more jobs than coal and 90 per cent more jobs than nuclear energy, per unit of energy generated. However, the development of renew-

able energy is constrained by low investments in the sector, and aggravated by the high cost of technologies and small markets for products. Exploiting economies of scale through regional power pools can remove the constraints and increase the share of renewable energy in the total energy mix.

35. Inclusive green growth in the energy sector will require, among other things, an understanding of cross-cutting and cross-sectoral linkages.

Development in the energy sector has significant implications for growth and employment creation in other sectors such as industry, transport and agriculture. Improvements in energy efficiency will lead to reductions in greenhouse gases, but extreme weather and climatic events also affect energy infrastructure and resources. The application of clean, modern energy services can positively impact on cross-cutting social development indicators such as gender, health, education and employment creation.

Industry

36. African countries largely continue to export raw materials with low value added, resulting in low industrial development.

This situation has prompted the current drive for the structural transformation of African economies through accelerated industrialization. The application of inclusive green growth principles and practices in the implementation of national and regional industrial development frameworks, supported by adequate sustainable infrastructure, could contribute to transforming African economies from agrarian and resource-based to more industrialized economies, and lead the continent towards a sustainable development pathway.

37. Inclusive green growth opportunities are emerging in the agribusiness/agro-processing, mineral and metals, regional, south-south and global value chains.

However, energy challenges threaten the development and sustainabil-

ity of these activities. African governments should capitalize on the under-tapped renewable energy and energy efficiency opportunities, to meet sustainable energy requirements for increased valorization of its natural resource endowment and generate productive employment and income for its citizens, particularly the young.

38. African governments are increasingly recognizing the enhanced benefits that can accrue from the extractive industry through manufacturing value addition and value chain development. Governments are enacting local content policy and legislation to drive full participation, employment creation, wealth generation and shared prosperity. Their successful implementation in several countries has resulted in an increase in the number and diversity of local businesses securing economic benefit from government contracts with transparent indicators, including sustainable public procurement. Governments should consider extending the practice to the manufacturing subsector.

39. Existing and emerging voluntary and mandatory international and national sustainability frameworks are facilitating and integrating responsible production and processing in industry and contributing to inclusive green growth. Among these are national regulations on environmental and social impact assessment and mitigation measures and the relevant performance standards of international financing institutions, the United Nations Global Compact, corporate social responsibility, and the Equator Principles. However, compliance promotion, monitoring, evaluation and enforcement need strengthening. The capacities of environment and other enforcement agencies should therefore be enhanced to allow for the effective implementation of the various sustainability frameworks that could foster inclusive green growth.

40. Artisanal and small-scale mining is increasingly being acknowledged as a source of livelihood for rural communities in many

African countries and as a significant contributor to economic growth. This acknowledgment has led to the alignment of artisanal and small-scale mining (ASM) operations with relevant national development priorities, and support for ASM as an income-generating activity, especially for women and young people, and as a vehicle for reducing poverty in marginalized communities. The effective implementation of national and international instruments relevant to the mining sector provides an opportunity for inclusive green growth in ASM.

Trade

41. Trade has the potential to spur inclusive green growth in Africa and support the transition to an inclusive green economy. However, this can only be achieved if comparative advantages in sustainably produced goods and services are exploited. The identification of inclusive green growth opportunities and niche markets should be prioritized. Overspecialization in a small set of “staple” activities that tend to be driven by the forces of international trade should be avoided. The creation of markets for renewable energy and of the infrastructure to transfer energy from regions of surplus to regions with expanding energy demands or growing deficits in supply is a promising means of exploiting natural comparative advantages.

42. Infrastructure investments are also critical to keep down transaction costs and ensure the trade competitiveness of African “green” goods in a globalized marketplace. Upgrading and expanding ports and cargo-handling capacity and improving national and subregional rail networks are a key part of this strategy, and go a long way in themselves towards enhancing inclusive green growth. Transportation by rail, for example, has been shown to reduce the carbon emissions associated with transporting goods across countries and borders, and tends to be more resilient to water and heat stresses than roads – this is im-

portant when considering the future impacts of climate change.

43. **Aside from eliminating trade-distorting tariffs and taxes, trade-driven inclusive green growth also requires fiscal reforms that should include removal of unproductive subsidies such as those on energy and energy-intensive products.** In order for renewable sources of energy to become competitive within the local and international markets, any artificial advantage given to fossil-based energy must be removed. Such subsidies are often very expensive for African countries, and reduce the fiscal resources that could otherwise be spent on “greening” the economy through improvements in infrastructure, technologies and human capital – which are key to the success of an inclusive green growth strategy.

44. **Given the broad range of challenges that various African countries face, no one set of trade-promoting reforms, policies or strategies would apply to every region.** Resource-rich countries need to spend their resource-generated revenues on well-targeted investments that maintain productivity and trade competitiveness in the non-resource sectors. Landlocked countries face challenges related to market access that can erode trade competitiveness across a number of sectors with export potential. Countries with high agricultural potential should strengthen management of land and water resources to maintain competitiveness of their products on world markets and improve environmental and social outcomes.

45. **The drivers of the green economy transition in Africa are the same forces that would reinforce Africa’s comparative advantage in trading green goods.** The process of transformation would move Africa from being an exporter of primarily resource-intensive goods with low value added to being a resource-efficient producer of “green” goods. These processes are self-reinforcing and require that green growth-oriented policies

take into account, and are adaptive to the forces of a highly-globalized marketplace.

Enabling measures

46. **Political economy analysis should be carefully undertaken to inform decisions and actions to drive the process of the green economy transition, in view of the attendant shift of resources and the likely winners and losers that would result from the transition.** In particular, poor and vulnerable groups should be identified, and the direct and indirect impacts of the green economy measures on their well-being would need to be carefully assessed, and corresponding complementary and mitigation measures developed and implemented. An optimal mix of policy measures is required to correct market failures, spur investments in greener growth opportunities and ensure an equitable green economy transition process.

47. **Good governance, a robust institutional framework, and the capacity to develop and implement coherent policy are fundamental to all relevant enabling measures for inclusive green growth, and a well-managed transition.** Effective institutional frameworks and cross-sectoral coordination that is government-wide can promote coherence across economic, fiscal, social and environmental policies. This should be complemented with education of the masses and targeted skills development to engender public participation, meet skills needs in green trades, and enable Africa’s young and growing population to participate in the job market associated with the new green value chains that would be established.

48. **Targeted public spending and investment in key pro-poor sectors, especially in agriculture, energy, infrastructure, water and waste management should be strategically used.** This targeted support can enhance the natural resource base of poor and vulnerable women

and men and increase their resilience to multiple risks, including climate change. In order to enhance inclusion, such investments should also be targeted at pro-poor smart infrastructure systems. The use of public resources should be designed to trigger and leverage private investment to deliver low-cost products and services to poor populations.

49. **Well-developed local innovation capacity, enhanced technology transfer, innovative financing solutions and regional integration are key to driving inclusive green growth, and the transition.** Local innovation capacity should be strengthened through targeted investment in research and

development, and through encouraging universities and research institutions to take part in the innovation requirements of inclusive green growth. In addition, green technologies and knowledge from the global market should be effectively diffused and adapted throughout Africa. Innovative financing solutions at national level, as well as coordinated and targeted financing efforts at regional and international levels, would be required for Africa to meet the upfront costs of the transition. Finally, strengthening Africa's regional cooperation and integration is crucial in enabling effective coordination of efforts to achieve and scale up inclusive green growth and drive the transition in the region.