A Green Economy in the Context of Sustainable Development and Poverty Eradication:

What are the Implications for Africa?

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Why a green economy?
New paradigm: planetary boundaries

The inner green shading represents the proposed safe operating space for nine planetary systems.

The red wedges represent an estimate of the current position for each variable.

The boundaries in three systems (rate of biodiversity loss, climate change and human interference with the nitrogen cycle) have already been exceeded.

Blue water consumption = 4,000-6,000 cu km per year (danger zone)

Current consumptive water use = 2,600 cu km per year

Sources: http://www.nature.com/news/specials/planetaryboundaries/index.html;
What is a Green Economy?

- A **Green Economy** can be defined as one that results in increased human well-being and social equity, while significantly reducing environmental risks and ecological scarcities (UNEP 2011).

- A green economy is a vehicle to achieve sustainable development and eradicate poverty.

- For Africa, the green economy is an agenda for growth, poverty reduction and employment creation.
Investing 2% of global GDP into ten key sectors can kick-start a transition towards a low-carbon, resource-efficient economy.

Towards a **GREEN economy**

Pathways to Sustainable Development and Poverty Eradication

*A Synthesis for Policy Makers*

UNEP Green Economy Report

Modeling

Enabling Conditions

Agriculture

Building

Cities

Energy

Finance

Forest

Manufacturing

Tourism

Transport

Waste

Water

www.unep.org/greeneconomy
A green economy stimulates growth, exceeding BAU over time...
...while reducing ecological scarcities and environmental risks
A green economy can create employment

- **Agriculture** - over the next decade, shifting to sustainable agriculture could increase global employment by as much as 4%
- **Forests** - forest conservation and reforestation could boost formal employment in this sector by 20% by 2050
- **Transport** - improved energy efficiency across all transport modes combined with modal shift would increase employment by about 10% above business-as-usual by 2050
- **Energy** - expansion of renewables and investments in energy efficiency could generate employment that is 20% higher than business as usual by 2050
How can a green economy contribute to sustainable development and poverty eradication in Africa?
Inclusive growth and poverty

• Africa experienced robust economic growth in the past decades, but growth has not translated into significant levels of poverty reduction and social inclusiveness.

• New approaches to growth that enhance the basis of livelihood and income generation for the poor are essential.

World’s ten fastest-growing economies* Annual average GDP growth, %

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Employment creation

- Even in times of high economic growth, Africa still faces high levels of unemployment and under-employment.

- This is in part because economic growth in the last decade has been led by capital-intensive enclave sectors with low employment elasticity of output growth.

- There is growing evidence that investments to promote sustainable development can enhance job creation in areas of importance to Africa, including sustainable agriculture (+4%), clean energy generation and energy efficiency (+20%), forest management (+20) and sustainable transport (+10%).
Food security

- In Sub-Saharan Africa, between 33% and 35% of the population is malnourished, especially in rural areas.
- Soil productivity is decreasing due to environmental degradation, which is caused by inaccurate management of soil, water and fertilizer; the decline in the use and length of fallow periods; overgrazing and logging; and population pressures pushing farmers to less favorable lands.
- An important share of the harvest is lost due to pests, diseases and poor handling and storage.
- All these are being exacerbated by the effects of climate change.
- New and innovative approaches of smart, sustainable and high-productivity farming are essential for poverty eradication and sustainable development.
How can a green economy contribute to sustainable development and poverty eradication in Africa?
Building on natural capital assets

- Sub-soil assets, cropland, timber resources, pastureland, non-timber forest, and protected areas form an essential aspect of economic activity.

- A number of studies have underscored the larger gains that could be achieved by expanding investments to enhance natural capital.

**Natural capital and wealth creation in Sub-Saharan Africa**
Green opportunities for industrial growth

- Taking advantage of the early stage of industrialisation, African countries can freely choose between available technology paths and achieve a “leapfrog” industrial development.

- Sustainable industrial growth does not only mean limiting the environmental, social and economic costs of industrialization, but also increasing the efficient use of energy and material input, and thereby international competitiveness.

Material intensity of the world economy: Domestic extraction of materials per unit of GDP by world region
Leapfrogging

- The use of outdated technology, smaller-scale plants, and inadequate operating practices are factors causing inefficiency in production processes.
- In the aluminum sector, Africa has the most efficient smelters in the world due to new production facilities that have the latest technologies in the field.

Regional specific power consumption in aluminum smelting

Source: International Aluminium Institute, 2003.
Harnessing Africa’s clean energy potential

- 74% of the population in Sub-Saharan Africa is without access to electricity.
- Limited access to energy is one of the greatest challenges to achieving the MDGs in Africa. African economies lose 1-2% of GDP due to power shortage.
- Yet Africa has the world’s largest technical potential for renewable energy power generation. Realizing this potential can drive economic growth, job creation and environmental gains.
- Global investments in renewable energy jumped 32% in 2010, to a record $211 billion. Countries in Africa posted the highest percentage increase of all developing regions, if the emerging economies of Brazil, China and India are excluded.
Enabling policies and institutions: 

The critical role of the state
The need for policy interventions

• “Unfettered markets are not meant to solve social problems” (Yunus, Muhammad and Karl Weber, 2007).

• Existing policies and market incentives have contributed to capital misallocation because they allow businesses to run up significant social and environmental externalities, largely unaccounted for and unchecked.

• There is a need for better public policies, including pricing and regulatory measures, to change the perverse market incentives that drive this capital misallocation and ignore social and environmental externalities.
Enabling conditions

- Development strategies
- Laws and standards
- International policy architecture

Policy and regulatory frameworks

- Government policies and infrastructure can encourage private sector to invest in environmentally sustainable ventures

Prioritize green investments

- Create and stimulate markets for green goods and services

Sustainable Public Procurement

- Incentivize green investments and correct negative externalities

Pricing Instruments

- Skills for green jobs
- Capacity for policy reforms
- Entrepreneurship and business development

Capacity Building & international cooperation

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Policy and regulatory frameworks

• Government regulations and standards will provide the overall policy framework to encourage a transition to a green economy.

• A clear, predictable and stable policy environment can create the confidence required to stimulate private investment.

• In Kenya, investment climbed from virtually zero in 2009 to $1.3 billion in 2010 across technologies such as wind, geothermal, small-scale hydro and biofuels - driven by a feed-in-tariff policy.

• A proactive engagement of government, industry and consumers would enable African countries to fully participate in shaping the norms for environmentally sound goods and services.
Access to and transfer of technology

- African nations are recipients of technology in many areas, making effective international cooperation a critical enabling factor.

- Technology Needs Assessments conducted under the UNFCCC addressed technology needs in the agriculture, forestry and land use sectors.

- These sectors were followed by the energy sector, noted by 93% of the African parties.

- More than 82% of African Parties addressed measures in the waste management and industry sectors as priorities (UNFCCC 2009).
Financing

• African nations will clearly need additional financing, through internal and external public and private investments.

• There is no comprehensive assessment of the costs of a green economy transition for Africa. Recent estimates of the cost of putting Africa on a low-carbon growth pathway are about US$9–12 billion per year by 2015 while the incremental cost of adaptation in Africa is estimated between US$13 – US$19 billion, if proper actions are not taken now (AfDB, 2011).

• In addition to global financing mechanisms, African countries could benefit from new funding instruments that are emerging at the regional level e.g. the African Green Fund (AfGF).
Seizing trade opportunities

• Trade is a powerful connector between production and consumption to drive a transition to a green economy.

• For African countries to benefit fully from their comparative advantage in trade in environmentally sustainable goods and services, tariff and non-tariff barriers and market distortions must be removed.

• Trade rules should prevent countries from using environmental concerns as a pretext for trade protection.

• Accelerating and strengthening regional integration can enable African countries to create large markets for intra-African trade and provide incentives for investments to develop a local manufacturing base and spur trade for clean products and technologies.
Green Economy

Africa Success Stories
South Africa – **Green economy plan**

- South Africa’s US$ 7.5 billion fiscal stimulus package of February 2008 allocated 11% or US$ 0.8 billion to railways, energy efficient buildings, water and waste management.

- South Africa plans to generate some 15% of its electricity from renewable sources by 2020 and enhance energy efficiency.

- The government is seeking to rollout a one million solar water heating programme by 2014.

- In May 2010, South Africa hosted a Green Economy Summit to set the stage for the formulation of a Green Economy Plan.
Egypt– *Wind energy development*

- Egypt adopted a “Long-Term Plan for Wind Energy” and fixed a target to meet 20% of electricity needs with renewable energy by 2020, with 12% cent coming from wind energy.

- A New and Reliable Energy Authority (NREA) was set up to foster growth in this sector.

- A target of 3500 MW installed capacity has been set for 2025.

- In 2010, renewable energy investment in Egypt rose by $800 million to $1.3 billion as a result of the solar thermal project in Kom Ombo and a 220MW onshore wind farm in the Gulf of Zayt.
Kenya – *Ecosystem restoration*

- The Mau forest is the largest closed-canopy forest ecosystem in Kenya covering over 400,000 hectares.

- Over 25% of the Mau Forest cover has been lost to ecosystem encroachments threatening natural capital, biodiversity and livelihoods.

- The value of the Mau forest complex to the economy, including tourism, hydro power, agriculture and the tea industry is estimated as much as US$1.5 billion a year.

- A multi million restoration initiative to reverse trends of decades of deforestation started in 2010.
Uganda – Sustainable agriculture

48-68% less emissions and carbon sequestration

The global market: 97% of buyers in OECD countries; 80% of producers in Africa, Asia and Latin America

A $60 bn market growing at 10% per year

185,000 ha, 45,000 farmers (2004)

60%/359% increase

296,203 ha/206,803 farmers (2008)

US$ 22.8 mil (2007/8)
US$ 6.2 mil (2004/5)
US$ 3.7 mil (2003/4)
Namibia – *Income from protected areas*

- Namibia’s protected area system covers 17% of the country’s terrestrial area.

- Protected areas contribute up to 6.3% of GDP through park-based tourism only, without accounting for other ecosystem service values.

- Namibia increased the annual budget for park management and development by 300% in the last four years.

- The Ministry of Finance agreed to earmark 25% park entrance revenue for reinvestment through a trust fund, providing up to $2 million in additional sustainable financing per year.

*Source: GEF, 2010*
Ghana – Reforming fossil fuel subsidies, scaling up investment in health and education

- In 2005, Ghana used the findings of a Poverty and Social Impact Analysis which demonstrated that petroleum subsidies go predominantly to higher income groups, to initiate a public and parliamentary debate on reforming such subsidies.

- In parallel to reducing petroleum subsidies, Ghana eliminated fees for attending primary and junior-secondary school, and made available extra funds for primary health care and rural electrification programs.
Thank You

Towards a GREEN economy