



Green Growth in Kenya

- engaging the private sector





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FOREWORD

GREEN GROWTH HAS BECOME ONE THE MOST IMPORTANT ISSUES ON THE GLOBAL AGENDA DURING THE LAST DECADE. GREEN ECONOMY WILL BE A KEY THEME AT THE UNITED NATIONS CONFERENCE ON SUSTAINABLE DEVELOPMENT IN RIO DE JANEIRO IN 2012 (RIO+20) AND PREPARATORY MEETINGS ARE EXAMINING HOW COORDINATED EFFORTS CAN HELP ACHIEVE GREEN GROWTH AND SUSTAINABLE DEVELOPMENT.

Denmark is a global front-runner pushing the green economy transition, based on an ambitious and forward-looking national energy policy and through strong engagement in the global debate.

In Kenya, Danida's support to Green Growth and climate change mitigation and adaptation is one of the most substantial among the development partners.



The challenge of Green Growth is indeed real to Kenya. The Kenyan economy is very reliant on its natural resource base – as natural resources provide the foundation for growth in the economically important tourism and agricultural sectors. Ensuring economic growth, creating green jobs and developing green technologies in order to maintain or restore environmental quality and ecological integrity is accordingly critical to secure Kenya's long-term economical development.

Green Growth can only be successful with input from a variety of stakeholders, including Government, civil society, and not least the private sector. Private sector led growth provides many benefits, but it can also increase negative environmental

impacts. Companies can, however, reduce negative impact by shifting company operations, transforming production lines, and introducing new green technologies. Not only will this benefit the environment and be an important step towards achieving Green Growth and open up for economic gains for the private sector.

Innovations and investments are made in many sectors throughout Kenya, and there are important lessons to be learned. But individual efforts cannot stand alone, and it is important we all push in the same direction.

On 31 January 2011, the Embassy of Denmark in Nairobi therefore brought together ministers, national and international business leaders, policy-

makers and representatives from international financial institutions at a high-level conference to discuss how the private sector in Kenya can lead on Green Growth. The conclusions from the conference can be found in this report and aim at contributing to establish the necessary regulatory and financial framework and set priorities for green investments in Kenya.

The conference was followed up on 10 February 2011 when partners of the Danida supported Natural Resource Management Programme met at an Annual Forum to discuss how they, with other stakeholders across Kenya could promote Green Growth and work in cooperation with the private sector. The Forum was a great success, and the partners committed themselves to promote the

Green Growth agenda in Kenya through several concrete activities starting in 2011.

Building on the well-defined policies adopted by the Government of Kenya is key and will ensure that all Kenyans benefit from and contribute to the successful transition towards a more sustainable development path.

Geert Aagaard Andersen
Ambassador
Embassy of Denmark in Nairobi

SUMMARY OF CONCLUSIONS

INTRODUCTION

ON 31 JANUARY 2011, NATIONAL AND INTERNATIONAL LEADERS IN BUSINESS AND POLICY MAKING MET AT THE EMBASSY OF DENMARK IN NAIROBI TO OUTLINE HOW THE PRIVATE SECTOR IN KENYA CAN SUPPORT GREEN GROWTH, DEFINED AS ECONOMIC GROWTH AND DEVELOPMENT THAT PREVENTS ENVIRONMENTAL DEGRADATION AND UNSUSTAINABLE NATURAL RESOURCE USE.

The conference participants included representatives from large companies operating in Kenya, small and medium enterprises, banks and financial institutions, and private sector associations. They were joined by representatives from the Governments of Kenya and Denmark, research organizations, international development partners, and civil society. The conference had the following objectives:

- Reach a common understanding on Green Growth.
- Identify major opportunities and barriers to Green Growth in Kenya.
- Recommend private sector actions that will result in Green Growth and secure Kenya's future.

What is Green Growth?

Although widespread consensus on the definition of Green Growth in Kenya proved elusive, several ways to define Green Growth in Kenya were highlighted, centering principally on renewable energy technologies and climate change adaptation and mitigation. It was widely acknowledged that Green Growth in Kenya needs to support sustainable development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. More broadly, the aim of Green Growth is to fundamentally alter production and consumption patterns in ways that reduce pollution, improve energy and resource efficiency, minimize greenhouse gas emissions, and avoid or reverse natural resource degradation.

Achieving Green Growth in Kenya will require a coherent strategy of policies and macro-economic instruments that change demand and supply patterns, stimulate innovation by the private sector, and transform production processes and consumer behavior. Though there remains considerable work to be done, the Government of Kenya has already made progress in reforming the energy sector and laying the foundation for carbon finance to play a much larger role in Kenya's climate change response strategy.

At the same time, the role of the private sector in is to lead this transition through fundamental changes to business as usual. By approaching environmental issues as investment opportunities rather than just as costs, private sector leaders can take advantage of new investment opportunities that enhance resource use efficiency in a cost-effective way. Kenya's private sector has already begun innovating for Green Growth through, for example, improving industrial energy efficiency, developing affordable small-scale renewable energy technologies, and recycling waste products for energy production. Beyond these local activities, broader efforts to achieve Green Growth in

Kenya will require effective coordination across many sectors.

Opportunities for achieving Green Growth in Kenya

There are a number of opportunities for Green Growth opened by recent policy changes and public-private partnerships. The Government of Kenya has made considerable progress in facilitating renewable energy investment in Kenya through revisions to the policy framework, including Sessional Paper No. 4 of 2004 on Energy and subsequent policies on energy and tariffs for renewable energy sources, such as wind, hydropower, and geothermal. Although barriers remain, these policy changes have led to a proliferation of small- and large-scale investments in renewable energy. Successful innovations include energy-efficient cook stoves, solar lanterns, and even small-scale wind power that demonstrate corporate leadership in introducing renewable energy technologies to meet Kenya's energy needs.

The Government of Kenya has recently developed



a National Climate Change Response Strategy through the Inter-Ministerial Committee on Climate Change spearheaded by the Ministry of Environment and Mineral Resources and commissioned a report to recommend the rules of engagement in global carbon markets. The Government of Kenya has also entrenched climate change issues in its plans to implement Vision 2030 by requiring Ministries to consider climate change in their activities and to report on their progress in addressing these issues. Furthermore, Kenya's international development partners are considering a number of innovative mechanisms to help Kenya take advantage of global carbon finance and demonstrate the economic viability of large-scale renewable energy projects. Early entrants into the carbon markets, including initiatives undertaken by Mumias Sugar Company and a World Bank funded soil carbon sequestration project, indicate that there is considerable potential for implementing low-carbon development technologies in Kenya through public-private partnerships and global carbon finance.

The Government of Kenya has also set out an ambitious reforestation plan that will require, among

other activities, tree planting on some 10% of all land holdings in an effort to increase the national forest cover to 10%. These recent developments present opportunities for the private sector to implement green technologies and innovative solutions to climate change, including reforestation. For example, reforestation targets could provide an incentive for the private sector to invest in tree growing (not just planting) as a viable business.

Barriers to achieving Green Growth in Kenya

At the same time, there are also several barriers to Green Growth in Kenya that will need to be addressed, including insufficient awareness of Green Growth solutions across all sectors; the limited availability of innovative financing mechanisms for green technologies; and the inadequate coverage and enforcement of existing environmental regulations. As such, coordinated cross-sector efforts will be needed to overcome these barriers.

Insufficient awareness of Green Growth solutions across all sectors will require coordinated outreach and sharing of best practices

The private sector in Kenya is already taking action to facilitate Green Growth, but there are concerns that insufficient attention has been paid to sharing lessons learned by industry leaders within the private sector. Furthermore, marketing strategies for green technologies to date have not adequately improved consumer awareness of and demand for these innovations. There is thus widespread acknowledgement that effective private sector information sharing and consumer marketing will be crucial to improving uptake of new green technologies.

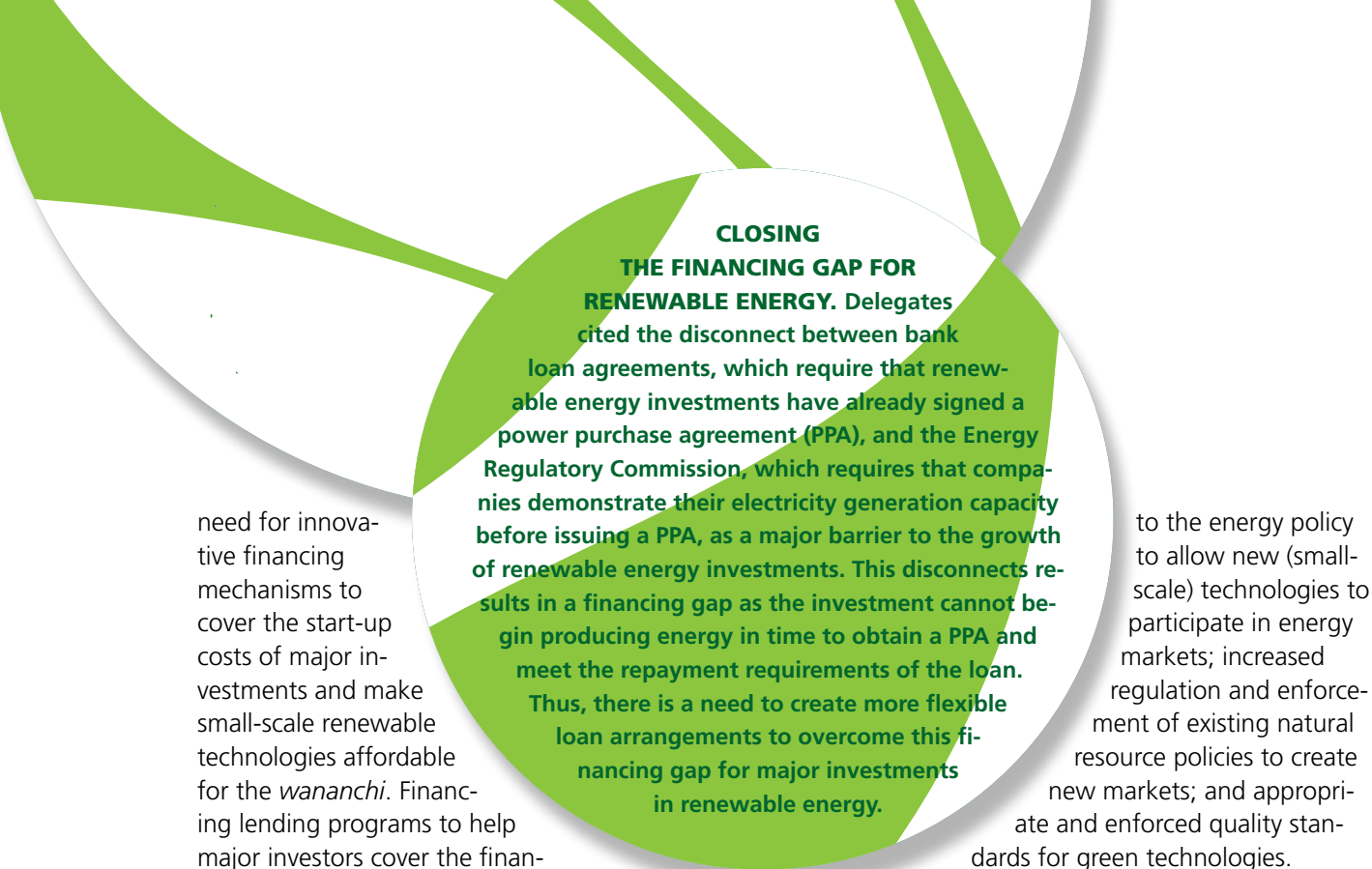
Coordinated consumer outreach campaigns will be required to disseminate information about green technologies to the broader public and share green success stories via the media. Although the media has covered environmental disasters, there is generally less coverage of Green Growth solutions. The media therefore needs to be more involved in spreading green success stories to en-



Beyond the media sector, there are considerable scope for increasing consumer demand for Green Growth by implementing consumer outreach campaigns in collaboration with the public and private sectors. Fact sheets and posters should be made widely available to explain the long-term health and financial benefits to consumers who adopt green technologies that may be more expensive than existing technologies in the short term. Standardized labeling schemes that help consumers identify energy-efficient and other green technologies could also increase consumer demand for these products by making information on cost-savings and environmental benefits easy to interpret.

Innovations in financial instruments have not kept pace with green technology innovation

Despite widespread recognition that renewable energy investments must be part of Kenya's Green Growth strategy, private sector stakeholders engaged in renewable energy investments see a



Inadequate coverage and enforcement of existing environmental regulations
Although the Government of Kenya has made considerable progress in creating an enabling policy environment for Green Growth, there are still a number of barriers that remain to be addressed. These include designing an appropriate policy framework to facilitate implementation of REDD and other CDM projects in Kenya; revisions

The Government of Kenya recognizes the importance of addressing climate change and has committed itself to do so, but Africa as a whole still represents less than 2% of global carbon market investments. However, the Government of Kenya has commissioned a report on global carbon trading to establish the rules of engagement, and there is optimism that the new World Bank and Danida funded Climate Innovation Center will address some of the constraints to smart climate investments currently faced by the private sector.

Despite the Government of Kenya's leadership in reforming Kenya's energy sector, significant bar-



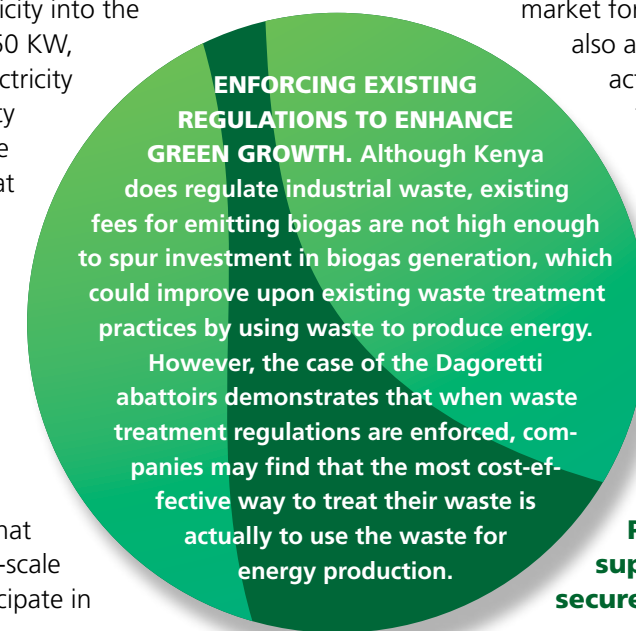
riers remain for the development of small-scale renewable energy technologies, such as mini-hydropower. The minimum threshold for injecting electricity into the grid is currently 150 KW, well above the electricity generation capacity of most small-scale projects. Given that there is a large informal renewable energy sector, it was recommended that the Energy Regulatory Commission consider adopting innovations, such as net metering, that would allow small-scale producers to participate in energy markets.

Both public and private sector stakeholders have a strong interest in stronger regulation and enforcement of environmental legislation as a necessary

prerequisite for opening new markets for environmental services. While the enforcement of existing NEMA regulations alone would create a sizeable market for green technologies, there is also a need to go beyond voluntary actions to mandatory regulation that will spur innovation in green technology. As more green technologies reach the market, however, there will be a need for public sector oversight of quality standards to ensure that substandard goods do not destroy the market for green technology.

Private sector actions to support Green Growth and secure Kenya's future

Many of the barriers cited above will require a coordinated response by the Government of Kenya, private sector, financial institutions, and the media. In the short-term, however, there are several





IMPROVE ENERGY EFFICIENCY – IT'S GOOD FOR BUSINESS. The 700 members of the Kenya Association of Manufacturers (KAM) have been involved in promoting Green Growth for over ten years through reviewing and improving their energy efficiency. These efficiency improvements have resulted in a total net savings of some two billion shillings (KSH 2 billion) per year. The Association is now working with the hospitality sector and Government of Kenya to identify opportunities for enhancing energy efficiency and reducing costs. Similar efforts across Kenya's economy could facilitate Green Growth by sharing best practices within each industry.

investment opportunities with low costs that could pay for themselves through efficiency cost savings. These include improving the efficiency with which energy and natural resources, especially water, are utilized by private companies and making green technologies more affordable to the *wananchi*. There are good opportunities for reducing the costs of industrial energy consumption and waste management through improvements in energy-efficiency and "closed loop" systems that recycle industrial byproducts, such as water, waste, and agricultural residues, as inputs into other productive processes.

At the opposite end of the technology spectrum, there is also an opportunity for the private sector to create green solutions that are low-cost and

either do not require finance at all or require only minor financing to make them affordable to the *wananchi*. Based on the experience of several technology firms selling small-scale renewable technologies through two-year loans, there appears to be considerable potential for developing viable repayment plans for small-scale green tech-

USE CLOSED LOOP SYSTEMS TO REDUCE NATURAL RESOURCE CONSUMPTION AND WASTE PRODUCTION. Mumias Sugar Company has demonstrated corporate leadership in implementing closed loop systems to create innovative revenue earning opportunities. The company has installed a cogeneration plant to convert byproducts of sugar cane processing into 34 MW of power, of which 6 MW are currently exported to the grid and is in the process of implementing a new EcoBank-funded ethanol distillation plant that will burn the byproducts from ethanol production to produce an additional 2 MW of power and earn carbon credits. Mumias is also planning further closed loop innovations, including building a water bottling plant to recycle excess water used by the cogeneration plant and reusing sugarcane leaves for organic mulch on its plantations.

nologies in collaboration with the financial sector.

Conclusion

The examples cited at the conference highlight just a few of the significant opportunities for the private sector to drive Kenya's Green Growth agenda in the short term. If brought to scale, small-scale renewable energy technologies and industrial resource efficiency improvements can have significant impacts on greening Kenya's economy.

It is, however, also widely acknowledged that achieving sustainable Green Growth in the long term will require collaborative cross-sector efforts and long-term strategic planning. This includes designing innovative financing packages to overcome barriers to entry in, for example, the industrial renewable energy sector; revising and enforcing existing environmental regulations to create new markets for environmental services; developing appropriate policies for small-scale renewable energy, energy and resource efficiency, and carbon

HELP CONSUMERS AFFORD RENEWABLE ENERGY. Companies with experience offering two-year loans to help consumers afford renewable energy technologies, such as energy-efficient cook stoves and solar lanterns, reported that consumer demand for these technologies often exceeds the supply of loan financing. This suggests that increasing funding for small, short-term consumer loans could considerably increase consumers' ability to adopt innovative green technologies.

markets; and creating education and training programs to drive consumer demand and supply of green technologies. Although investing in natural capital and ecosystem services were not discussed in detail at the conference, it is clear that Kenya will also need to identify strategies for protecting valuable natural resources for which viable markets may not yet exist. These include safeguarding water supplies, promoting wildlife for tourism, and enhancing cropland and rangeland productivity.

Through private sector leadership and coordinated cross-sector planning, Kenya can achieve Green Growth for a sustainable future. This conference represents a first step toward achieving consensus on the goals, barriers, and opportunities of Green Growth in Kenya upon which future collaboration efforts can build.



SPEECH BY MR. SØREN PIND

DANISH MINISTER FOR DEVELOPMENT COOPERATION

Delivered at the Conference on Green Growth and Private Sector in Kenya
Nairobi, 31 January 2011

[Check against delivery]

You're Excellencies - government and development partners - Ladies and Gentlemen,

I am very pleased to be back in Kenya. The pulse of Nairobi reminds me of the drive and entrepreneurship that I believe will shape the new Africa and carry the transformation of African societies into the future.

Africa changes these years. In terms of economy Africa is the fastest growing continent in the world. Since 2000 the 50-plus African countries have grown five per cent each year. We know that Africa's population is growing fast as well. Yet the economies grow even faster and for the first time in decades we see positive per capita growth.

Larger populations and bigger economies put pressure on the environment and natural resources. Today almost a billion people live in Africa. Africa has the youngest population on earth and is the region with the fastest growing population.

When I flew over Africa last night I noted how

few lights one sees from the air in contrast to the dense pattern of lights in Europe. Just five per cent of Africa's people have access to electricity and light. One day every African – more than a billion people – will have access to lights. Needless to say, so many people cannot be provided with electricity using high-carbon fossil fuels. We need to give the African people light and electricity in a smarter way.

It is not an easy task to provide a billion people with lights and electricity without relying entirely on oil and coal. It's difficult. But it is also an immense opportunity.

African societies have a once in the history chance to take the best of experiences from the developed world and combine it with "thinking smart". This is basically what Green Growth is all about: building new societies on democratic values; use sustainable approaches to growth; and applying the right technologies at the right place and time.

“Africa has vast amounts of renewable energy resources like its sun, rivers, winds, waves etc. The transformation of African societies into modern low-carbon energy users cannot be more timely.”

Moving the Green Growth agenda forward is becoming one of the defining political, commercial and intellectual projects of our time. The need to change the way we do business is understood worldwide. Let me give you two examples: firstly US president Barack Obama's recent State of the Union address had a strong focus on a green growth strategy, aimed at creating jobs and exports through clean forms of energy like solar, biofuels as well as "clean coal"; and secondly our own Danish independent Commission on Climate Change Policy with the aim to prepare a blue print for making Denmark independent of fossil fuels by 2050.

How can we best assist Africa in approaching a Green Growth path? Transfer of new technologies and investments are essential for transformation. We need the private sector to be more engaged within a solid policy framework which provides incentives at global and national levels for long term growth. We need private and concessionary capital, and we need risk willing and innovative entrepreneurs. This conference is about, how we design these elements in a coherent fashion.

The green growth agenda is an entrance for action. Clearly Africa needs to grow to provide decent living conditions for its population - This can best happen by thinking "smart" on future

energy solutions. Luckily, Africa has vast amounts of renewable energy resources like its sun, rivers, winds, waves etc. The transformation of African societies into modern low-carbon energy users cannot be more timely. The needed adjustments are technically feasible and politically realistic. As development partners we must provide the appropriate technical solutions and together with the private sector, the needed amounts of investments.

Kenya is a good example. A number of investments are being planned and hopefully going ahead, e.g. the Lake Turkana wind farm (turbines to be provided by Vestas) and new geo-thermal power plants, will dramatically increase the energy production and the proportion of low-emission and renewable energy production in the Kenyan energy sector.

But green growth is also good economics. Using technologies that cut energy consumption in production is an important part of cutting production costs. This again helps companies to stay competitive.

The world-wide network of Climate Innovation Centres is important for developing the right technologies to spur continued sustainable growth. We are pleased to see that the Kenyan govern-



Søren Pind, the Danish Minister for Development Cooperation.



ment is taking the lead here, because without national ownership and conviction green growth becomes just another buzz word in development lingo. We are equally pleased to spear head this

initiative together with the World Bank that has clout and expertise needed.

I wish you good luck with this endeavour.

SPEECH BY THE RT. HON. RAILA A. ODINGA

EGH, MP, PRIME MINISTER OF THE REPUBLIC OF KENYA

Delivered by Hon. Dr. Paul Nyongesa Otuoma, MP, Minister for Youth Affairs and Sports at
Conference on Green Growth and Private Sector in Kenya
Nairobi, 31 January 2011

[Check against delivery]

His Excellency the Minister for Development Co-operation, Søren Pind; World Bank Special Envoy for Climate Change, Andrew Steer, His Excellency Ambassador of Denmark to Kenya, H.E. Geert Aagaard Andersen, Excellencies; Distinguished guests; Ladies and Gentlemen;

I feel privileged for the opportunity to address this conference that will be discussing “Green Growth and the private sector in Kenya”. I thank you Ambassador Andersen for having the foresight to convene such a conference here in the beautiful premises of the Royal Danish Embassy.

The idea of Green Economic Growth is for Kenya, a logical development pathway given the stresses and strains that climate change is occasioning in the country’s socio-economic systems. It is also an obvious choice because of the preponderance of renewable energy potential in the country and our national commitment to reduce deforestation and afforest the country to 10% of the land mass.

The Intergovernmental Panel on Climate Change

(IPCC) is unequivocal that climate change is real, and that the impacts will include melting of mountain glaciers, increase in climatic extremes, less water availability in the arid and semi arid lands, and the risk of extinction of many endangered species. In Kenya we are already experiencing the manifestation of these extreme events. Droughts are occurring more frequently and lasting longer. Tragically, these are followed by severe floods with much shorter return periods.

These impacts have a wider ramification for the overall national economy.

A study by the Stockholm Environment Institute showed that the losses to market and non-market sectors from future climate change in Kenya might be equivalent to 2 to 3% of GDP per year by 2030 and potentially much higher than this (equivalent to more than 5% of GDP per year) in the second half of the century.

In these circumstances Kenya must take a green development path. The energy sector is one of the

key sectors that drive economic growth. Because our electricity generation is predominantly hydro-based, it is also susceptible to climate change impacts.

However, we have considerable renewable energy potential. There is, for example, up to 7000 megawatts of geothermal electricity generating potential in the country. We have barely started to exploit this potential.

In many parts of the country solar and wind energy potential is very high. The challenge is to diversify energy generation in the country. The use of renewable energy is therefore an obvious choice as we move forward.

Ladies and Gentlemen;
The private sector plays a critical role in national economic development. It is going to be even more crucial for green economic growth. Job and wealth creation and economic growth is driven by this sector. The government’s role is that of facilitating the private sector by putting in place the enabling policy environment for it to thrive. But green development will require a change in the mind set of both the government and the private sector. It will require a true commitment to sustainable development and a conscious effort to protect the very natural resources that the economy relies on for growth. Business as usual will not do.

There will be new types of business opportunities in green and clean energy; opportunity for technology innovation to address emerging demands in green economic growth; and even opportunities for job creation--and therefore poverty reduction. Opportunities exist to help create jobs to protect ecosystems and biodiversity; that will reduce energy use and water consumption through increased efficiency; that will reduce the economy’s dependence on fossil fuel; and reduce the generation of all forms of waste and pollution. The Carbon Emission trading holds a lot of promise for considerable resource flows to the enterprising businessman and indeed the local communities within the country. The overriding consideration has to be the creation of wealth in a sustainable manner.

Ladies and gentlemen;
In response to the challenges that climate change now presents, and with a view to greening the energy generation in the country, I established a National Task force on Accelerated Development of Green Energy with the specific task of catalysing the generation of up to 2000 Megawatts of additional power generation from renewable sources by the year 2013. The Task Force consists of representatives of relevant government Ministries and Agencies, private companies and is assisted by a small number of advisers some of whom are from our universities.



Dr. Paul Nyongesa Otuoma.

A policy on Feed in Tariffs on Wind, Biomass, Small-hydro, Geothermal, Biogas, and Solar resource generated electricity, was promulgated in 2008 and revised in January 2010. This has enabled the establishment of a number of small scale renewable energy power generation.

Kenya also now has a National Climate Change Response Strategy. Work is in progress to put in motion the implementation of its Action Plan. The implementation plan calls for an all inclusive process that will involve government, industry,

business, Non Governmental Organizations and the civil society in general. It is a process that will see County level sensitization of the general public on what the government is doing to green the economy. Efforts are also in the planning stage with assistance from our development partners to entrench climate change issues in Vision 2030. We are going to start with the next Mid Term Plan. All government ministries will be required to "Climate Proof" their activities, and report on progress in the context of their performance contracts.

“We shall work closely with the private sector to agree on modalities for providing the enabling policy framework and environment for investments in green economic growth.”

A new policy has been promulgated by the government that calls for the planting of trees by every household on at least one fourth of their land holdings. It is also committed to stopping deforestation and reclaiming deforested land through massive tree planting. The government's efforts to reforest the MAU Forests complex and other critical water towers will continue in a sustained manner as part of the national effort to bring the national forest cover to 10%.

At the treasury, work is in progress to put in place a regulatory framework for carbon Finance and carbon emissions trading. The purpose is to ensure we have a level playing field in the carbon market business and that we establish the rules of engagement. I should point out that Kenya is now REDD ready and therefore as we enter into investments in carbon market this regulatory framework is necessary.

The real challenge to Green Growth is the costs. Initial costs of renewable energy are very high. Private investors want some sort of guarantees of timely returns on their investments and therefore seek sovereign guarantees from the Government. We need support from our development partners to catalyse PPP in green growth.

Ladies and Gentlemen;
I am happy to note that a Climate innovation

Centre will soon be established here in Nairobi. This center will assist the private sector develop and advance innovative climate technologies in the context of Green Growth. We are grateful to Danida and the World Bank's InfoDev Programme for the support in establishing this center in Nairobi.

In conclusion let me emphasize that the government is committed to green economic growth. We shall work closely with the private sector to agree on modalities for providing the enabling policy framework and environment for investments in green economic growth. The government will work closely with the banks, our development partners and international organizations to enable the private sector to get fully engaged in green growth. We shall explore international avenues such as the Kyoto Protocol's Clean Development Mechanism, the Green Fund of the recently negotiated "Cancun Agreements", and carbon market financing potential to achieve our green growth projective. We must work together, and forge forward as we seek to green our economy.

Together we shall succeed.

Thank you for your attention.

SPEECH BY MR. ANDREW STEER

THE WORLD BANK’S SPECIAL ENVOY FOR CLIMATE CHANGE

Delivered at the Conference on Green Growth and Private Sector in Kenya
Nairobi, 31 January 2011

[Check against delivery]

You’re Excellencies - Government and Development Partners - Ladies and Gentlemen,

Yesterday I spend the day with farmers on the hills outside Kisumu. They are part of a programme that doesn’t believe that agriculture must always be the victim of drought and climate change. They don’t accept the view that agricultural yields must stagnate. The farms may be small, usually less than an acre, but they are on the cutting age of a new way of doing business.

By investing in new techniques, inter-cropping, new seeds, they are enjoying much higher incomes. But they are doing more than this. They are part of what we call the triple wind that can be had in agriculture. They are getting higher yields. They are improving the resilience of those yields to drought. And they are creating stronger soils that sequester more carbon in them.

Many of these farmers are getting 300 percent raise of return of their investments. But they are getting more than this. They will be the first farm-

ers in the world to receive cash payments from carbon market for their contribution to reducing carbon emissions. This is just one example of how Kenya can become a leader in Green Growth. What is Green Growth? It is private investors, in this case poor farmers, but it could be rich entrepreneurs investing in new approaches to bring them profits and create jobs in a manner that helps to put the country on a long term sustainable footing.

What is Green Growth? First, it is growth. It is more investment. More jobs. More income. A higher standard of living. But it is growth that doesn’t fight against the environment, but works together with it.

For Kenya, Green Growth is a necessity and an opportunity. It is a necessity because Kenya faces a very difficult future without it. Take water for an example. Kenya’s water endowment is only about 600 cubic meters per person per year compared to 5,700 cubic meters per person per year for Africa as a whole, i.e. only one tenth.



Demand for water is rising rapidly, whilst, as the Minister said, key catchment areas – the so-called water towers – are being degraded. And this is why Kenya’s leadership and its frontier experimentation on REDD+ is so valuable.

Take tourism as another example. A recent report that the World Bank prepared with the Government of Kenya found that the degradation of natural resources – land, wildlife, forest, coastal ecosystems – seriously threaten future success.

The World Bank is currently exploring whether it is possible to provide financing for a major new geothermal project with KenGen in the Rift Valley, and to be creative about financing. For an example carbon revenues for the project could be guaranteed by donor backstopping or liquidity facilities and essentially buy down the costs of interest. And I am delighted that the Climate Investment Funds who is scaling up the renewable energy programme is going to allocate significant resources to Kenya. The Green Fund is going to be designed this year. It is vital that the Fund is designed in a way that benefits Africa and that it innovates the way to help the private sector.

Andrew Steer, The World Bank’s Special Envoy for Climate Change.

“For Kenya, Green Growth is a necessity and an opportunity. It is a necessity because Kenya faces a very difficult future without it.”

Africa also needs much better access to carbon markets. Carbon markets have supported over USD 100 billion of investments in the developing world, and yet less than two percent of this has come to Africa. That is not necessary and it is not right.

The World Bank runs carbon funds, and more than 20 percent of our money from the carbon markets goes to Africa. We want to see that percentage at least. This will require some reforms of the way carbon markets work. And we are working very hard on that internationally.

It is a pleasure to launch – as both Ministers have already mentioned – the Climate Innovation Centre for Kenya. This is based on the premise that private sector companies and especially new ones may need support.

It is based upon the experience that we have had in 300 hundred business incubators in 80 countries around the world, and we are launching this in Kenya as the first one in the world. There will be 30 of them. They will be spread all around the world from Vietnam, to Ethiopia, to India, to South Africa. But Kenya is the very first one.

And it is deliberately trying to address the constraints that the private sector face in taking on Green Growth, bringing in global technologies,

adapting them, and getting them into the market place.

New start-ups face the value of death. They face a lack of financing to early stage financing. They face limited and difficult connections to international companies and information. And they also often face a regulatory environment that is sometimes confusing for them.

The InfoDev programme, which is part of the World Bank, will bring this to Kenya, and we are very grateful to Denmark for supporting it, and to the United Kingdom for initiating the design in the first place.

In conclusion; two days ago I attended the World Economic Forum in Davos. Two things struck me there. One, the huge optimism that exists for Africa. Remarkable headlines were coming from private companies about their investments in Africa. And the second thing that struck me was how the private sector has really got this idea about Green Growth in a big way. Literally, dozens of seminars in Davos with some of the leading companies in the world, and with some of the leading policy-makers in the world were discussing Green Growth.

Thank you very much!

CONFERENCE BACKGROUND PAPER





SUMMARY

On 31 January 2011, national and international leaders in business and policymaking will meet at the Embassy of Denmark in Nairobi and outline how the private sector can support Green Growth, which is economic growth and development that prevents environmental degradation and unsustainable natural resource use. Invitees of this conference include representatives from large companies operating in Kenya, small and medium enterprises, banks and financial institutions, and private sector associations.

They will be joined by representatives from government, research organizations, development cooperation institutions, and civil society. The conference has the following objectives:

- Reach a common understanding on Green Growth and identify major opportunities and obstacles.
- Recommend private sector actions that will result in Green Growth and secure Kenya's future.

This document provides examples of ongoing efforts supporting Green Growth and outlines possible private sector actions. The intent is to provide conference participants with a quick overview to

enlighten the deliberation. The following are the key messages, organized by the paper's three main sections:

Global Trends on Green Growth and a Green Economy

- Kenya has to determine its own path for Green Growth.
- There is no single, generally accepted definition of Green Growth.
- Green Growth must be understood in the context of sustainable development.
- Green Growth can be perceived within a global vision of a Green Economy.
- Green Growth will continue to be high on the agenda of decision-makers in the coming years.

Green Growth and the Private Sector in Kenya

- Building blocks for a Green Growth Strategy in Kenya can be identified.
- Shifts in the world economy will continue to impact Kenya's companies.
- Kenya's projected demographic and economic growth represents a large challenge and opportunity for the private sector.
- Environmental degradation and climate change are threatening the achievement of Kenya's Millennium Development Goals and Vision 2030.
- Kenya's environmental trends represent risks and opportunities for business.
- Kenya's private sector can lead on Green Growth.
- Improving Kenya's business environment will be essential for realizing Green Growth.

Possible Actions Within and Outside a Company in Kenya

- Making Green Growth a reality will require sustained actions by businesses, governments, and communities.
- Tools to put a company on a Green Growth path have been applied and are being developed.
- Kenyan businesses are already taking action within their companies toward Green Growth.
- Micro, small, and medium enterprises can be greened.
- Greening of supply chains and engaging consumers can strengthen corporate brands and multiply Green Growth effects in the economy.
- Private sector contributions and new partnerships will be essential in the development and implementation of a Green Growth strategy for Kenya.

Kenya's policymakers are taking the first steps to create the conditions for Green Growth.

GLOBAL TRENDS ON GREEN GROWTH AND A GREEN ECONOMY

Kenya has to determine its own path for Green Growth.

The aim of this overview is not to define Green Growth in a single way but provide the necessary background for a discourse on Green Growth. Kenya has to develop its own working definition and political framework of Green Growth that fit its national circumstances. The debate defining Green Growth can draw on the thinking that led to the concept of sustainable development and more recent examples of Green Growth initiatives (see page 24).

There is no single, generally accepted definition of Green Growth.

In the current political discourse, decision-makers are using terms such as Green Growth, Green Jobs, Green Economy, and Global Green New Deal, sometimes interchangeably, and many times without a precise articulation of each term.

In the past years, Green Growth as a concept has gained prominence in the 34 member countries of the Organisation for Economic Co-operation and Development (OECD) as a response to the 2008 financial crisis. Decision-makers saw the crisis as an opportunity to direct part of the economic stimulus packages toward environmental friendly



investments that would lead to structural and long-term shifts in their economies. In addition, Green Growth is increasingly associated with a vision of low-carbon development – economic growth linked to a reduction in fossil fuel consumption and development of new renewable energy sources – to address concerns of irreversible climate change.

Green Growth must be understood in the context of sustainable development.

Green Growth must be defined within the context of sustainable development. Countries and intergovernmental organizations have endorsed sustainable development – development that meets the needs of the present without compromising the ability of future generations to meet their own needs – as a worthwhile goal for society and adopted this goal in national documents (e.g., Kenya’s 2010 Constitution) and international agreements (such as the 1992 Rio Principles adopted at the UN Earth Summit and the preamble to the 1994 act setting up the World Trade Organization).

Green Growth can be perceived within a global vision of a Green Economy.

It is clear that Green Growth aims at fundamental shifts in production and consumption that reduce pollutants, improve energy and resource efficiency, minimize greenhouse gases, and avoid natural resource degradation. These shifts cannot come from a short-term response to a crisis or a series of one-off projects alone but require a more comprehensive strategy that establishes a completely different foundation for all economic activities. Such

a transition to a Green Economy can be achieved over the long-term if society aims for the following goals:

- **A new economic vision that redefines prosperity.** For a Green Economy to take root, it is essential that society reformulates its view of prosperity and economic progress. A prosperous economy or a successful lifestyle needs to be much more determined by the degree to which it addresses long-term factors such as environmental impacts, personal well-being and happiness, and societal wealth and security.

- **Policies that seek comprehensive macro-economic change.** Translating such a vision into economic reality will require a coherent strategy of Green Growth policies and macro-economic instruments that change demand and supply patterns, stimulate innovation by the private sector, and transform production processes and consumer behavior.

- **Shift from quantitative to qualitative growth.** Decoupling economic growth from ecosystem degradation and material consumption will require redirecting decision-makers’ narrow focus on the quantitative growth of gross domestic product (GDP) toward a more qualitative approach to growth. Just measuring the total market value of all final goods and services produced in a country in a given year will not be sufficient. A country’s GDP may continue to grow as a result of increased environmental cleanups or increased health burdens. Additional measurements are needed to reflect qualitative growth, which is economic growth that adds value beyond the GDP increase such as increase in human and

natural capital (e.g., better educated citizens, restocking of fisheries, or restoration of watersheds), less resource consumption, or higher quality of life.

- **A radical change how business operates.** In 2010, the World Business Council for Sustainable Development and 29 member companies released *Vision 2050: The New Agenda for Business*, a vision of a planet of 9 billion people, all with “enough food, clean water, sanitation, shelter, mobility, education and health to make for wellness – within the limits of what this small, fragile planet can supply and renew, every day.” The authors envisioned the following achievements by 2050: All products are produced sustainably; billions are lifted from poverty; cost of externalities are internalized (starting with carbon, ecosystem services, and water); food and biofuel production is doubled (without increase in the amount of land or water used); deforestation is halted; carbon dioxide emissions are halved (based on 2005 levels); all buildings require zero-net energy; almost all people have access to reliable and low-carbon mobility; and four-to-tenfold improvement in the use of resources and materials is achieved.

The path to such a transformed economy will create new business opportunities. The authors’ estimate for the natural resources, health, and education sector alone is between US\$ 0.5-1.5 trillion per year 2020, growing to between US\$ 3-10 trillion per year in 2050 at today’s prices (about 1.5-4.5% of world GDP in 2050).

Vision 2050 recommends that business must lead in this transformation and fundamentally

change how they operate. Business leaders need to perceive local and global environmental challenges no longer just as costs but use them instead as investment opportunities to create cost-effective business solutions that people need and want. This means running companies successfully under current policy and economic conditions while at the same time supporting governments and civil society to establish a new foundation for a Green Economy.

Green Growth will continue to be high on the agenda of decision-makers in the coming years.

Growing global concerns about climate change is directing the attention of business leaders, national policymakers, and international decision-makers toward Green Growth issues. The recent greenhouse gas emissions mitigation targets (established for about 80 countries including the world’s largest emitters such as China, the United States, the European Union, India, and Brazil) from the Sixteenth Conference of the Parties of the United Nations Framework Convention on Climate Change in Cancun, Mexico have added momentum to efforts aiming for a low-carbon economy.

The World Business Council for Sustainable Development is calling it a “Green Race.” Companies are competing to become leaders in supplying resource efficient and low-carbon products and services. National efforts are echoing company actions. Over the past years, policymakers in China, South Korea, India, Brazil, the European Union, and USA, for example, have directed economic stimulus toward green energy investments and are changing national policy frameworks to make



their countries more competitive in a low-carbon economy.

Over the next 18 months, deliberations in the international arena will increasingly cover Green Economy issues. The upcoming United Nations Conference on Sustainable Development in Rio de Janeiro in 2012 (Rio+20) has selected Green Economy as a key theme. Review meetings by the United Nations Secretary General's High Level Panel on Global Sustainability, preparatory meetings for Rio+20, and other regional meetings by government, business, and civil society, all have scheduled events that examine how more coordinated efforts can help achieve Green Growth and sustainable development goals.

GREEN GROWTH AND THE PRIVATE SECTOR IN KENYA

Building blocks for a Green Growth Strategy in Kenya can be identified.

While the final components of Kenya's Green Growth strategy can only be identified after an informed discussion, essential building blocks can already be identified based on the structural composition of Kenya's economy, the dependency of livelihoods on natural resources, and the country's existing vision, strategies, and policies. Investing in the following building blocks can increase profits for producers, save money for consumers, and improve the environment:

- Creating economic goods and services with fewer resources and less pollution (eco-efficiency).

- Harnessing new renewable energy sources and reducing fossil fuel consumption (low-carbon development).
- Investing in natural capital and ecosystem services (e.g., to safeguard water supplies and tourism earnings and to enhance cropland and rangeland productivity).

But other building blocks are as important and include: efficient energy, transport, and water infrastructure systems; affordable and environmentally friendly housing; equitable access and governance of natural resources; efficient markets that internalize all social and environmental costs; environmentally aware citizens and green consumers; and new measurements of well-being and sustainable economic welfare that are publicly available.

Many of these proposed building blocks need to be further discussed and refined. Moreover, there is still considerable debate and no widely accepted agreement how to combine them in a country to ensure economic growth and development and at the same time prevent unsustainable natural resource use, environmental degradation, and biodiversity loss. A clear articulation of the building blocks of Green Growth can help Kenya make the transition toward a greener economy. Such a transition must go hand-in-hand with Kenya's overall priorities: poverty reduction, food security, comprehensive and improved education, safe water supply and sanitation, reduction in drought and climate change vulnerability, and better governance.

Shifts in the world economy will continue to impact Kenya's companies.

The world economy is on a path to less energy and carbon-intensive processes. Retailers and

other international corporations are seeking to green their supply chains and operations. Consumers are demanding more eco-friendly products and services. International agreements to reduce greenhouse gas emissions and new financial mechanisms to reward early adopters of energy efficient and low-carbon production are being put in place. These global trends have already affected Kenyan companies – as the 2007 debate on labeling of horticultural products demonstrates – and will continue to do so.

In 2007, United Kingdom (UK) supermarkets planned to apply a special label for air-freighted goods, and the Soil Association of the UK proposed that it would withdraw its organic certification from air-freighted organically grown produce. This would have closed the UK market for Kenya's horticulture exporters. They had to orchestrate a concerted information and outreach campaign that demonstrated that food miles (the distance the food has traveled from farm to retail outlet) alone are not a good proxy for greenhouse gas emission and for sustainable production.

Kenya's projected demographic and economic growth represents a large challenge and opportunity for the private sector.

Between now and 2050, Kenya's population is expected to increase from 40 million to 85 million. Kenya's Vision 2030 aspires at transforming the nation into an industrializing middle income country that provides a high quality of life to all its citizens in a clean and secure environment. To realize this vision, its authors aim to achieve a 10 percent annual economic growth rate, which would increase Kenya's economy by a factor of nine by

2030. Tourism and agriculture are envisioned as the main engines of growth in addition to manufacturing, wholesale and retail trade, business process outsourcing, and financial services.

A larger share and number of Kenyans will live in cities, and many Kenyans will improve their standard of living, which will consume more resources per capita. Small and large enterprises will find it profitable to meet nutrition, energy, health, and education needs. There will be large private sector opportunities to expand the country's energy, transport, and water infrastructure systems. Investing in these systems will require long planning horizons and large amounts of financing, and the choice of technology for each investment will lock in associated efficiency and environmental impacts for years to come.

The private sector in Kenya has two options to translate these business opportunities into profits: Companies can stay focused on short-term profits, continue to invest in polluting or energy-inefficient production processes, and target high-footprint consumer lifestyle preferences; or they take a long-term perspective and decide that investing in a greener economy makes economic sense, which will require finding a golden balance between long-term stability and short-term profit.

Environmental degradation and climate change are threatening the achievement of Kenya's Millennium Development Goals and Vision 2030.

While there are many localized environmental success stories in Kenya, three national trends are of special concern because they are beginning to



undermine the foundation of Kenya's economy, its natural resource base. These trends include: growing water scarcity combined with forest encroachment and watershed degradation; declining wildlife populations in the rangelands and degrading coral reefs and coastal ecosystems; and worsening of urban environmental problems.

Water supply for the country as a whole is going to be a tremendous challenge. Kenya is already designated as water scarce with a total renewable water resource supply of 792 cubic meters per person. Population growth alone will reduce per capita water availability, putting Kenya in 2050 roughly at the same level of per capita supply as Algeria today. Many companies have already invested their own resources to ensure their water supply, for example from private boreholes. The number of people located in areas of severe water stress will increase considerably, and water-related risks for companies will grow in all economic sectors. Decision-makers must pay particular attention to management of water resources to safeguard food and other agricultural production and avoid slowing economic development.

Kenya's tourism potential is closely linked to its natural capital. Three trends are eroding these assets: a precipitous decline in the total population of large grazing wildlife species in the rangelands (about 61 percent between 1977-78 and 1994-96), caused by a competition for land and water from humans and their livestock (as well as illegal hunting); degradation of coastal ecosystems; and overconcentration of tourists in a few locations with more localized environmental impacts. It will require coordinated investments by Kenya's government, communities, and private sector to protect and restore the country's ecosystem and wildlife assets so that the envisioned economic

growth resulting from the tourist sector can be realized.

A growing urban population typically provides great opportunities for business innovation because of the high customer concentration and tight social networks. But rapid unplanned urbanization in Nairobi and elsewhere has resulted in pollution, waste, and health hazards, and traffic congestion and urban air pollution are affecting the economy, health, and quality of life negatively. These signs of urban stress are making it more challenging for businesses to operate, workers to reach their workplace and be productive, and citizens to enjoy urban living.

The projected growth in demand for food, water, housing, and energy over the next decades will only amplify these harmful environmental trends, unless Kenya fundamentally changes its production and consumption patterns. In addition, climate change impacts are expected to increase the severity of droughts and floods with their associated negative effects on agriculture, hydropower generation, infrastructure, and human and animal lives. The damages from the La Niña drought of 1998-2000, for example, were close to 16 percent of GDP in each of the following two years. The costs of the El Niño floods of 1997-98 were close to 11 percent of annual GDP.

Kenya's environmental trends represent risks and opportunities for business.

Kenya's natural resource base and business operations are interlinked. Companies are impacting this natural resource base through consumption, pollution, and land conversion. At the same time, companies depend on the goods provided by

nature. East Africa Breweries Limited, for example, depends on a supply of freshwater. A commercial brick maker requires clay, water, and energy (either from electricity, fossil fuels, biomass, or solar input). In addition, many companies depend on natural processes that regulate water flows, purify water, treat waste, pollinate crops, or control erosion—all of them provided for free. Selected agribusinesses, for example, rely on nature for pollination, pest control, or erosion control services. Kenya Electricity Generating Company Limited (KenGen) benefits from vegetation buffers that prevent siltation of water ways and reservoirs within the Tana River watershed. These goods and services flowing from Kenya's natural resource base (or ecosystems) are also referred to as ecosystem services.

Kenya's negative environmental trends threaten the supply of ecosystem services. A declining supply of ecosystem services increases operational, market, and financing risks of future business operations. These include, for example, higher freshwater costs caused by scarcity, lower hydroelectric output caused by siltation, or business disruption caused by flooding. A company may lose market share because consumers prefer products with lower ecosystem impacts or because governments apply new sustainable procurement policies. It may become more difficult for companies to finance projects with a large negative environmental footprint because of more rigorous lending requirements for corporate loans.

At the same time, these negative environmental trends can become a catalyst for innovation and new business opportunities. A horticulture exporter, for example, can invest in drip-irrigation and increase its water-use efficiency. A new business gets established that builds on-site wetlands

to circumvent the need for new water treatment facilities. Agribusiness could invest in organic agriculture, get its produce certified under the East Africa Organic Products Standard, and market it under the Kilimohai–Organic label. Financial institutions could offer more favorable loans to businesses supplying products and services that improve resource use efficiency or restore degraded ecosystems.

Kenya's private sector can lead on Green Growth.

Over the past decade, private sector led growth has provided many benefits but also come with increased environmental impacts. Companies can reduce their impacts by changing company operations, transforming production lines, and introducing new technologies.

With the help of the private sector, Kenyans have successfully leapfrogged to mobile phone technology. Kenya's private sector can play a similar catalytic role and create greener and cleaner sources of economic growth by investing in green technology and in the environment.

Improving Kenya's business environment will be essential for realizing Green Growth.

The contribution of Kenya's private sector to the county's economy has been remarkable. But the private sector's contribution to economic growth could even be higher if competitiveness would be spread more widely among all enterprises and if some of the basic weaknesses in Kenya's business environment – corruption, limited access to finan-



cing, poor roads, expensive energy, and high tax rates – would improve more rapidly.

Accelerating efforts to improve Kenya's business environment will yield a double dividend: it will make Kenya's enterprises more efficient and establish the foundation for companies to become market leaders in a greener economy. In fact, in such an economy the most successful companies will take full advantage of more integrated social and technological networks to promote their products and services, rely on feedback from more educated workers and consumers, pro-actively engage civil society and government, and differentiate their corporate brands by being highly transparent and accountable.

POSSIBLE ACTIONS WITHIN AND OUTSIDE A COMPANY IN KENYA

Making Green Growth a reality will require sustained actions by businesses, governments, and communities.

Initiatives for Green Growth can come from both the private and public sector, and much can be gained by being a first mover. Companies can benefit from high brand recognition and market share by being the first to enter a Green Growth market. National governments and local authorities can attract new types of businesses by establishing the right framework conditions (e.g., policies, education, and infrastructure) and long-term support.

But being a first mover is also associated with higher risks and increased likelihood of costly mistakes or complete business failure. A company

may have a great idea for an innovative green service but can't obtain financing. A new green, higher priced product is lingering in the market because customers are not aware of the environmental benefits or find it difficult to change their day-to-day behavior. A company has the technology to launch a new green product but government subsidies are still in place rewarding competitors with high-footprint products.

The perception of risk associated with Green Growth can be changed with the following conditions: a universal understanding that society is working toward a common vision of Green Growth; trust that all actors are working together to put the right policies in place, create new products and services, and promote efforts that encourage shifts in customer values and behavior; and confidence that decision-making processes are sufficiently robust, fair, and inclusive to deal with difficult tradeoffs. In the end, Green Growth efforts are more likely to succeed if they encompass coordinated actions within a company, among its suppliers and customers, and within the community and government.

Tools to put a company on a Green Growth path have been applied and are being developed.

A company committed to making Green Growth an essential component of its long-term business objectives can draw from existing tools and best practices to translate this vision into the development of sustainable products and services. Over the past decades, different tools have been used to assess a company's environmental risks and impacts associated with current operations and to identify new business opportunities associated with Green Growth.

The following section is a snapshot of tools for three main building blocks of Green Growth. They help companies make improvements in eco-efficiency, put low-carbon development into practice, and identify risks and opportunities associated with ecosystem services. Many other tools and guides covering these three building blocks and other building blocks of Green Growth have been developed and tested by companies over the past two decades:

- Eco-efficiency tools: achieving more value from lower material and energy inputs

The concept of eco-efficiency, introduced in 1992 by the World Business Council for Sustainable Development, has guided businesses in all continents and helped them to shift toward more sustainable production and consumption. For many companies eco-efficiency efforts – reducing waste and emissions and lowering material and energy inputs – represented their first step to pursue sustainability. Eco-efficiency tools seek to reduce material and energy intensity, increase the use of recyclable and renewable materials, and find new ways to extend product life and increase service intensity. They have been applied for all activities in a value chain (from suppliers to customers) and for all stages in a product life cycle (from raw materials to final disposal or recycling).

Eco-efficiency tools typically do not address social aspects of sustainable development, they are not specialized enough to examine impacts on biodiversity and ecosystem services or provide a detailed accounting of greenhouse gas emissions. The International Organization for Standardization (ISO) incorporated experiences with eco-efficiency tools in a core set

of international standards (ISO 14000 family), for example on designing and implementing an environmental management system (ISO 14001) or for conducting a life cycle assessment (ISO 14040). ISO is now developing a new standard that will define internationally agreed upon principles and requirements for an eco-efficiency assessment (ISO 14045).

- Low-carbon development: quantifying and managing greenhouse gas emissions

A key step to low-carbon development is reducing greenhouse gas emissions. The Greenhouse Gas (GHG) Protocol is the most widely used international accounting tool for government and business to quantify and manage greenhouse gas emissions. It provides the accounting framework for nearly every GHG standard and program in the world - from the International Organization for Standardization to the California Climate Registry.

In the last decade, hundreds of companies have applied the Corporate Standard framework of the GHG Protocol to create a profile of their GHG emissions and then used this information to reduce their emissions or purchase external offsets. In 2010, more than sixty corporations in 17 countries road tested a new GHG Protocol standard. This standard measures the greenhouse gas emissions of a company's products and supply chains.

- Ecosystem services review: assessing risk and opportunities arising from ecosystem change The Corporate Ecosystem Services Review (ESR) helps a company assess its impact and dependence on ecosystem services and then develop strategies to manage business risks and opportunities associated with



ecosystem health and ecosystem service use. Most existing environmental due diligence tools and environmental management systems do not fully account for a company's dependence and impact on ecosystem services.

An estimated 300 corporations have used the ESR since its launch in 2008. Eka Chemicals (a division of AkzoNobel), for example, used the ESR to identify forest ecosystem-related risks for the company and its customers in China and Indonesia arising from scarcity of wood and water because of government restrictions. With the help of the ESR, Mondi carried out a more comprehensive assessment of their plantations in South Africa, which helped the company to develop a new strategy to manage invasive species and their impacts on freshwater and biodiversity. The ESR helped Syngenta identify risks faced by their customers in Southern India from the degradation of ecosystem services (including loss of soil quality, pollination services, and freshwater availability). The review also revealed opportunities for new products and services.

Kenyan businesses are already taking action within their companies toward Green Growth.

The following examples demonstrate that Kenya's private sector can make improvements in eco-efficiency, take actions that support low-carbon development, and invest in natural capital and ecosystem services. Kenya's decision-makers can build on these achievements by carrying out a more systematic assessment of private sector efforts for all potential building blocks of Green Growth,

which will help to identify important barriers and growth areas for a greener economy in Kenya.

- Eco-efficiency and cleaner production

Using materials more efficiently and reducing waste and emissions affect the bottom line directly, and many Kenyan companies have taken this first step for more sustainable operations. Since 2000, the Kenya National Cleaner Production Centre has recognized companies for their reduction of solid waste and waste water, improvements in water and energy productivity, and others achievements. Awards have been given to top performers in various sectors, for example Chandaria Industries Limited (paper manufacturer), Pwani Oil Products (manufacturer of edible oils and fats), and Haco Industries (producer of stationary, personal care and household hygiene products).

- Renewable energy sources and low-carbon development Compared to other countries, Kenyan companies are already relying on a high share of renewable energy sources caused by the more abundant supply of hydro and geothermal power. Companies also have invested in their own renewable energy sources because of necessity (complete lack or temporary shortages of electricity) and because of accessible hydropower potential or readily available biomass sources. The James Finlay Tea Estates in Kericho and Imenti Tea factory in Meru, for example, are relying on small-scale hydropower sources for their electricity.

New financial incentives are also helping companies to switch to greener power sources. Mumias Sugar Company Limited, for example,

is now using bagasse (the fibrous remains after sugarcane is crushed) as biofuel for power production. It has entered a ten-year agreement with the Japanese Carbon Finance Company to receive carbon credits for replacing its older thermal electricity production facility.

Liberalization of import regimes, a hands-off approach by government, and a large unmet rural demand for electricity have been cited as the main reasons for the private sector's success in providing small-scale, off-grid solar photovoltaic systems to the top 25 percent of rural income earners. Between 1990 and 2000, local entrepreneurs sold about 120,000 systems (about 2.5 megawatts) to households, primarily to run televisions. Once demand for the richest households had been met and a local industry of technicians servicing these systems had been established, purchase and finance agencies entered the market allowing Kenyans with lower incomes to buy their systems on credit.

Growing global concerns about climate change will continue to draw the attention of Kenyan business leaders toward low-carbon development and renewable energy sources. International companies operating in East Africa such as Finlays, Vodacom, and MTN, for example, have signed on to the Cancun Communiqué on Climate Change, released in December 2010. It calls for independent and ambitious government leadership to address climate change and proposes priority areas for interventions such as increased focus on energy efficiency in all sectors and low-carbon energy systems.

- Investing in natural capital and ecosystem services Assessing ecosystem service risk and opportunities systematically has not been widely adopted yet in the private sector, both internationally and within Kenya. But some of Kenya's tourism enterprises have been leaders in investing in their natural capital because their business success is greatly dependent on abundant wildlife, scenic beauty, and local community support. To ensure a long-term supply of ecosystem services, enterprises running ecolodges have invested, for example in community development programs, sanctuaries for threatened species, wildlife and human-wildlife conflict monitoring, and wildlife corridors.

Investing in natural capital and reaping benefits from ecosystem services has not been limited to the largest companies and just the tourism sector, as some of the Kenyan winners of the United Nation's prestigious Equator Prize on sustainable development demonstrate. Community-based entrepreneurial initiatives in Kenya have received top rewards and include: the Il Ngwesi Group Ranch and the Shompole Community Trust, for improved resource management and ecotourism investments; Honey Care Africa Ltd., for rapidly expanding the supply of high quality beehives; and the Muliru Farmers Conservation Group, for improving local livelihoods through the commercial cultivation of indigenous medicinal plants and manufacturing of medicinal products.



Micro, small, and medium enterprises can be greened.

Micro and small enterprises (MSEs) – defined as businesses employing 1-50 people – are one of Kenya’s important pillars for livelihoods and employment. About 1.7 million MSEs generated almost a fifth of Kenya’s gross domestic product, employed 2.4 million people, and created 75 percent of new jobs (based on a 1999 baseline survey). Most of these enterprises operate within the informal economy, and about half of MSE operators are women. In some sectors such as dairy farming, MSEs are the dominant producers and distributors. Most of the milk bought in Kenya is raw milk supplied by the informal dairy sector (about 80 percent), and micro enterprises (e.g., mobile milk traders and operator of milk bars and kiosks) are the main operators in the informal raw milk market.

MSEs in Kenya face numerous challenges. They are often constrained by regulatory requirements and have difficulties obtaining land or establishing work premises. Many times, they lack credit and financial resources to grow and are in need of better market information and business development services.

While an individual enterprise generally uses small amounts of energy and resources and has localized environmental impacts, MSEs in the aggregate can have considerable negative environmental and health impacts. These are determined by workplace conditions (e.g., sanitation and safety measures), type of operations (e.g., charcoal and brick making versus trading), and type of equipment and energy source used.

Despite the great importance of MSEs and the

informal sector for Kenya’s economy, it was not until recently, when policymakers implemented more coordinated and concerted efforts to link the formal and informal sectors of the economy (e.g., a Single Business Permit system; establishment of the Local Authority Transfer Fund and associated efforts that sanctioned the use of private sector and community organizations for improved service delivery; and the Procurement and Supplies Act that encouraged the use of local companies in procurement of goods and services). Many of these policy changes benefited small enterprises but had great difficulties reaching micro enterprises. The policies also did not specifically promote a greener MSE sector.

Existing efforts by Kenyan policymakers to strengthen the MSE sector in general could easily be expanded to support and promote greener enterprises. Possible opportunities for encouraging Green Growth efforts include:

- **Increase Green Growth expertise of business development service providers**
Business development services (e.g., preparing a business plan, identifying new sources of financing, or preparing a loan application) are among the most helpful supports for growing MSEs. Increasing the expertise of the providers of these services, for example on how to apply eco-efficiency tools or how to obtain additional financing for low-carbon technology, could speed up greening MSEs. Selected business development service providers could also specialize in identifying and supporting innovative green MSEs, which often require a different type of funding, new mentors, and media support. New Ventures, a program operating in Brazil, China, Columbia, India, Indonesia, and Mexico, has focused its business develop-

ment support on such green enterprises. It has successfully worked with 250 entrepreneurs resulting in economic growth and environmental benefits.

- **Improve energy efficiency in SMEs**
A preliminary assessment of the potential for reducing carbon emissions in Kenya found that investing in energy efficiency in small and medium enterprises (SMEs) would yield cost savings in excess of implementation cost. More energy-efficient SMEs are among the most cost-effective measures for low-carbon development in Kenya, after improvements in transport vehicle efficiency, performance of domestic stoves, and increase in centralized wind energy and geothermal energy supplies.

- **Support small ecosystem-based enterprises to produce or operate sustainably**
Small ecosystem-based enterprises represent a large share of the MSE sector, with a disproportional share of women operators and entrepreneurs from poorer households. They can be supported by direct private sector actions and by more comprehensive policy and rule making at national level. Strengthening this segment of the economy can greatly contribute to Green Growth.

The best example for direct private sector action supporting small-scale ecosystem-based enterprises are the outgrower arrangements made by Kenya’s horticulture exporters that rely on smallholder producers to supply fruits, flowers, and vegetables. Smallholders are being supported with agricultural inputs and training to meet market standards. They also benefit from the actions by producer associations to

ensure access to European markets and to raise consumer awareness with improved labeling.

New policies, guidelines, regulations, and extension services that support, for example, sustainable organic farming, sustainable charcoal production, and sustainable fisheries, can be designed with a dual purpose: boost Green Growth and help the smallest and most disadvantaged ecosystem-based enterprises such as smallholder farms, charcoal businesses, and artisanal fishers. This will require that new Government rules, for example on the harvest, transport, and sale of ecosystem products, address not only the concerns of large producers but reflect the needs and capacities of small producers as well.

Greening of supply chains and engaging consumers can strengthen corporate brands and multiply Green Growth effects in the economy.

The most successful green business will not only seek to reduce its environmental impact for its operations but try to extent its effort to all areas under a company’s influence. International companies are increasingly looking beyond their direct operations to identify the greatest opportunities to reduce their environmental impact and to distinguish themselves as market leaders in a low-carbon economy. Two of the road testers of the latest GHG Protocol, for example, are exploring such a comprehensive approach: Levi Strauss & Co, to track and manage greenhouse gas emissions of individual products across their whole life cycles; and Airbus, to measure the impact of its corporate value chain (including outsourced activities, supplier manufacturing, and the use of its planes).



Private sector contributions and new partnerships will be essential in the development and implementation of a Green Growth strategy for Kenya.

Establishing a Green Growth strategy for Kenya will require establishing the right regulatory and financial framework and setting priorities for investments (both public and private). A Green Growth strategy for Kenya can only succeed with input from all stakeholders: government, civil society, and business. Development and implementation of such a strategy has to take advantage of innovative partnerships and public sector support such as:

- Precompetitive partnerships between private sector associations and government to help establish standards for new green products or to develop good policies that encourage competition.
- Partnerships between government, civil society organizations, and companies to launch campaigns for sustainable consumption, renewable energy use, or other behavior changes.
- Public sector commitment to green procurement to establish the initial demand for companies to develop new products and services.

Kenya's policymakers are taking the first steps to create the conditions for Green Growth.

Kenya's policymakers are showing a growing interest in developing renewable energy sources to fill the existing and projected shortfall in energy supply (although coal fired power plants are also envisioned in Kenya's future energy mix). The country is creating the policy framework for a greater

share of renewable energy sources and low-carbon development. In January 2010, for example, Kenya updated its regulation that guarantees a price from renewable electricity (Feed in Tariffs) to allow for supplies from biogas, geothermal, and solar photovoltaic panels, which expanded the existing 2008 rule that encourages production of energy from wind, biomass, and small-hydro. In November 2010, the Ministry of Finance announced that Kenya is ready to introduce a climate exchange platform to facilitate the trading of carbon credits and help address climate change.

While Kenya's policymakers are aware of the role of natural assets in supporting the economy (e.g., productive soils and croplands for agribusiness and healthy rangeland and coastal ecosystems for tourism), policies and actions to safeguard and restore ecosystem services have not advanced as rapidly. The actions to restore the Mau Forest, however, represent an important shift toward more sustainable management of ecosystem services. If successful, these actions will ensure a more reliable water supply and better water quality for communities and enterprises downstream of the Mau Forest. A successful restoration of the Mau Forest may lead the way for more comprehensive actions to safeguard all ecosystem services for Kenya's businesses, communities, and people.

These examples represent the first positive steps toward establishing policies for low-carbon development and actions to safeguard ecosystem services. Some of these policies also create space for the private sector to innovate and enter new markets. But by themselves, these steps are not sufficient to ensure a structural shift in Kenya's economy toward Green Growth. Such a shift will not happen as long as new Green Growth policies

are designed in isolation within each sector and as long as they conflict with existing policies and macro-economic instruments that encourage more pollution, higher energy use, and greater environmental footprints.

INTERNATIONAL EFFORTS CAN PROVIDE INSIGHTS TO DEFINE GREEN GROWTH FOR KENYA

The following examples, covering economies with varied consumption, production, and development patterns, offer an opportunity to identify a common denominator of different Green Growth definitions:

UNESCAP Green Growth Strategy.

Since 2005, 62 Governments collaborating with the United Nations Economic and Social Commission of Asia and the Pacific (UNESCAP) have been working on a Green Growth strategy for the region and its member states and agreed upon the following elements: Green Growth is a new policy focus aimed "to achieve real progress towards sustainable development and poverty reduction. ... Green Growth advocates growth in GDP that maintains or restores environmental quality and ecological integrity, while meeting the needs of all people with the lowest possible environmental impacts. ... This new approach seeks to harmonize economic growth and environmental sustainability by promoting fundamental changes in the way societies produce and consume. ... Environmental protection must no longer be viewed as

a constraint to economic growth, but as a driver of growth and essential for long-term economic sustainability. ... Production and consumption must no longer be viewed as "linear" processes, but must be thought of and consciously designed using holistic/life cycle/circular concepts."

OECD Green Growth Strategy.

In 2009, the Organisation for Economic Co-operation and Development (OECD) was tasked to formulate a Green Growth strategy for its 34 member countries as a response to the global financial and economic crisis. The first interim report was released in 2010, which identified the following components of Green Growth: Green Growth "builds on existing sustainable development initiatives in many countries and aims at identifying cleaner sources of growth, including seizing the opportunities to develop new green industries, jobs and technologies, while also managing the structural changes associated with the transition to a greener economy. Managing the employment and other distribution effects of change in more traditional sectors will also need to go hand in hand with exploiting new opportunities. New indicators and data will be needed to measure progress toward green growth to reflect environmental quality, natural resource scarcity and quality-of-life beyond material well-being."

GTZ Green Growth Discussion Paper.

A discussion paper by the German Technical Co-operation (GTZ) agency uses the following definition: "Green Growth is a strategy for promoting economic growth with the goal of adding an ecological quality to existing economic processes



and creating additional jobs and income opportunities with a minimal environmental burden. This primarily means seeking a relative or absolute decoupling of economic growth and environmental degradation, depending on the local context. It is also essential to take into account the risks involved with future changes in the environment, e.g. by adapting to climate change and international obligations within the framework of an environmentally qualitative policy."

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