



The Voice of the Private Sector in Kenya

Climate Change and Your Business Briefing Note Series | April 2014

Climate Proofing Your Business



Climate-related risks are a reality for your business that can undermine investments. Climate change is no longer contested – it is science, it is happening and more severe impacts will follow. To meet these challenges you will need to improve your understanding of how such risks affect your businesses, and adapt and build resilience to such risks. Climate-proofing your business

includes assessing current and future climate risks and impacts, and adjusting your business decisions to account for anticipated harm and losses as well as opportunities. Understanding the new climate reality and investing in preparedness and risk management can help you seize the opportunities.

What are Climate Change Risks?

The *National Climate Change Action Plan 2013-2017 (NCCAP)* reports that that Kenya's exposure to climate risk is high.¹ Climate change impacts on your businesses will depend on the nature of your enterprise and the degree of exposure (see Table 1 for examples of climate risks and impacts in different sectors). Climate change impacts can be direct, such as property damage (flooding of business premises, for example), increased insurance premiums, and as-

Table 1: Climate Risks and Opportunities in Sectors of the Kenyan Economy

Sector	Climate Change Variable	Risks	Opportunities
Agri-business	<ul style="list-style-type: none"> Increasing temperatures Changes in hydrological cycle 	<ul style="list-style-type: none"> Reduced crop yields 	<ul style="list-style-type: none"> Ability to grow in areas previously prohibited by climate
Construction	<ul style="list-style-type: none"> Rainfall changes Increasing temperatures 	<ul style="list-style-type: none"> Construction delays due to increased rainfall or high temperature Increased costs due to need for flood mitigation measures 	<ul style="list-style-type: none"> Potential for reduced construction delays if there are longer gaps between rain events
Energy	<ul style="list-style-type: none"> Rainfall changes 	<ul style="list-style-type: none"> Reduced hydropower generation 	<ul style="list-style-type: none"> Increased opportunities in renewable energy alternatives (such as wind and solar)
Manufacturing	<ul style="list-style-type: none"> Reduced water availability 	<ul style="list-style-type: none"> Increased costs Competition for water Supply chains impacted 	<ul style="list-style-type: none"> Increased commodity price if competitors are impacted
Mining	<ul style="list-style-type: none"> Reduced water availability 	<ul style="list-style-type: none"> Increased costs Competition for water 	<ul style="list-style-type: none"> Increased commodity price if competitors are impacted
Tourism	<ul style="list-style-type: none"> More intense rainfall (floods) Sea-level rise Increasing temperatures and drought 	<ul style="list-style-type: none"> Water shortages and water contamination Flooding damage to coastal facilities Increase in disease and pests Migration of species 	<ul style="list-style-type: none"> Sustainable tourism
Transportation	<ul style="list-style-type: none"> More intense rainfall (floods) Sea-level rise Increasing temperatures 	<ul style="list-style-type: none"> Damage to port facilities, roads, bridges and rail Potholes and warping rail tracks Reduced cargo/passenger load Closure of runways during flooding 	

Source: Adapted from National Climate Change Adaptation Research Facility (NCCARF) (2013), Ensuring business and industry are ready for climate change (Gold Coast [Australia]: NCCARF), page 3; and KEPSA-IISD-Climate Care (2014), Climate Change and Your Business briefing notes #5 to #9.

set losses. Impacts can also be indirect, such as an increase in commodity prices or impacts on your workforce because of heat-related disease or illness. Businesses with a short-term outlook are more exposed to issues associated with climate variability at the local level. Others, particularly in the infrastructure-related sector or those with extended investment horizons, are more likely to be exposed to the longer-term effects of climate change. Whether dealing with local climate variability or long-term climate change, your business can adapt to climate change impacts to reduce exposure and take advantage of opportunities.

What are Climate Change Impacts?

The NCCAP reports that Kenya has experienced an increase in mean annual temperatures of 1.0° Celsius since 1960 and changes in rainfall patterns—most notably greater rainfall appears to be occurring during the short rains of October to December. Droughts have led to losses of crops and livestock, and rising food and deteriorating livestock prices. Floods have had devastating consequences, including property damage and damage to infrastructure. Some estimates place the cost to Kenya of droughts and flooding at about 2.0 per cent of GDP per year².

Climate change will affect all sectors of the economy. Agriculture, which accounts for about 20 per cent of Kenya's GDP³, is very sensitive to climate change, meaning that agricultural systems will need to adapt to provide enough food for a growing population and improve production of export crops. Trade and manufacturing rely on infrastructure and services such as water, energy and transport; and are vulnerable to disruptions caused by droughts and heavy rains. Tourism, an important source of foreign exchange earnings, depends on a wide range of environmental resources that will be impacted by climate change, including the abundance and diversity of wildlife.



Photo credit: Jo-Ellen Perry, IISD

Figure 1: The Business Case for Climate Change Adaptation



Source: UN Global Compact and UN Environment Programme in cooperation with the CEO Water Mandate (2012), Business and Climate Change Adaptation: Towards Resilient Companies and Communities (New York: UN Global Compact Office), page 10.

Why Should Your Business Assess Climate Risk?

The United Nations (UN) Global Compact reports that companies are largely aware of the risks associated with climate impacts but most have yet to undertake climate risk assessments or adaptation measures, preferring to assume a wait-and-see approach. Opting to assess climate risk can bring benefits to your business including the ability to better manage and avoid risk, decreased operating and recovery costs, increased profits, and new product and market development. Figure 1 presents the business case for climate change adaptation⁴.

Businesses in Kenya are beginning to adapt to climate change by diversifying their supply chain or introducing new products. These early actions tend to be driven by cost considerations rather than a clear decision to minimize climate risk or increase resilience. Examples include:

- **Kilimo Salama** ("Safe Agriculture" in Kiswahili) is an index-based micro-insurance product that covers farmers' inputs in the event of drought or excessive rainfall. A partnership between the Syngenta Foundation for Sustainable Agriculture and Kenyan insurance company UAP, the initiative uses weather stations to collect rainfall data and implements SMS-based

mobile technologies to distribute and administer the payouts. Safaricom is a partner in Kilimo Salama, where individual farmers receive text messages about weather data and insurance payments by M-pesa. Communications and technology companies can offer equipment and smart networks to monitor and manage climate-related impacts⁵.

- **East Africa Breweries** uses sorghum, which is more drought resistant than barley, as an ingredient in its low-cost beverages. This adaptation action was driven by costs savings and has brought resilience benefits to the company and farmers along its supply chain.
- **The Kenya Tea Development Agency** has improved the reliability of its supply chain by helping smallholder farmers manage climate risks by, for example, infilling with drought-resistant tea varieties.

How Can Your Business Assess Climate Risk?

If your business decides to expand its risk management to include climate change, you will need to develop an approach that is practical and cost-effective in the short term, and continues to learn over time from better information. Most businesses

already handle business risks and accepted approaches to enterprise risk management and business continuity are a sound basis for managing climate change risks.

A climate risk assessment can help you think about climate change, the climate risks to your business and how your business can deal with these risks. Some issues you might consider include:

- **The location of your business** and whether there is a chance it could be affected by an extreme event like flooding.
- **The inputs to your business**, and if there is a chance they could be affected by changes in temperature and precipitation, and drought and floods.
- **How you will protect your business assets**, such as your business data (taxation, payments, invoices and customer lists) and essential operating equipment.
- **How you will continue to operate your business** if there is a disruption to your supply chain or distribution system.
- Making sure you have the right **insurance coverage for your business**.⁶

Several climate risk assessment tools and frameworks are aimed at the private sector. These tools assess the potential impact of climate change on businesses and identify appropriate responses to help protect the bottom line. **KEPSA has an inventory of fifteen publically available climate risk assessment tools** (reviewed in the report, **Tools and Planning Instruments to Assess Climate Change Impacts**, which is available from KEPSA).⁷

How can you Climate Proof your Businesses?

Climate proofing your business need not be laborious or expensive, and you can increase resilience through low-risk and low-cost measures. Climate-proofing actions will vary from business to business, and your response will aim to reduce business risks and enhance your competitive advantage through new products and services. Informed by your climate risk assessment, you may choose to:

- Protect long-term assets.
- Diversify your supply chains.
- Diversify your customer base.
- Position yourself for future policy.
- Increase your insurance coverage.

Working with KEPSA, you can encourage the government to provide leadership to the private sector. The government should lead by example, which includes:

- Undertaking climate risk assessments. See for example the NCCAP report, *Climate Risk Assessment of Kenya's Flagship Projects*, that examines climate risk and response in five flagship programmes (rehabilitation of forests in the water towers, infrastructure in slums, energy scale up and rural electrification, and irrigation and livestock initiatives in the arid and semi-arid lands).⁸
- Ensuring their own assets have reduced exposure to the effects of climate change.

- Requiring that their business partners (for example, infrastructure developers) consider climate risk assessment and adaptation.
- Ensuring that regulations and standards do not distort the market or provide disincentives.

KEPSA has information on climate change and climate risk assessment that can support your actions to climate-proof your business. In addition, KEPSA can help by leading sectoral and cross-sectoral collaboration to share knowledge and identify how to address common climate risks.

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Endnotes

1. Government of Kenya (2013), National Climate Change Action Plan 2013-2017 (Nairobi: Ministry of Environment and Mineral Resources).
2. The Stockholm Environment Institute (2009), Economics of Climate Change: Kenya (Oxford: Stockholm Environment Institute), page 17.
3. Kenya National Bureau of Statistics (2012), Economic Survey 2011 (Nairobi: Government of Kenya), page 20.
4. UN Global Compact (2012), page 9.
5. International Finance Corporation Advisory Services (2011), Weather index-based Insurance in Kenya, <http://www.ifc.org/wps/wcm/connect/0c2729004ad2e9d7853bff888d4159f8/Weather+index-based+insurance+in+Kenya+factsheet.pdf?MOD=AJPERES>.
6. Trexler, M. and Kosloff, L. (2013), 6 steps to managing your company's physical climate risks. Accessed at: <http://www.greenbiz.com/blog/2013/03/29/6-steps-managing-your-companys-physical-climate-risks>.
7. Murphy, D., Parry, J., Harris, M. and Dion, J. (2014), Tools and Planning Instruments to Assess Climate Change Impacts, developed for KEPSA under the Communicating Climate Compatible Development Project (Winnipeg: International Institute for Sustainable Development).
8. IISD and ClimateCare (2012), Climate Risk Assessment of Kenya's Flagship Projects. Prepared for Kenya's National Climate Change Action Plan, http://www.kccap.info/index.php?option=com_phocadownload&view=category&id=34&Itemid=38.



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