



## MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES

# Kenya's Intended Nationally Determined Contribution (INDC)

23 July 2015

## 1. Introduction

Kenya, like other countries in the region, is bearing the brunt of climate change impacts and the associated socio-economic losses. The situation is exacerbated by the high dependence on climate sensitive natural resources. In response to the challenges posed by Climate Change, Kenya has developed a National Climate Change Response Strategy (NCCRS 2010), National Climate Change Action Plan (NCCAP 2013), and a National Adaptation Plan (NAP) - under preparation which provides a vision for low carbon and climate resilient development pathway, while a National Climate Change Framework Policy and legislation are in their final stages of enactment to facilitate effective response to climate change. Kenya is operationalising these policies and plans through the implementation of climate change actions in various areas such as afforestation and reforestation, geothermal and other clean energy development, energy efficiency, climate smart agriculture, and drought management.

This document presents Kenya's Intended Nationally Determined Contribution (INDC) in response to decisions adopted at the 19<sup>th</sup> and 20<sup>th</sup> sessions of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC); that invite Parties to communicate to the Secretariat their INDCs, towards achieving the objective of the UNFCCC as set out in Article 2 of the Convention.

Kenya's INDC builds on the participatory multi-stakeholder and cross-sectoral consultative processes during the development of NCCRS and NCCAP at national and county levels. The contribution will also contribute towards the delivery of the Constitution of Kenya and the attainment of Vision 2030, the country's development blueprint.

### 1.1 National Circumstances

Kenya is located in the Greater Horn of Africa region, which is highly vulnerable to the impacts of climate change. More than 80% of the country's landmass is arid and semi-arid land (ASAL) with poor infrastructure, and other developmental challenges. The country's economy is highly dependent on climate sensitive sectors such as agriculture that is mainly rain-fed, energy, tourism, water and health. Climate hazards have caused considerable losses across the country's different sectors over the years. The main climate hazards include droughts and floods which cause economic losses estimated at 3% of the country's Gross Domestic Product (GDP).

Kenya's total greenhouse gas (GHG) emissions are relatively low, standing at 73 MtCO<sub>2</sub>eq in 2010, out of which 75% are from the land use, land-use change and forestry (LULUCF) and agriculture sectors. This may be explained by the reliance on wood fuel by a large proportion of the population coupled with the increasing demand for agricultural land and



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urban development. The other significant emissions are from the energy and transport sectors, with the waste and industrial processes contributing negligible amounts.

Kenya strives to be a newly industrialised middle income country by 2030. This development is expected to increase emissions from the energy sector. The current energy mix, however, is mainly clean with deliberate efforts by Government towards enhancing geothermal, wind, solar and other clean energy development.

Climate change impacts continue to slow down the attainment of its national development goals. Kenya will continue making investments with both domestic and international resources to adapt to climate change and realise its abatement potentials.

### 2. Contribution

Kenya's INDC includes both mitigation and adaptation components based on her national circumstances and in line with decisions 1/CP.19 and 1/CP.20.

#### 2.1 Mitigation

Kenya aims to achieve a low carbon, climate resilient development pathway.

Kenya will continue to implement the NCCAP (2013-2017), and subsequent action plans beyond this period to achieve this target. This will include the promotion and implementation of the following mitigation activities.

- Expansion in geothermal, solar and wind energy production, other renewables and clean energy options.
- Enhancement of Energy and resource efficiency across the different sectors.
- Make progress towards achieving a tree cover of at least 10% of the land area of Kenya.
- Clean energy technologies to reduce overreliance on wood fuels.
- Low carbon and efficient transportation systems.
- Climate smart agriculture (CSA) in line with the National CSA Framework.
- Sustainable waste management systems.

Kenya seeks to undertake an ambitious mitigation contribution towards the 2015 Agreement. Kenya therefore seeks to abate its GHG emissions by 30% by 2030 relative to the BAU scenario of 143 MtCO<sub>2</sub>eq; and in line with its sustainable development agenda. This is also subject to international support in the form of finance, investment, technology development and transfer, and capacity building.



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### 2.1.1 Information to facilitate clarity, transparency and understanding

<b>Timeframe for implementation</b>	The timeframe for implementation of the INDC is up to 2030.
<b>Scope of gases included in the contribution</b>	Carbon dioxide (CO <sub>2</sub> ), Methane (CH <sub>4</sub> ), and Nitrous Oxide (N <sub>2</sub> O) are prioritised.
<b>Sectors covered by the contribution</b>	The IPCC Guidelines for all sectors: Energy, Transportation, Industrial Processes, Agriculture, Forestry and Other Land Use (AFOLU) and waste sector.
<b>Assumptions and methodological approaches</b>	
<b>Methodology for emissions accounting</b>	<p>The IPCC Revised 1996 Guidelines for National Greenhouse Gas Inventories and the Good Practise Guidance and Uncertainty Management in National Greenhouse Gas Inventories were used to calculate the GHG emissions and removals as described in the Second National Communication. Emissions of carbon dioxide from the combustion of biomass are assessed but not counted towards the contribution.</p> <p>Future contribution from the extractive sector has not been included in the accounting.</p>
<b>Global warming potentials</b>	The carbon dioxide equivalent was calculated using the 100 year global warming potentials in accordance with the IPCC 2 <sup>nd</sup> Assessment Report.
<b>Approaches to land sector emissions</b>	<p>This includes emissions from the land use, land-use change and forestry (LULUCF) sector. Relevant national policy documents and the FAO's Global Forest Resource Assessment 2010 for Kenya were used. A global land-use data approach was used, as described in the 2003 IPCC Good Practice Guidance for LULUCF.</p> <p>A state and transition model consistent with the 1996 Revised IPCC Guidelines was used to calculate fluxes of CO<sub>2</sub> to (or from) the atmosphere and biomass carbon pools is the same as outlined in the 1996 Revised IPCC Guidelines. There is significant uncertainty in the BAU emission and mitigation potential estimates for this sector and work is underway to update and improve these estimates.</p>
<b>Contribution of International</b>	Kenya does not rule out the use of international market-based mechanisms in line with agreed accounting rules.



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<b>Market Based Mechanism</b>	
<b>Reference Point</b>	
<b>BAU emissions in the target year</b>	Business-as-usual (BAU) emissions are estimated to be 143 MtCO <sub>2</sub> eq by 2030. This excludes future exploitation in the extractive sector.
<b>BAU projection methodology</b>	The BAU projection methodology is detailed within the NCCAP and the Second National Communication (SNC), including key assumptions, drivers and methodologies for each sector. The base year is 2010. For geothermal energy, note that the BAU projection contained in the NCCAP and SNC has been revised to be consistent with the current level of geothermal deployment since the NCCAP was published.

### 2.2 Adaptation

As a minimal contributor to global GHG emissions, Kenya places significant priority on adapting to the effects of climate change.

#### 2.2.1 Programme of action for adaptation

The priority adaptation actions are presented in the NCCAP and further elaborated in the NAP. The actions are based on risk and vulnerability assessments across the MTP sectors. Many of the actions have strong synergies with mitigation actions. Kenya's capacity to undertake strong mitigation actions is dependent upon support for the implementation of these adaptation actions.

Kenya will ensure enhanced resilience to climate change towards the attainment of Vision 2030 by mainstreaming climate change adaptation into the Medium Term Plans (MTPs) and implementing adaptation actions. Any reasonable achievement of the adaptation goal will require financial, technology and capacity building support.

<b>MTP SECTOR</b>	<b>PRIORITY ADAPTATION ACTIONS</b>
<b>Energy</b>	Increase the resilience of current and future energy systems.
<b>Science, Technology and innovations</b>	Support innovation and development of appropriate technologies that promote climate resilient development.



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MTP SECTOR	PRIORITY ADAPTATION ACTIONS
<b>Public sector reforms</b>	Integrate climate change adaptation into the public sector reforms.
<b>Human Resource Development, Labour and Employment</b>	Enhance adaptive capacity and resilience of the informal private sector.
<b>Infrastructure</b>	Climate proofing of infrastructure (energy, transport, buildings, ICT).
<b>Land Reforms</b>	Mainstream climate change adaptation in land reforms.
<b>Education and training</b>	Enhance education, training, public awareness, public participation, public access to information on climate change adaptation across public and private sectors.
<b>Health</b>	Strengthen integration of climate change adaptation into the health sector.
<b>Environment</b>	Enhance climate information services.
	Enhance the resilience of ecosystems to climate variability and change.
<b>Water and irrigation</b>	Mainstream of climate change adaptation in the water sector by implementing the National Water Master Plan (2014).
<b>Population, urbanisation and housing</b>	Enhance the adaptive capacity of the population, urbanisation and housing sector.
<b>Gender, Vulnerable Groups and Youth</b>	Strengthen the adaptive capacity of the most vulnerable groups and communities through social safety nets and insurance schemes.
<b>Tourism</b>	Enhance the resilience of the tourism value chain.
<b>Agriculture, livestock development and fisheries</b>	Enhance the resilience of the agriculture, livestock and fisheries value chains by promoting climate smart agriculture and livestock development.
<b>Private Sector/ Trade; Manufacturing; Business Process Outsourcing, Financial services</b>	Create enabling environment for the resilience of private sector investment, demonstrate an operational business case.
<b>Oil and mineral resources</b>	Integrate climate change adaptation into the extractive sector.
<b>Devolution</b>	Mainstream climate change adaptation into county integrated development plans and implement the Ending Drought Emergencies Strategy.



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### 3. Fairness and ambition

Kenya believes that the key factors in determining the fairness of a contribution should include historical responsibility and respective capability to address climate change. The UNFCCC also recognises that the extent to which developing countries will meet their obligations under the Convention will depend on the level of support in terms of finance, technology and capacity building available.

Kenya's historical contribution is low, at 0.1% of the total global emissions, while the per-capita emissions are less than 1.26 MtCO<sub>2</sub>eq compared to the global average of 7.58 MtCO<sub>2</sub>eq<sup>1</sup>.

The country's capability to implement this contribution is also subject to limitations; with poverty alleviation and sustainable economic development being the key national objectives. Increasing the per-capita GDP growth equitably above the current levels of 4.1% is therefore a priority.

Nevertheless, Kenya places a high priority on response to climate change. In order to meet the below 2 °C objective, all countries will need to undertake mitigation based on the common but differentiated responsibilities and respective capabilities in accordance with the Convention. In addition, Kenya particularly notes that the Lima Call to Action agrees that each Party's contribution will "represent a progression beyond the current undertaking of that Party".

Kenya is determined to continue playing a leadership role in addressing climate change by communicating a fair and ambitious contribution. This intended contribution targets a high proportion of its mitigation potential, dependent on the level of support available. This will involve implementing the priority mitigation and adaptation actions in the NCCAP to achieve a low carbon climate resilient development in line with Vision 2030.

This is the first time that Kenya has stated an intended contribution to global mitigation efforts. In addition, Kenya's INDC represents her aspiration to increase the resilience to climate change by introducing a comprehensive programme for adaptation action across sectors in support of livelihoods, and economic well-being of the Kenyan people. This represents a high level of fairness and ambition in light of Kenya's national circumstances.

### 4. Planning process

Kenya's planning process on mitigation and adaptation hinges on the NCCAP and the NAP. The two shall be reviewed every five years to inform the MTP. The adaptation actions are

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<sup>1</sup> GHG time series 1990-2012 per capita emissions for world countries  
[http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts\\_pc1990-2012](http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts_pc1990-2012)





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further amplified in the NAP. Mitigation and adaptation actions are implemented across the various sectors at both the national and county government levels. The Ministry of Environment and Natural Resources coordinates the country's climate change affairs through the National Climate Change Secretariat (NCCS).

The planning process also takes cognisance of the Climate Change Bill (2014) that proposes several institutional reforms to enhance coordination of climate change adaptation and mitigation. These include the establishment of:

- A high level National Climate Change Council chaired by the President. The Council shall provide an overarching national climate change coordination mechanism and, among other roles, ensure the mainstreaming of climate change functions by the National and County governments, and approve and oversee the implementation of the NCCAP.
- A Climate Change Directorate as the lead agency of the government on national climate change plans and actions to deliver operational coordination; and provide technical assistance on climate change actions and responses to County governments.
- Kenya Climate Fund to be a financing mechanism for priority climate change actions and interventions approved by the Council.

In addressing climate change issues, public entities are required to undertake public awareness and consultations, and ensure gender mainstreaming, in line with the Constitution and the Climate Change Bill (2014).

### **5. Means of implementation**

Kenya's contribution will be implemented with both domestic and international support. It is estimated that over USD 40 billion is required for mitigation and adaptation actions across sectors up to 2030. Kenya will require international support in form of finance, investment, technology development and transfer, and capacity-building to fully realize her intended contribution. Further analysis will be necessary to refine the required investment cost and determine the domestic support.