

# Carbon pricing approaches in Eastern and Southern Africa

Promethium Carbon’s synthesis report on Carbon Pricing Approaches in Eastern and Southern Africa, was conducted for five countries: Kenya, Ethiopia, Rwanda, Uganda and Mauritius. To date there has been only limited use of carbon pricing on the African continent. The report aims *to explore possibilities to implement Carbon Pricing, within the Project Countries; and, encompasses technical and legal analysis and observation.* The report is complementary with the country reports and focusses on overall take-aways.

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# 1. Tracking the development of carbon pricing

## 1.1. Main developments

All the Project Countries have demonstrated willingness to participate in climate change initiatives under the multi-lateral regime in their submitted NDCs. Although none of the country NDCs explicitly mentions carbon pricing, there has been some preliminary progress on the consideration of carbon pricing (or related economic instruments) within several of the studied countries. The list of actions and initiatives below outlines the main actions taken to date:

- The Ethiopian Development Research Institute and the World Bank recently organised a team to examine the impact of carbon taxation on the growth of GDP and income distribution. The introduction of a carbon tax for transport in Addis Ababa is being considered.
- Kenya announced in 2016 that it would be launching an emissions trading platform which would be aimed at providing companies with a platform to sell their carbon credit to foreign buyers.
- In 2008, Mauritius announced the introduction of the Maurice Ile Durable (MID) concept. The main objective of the MID is to make Mauritius a world model for sustainable development and to increase the use of renewable energy. The MID de-facto puts a levy on fossil fuels and recycles the revenues raised to finance climate-friendly projects, and in particular renewable energy projects;
- Although not specifically aimed at implementing carbon pricing, Rwanda intends to transform its industries by implementing its Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon, which makes provision for building carbon trading capacity within the private sector to harness innovative funding opportunities provided by the Clean Development Mechanism (CDM) and voluntary carbon markets.
- With support from the German Ministry for the Environment, the GIZ Global Carbon Markets Programme, based in Uganda, support the development of economic and carbon pricing instruments that would facilitate NDC implementation among the countries of East Africa.

## 1.2. Fossil Fuel Subsidy Reform

The removal/reduction of fuel subsidies is a key preliminary step towards carbon pricing, considered in this study. Fossil fuels subsidies constitute de-facto a “negative carbon pricing”, giving a competitive advantage to the fossil-fuel based economy. Such economic signal is diametrically opposed to the concept of a disincentive for GHG-intensive solutions. Reducing subsidies for fossil fuels is therefore a prerequisite before giving a price signal on GHG emissions. The study identified several ongoing efforts to phase out these subsidies in the considered countries. For example, Ethiopia has removed fossil fuel subsidies in 2008 and is increasing import tax of cars with high emission. Kenya has had several reforms in the last decade to remove fossil fuel subsidy. The removal of fossil fuel subsidies is however often a delicate policy decision for governments since several stakeholder groups have been relying on these for years. Re-orienting subsidies away from fossil fuels has however the added benefit to create extra public budget which can be used for a wider set of social and sustainable development objectives, including education, innovation and health. Reforms can therefore be implemented in a way that supports a just transition for industries and communities who are currently dependent on fossil fuels.

### 1.3. Economic instruments identified

A range of economic instruments have been introduced in several project countries to stimulate a low-carbon economy.

- Levies on petroleum, gasoline are in place in all the Project Countries.
- Renewable energy incentives have been introduced in Kenya, Mauritius, Uganda and Rwanda with feed-in-tariffs and exemptions of VAT.
- In the East-Africa region, Mauritius is on the forefront of operating a set of instruments which is close to an explicit carbon tax. On the island state, levies are imposed on each liter of petroleum products, kilo of Liquid Petroleum Gas (LPG) and kilo of coal to finance environmental action and renewable energy projects.

The majority of the Project Countries rely on the extraction of natural resources and agriculture as key economic drivers. As such, the implementation of carbon pricing in the form of carbon taxation may need to consider ways to alleviate the concerns and resistance from impacted sectors to which it may apply. Any environmentally-related tax would need to be introduced gradually in order to give the economy the necessary space to adapt. For example, at a preliminary stage, one could aim to reduce fossil-fuel subsidies at levels commensurate with the price increase caused by imposition of the tax. The avoided expenditures could be used to ameliorate any negative impacts of carbon pricing on the economy. This approach might facilitate a broader participation of the Project Countries in the development of harmonised carbon pricing, during later stages.

### 1.4. Power mix

Not a single Project Country (apart from Mauritius which relies on imported petroleum products to meet most of its energy requirements) utilises emissions intensive fuels for power generation. Ethiopia, Kenya, Rwanda and Uganda utilise hydro-power as their primary source of energy supply. As such, the Project Countries have no need to shift away from emissions intensive fuels in the same way as fossil-fuel reliant countries do,. In Kenya however, coal power plants are planned and could increase the fossil fuel dependence of the country. Considering the Project Countries' low emissions, it is the view of the project team that the current potential domestic demand for carbon credits, in the Project Countries, would be insufficient successfully to implement an ETS covering the energy sector. A conclusion from the situation could be that (i) sufficient alternative to fossil-fuel based power generation for most of the considered countries exist, (ii) that pricing carbon would have only a very limited impact to the power sector which relies overwhelmingly on renewable power generation technologies and (iii) that an economic signal could drive the expansion of power generation to follow a low-carbon trajectory.

### 1.5. V20 Membership

Ethiopia, Kenya and Rwanda participate in the Vulnerable Twenty (V20) Group of Ministers of Finance (of the Climate Vulnerable Forum, CVF), which is a dedicated cooperation initiative of economies systemically vulnerable to climate change. The CVF serves as a cooperative platform for actions by participating governments; Of relevance for this study are the V20 declarations on the following matters:

*Fossil fuel subsidies*: the V20 has called for market-distorting fossil fuel production subsidies to be removed by no later than 2020; and, has urged the Global Twenty (G20) to set such a clear timeframe for fossil fuel subsidy elimination, which should be replaced, worldwide, without harm to those relying on them for their basic energy needs.

*Carbon Pricing*: the V20 is committed to working towards putting in place “carbon pricing mechanisms”, by 2025; and, has called on the G20 to lead, with the V20, in a drive towards “ensuring all emissions are subjected to carbon pricing”

## 2. Supply and demand for result-based outcomes

### 2.1. International demand for result-based units

The CDM, REDD+, NAMAs, the JCM, but also in some instances climate finance can offer opportunities to leverage result-based funding in the project countries. Many project countries have in particular not yet utilized the potential of the voluntary markets for emission reduction units. Such schemes (or their successors) could -play a role in the achievement of respective NDCs, in the following ways:

- (I) *Agriculture and forestry* –The majority of the NDCs of the Project Countries aim to reduce emissions from the agricultural and forestry sectors. Whereas the CDM does not allow for the generation of permanent emission reduction or sequestration credits from land-based projects, other schemes do. The result-based approaches offered by such schemes could be used to channel international support for implementing such projects;
- (II) *Infrastructure*: Schemes like the CDM, NAMAs and the JCM could create emission reduction units that could, if applied to development of infrastructure and augmented by international climate finance, ensure development aligned with low carbon best practice;
- (III) *Energy*: Energy projects have traditionally been a good source of emission reduction credits. The challenge in most of the Project Countries will be to address the issue of emission baselines which need to be suppressed demand. In addition to that, baselines for the power sector may be extremely low given that most countries already largely rely on renewable energy for their power generation. The German development agency, GIZ, is currently active with a Global Carbon Markets programme in Uganda, Ethiopia, Rwanda, Kenya with the aim to support the development of carbon-pricing instruments that will support NDC implementation among the countries of East Africa.

### 2.2. Domestic Supply

The majority of developing countries and LDCs, including the Project Countries, would be hesitant to implement carbon pricing within their jurisdictions. A possible approach to encourage their participation would be to provide increased opportunities to mobilise and market the domestic supply of emission reduction units, generated by their own low-cost mitigation opportunities. Increasing domestic supply in the Project Countries would likely facilitate the gradual implementation of carbon pricing, with the possibility of establishing a regional mechanism, at a later stage. In order to stimulate the domestic supply of carbon credits and to attract international carbon finance, it is important that the Project Countries make use of international sources of such finance and emphasize positive environmental aspects & socio-economic benefits of emission reduction projects.

All of the Project Countries, except for Mauritius, have identified agriculture as their most emissions intensive sector, with enteric fermentation being the largest source of emissions. Consequently, significant potential exists in the agricultural sector to reduce emissions. A factor limiting the potential for successful change in the agricultural sector to succeed is the disposition and capability of farmers to recognize the wisdom of adaptation and mitigation measures. Because of this, it is important to collect information about farmers' perceptions to mitigation and adaptation measures. By understanding farmers' perceptions and

including them in rural policy development, there is a greater chance of accomplishing food security and environmental conservation objectives.

Results-Based Funding programmes using crediting mechanisms could, either foster or impede transformational change; and, in order to support such change, these programmes would require government endorsement, including to ensure country ownership and alignment with national priorities. Tapping into Results-Based Funding for mitigation projects that generate carbon credits would allow the Project Countries to stimulate domestic supply of carbon credits, assuming an appropriate level of international demand.

### 3. Legal and technical analysis

The potential feasibility and readiness for the implementation of Carbon Pricing are best served by considering existing climate change, fiscal, environmental and developmental policy and regulation, in each of the jurisdictions. In this light, the legal analysis seeks, primarily, to identify illustrative examples (rather than being an exhaustive assessment of national legal regimes) of mechanisms, housed in existing policy and regulation, that might be utilised/adapted as foundation to implement carbon pricing, in the Project Countries.

#### 3.1. Legal instruments

The most important baseline perspective that has emerged, thus far, is that most the Project Countries are currently not actively moving towards short-term implementation of in-country carbon pricing. One notable exception is Mauritius which has already a system of fossil fuel taxation with recycling of revenues for environmental action and to some extent, Ethiopia which is considering a carbon tax on transportation in the city of Addis Ababa. Nevertheless, most countries, either in their NDCs or in national climate change policy, express specific interest in participating in a future international carbon market. The foreseen participation in future carbon market, as expressed in the current NDCs, is mostly expected to be in the form of hosting project or programme based emission reduction activities. It is notable that only one aspect of the Article 6 negotiations contemplates continuation of current market approaches. The common baseline assumptions of the Project Countries appear to be, therefore, that:

- Something akin to the CDM will persist into the future;
- Demand for developing country project-based emission reduction units will be revived and maintained; and,
- The Project Countries will be eligible locations for project implementation and recipients of carbon financing.

The notion of carbon pricing as an in-country mechanism, either to support NDC implementation or to realise wider climate change policy ambition such as long term low carbon strategy, is largely absent from the Project Countries' existing legal and policy instruments. Despite this, the presence of environmental incentives, levies and taxes, in certain of the countries, shows country frameworks in which a disincentive for GHG intensive products exist while low carbon solutions are given a competitive advantage. The design of carbon pricing policies is, in certain instances, theoretically possible based upon existing environmental levies and within the context of existing climate change policy. The possible implementation of carbon pricing in the form of carbon taxation would be substantially easier to establish, as the financial and human resources required to implement ETS in the Project Countries were, in-the-main, found to be insufficient.

An important aspect for the implementation of future explicit carbon pricing is the potential for recycling revenues generated. In this regard, the recycling of revenues from implicit carbon pricing (e.g. fuel taxes)

could also be considered. Depending on national priorities, revenues generated can either be directed to the national treasury or ear-marked for specific spending purposes such as further advancing a country's low carbon development. Well managed revenues could improve public and private sector support of carbon pricing. Securing buy-in from various stakeholders in project countries would therefore require consultations with multiple stakeholders to decide on the recycling of revenues from carbon pricing. A dialogue on the matter should in particular be conducted jointly with entities that are mandated to shape fiscal policy, e.g., Ministries of Finance and revenue authorities in order to secure more buy-in from the Project Countries.

### 3.2. Monitoring, reporting, evaluation

Given the requirements of the Paris Agreement, it is likely that the Project Countries will need to develop MRV systems for achieving several objectives: to assess the national emissions and produce the related GHG inventories, to measure progress towards fulfilling their international climate change commitments, and to track international support received. Project Countries report needs for increased capacity building and commonly lack the resources to implement the required MRV structures, a factor which could also hinder the development and implementation of carbon pricing in the future. Functioning MRV systems are not present in any of the Project Countries; and, the project team is of the view that these will require development, including to support fulfilment of the Project Countries' international commitments, regardless of whether one-or-other of them proceed to implement carbon pricing. The UNFCCC has a set of MRV guidelines which may be used to guide the development of such systems.

## 4. Regional Collaboration

The possibility of implementing a regional Carbon Pricing mechanism is challenging, given the differing legal frameworks within each of the Project Countries. Aligning the legal frameworks to establish a regional Carbon Pricing mechanism is substantially more complicated, in comparison with a purely domestic approach. However, there are certain existing institutions which may make the design and introduction of such a carbon pricing mechanism easier.

One such organisation is the East African Development Community (EAC). The EAC is a regional intergovernmental organisation of six Partner States, three of which are also Project Countries, namely, Kenya, Rwanda and Uganda. Certain of the foundational requirements, for EAC Partner States, may curtail the level to which these three Project Countries might implement certain Carbon Pricing mechanisms. For example, the *Treaty for the Establishment of the East African Community* provides *inter alia* that the Partner States shall:

- Take measures to harmonise and rationalise investment incentives including those relating to taxation of industries, particularly those that use local materials and labour, with a view to promoting the Community as a single investment area, and to avoid double-taxation
- Adopt policy measures, in accordance with an agreed macro-economic policy framework, to harmonise their tax policies with a view to removing tax distortions in order to bring about a more efficient allocation of resources within the Community.

The interview process with the respective country focal points also revealed that any regional Carbon Pricing mechanism would benefit from utilising existing institutional structures such as the East African Business Council (EABC) and the East African Centre of Excellence for Renewable Energy and Efficiency (EACREE) The EABC is the regional apex body of private sector association EAC East African Community integration process through trade and investment. The EACREE's goal is to facilitate the creation of an enabling environment for renewable energy and energy efficiency markets and investments in the EAC.

Utilising such institutions will enable governments to include private sector participation in the development of a regional Carbon Pricing mechanism. It was also mentioned during the interview process that, to succeed, such a mechanism would need to be linked with national economic policies and clearly outline the anticipated benefits of implementation.

Lastly, regional collaboration through already existing political, economic- and financial alliances can become promising vehicles to establish and harmonize carbon pricing policies, reduce adverse effects and boost joint efforts to build up regional centres that will provide support in the development of carbon pricing initiatives. There may be more potential to consider pricing instruments at the regional level, especially as related to the integration of energy systems, which can also help to address efficiency and competitiveness issues. The African continent already has some well-established regional institutions which can help to facilitate such cross-border cooperation on fiscal policies.

## 5. Conclusions

Overall, the following hurdles and possible means to overcome such hurdles are:

- Lack of financial resources available in order to fund mitigation activities (potentially in the form of emission reduction projects and programmes) which have the potential to stimulate national carbon markets. In this regard, the project team identified project-based Results-Based-Funding as a possible means to access appropriate project financing.
- In order to stimulate the carbon market and facilitate the implementation of successful and explicit carbon pricing mechanisms, domestic and international supply and demand for emissions reduction units needs to be increased.
- Domestic legal frameworks should be amended and enhanced to facilitate the implementation and administration of carbon pricing mechanisms.
- The lack of capacity and expertise to develop and implement carbon pricing is a major hurdle. Capacity-building is therefore a critical component to be addressed, at both domestic and regional levels. Various types of support including: (i) to identify and assess available carbon pricing options, and how these align with national circumstances, objectives, policy and law; (ii) to elaborate concrete proposals for the establishment of carbon pricing instruments; (iii) to adopt national Carbon Pricing instruments; and, (iv) to implement carbon pricing mechanisms.

Based upon the study, the following roadmap has been developed in order to map the process which would need to be followed in order to implement carbon pricing in the Project Countries in the long term:

# IMPLEMENTING CARBON PRICING IN EASTERN AND SOUTHERN AFRICA



## PRINCIPLES TO CONSIDER:

- ✔ Economic circumstances of countries
- ✔ Emissions profile of countries
- ✔ Participation in Carbon markets
- ✔ International best practice
- ✔ Regional Application





# KENYA

## Emission and energy profile

Total GHG emissions **60.2 MtCO<sub>2</sub>e (2013)**

### By sector

Agriculture	62.8%
Energy sector	31.2%
Industrial processes	4.6%
Waste	1.4%

Presence of large scale emitters, in particular industrial activities, concentrate around three major urban centres: Nairobi, Mombasa and Kisumu. The NDC ambition of the country is to cut GHG emissions by 30% in 2030 relative to the BAU scenario of 143 MtCO<sub>2</sub>e.

## Fossil fuel reforms and abolishment of fossil fuel subsidies undertaken in the last decade.

- Eliminated electricity subsidies
- Shift to subsidies for electricity service delivery, private participation and expansion of renewable power
- Introduction of excise duty rate for kerosene and gasoline, petroleum levies
- For renewables: 20-year Feed-in-tariff and exemption of VAT

## 1. Carbon pricing outlook

Kenya was an early participant in the international carbon markets on the continent, having registered its CDM projects in 2008. On the short-term Kenya is focusing on development of emission reduction credits. Kenya's stock market will launch an emission trading platform to sell these credits to foreign buyers. Kenya will also voluntarily participate in the pilot phase of CORSIA 2021-2023. Moreover, the country is exploring the development of ITMOs and results-based payments for REDD+. The increased familiarity with carbon markets could facilitate the consideration of potential domestic carbon pricing.

Kenya's NDC is silent on domestic carbon pricing, nonetheless, the NDCs do not exclude international market-based mechanisms. Kenya is member of the Vulnerable 20 Group (V20) commitment to work to put in place carbon pricing mechanisms by 2025.

Although no carbon pricing mechanisms are yet scheduled for the short and midterm future, the government's climate policy framework mentions fiscal, taxation and other policy options in priority areas with high greenhouse gas abatement potential that enhance sustainable development and mainstream low carbon growth.

## 2. Legal perspective

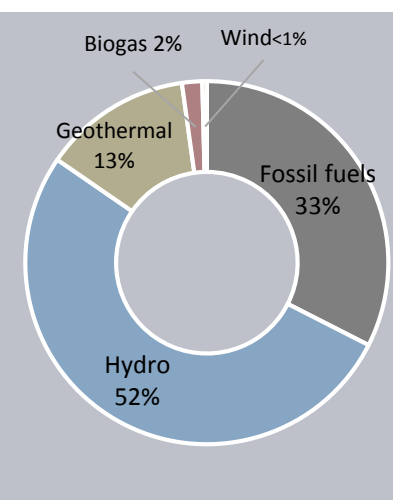
A basis of legal capacity for carbon pricing instruments is present. The National Climate Change Action Plan (2018) provides a platform to further increase the country's participation in the carbon markets with measures and mechanisms to guide Kenya towards low carbon development. Kenya's Climate Change Act (2016) established a National Climate Change Council which can, in consultation with relevant Cabinet Secretaries and county governments, impose duties relating to climate change on any public entity at all levels of government.

This also includes incentives and obligations for private sector contributions in improved efficiency and low carbon technologies which give opportunities to introduction of carbon pricing instruments. The Act establishes a coordinating body for MRV, which goal is to develop institutional capacity to undertake baseline calculations in the major GHG emitting entities. Furthermore, the Energy Act permits implementation of emission trading provided that this supports the development of renewable energy.

While currently the Climate Change Act focuses on climate finance rather than domestic carbon pricing, it does shape a broad legal regime and the administrative and institutional infrastructure which could enable various carbon pricing mechanisms in Kenya, including but not limited to carbon taxation, provided that the purpose of such mechanisms is to support the objectives of the Act and initiatives required to action national climate change policy.

## Kenya's involvement in mitigation instruments

CDM PA	20
CDM PoA	24
VCS	15
REDD+	3
CORSIA	Voluntary phase 2021-2023



# ETHIOPIA

## Emission and energy profile

Total GHG emissions **150 MtCO<sub>2</sub>e (2011)**

### By sector

Agriculture	61%
Land use change	18%
Energy sector	17%
Industrial processes	1%
Waste	3%

The NDC ambition of the country is to cut GHG emissions by 64% in 2030 relative to the BAU scenario of 400 MtCO<sub>2</sub>e.

### Fossil fuel reform efforts in Ethiopia.

- Removal of fossil fuel subsidies since 2008
- Development of a carbon tax for transport Addis Ababa
- Increasing import tax on high emission cars

## 2. Legal perspective

Any policy to implement direct carbon pricing mechanisms would likely emanate from the Ministry of Finance or the Ministry of Environment, Forest and Climate Change (MEFCC). The Ministry of Finance is responsible for the implementation of Ethiopia's Climate Resilient Green Economy (CRGE) Strategy. The CRGE provides the detailed framework for the development of Ethiopia's future green economy, including initiatives that attracts carbon financing in exchange for GHG abatement.

The mandate of the MEFCC includes a specific duty to prepare a mechanism that promotes social, economic and environmental justice and channel the major part of proceeds derived thereof to the affected communities to reduce GHG emissions. In case MEFCC imposes a carbon price, it could only do so in a manner so as to not constitute a tax. It could do so were it to associate the fiscal measure with the imposition of a fee. MEFCC has created directorates for an MRV system of carbon markets and CRGE activities. Responsibilities and coordination procedures are however still under development with extra technical and administrative capacity requested. A lack of formalized and standardized protocols for data reporting, monitoring constitutes a key challenge in Ethiopia, although one must note the efforts underway to synchronize reporting.

## 1. Carbon pricing outlook

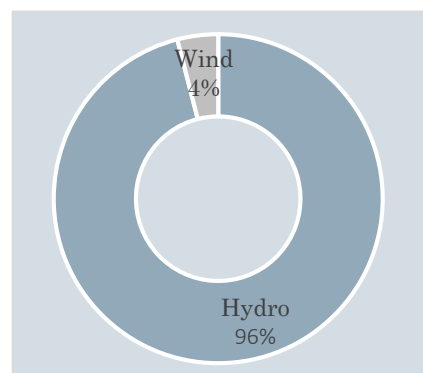
Ethiopia has removed fuel subsidies in 2008 and the country showed substantial willingness to explore carbon pricing instruments. The country is preparing (i) a carbon tax for transportation in Addis Ababa and (ii) an increase on the import tax for high vehicles. The introduction of fossil fuel taxes is favored as they target higher-income households and more intensive consumers.

The current NDC does not mention the introduction of more domestic approaches to carbon pricing, however, Ethiopia is member of the Vulnerable 20 Group (V20). The V20 countries committed to introducing domestic carbon pricing by 2025. In addition, Ethiopian leaders have joined the declaration of the Carbon Pricing Panel to strongly ramp up the use of carbon pricing.

Regarding carbon credits, Ethiopia has less engagement in the development of carbon credits than peer countries in the region. The country is however an active participant in the negotiation for the Article 6 of the Paris Agreement focusing on cooperative approaches. Ethiopia will have to participate in the mandatory CORSIA phase (2027-2035) as its share of international aviation activity already falls under the regulated range.

### Ethiopia's involvement in mitigation instruments

CDM PA	3
CDM PoA	9
VCS	1
REDD+	1
CORSIA	From 2027 Phase II



# MAURITIUS

## Emission and energy profile

Total GHG emissions **5.5 MtCO<sub>2</sub>e (2017)**

### By sector

Energy sector	76.2%
Waste	20%
Agriculture	4.6%
Industrial processes	1.4%

The NDC ambition is to abate its greenhouse gas emissions by 30% in the year 2030, relative to the BAU scenario of 7 MtCO<sub>2</sub>e. The majority of power originates from fossil fuels, ambition is to have 30% renewables in 2030

### Fossil fuel reform efforts in Mauritius.

- Petroleum and vehicle excise tax
- Maurice Ile Durable (MID) levy to finance clean energy projects
- Renewable energy feed-in-tariffs

## 1. Carbon pricing outlook

With the introduction of the framework Maurice Ile Durable (MID in 2008, the country already operates a set of instruments which is close to an explicit carbon tax with recycling of revenues towards environmental action.

The MID imposes levy of 30 cents payable into the MID Fund on each liter of petroleum products, kilo of Liquid Petroleum Gas (LPG) and kilo of coal to finance clean energy projects such as solar water heaters.

In 2015, the MID and other environmental related taxes and charges provided revenue of about 2.6% of the GDP. Mauritius has yet to implement a MRV system, however work is in progress to track and report on mitigation actions meeting their NDCs. This also includes discussion for setting up a MRV system for the energy sector, being the country's largest source of emissions.

Mauritius has a relatively small supply of carbon credits and emission reduction potential lower than the other countries covered in the East Africa study.

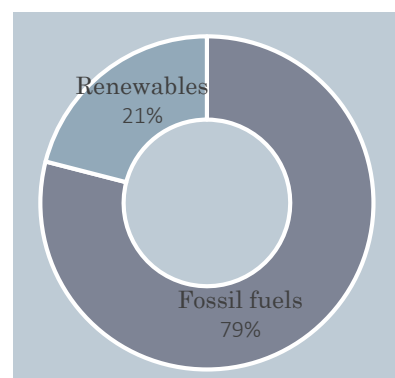
## 2. Legal perspective

The country's current tax designs can provide a platform to develop and implement an explicit carbon tax mechanism. These taxes are aimed at setting a disincentive for emission in the energy sector and while its proceeds are used among others to incentivize the uptake of emission reduction projects in the country. The MID development is among key medium- to long term objectives in the National Energy Strategy and close in design to the ideal tax for mitigating CO<sub>2</sub> emissions.

Additionally, the National Environment Policy has a range of policy tools that can support further development of carbon pricing instruments, which include: Financial Support Programmes (innovative financing mechanisms to support cleaner investment and environmental management, including use of the CDM for infrastructure development); and, market-based or economic instruments (providing incentives to drive behavioural change).

### Mauritius's involvement in mitigation instruments

CDM PA	4
CDM PoA	1
VCS	1
REDD+	/
CORSIA	/



# UGANDA

## Emission and energy profile

Total GHG emissions **49 MtCO<sub>2</sub>e (2012)**

### By sector

Agriculture	48%
Land use change	38%
Waste	1%
Energy sector	N/A
Industrial processes	N/A

As per its NDC, Uganda intends to curb its GHG emissions by 22% in the year 2030, relative to the BAU scenario of 77.3 MtCO<sub>2</sub>e

### Fossil fuel taxation/pricing in Uganda.

- Increased environmental tax for imported motor vehicles of 8 years or older
- Renewable energy benefits from a feed-in tariff and exemption from import duty
- Taxation on the following GHG intensive goods: fuel and gas (except for the power sector), cement

## 1. Carbon pricing outlook

According to the NDC, Uganda intends to meet its commitments and/or increase the level of its contribution through the use of international market mechanisms where appropriate, building upon the experience of the Clean Development Mechanism and other existing market mechanisms.

Uganda has been involved in a considerable amount of CDM projects. NDC efforts could increase credits which could be traded in an ITMO system that will attract foreign investment in the country. Ugandan government revealed that implementing a carbon tax is considered as part of mitigation policy. Steps in pollution standards in the industrial sector and emission thresholds in industrial and business parks is a suggestion Ugandan government is considering. However, feasibility assessments are required to inform this step.

The Global Green Growth Institute is currently supporting the Climate Change Department of the Ministry of Water and Environment in Uganda to develop an operational MRV framework. The system is aimed to track the flow of climate finance and the sustainable development impacts that contribute to the implementation of the NDC goals. With support from the German Ministry for the Environment, the GIZ Global Carbon Markets programme in Uganda aims to support the development of economic and carbon-pricing instruments that will support NDC implementation among the countries of East Africa.

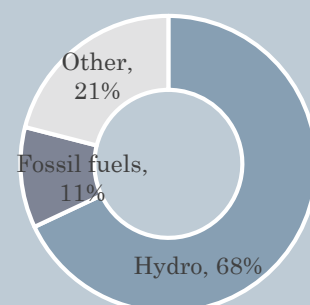
## 2. Legal Perspective

From a legal perspective the country's Climate Change Bill does not make explicit reference to the possibility of implementing carbon pricing but may be interpreted in this manner. It is the National Environmental Management Authority which can provide for fiscal, tax and other instruments to encourage good environmental practice, including the conservation of the environment and natural resources and the prevention or abatement of pollution. Should the government be able to adapt these measures and align them with the country's Climate Change Bill and tax legislation, the country will have a fairly sound platform to design a carbon tax scheme upon and implement such a system in the future.

Priority in the country is now to develop innovative climate funding mechanisms to allocate funding from environmental levies. A green investment fund could guarantee that any environmental taxes are ploughed back into environmental and climate initiatives.

### Uganda's involvement in mitigation instruments

CDM PA	19
CDM PoA	11
VCS	11
REDD+	/
CORSIA	/



# RWANDA

## Emission and energy profile

Total GHG emissions **7.6 MtCO<sub>2</sub>e** (2014)

### By sector

Agriculture	39.5%
Energy sector	23.1%
Waste	24.7%
Industrial processes	1.4%

Rwanda pledged to reduce emissions relative to business-as-usual scenario emission levels by 2030, however no quantified reduction target has been set.

### Rwanda's Green Growth Strategy

- VAT exemption for renewables
- Feed-in tariffs for renewable electricity and preferential tax treatment
- Private sector training programme aimed at capacity building for international carbon markets
- Fuel levy applied to gasoline and diesel

## 1. Carbon pricing outlook

Rwanda has currently no developments in carbon pricing mechanisms. Nevertheless, Rwanda is member of the Vulnerable 20 Group (V20). The V20 countries committed to introducing domestic carbon pricing by 2025.

Rwanda's Green Growth Strategy outlines green growth of the economy through implementation of mitigation and adaptation actions. This includes fiscal reforms such as potential taxes on environmentally harmful behavior. At the same time, the country already provides a competitive advantage to renewable energy solutions.

Rwanda has created the Green Fund 'FONERWA' which gives guidance on green growth, MRV mechanisms, and the monitoring of individual projects and overall performance. However, Rwanda has yet to develop a full MRV system.

Regarding the crediting of emission reductions achieved domestically, Rwanda has not yet utilized the potential of the voluntary market although there is a potential for emission reductions in the forestry sector, agricultural sector and from renewable energy. Rwanda also envisions the implementation of REDD+ projects in the future.

## 2. Legal Perspective

Rwanda's legal framework tends to make provision for the implementation of a carbon tax as opposed to an emissions trading scheme considering the financial and fiscal initiatives of the Green Growth Strategy. The most appropriate carbon pricing mechanism to be implemented in Rwanda would be a carbon tax on petroleum product used in the transport and industrial sectors, as these industries would be able to adapt to such a tax easier in comparison to a carbon tax on all fossil-fuels, which may impact on the livelihoods of the Rwandan community.

The greening of industry is further supported by the Rwanda Resource Efficient and Cleaner Production Centre, a proposed Climate Innovation Centre and the National Industrial Policy. Rwanda's Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon makes provision for building carbon trading capacity within the private sector to harness innovative funding opportunities provided by CDM and voluntary carbon markets.

Climate resilient and low carbon development did become a core objective of Rwanda's national development framework. Developments regarding domestic carbon pricing are there yet, a first step would be a feasibility study in order to identify the potential impacts (positive and negative) that carbon pricing would have on the country's society and economy.

### Rwanda's involvement in mitigation instruments

CDM PA	4
CDM PoA	13
VCS	/
REDD+	/
CORSIA	/

