

Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Rwanda

June Samo, Joyce Irungu, Ziana Chelimo, Jackson Kinyanjui, Eric Musizana, Agnes Uwanyiligira, Adriana Quevedo and Joseph Feyertag



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About the iGST initiative and this report series

The Independent Global Stocktake (iGST) is a consortium of civil society actors working together to support the Global Stocktake (GST), the formal process established under the Paris Agreement to periodically take stock of collective progress towards its long-term goals.

The iGST aligns the independent community — from modellers and analysts, to campaigners and advocates — so we can push together for a robust GST that empowers countries to take greater climate action. <https://www.climateworks.org/independent-global-stocktake/>

The Finance Working Group (FWG) is an open partnership bringing together expert perspectives from the global north and south on the progress made towards financing climate action. Considering the provision of support to developing countries to mitigate and adapt to climate change and the consistency of finance flows with climate objectives, the FWG aims to support the United Nations Framework Convention on Climate Change (UNFCCC) GST process as well as independently benchmark the official GST. The group is co-chaired by Charlene Watson of ODI and Courtnae Bailey of Imperial College London.



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Disclaimer: The views and opinions expressed in this study are those of the authors and do not necessarily reflect the views of the reviewers. All omissions and errors remain the authors' own.



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+ Executive summary



Article 2.1c of the Paris Agreement calls on Parties to ensure that all finance flows – whether public or private, existing or new – are ‘consistent with a pathway towards low greenhouse gas (GHG) emissions and climate-resilient development’ (UNFCCC, 2015).

However, there is an absence of official guidance on how exactly finance flows can and should be made consistent. This helps countries to take ownership and determine how to finance their own low-carbon pathways. But it also shies away from addressing some difficult questions that low-income countries with underdeveloped financial systems face in achieving just transitions towards net-zero emissions.

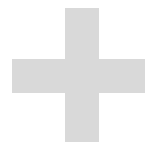
Ahead of the official Global Stocktake (GST) in 2023, this case study acts as a thought provoker and conversation starter for how to assess collective progress towards the long-term goals of the Paris Agreement in an emerging market setting. Complementing the existing case studies of High- (Switzerland) and Upper-Middle Income (Colombia) countries, it assesses public and private finance flows in Rwanda, a low-income country where GDP per capita is just shy of \$800.

A majority of Rwandans live in extreme poverty, earning less than \$1.90 a day in an economy that is largely based on subsistence agriculture. Located on the mountainous Congo-Nile Divide, the country is at increased risk of flooding, landslides and extended droughts due to the impact of climate change on increased rainfall variability. Public finance flows remain reliant on grant-based funding, while the country’s private sector is largely composed of informal small- and medium-sized informal retail enterprises.

Despite these circumstances, Rwanda has experienced meteoric economic growth averaging 7% of GDP over the last two decades. While its topography has drawn comparisons to Switzerland, the aspirations of Rwanda’s financial sector are being likened to those of Singapore. It is hailed as a developmental success story, and a pioneering force for green investment in sub-Saharan Africa. The Fund for Environment – FONERWA was established as Africa’s first Green Fund in 2012, and the country was the first in sub-Saharan Africa to update its Nationally Determined Contribution (NDC) in May 2021.

At COP26, Rwandan officials announced that the country would create a new Rwanda Green Investment Facility (RGIF). These initiatives complement existing flagship projects, such as Kigali’s Green City or the Kigali International Finance Centre (KIFC), aimed at attracting further investment into the country.

This paper represents the first substantial assessment of how well public and private finance flows comply with Article 2.1c of the Paris Agreement. As such, it can pave the way for other nations at similar stages of economic development seeking to make just transitions towards net-zero emissions.



Public finance flows

At present, Rwanda's emissions are largely driven by the agriculture and energy sectors, with future growth expected from services (especially tourism) and transportation. The country is reliant on biomass and imported fossil fuels for energy security, and dairy cows for food and nutrition security. In part, this reliance has been supported by public finance, notably the poverty-alleviating Girinka 'One Cow per Poor Family' Programme as well as \$40 million worth of fossil fuel subsidies per year.

A series of strategies, starting with the Rwanda Green Growth and Climate Resilience Strategy (RGGCRS) in 2011, have been put into place to realign public finance flows to support a low-carbon pathway. Rwanda's updated NDC is targeting a reduction of emissions by 16-38% by 2030 based on an unconditional (domestically supported) contribution and conditional (internationally supported) mitigation components. In total, mitigation and resilience interventions are estimated to require \$11 billion of climate-related investment, most of which (60%) will need to come from international sources.

Following COP 26, the country has been selected as one of five pioneer countries to better understand how to improve access to international climate finance. This will build on Rwanda's existing experience of channelling resources and facilitating access through FONERWA. Mobilising domestic sources of public climate to meet unconditional finance pledges will remain a challenge, considering the worsening debt situation in Rwanda following the COVID-19 pandemic: the debt-to-GDP ratio is estimated to increase to 71.3%.

Going forward, the government is considering carbon taxes as a way of reducing emissions in the transport, energy and housing sectors. It already uses fiscal incentives to replace the country's fleet of ageing cars with electric vehicles, as well as tax exemptions for off-grid solar systems and feed-in tariffs for renewable energy. However, there are several ways in which public finance is and continues to be misaligned with the goals of the Paris Agreement. For one, the government continues to subsidise fossil fuels to the tune of \$40 million per year to protect the energy and transportation sectors from fluctuations in international crude oil prices.

Although the government is planning to diversify the energy sector to reduce this reliance, these plans in part hinge on electricity production from peat and methane sources. Second, the government continues to fund exploration activities for oil and gas in the Lake Kivu Belt. These misalignments need to be balanced against the need for affordable energy in Rwanda and, in part, be seen as a way of transitioning away from higher-carbon fuel sources such as wood biomass in the shorter term. However, in the long term countries like Rwanda need to have viable alternatives to transition away from oil and gas.

Private finance

The government has influenced efforts to realign private finance flows in two ways. First, government strategies – notably the RGGCRS Plan of Action (PoA) – led to the creation of FONERWA, Africa's first Green Fund, in 2012. FONERWA works closely

with other entities to stimulate private sector development towards climate-related sectors. Notably, FONERWA recently announced that it would be partnering with the Development Bank of Rwanda (BRD) to establish the \$100 million Rwanda Green Investment Facility (RGIF), which will include project preparation and credit facilities.

Second, the National Agricultural Insurance Scheme, a public funding lever by the government, has enabled private sector insurance firms to direct finance to climate adaptation and resilience-building among farmers.

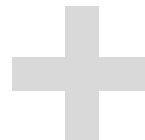
Ultimately, Rwanda's private sector is underdeveloped, which could impede efforts to realign existing flows and mobilise new private climate finance. Over 93% of enterprises in Rwanda are informal Small and Medium-sized Enterprises (SMEs), primarily involved in wholesale and retail activities. When attracting foreign large-scale private investment, the Rwanda Development Board (RDB) and the BRD do not necessarily prioritise funds for climate-relevant sectors, as demonstrated by plans to fund peat and methane-powered energy projects. Finally, there are no disclosure requirements or Environmental Social and Governance (ESG) standards that financial institutions or commercial banks need to adhere to.

However, some flagship projects and priority sectors for which international finance is being sought have features of low-carbon development. These include the Kigali Innovation City Project, a hydro-electric power plant, off-grid renewable electrification and insurance schemes aimed at adaptation and resilience in the agriculture sector. Furthermore, there are indications that foreign investors are particularly interested in carbon offsetting projects that can be registered under the Construction Design and Management (CDM) mechanism, especially in the clean cooking sector and in electric mobility. Finally, the BRD is also in the process of developing a green bond that will attract private sector finance.

Implications for Rwanda

While this paper may not yet be fully comprehensive or conclusive, it clearly reveals areas where Rwanda is relatively advanced. At the same time, it highlights areas where more work is needed to align financial flows with the third long-term goal of the Paris Agreement. These can be summarised as follows:

1. The study illustrates the importance of having a **guiding or cornerstone national policy around climate change** in order to jumpstart the process of aligning financial flows with the Paris Agreement. The 2011 GGCRS led to the establishment of FONERWA, which has been a key driver in securing international financial investments. However, financial policy and regulation will need to be updated to ensure climate finance needs can be met.
2. Tied to the development of an overarching climate finance policy is the need for a **harmonised green taxonomy or guide elaborating what climate finance for mitigation and adaptation is**. Clear definitions are lacking, which blurs the line between finance for development, climate resilience and adaptation interventions. This will improve assessments of finance flows for the GST.



3. The **shallowness of the Rwandese financial sector presents both a challenge and an opportunity for the alignment of financial flows for climate-resilient development**. It will be a challenge to mobilise the domestic finance needed to meet unconditional mitigation and adaptation targets in the updated NDC. This represents an opportunity because the nascent financial sector can be developed at the same time as greening it.
4. There is **scope for realigning public sector finance flows**. This is especially true when it comes to eliminating taxation and increasing transfers and subsidies for low-carbon initiatives (such as solar, green housing and climate-smart agriculture), while reducing fossil fuel subsidies and expanding taxation for high-carbon enterprises involved in peat, methane, oil and gas.
5. **However, the pathway to a low-carbon economy should be balanced with energy and food security** needs that are required for sub-Saharan Africa to develop. One such step would be to subsidise geothermal, solar or wind power instead of imported fossil fuels, and to introduce measures to cut emissions from the dairy industry.

+ 1. Why collate country actions supporting Article 2.1c of the Paris Agreement?



The long-term goal of making finance flows consistent with a pathway towards low GHG emissions and climate-resilient development is neither defined nor fully articulated under the United Nations Framework Convention on Climate Change (UNFCCC) process. Nor has there been a place in the negotiations to discuss and develop the concept of the climate-consistency of finance flows (Bodle and Noens, 2018) or any requirements for Parties to the Paris Agreement to report on this consistency.¹

At the same time, the concept has gained traction and features in discussions over a new climate finance goal for the post-2025 period. Commitments to 'align' with the Paris Agreement and seek net zero emissions have been made in both public and private institutions (MDBs, 2018; Cochran and Pauthier, 2019). Unpacking how to fully operationalise these commitments on Paris alignment, however, remains a work in progress (Carter, 2020).²

The Global Stocktake (GST) is the mechanism that will be used to measure the collective progress in achieving the three long-term goals of the Paris agreement. The GST is set to be completed in 2023 and take place in five-year cycles thereafter. The foundations of the GST do not have highly detailed provisions and so far allow ample flexibility, including in how to take stock of collective progress towards Article 2.1c (Watson and Roberts, 2019; UNFCCC, 2021). Developing discussion on how to operationalise Article 2.1c at a country level can, therefore, create useful lessons and encourage further action. It may also support a meaningful discussion on collective progress in the first GST that was launched at COP 26 in 2021, and will complete in 2023 (UNFCCC, 2015).

It will fall to governments to ensure there is accountability under the Paris Agreement. Therefore, there is a rationale to focusing on the levers that public actors create for finance flows, both public and private, by generating incentives and disincentives. Recognising that public flows alone are not sufficient for a transition to low-emission, climate-resilient pathways, these public levers could include financial policy and regulation, fiscal policy, public investment and information instruments (GGBP, 2014; Watson and Schindler, 2017; Whitley et al., 2018) (Table 1). However, a transformation of the financial system as a whole that is consistent with climate action will still require additional regulatory, structural and capacity efforts for both public and private flows.

¹ It has, however, been suggested that countries could voluntarily choose to do so in their biennial transparency reports (Whitley et al., 2018).

² There are, however, a few examples of alignment that could be followed by financial institutions, e.g. the European Investment Bank (EIB)'s commitment to align all of its financing activities with the principles and goals of the Paris Agreement by the end of 2020, and to dedicate 50% of its financing to climate action by 2025, while ensuring that the other 50% is consistent with and does not undermine the EU's climate mitigation and adaptation objectives (EIB, 2020).

Table 1: Government-led tools to encourage the consistency of finance flows with climate ambitions

Financial policies and regulations (primarily influence behaviour through force of law)	Fiscal policy levers (primarily influence behaviour through price)	Public finance (primarily influence behaviour by shifting financial risk)	Information instruments (primarily influence behaviour through awareness)
<ul style="list-style-type: none"> • lending requirements • accounting systems • mandates of supervisory authorities • standards • plans and strategies • disclosure requirements <p><i>(where mandatory and enforced)</i></p>	<ul style="list-style-type: none"> • taxes • levies • royalties • price support or controls • public procurement • budget support <p>(including for establishment of public funds and finance institutions and state-owned enterprises)</p>	<ul style="list-style-type: none"> • grants • debt • equity • guarantees • insurance <p>(from public pension funds, sovereign wealth funds and public finance institutions)</p>	<ul style="list-style-type: none"> • certification and labelling • transparency initiatives • corporate strategies • awareness campaigns • statistical services • scenario analysis and stress testing • standards • plans and strategies • disclosure requirements <p><i>(where voluntary)</i></p>

Source: Whitley et al. (2018)

The Independent Global Stocktake (iGST) (Box 1) can use its independence to work with a wide range of actors across political and technical challenges. In this case, the challenge relates to the progression of discussions on the consistency of finance flows with low-emission, climate-resilient development pathways.

This case study of action towards consistency of finance flows in Rwanda includes the concise and high-level early mapping of government-led policy levers and, where feasible, private initiatives. Building on a framework of government levers that can help to operationalise consistency (Whitley et al., 2018), it identifies the financial policy and regulation, fiscal policy, public finance and information instruments relevant to climate action, as well as different initiatives and consistency trends in private flows already present in Rwanda.

It also highlights future challenges for the country's pursuit of consistency. The case study is intended to be a thought provoker and conversation starter. It is the third in a series of cases assessing the climate consistency of finance flows. The others have been developed for Colombia and Switzerland.

Box 1 What is the iGST and the Finance Working Group?

The Independent Global Stocktake (iGST) is a data and advocacy initiative, led by the Climate Works Foundation, that brings together climate modellers, analysts, campaigners and advocates to support the Paris Agreement. The iGST is structured into four working groups (covering adaptation, mitigation, finance and equity), with additional activities undertaken by an umbrella group of iGST partners. The objective of the iGST is to positively influence the official Global Stocktake (GST), by supporting information collection, technical assessment and political consideration, as well as bolstering national, regional and subnational relevance in the process.

The Finance Working Group (FWG) of the iGST is an open partnership that brings together a wide range of expert perspectives from its members from the global north and south. Focusing on the finance-related aspects of the Paris Agreement, 'finance' as used by the working group encompasses two core, interrelated topics. It considers both the provision of support to developing countries to mitigate and adapt to climate change (Article 9), and the consistency of all finance flows with climate objectives (Article 2.1c).

The ultimate goal of the FWG is to support more ambitious country pledges and domestic actions by 2025, which will lead to substantial progress towards meeting all three of the long-term goals of the Paris Agreement. To achieve this goal, the FWG's long-term objective is to have direct influence of the UNFCCC GST process, through the production of knowledge, outreach and support for appropriate data inputs, and to support a benchmarking of the official GST through the assessment of progress on financing the commitments to the Paris Agreement. It will also support an active, independent civil society on the issues surrounding the financing of climate action.

+ 2. Country and market context



The Paris Agreement adopts a bottom-up, country-driven approach. It has shifted multilateral negotiations away from a top-down, target-setting model, so that countries themselves define their own pathways to becoming low-emission, climate-resilient economies. For the operationalisation and pursuit of consistency of finance flows and in the absence of predefined criteria, this suggests there will be nationally driven interpretations, but it also necessitates transparency, whereby each country's interpretation of 'consistency' can be scrutinised to give it legitimacy. This further allows country progress to be acknowledged considering common but differentiated responsibilities and respective capabilities.

It is worth noting that most countries are more invested in their response to climate change through mitigation activities, as opposed to developing climate resilience and adaptation measures. This is reflected in this Rwanda case study that features more examples of financial flow alignment for mitigation compared to adaptation and resilience. This section outlines the relevant country and market contexts within which Rwanda will need to make finance flows consistent with a low-emission, climate-resilient development pathway (Box 2).

Box 2 Rwanda at a glance

UNFCCC country grouping: Non-Annex 1/Least Developed Country (LDC)

World Bank classification: Low-income country

Gross domestic product (GDP): \$10.334 billion in 2020, annual average GDP growth rate of 7% except for 2019 ([World Bank, 2021](#))

GDP per capita: \$798 in 2020 ([World Bank, 2021](#))

Inflation: 8.3% in 2020 ([World Bank 2021](#))

Foreign direct investments: outward flows: \$99.92 million (2020)

UN Human Development Index: 0.543, (low), ranked 160/189 countries (2019)

World Bank ease of doing business score: 55.75, ranked 38/190 countries

Public budget: \$3.1 billion for 2020/2021 fiscal year, \$220 million increase from 2019/2020 revised budget (Government of Rwanda, 2020)

Public debt: 66% of GDP in 2020, up from 58% in 2019.

Taxes and other revenues: 14.6% (of GDP) (2019 est.)

Population: 12.95 million, an annual average growth rate of 2.63% since 2017 (of which 17.4% live in urban areas) (2020)

Sovereign credit rating: B+ ([Fitch Ratings, 2021](#))

Share of financial sector activities in GDP: 3%

Poverty: 55% of Rwanda's population is in poverty (<\$1.90), Gini index of 0.43 (World Bank 2017)

Sources: World Bank, 2021; Trading Economics, 2021; UNDP, 2020; Government of Rwanda, 2021; Statista, 2021; World Bank, 2020; World Bank, 2017; Fitch Ratings.



Rwanda is a small but densely populated country located in equatorial Eastern Africa, similar in size and population to Belgium. Most of the country sits on a plateau at an altitude of around 1,000 metres above sea level, situated between the Western Highlands of the Congo-Nile Ridge and the Eastern Lowlands. This provides a wide range of ecosystems, ranging from cooler and wetter mountain rainforests to warmer and drier savannah woodland. Average annual temperatures and precipitation vary between 15-17°C and 1,600mm in high altitude areas to 30°C and 900mm in lowlands.

There is a short rainy season between September and November and a longer rainy season between March and May. Climate change has seen the dry seasons in between become longer, while rainfall is becoming more intense. Rainfall variability is predicted to increase between 5% and 10%, which will also increase the likelihood of floods and landslides being triggered in Rwanda's steep valleys and slopes. The mean temperatures have moreover been seen to rise between 1.4°C and 2.56°C from 1971 to 2016, especially in the lower-lying, warmer and drier south-western and eastern regions of the country (Rwanda NDC, 2020).

2.1. Key economic sectors and their emissions

Since the 1994 genocide and the near-collapse of Rwanda's economy, the country has achieved impressive economic growth. Human development standards in Rwanda have significantly improved with a two-third drop in child mortality, near-universal primary school enrolment, a decline in poverty from 77% in 2001 to 55% in 2017, and a fall in inequality (World Bank, 2021). The country has experienced steady annual economic growth of 7% of GDP over the last two decades, which has been slowed down, only by the recent COVID-19 pandemic in 2020 causing a 3.4% decline in GDP growth (World Bank, 2021c).

Overall, Rwanda's carbon GHG emissions are comparatively low, amounting to 0.64 tonnes of CO₂e per capita. This compares to 9.53 tonnes of CO₂e per capita in Belgium, or 17.74 in the United States (ClimateWatch, 2018).

A key economic sector driving the sustained GDP growth in Rwanda is the agricultural sector, which contributes an estimated 30% to national GDP (World Bank, 2021). It employs about 76% of the population (NISR, 2020), and makes up 63% of Rwanda's export value (Weatherspoon et al., 2021). Agricultural production in Rwanda is, however, mostly rain-fed which limits crop production and yield.

The sector accounts for the largest share of total carbon emissions at 2.94 MtCO₂e (55% of total emissions), largely methane gas from enteric fermentation of Rwanda's large population of dairy cattle (see Figure 1). The Girinka programme established by the government of Rwanda in 2006 to provide poor farm households with a crossbred dairy cow has partly contributed to these high emission rates (Paul et al., 2018).

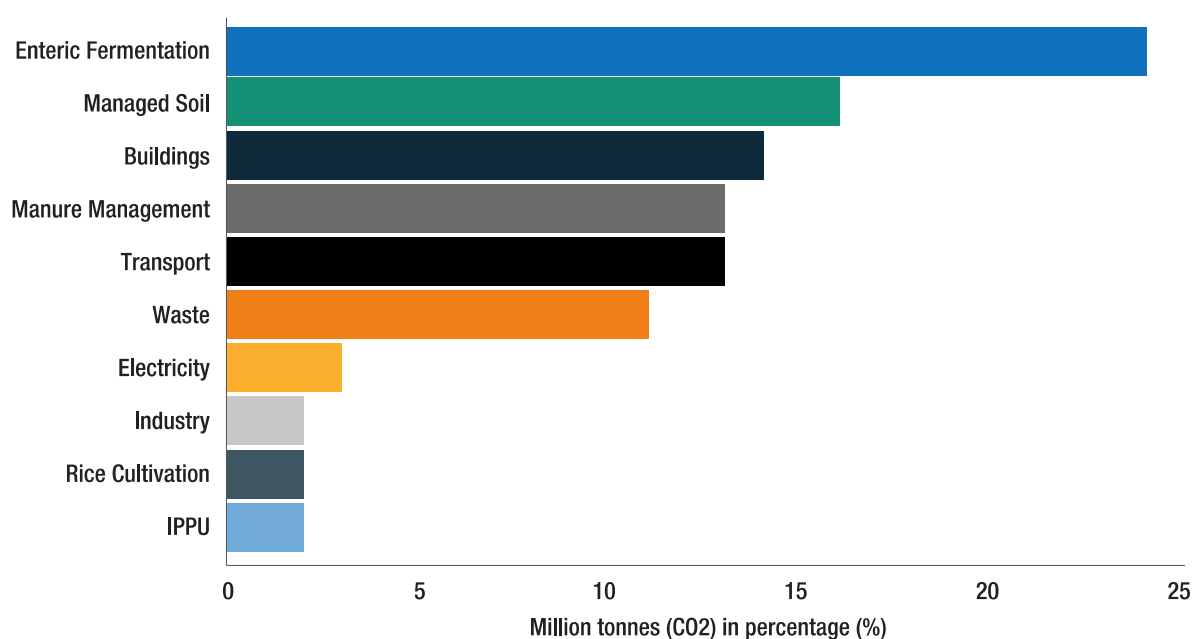
The energy sector is the second largest emitter of carbon and produces 1.68 MtCO₂e of carbon, which represents 31% of the total carbon emissions in Rwanda at (Rwanda NDC, 2020). These high emissions stem partly from the fact that over 80% of Rwandan households rely on biomass sources including wood fuel, charcoal, biogas, and crop waste for cooking (Rwanda NDC, 2020).

The overreliance on traditional energy in Rwanda has represented a major hurdle in reducing its carbon emissions, and increasing the use of sustainable biomass and charcoal has become a key priority for Rwanda's energy policy (ibid.). Electricity generation from heavy oil and peat sources (fossil fuel sources) makes up about 66% of the electricity production mix, which also contributes to the emissions from the energy sector (ibid.). The sector contributes about 5% to Rwanda's national GDP (REMA, 2011).

The service and tourism industry is a significant driver of the Rwandese economy and is expected to play an even larger role in economic growth in the country (Odunga et al., 2019). According to the 2018 Gross Domestic Product report by the NISR, the service sector (including tourism) contributed 47% to Rwanda's national GDP in 2015. Tourism revenues have also been increasing steadily and reached highs of \$498 million in 2019 before declining to \$121 million in 2020 due to travel restrictions imposed in response to the COVID-19 pandemic (The Rwanda Development Board, 2020). Emissions from the service sectors cannot be explicitly quantified but are generated from transportation, buildings, and electricity use (Figure 1).

Rwanda's transport sector currently emits about 0.69 MtCO₂e or 13% of Rwanda's total carbon emissions (Rwanda NDC, 2020). GHG emissions from the sector are mainly generated from the road fleet consisting of cars and motorcycles. It is the fastest growing source of emissions in the country due to rapid urbanisation and increasing vehicle ownership (The Rwanda Environmental Authority, 2011). Other contributing factors to the high emissions from the sector include an ageing vehicle fleet, poor fuel quality and lack of mandatory roadworthy emission tests (Ayetor et al., 2021).

Figure 1 Rwanda's GHG emissions by source in 2015, Million tCO₂e (Adapted from Rwanda's NDC, 2020)



2.2. Key climate-related risks in Rwanda by economic sector

Despite Rwanda's relatively low contribution to GHG emissions globally, the country is highly vulnerable to the effects of climate change (Rwanda NDC, 2020). As a result, Rwanda is experiencing a combination of physical and transitional climate risks. Some of the transitional climate change risks the country is currently facing include policy change liabilities, the necessity for technology upgrades, and stranded assets. Physical risks include landslides and flooding, as well as prolonged dry spells and extreme droughts (Rwanda NDC, 2020). Figure 2 illustrates the general financial impacts that could arise from physical and transitional climate risks.

Figure 2 Examples of general physical and transitional climate risks

Source: Center for International Climate Research³

The climate risks have knock-on effects on Rwanda's main economic activities, including agriculture, transport and energy. In the agricultural sector, natural climatic disasters force frequent bailouts of farmers by the national government. The government, for example, has included an annual 10% budgetary allocation to handle the physical repercussions of extreme weather events in agriculture and other sectors of the economy (The New Times, 2020). Government schemes such as the National Agricultural Insurance Scheme (NAIS), where farmers purchase insurance subsidised by the government, necessitates redirection of government expenditure to enable farmers to adapt to climate change. Physical climate risks such as drought and flooding have also led to a loss of biodiversity in Rwanda's parks, which is reducing revenues from tourism, a growing sector in the country.

Transition risks affect the transport and energy sectors. The government has long-term goals to electrify vehicles of all types. This will require development of requisite infrastructure; discarding, abandonment or repurposing of old vehicles; and the development of policies and regulations on e-transport. These all have significant costs attached. In the energy sector, about 40% of energy in Rwanda is generated from thermal, coal-fired power plants and peat (Rwanda Energy Group, 2021). A transition to more renewable forms of energy will necessitate the establishment of new technologies and decommissioning of thermal and peat power plants.

2.3. Climate-related investment needs

In 2011, Rwanda adopted the GGCRS. This strategy highlights how climate change adaptation and mitigation actions can be mainstreamed in line with economic planning. In addition to the GGCRS, guiding documents include Rwanda Vision 2050, the National Strategy for Transformation (NST1), the Strategic Programme for Climate Resilience (SPCR) and Sustainable Energy for All (2015-2030).

Sector strategic plans and other sectoral policies provide the basis for the development of adaptation, and mitigation and adaptation interventions.

Rwanda estimated that the investment levels based on each emitting sector as outlined in the documents above to finance mitigation interventions from 2020 to 2030 would be \$5.7 billion

³ <https://cicero.oslo.no/en/CF-transitional-risk>

-- most of which would in fact be for adaptation interventions such as soil and water conservation, fertiliser use and composting in agriculture (Figure 3).

Separately, the investment needed for just adaptation interventions for the same period was estimated to be \$5.3 billion (Updated NDC 2020) (Figure 4).

Figure 3 Share of mitigation investment requirements from the total \$5.7 billion through to 2030 (Adapted from the Updated Rwanda NDC 2020)

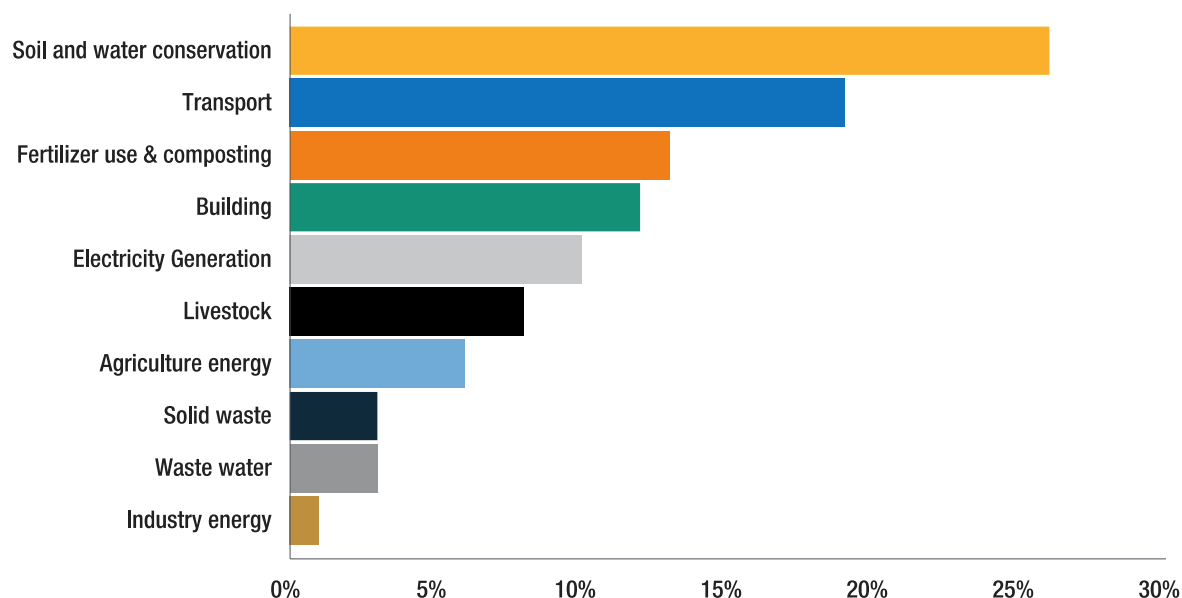
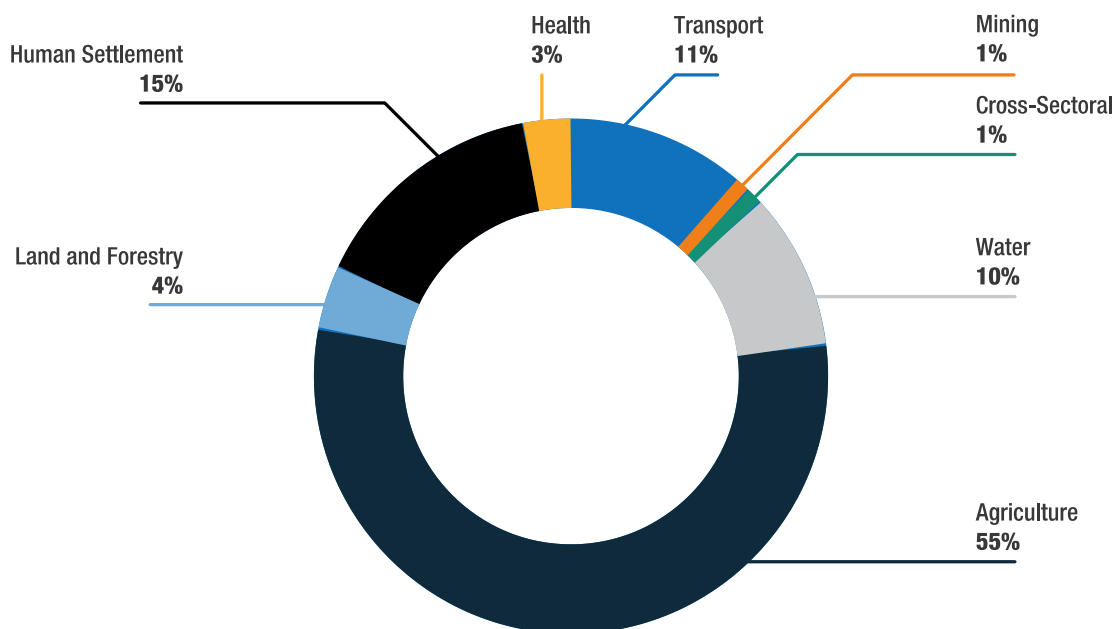


Figure 4 Share of adaptation investment levels from the total \$5.3 billion through to 2030



Source: Updated Rwanda NDC 2020.

Rwanda's Green Fund, FONERWA, has acknowledged that the \$11 billion needed for both adaptation, and mitigation and adaptation, interventions is quite ambitious (KT Press, 2021). However, FONERWA deems it achievable given Rwanda has good governance systems already in place to fast-track implementation. The support the country has received from the

NDC partnership and the World Bank also ensures that ambitions included in the NDC are reflective of the needs and capabilities within the country (NDC Partnership, 2020).

Additionally, at the recently concluded COP26 in Glasgow, Rwanda was selected as a pilot country for understanding how to improve and develop new approaches for accessing to climate finance.

According to Aid Atlas (2021), the progress and commitments the country has made so far have attracted international funding and Rwanda has received a total of \$1.19 billion in development finance targeting climate change from 2002 to 2019.

Of this amount, 59.1% was targeted at mitigation activities, 33.7% at adaptation and 7.2% at both mitigation and adaptation activities. This funding has been obtained primarily from the International Development Association (IDA) (\$501 million), the African Development Fund (\$192 million) and the African Development Bank (\$128 million). The funding has provided Rwanda with the requisite technical assistance and climate funding support to leverage international climate finance.

One of the major factors that could impede the achievement of the targets is the failure to stabilise the current debt situation in Rwanda occasioned by the COVID-19 pandemic. The fact that international financiers have not honoured climate finance pledges under multilateral agreements could also pose a potential challenge in achieving the conditional contributions⁴ outlined in the updated NDC.

2.4. COVID-19 and debt

Prior to the COVID-19 pandemic, Rwanda was described by the World Bank as being 'in the middle of an economic boom' (World Bank, 2021), with GDP growth averaging over 7% annually in the last 20 years (International Trade Administration, 2021). GDP growth exceeded 9% in 2019, a 0.88% increase from 2018 and a 5.48% increase from 2017 (World Bank, 2021). The growth in 2019 was driven by investments worth \$2.46 billion, mostly in the energy and manufacturing sectors which accounted for 45% and 30% of the investments respectively, followed by the construction, agriculture and services sectors (Government of Rwanda: Economy and Business, 2021).

Although the country is expected to recover strongly in the coming years through sustained fiscal stimulus and a robust vaccination rollout (International Monetary Fund, 2021), the pandemic has had a significant impact on the economy. For the first time in two decades, Rwanda's economy fell into a recession in 2020, with GDP declining by 3.4%. The debt-to-GDP ratio in 2019 increased to 56.7%, up from 19.4% in 2010.

This ratio is estimated to have reached 71.3% of GDP in 2020 due to increased borrowing needs as a result of the pandemic (World Bank, 2021), and the issuance of a sovereign bond worth \$620 million to finance upcoming repayments (Stubington, 2021). This has added to existing fiscal pressures and reduced or diverted public expenditure targeted at green growth towards efforts aimed at tackling the pandemic instead.

To strengthen Rwanda's public health preparedness, the World Bank has provided a \$14.25 million credit through the Rwanda COVID-19 Emergency Response Project. In addition, the government has set up the Economic Recovery Fund. This is to support the recovery of

⁴ An additional reduction of 22% relative to BAU in the year 2030; equivalent to an estimated mitigation level of 2.7 million tCO₂e in that year. This represents an additional targeted contribution, based on the provision of international support and funding.

businesses hardest hit by COVID-19 so that they can survive, resume operations and safeguard employment with hotels being allocated the largest share at \$48 million (National Bank of Rwanda, 2020). In July, the government received approval of a \$100 million loan from the Beijing-based Asian Infrastructure Investment Bank (AIIB). It is expected that most of this will go to the SME sector, which has been heavily impacted by the pandemic. The country also relies on other forms of external financing through grants, and concessional and non-concessional borrowing in financing public investments (World Bank, 2021).

+ 3. Public levers supporting the consistency of finance flows with 2.1c



3.1 Overall strategies and targets

As with most African countries, Rwanda's contribution to GHG emissions is low; estimated at 0.6tCO₂e/person (GoR, 2011; ClimateWatch, 2018). However, its ambitious economic development plan means emissions from deforestation, agriculture, land use and energy use are significant enough to warrant a mitigation response. Mainstreaming environment and climate change commenced with the GGCRS in 2011.⁵ One of the key outcomes of the implementation of the strategy was reducing the dependence on thermal (diesel and heavy fuel oil) electricity production from 39% to 27% (GOR, 2018), inevitably leading to an abatement of 179,000 tCO₂ between the years 2013 and 2017 (REG, 2019).

Aside from abating GHG, the move is also expected to reduce the annual subsidy burden of \$40 million provided by the Government of Rwanda to lower the domestic electricity tariffs (Bimenyimana et al., 2018). A second outcome has been the formation of Rwanda's national fund for climate and environment known as FONERWA created to channel domestic resources and facilitate access to international climate finance, among other funding sources.

In May 2021, Rwanda was the first African country to submit an updated NDC. Rwanda's total emissions excluding forestry were estimated at 5.33 million tonnes of CO₂e for the base year 2015 and forecasted to increase to 12.1 million tCO₂e in 2030 under the Business as Usual (BAU) scenario. The mitigation options present an emission reduction potential of around 4.6 million tonnes of CO₂ by 2030. The ambitious climate target has promised to cut emissions by at least 16% by 2030, with the potential to go up to 38% (GoR, 2020). Rwanda's mitigation contribution takes the form of reduction through two components detailed in Table 2:

- i. **Unconditional contribution:** A reduction of 16% relative to the BAU in the year 2030. The unconditional target is based on domestically supported and implemented mitigation measures and policies.
- ii. **Conditional contribution:** An additional reduction of 22% relative to the BAU achieved based on the provision of international support and funding.

Table 2: Estimated total mitigation and adaptation funding needs through to 2030 (Rwanda NDC, 2020)

Measures	Unconditional (\$ millions)	Conditional (\$ millions)	Grand total (\$ millions)
Mitigation and adaptation measures (2020-2030)	2,010	3,667	5,677
Adaptation measures (2020-2030)	2,145	3,218	5,364
Total	4,155	6,885	11,041

⁵ There are indications that the government is in the process of updating the 2011 GGCRS following the results of an evaluation of the GGCRS that was conducted 2018.

For both the mitigation and adaptation, and the adaptation only, measures, 40% of the total estimated funding requirements is unconditional – that is, sourced from domestic funding. 60% is conditional, therefore sourced from international funding. The conditional contribution will be actualised through the use of climate finance and international market mechanisms. Rwanda was selected as one of the five pioneer countries for the Taskforce on access to climate finance initiated by Fiji and the United Kingdom (UK) and announced in the recently concluded COP 26. The trials will support faster, easier access to climate finance for developing countries (UNFCCC, 2021).

Implementation of the unconditional mitigation measures is intertwined with the implementation of prioritised policies (NDC, 2020). Some of the policies include Vision 2020 and Economic Development and Poverty Reduction Strategy II (EDPRS II 2013-2018). This contains objectives designed to drive off-farm employment through the development of green cities, and thereby help farmers as one of the most susceptible groups to adverse climate events (among others as indicated in Table 3).

The National Strategy for Transformation (NST 1 2017-2024) mainstreams climate change by stipulating outcome targets. These include reducing biomass usage for cooking, increasing forest coverage of total surface areas, promoting sustainable agriculture through erosion control measures, and increasing land under irrigation. The strategy precedes Rwanda's 2020 NDC, but there are clear linkages between the proposed activities and those in the NDC (Table 3). Synchronisation is important as for each activity a domestic budgetary allocation is given.

Table 3: National strategies linked to Rwanda's NDC 2020 (non-exhaustive list)

#	National strategies	Climate-related objectives	Linkages to NDC 2020
1	Vision 2020	Percentage of land area to maintain biodiversity increased from 10.13% to 10.3%.	
		Increase forest cover from 22.4% to 30%	Promote afforestation or reforestation of designated areas
		Percentage of households using wood energy as a source of energy (94% to 50%)	Distribution of efficient cook stoves
2	The National Strategy for Transformation (NST 1 2017- 2024)	Reducing biomass usage for cooking from 79.9% (2017) to 42% (2024)	Distribution of efficient cook stoves
		Increasing forest coverage from 29.8% (2017) to 30% (2024)	Promote afforestation or reforestation of designated areas
		Increasing land under erosion control measures from 1,034,509 Ha to 1,150,124 Ha (2017 - 2024)	Soil and water conservation
		Increasing land under irrigation from 48,500 Ha (2007) to 102,000 Ha (2024).	Expand irrigation and improve water management
3	EDPRS 2013-2018	Piloting 6 green cities *The final outcome was the development of a green city toolkit and roadmap, identification of an initial pilot for the Green City Pilot, and the mobilisation of \$7 million of resources for the pilot (MINENR, 2018)	Human settlement – high-density buildings and informal settlement upgrading
4	National Housing Policy 2015	Developing energy efficient building standards indicated by the percentage of building	Efficient lighting and buildings

		permits applying green and smart building principles (SSP)	
		Integrated urban and rural settlements indicated by the percentage of development projects executed in line with integrated local development plans (SSP)	Human settlement – high-density buildings and informal settlement upgrading
4	National Energy Policy (2015)	Increase the share of renewable energy by exploiting indigenous resources i.e. hydropower, geothermal, solar and methane gas	Development of 56.75 MW large hydro capacity and 24.5 MW small and mini hydro projects 68 MWp of solar mini-grids to be installed Penetration of off-grid solar and rooftop solar PV panels

The National Environment and Climate Change Policy of 2019, succeeding the GGCRS, provides a framework to tap into opportunities of a green growth-led and climate-resilient economy. Three key policy actions directing financial flows to low-carbon pathways include i) mainstreaming low-carbon growth options into the planning and budgeting processes of the national and local governments; ii) developing and enforcing public procurement guidelines to promote the use of environmentally friendly, resource-efficient goods and services; and iii) exploring innovative green financing solutions.

Table 4: Government-led levers supporting consistency of finance flows in Rwanda**Legend**

Implementation status	Paris alignment status
Implemented or to be implemented	In line with scientific 1.5°/2°C scenario or Climate Action Tracker fair share target (Climate Analytics and NewClimate Institute, 2021a)
Under discussion by government	Progress in right direction, but not sufficient
Rejected or disregarded by government	Misaligned without considerable progress towards alignment
Not yet on government agenda	No information available

Government lever	Measure	Context	Mitigation-relevant activities	Adaptation-relevant actions
			Quantitative and qualitative information	Quantitative and qualitative information
Policy	Overall plans and strategies	Green Growth and Climate Resilience Strategy (GGCRS) (2011-2018) sets the framework for mainstreaming climate change and green growth in national socioeconomic planning.	Institutionalisation and operationalisation of the National Fund for Environment – FONERWA, and mobilisation of \$159 million; Support of 33 projects by end of 2018. Promote CDM and voluntary carbon projects in Rwanda: Registered several CDM projects (renewable energy projects such as Solar PV plant of Rwamagana, hydro plants and improved cook stove projects).	The strategy encourages conservation through Payment for Ecosystems Services (PES) schemes (a climate adaptation measure). The natural capital accounts and total economic valuation for water, land and mining sub-sectors were incorporated in the national system. The strategy also includes provisions for disaster management. It highlights the need to incorporate disaster considerations into land-use, building and infrastructure regulations.
		The National Financial Inclusion Strategy (NFIS)		The National Bank of Rwanda has made the impacts of climate change an explicit part of its NFIS. The strategy underscores the necessity of providing insurance and microinsurance to help reduce climate-related risks and volatility.
Fiscal Policy	Taxes and levies	The National Energy Policy (2015)	Tax exemption provisions are provided within the National Energy Policy with the aim to increase off-grid energy services including the development of distributed, small-scale renewable energy solutions and business models. The policy indicates that VAT and import duty exemptions will be provided for solar standalone systems. However certain solar products are still not tax exempt. Taxes levied on solar components (appliances and equipment that are not on the exemption list) totalled RWF93.95 million or \$92,134 for the year 2019-2020 (ACE TAF, 2020). This is equivalent to 0.07% of all import tax that year.	

		Strategic Paper on Electric Mobility Adaptation in Rwanda (2021)	<p>The strategic paper indicates that e-mobility has a mitigation potential of 0.1377 MtCOe. The estimated cost of investment to achieve this mitigation is estimated at \$900 million (NDC 2020).</p> <p>Proposed tax incentives in the strategic paper include:</p> <ul style="list-style-type: none"> • Capping electricity tariff for charging stations at the industrial tariff level (large industry category) • Reducing electric vehicle tariffs during off-peak times • Zero-rating of electric vehicles, spare parts, batteries and charging station equipment • Exemption of import and excise duties on electric vehicles, spare parts, batteries and charging infrastructure 	
			<p>Vehicle Emission Standards</p> <ul style="list-style-type: none"> • Phase out internal combustion engines (ICEs) with old driving technologies to reduce emissions, reduce GHG and local emissions from gasoline and diesel use • Increase tax on ICE cars that are older than ten years⁶ • Introduce carbon tax to discourage polluting vehicles 	
		Investment Code 2021	The code outlines a 15% preferential corporate income tax rate for foreign private companies dealing in e-mobility as well as affordable housing.	

⁶ This refers to the time between the year of car manufacture and the year of sale in Rwanda

	Price support or controls	The National Energy Policy 2015 and the 2012 Regulations on Renewable Energy Feed-in tariffs (REFIT) These are feed-in-tariffs for electricity generated from Hydro plants. There are no Feed-in-tariffs for IPPs harnessing wind and solar energy.	The tariffs published in 2013 apply to small and mini hydro plants from 50 kW to 10 MW. The regulations are meant to incentivise private sector players and promote the displacement of GHG emissions from fossil power generation, such as peat and diesel. The policy supports plans outlined in the NDC to develop 24.5 MW from small and mini-hydro projects. The Rwandan REFITs are valid for a period of 3 years after which they will be subject to review by the Rwanda Utilities Regulatory Authority (RURA). It is unclear whether the REFIT was renewed.	
		Fossil Fuel Subsidies in the Electricity Sector The Government of Rwanda provided electricity sector subsidies that averaged 1.8% of GDP annually from 2015-2018. (World Bank, 2019). The Government of Rwanda subsidises domestic electricity tariffs by \$40 million annually due to the high cost of fossil fuel used to operate thermal power plants (Bimenyimana et al., 2018).		
	Budget support	The Green Growth and Climate Resilience Strategy (GGCRS) The GGCRS supports the mainstreaming of climate mitigation and adaptation activities in sectoral budgets. All budgets must have a checklist that outlines climate-aligned projects that will be implemented in the sector and the corresponding monetary requirements. The budgetary allocations need to contribute to the achievement of the unconditional 16% emission reduction target in the NDC.	Support resource mobilisation for unconditional contribution funding needs of \$2,010 million. This amount represents 40% of the total amount required to achieve mitigation targets outlined in the NDC that will be raised using domestic public revenues in Rwanda.	Support resource mobilisation for unconditional contribution funding needs of \$2,145 million. This amount represents 40% of the total amount required to achieve adaptation targets outlined in the NDC that will be raised using domestic public revenues in Rwanda.
	Public finance	Grants	FONERWA Mobilised up to \$217 million through 84% international funding and 16% domestic support	FONERWA funded adaptive capacity projects in the environmental sector to the tune of \$31.6 million (MINENVR, 2018).

			(for both mitigation and adaptation). Most of this was given out as grant funding to various projects. The Government of Rwanda provides budgetary support of \$500,000 to FONERWA annually. FONERWA is also entitled to receive fees raised for environmental fines, levies and fees (including fees from Environmental Impact Assessments - EIAs) (FONERWA, 2021).	The Strategic plan on environment sector 2018 reports the financing of 32 projects aimed at reducing vulnerability to climate change and increasing adaptive capacity.
	Debt	Strategic Plan for the Environment and Natural Resources Sector 2018-2024 Scaling up green investments through consideration of green bonds and other innovative financial instruments through partnership with FONERWA	The guidelines for green bonds have not been developed and there is lack of clarity on which players are working on developing green bond guidelines in the country. Currently sector players are relying on international green bond guidelines (RFL, 2021).	
		Accreditation of the Development Bank of Rwanda (BRD) to the Green Climate Fund (GCF)	The accreditation process is still underway but if finalised will provide climate finance that will be channelled to green projects at a lower interest rate than that of traditional lending actors.	
		The Rwanda Green Investment Facility	At the CoP 26 in Glasgow, FONERWA and the BRD announced that they will be developing the Rwanda Green Investment Facility (RGIF). The facility will be worth \$100 million and will consist of two funding mechanisms, a project preparatory facility that FONERWA will be in charge of and a credit facility that the BRD will oversee.	
	Insurance	The National Agriculture Insurance Scheme 2019 This is the agricultural insurance scheme developed by the Government of Rwanda in partnership with the private sector.		The government will subsidise up to 40% of the scheme ensuring farmers easily access financial services and flow of credit to the agriculture sector ⁷ (AFR, 2019).
		EjoHeza Scheme This is a long-term saving scheme launched by the government of Rwanda and established under law N° 29/2017 to help both salaried and unsalaried individuals save for their retirement.		The scheme can be viewed as a sort of resilience building initiative for unsalaried individual or informal workers. The Government has a variety of incentives for people saving under EjoHeza scheme as outlined below. <ul style="list-style-type: none"> • A member who is in the first or second category of Ubudehe (the Rwandese social stratification system) and has saved at least 15,000 Rwandan francs has the right to a government co-contribution equal to 100% of his/her savings.

⁷ <https://afr.rw/rwanda-government-launches-the-national-agriculture-insurance-scheme-in-partnership-with-the-private-sector/>

				<ul style="list-style-type: none"> A member who is in the third category of Ubudehe and has saved at least 18,000 Rwandan francs has the right to a government contribution equal to 50% of his/her savings. Ubudehe category 4 members who save 72,000 Rwandan francs or more in Ejo Heza in a year shall also be eligible for the special insurance benefit in the following year. Therefore, if an Ubudehe category 4 member who had saved 72,000 or more Rwandan francs in a year sadly passes away the following year, the member's nominated beneficiary will be paid a one-time compensation of 1 million Rwandan francs along with a one-time payment of 250,000 Rwandan francs towards the member's funeral expenses.
Information Instruments		The National Housing Policy	The policy gives provision for green certification system for green buildings and green production.	
		The Strategic Plan for the Environment and Natural Resources Sector	Systematically track the total value of green (and efficiency) investments and corresponding returns on investment across ENR sub-sectors and key productive sectors (agriculture, energy, infrastructure, etc.), with a focus on partnerships with priority secondary cities and private industry.	

3.2. Fiscal policy and carbon pricing

Rwanda is a member of the Vulnerable 20 (V20) Group, which is committed to introducing domestic carbon pricing by 2025. An evaluation report by the V20 indicates that the most appropriate carbon pricing mechanism to be implemented would be a tax on petroleum products used in the transport and industrial sectors (UNFCCC, 2015). The carbon tax is, however, yet to be rolled out. Other fiscal mechanisms are noted in the transport, energy and housing sectors.

The Rwandan Revenue Authority (RRA) implemented a new tax methodology that revises the depreciation threshold upwards to 80% for imported cars that are ten years and older (between the date of manufacturing and date of sale). This move is set to increase the cost of used cars and limit the purchase of polluting older models⁸. The government also introduced fiscal incentives for electric vehicles to accelerate the transition into electric mobility in 2021 and the effects of the policies are yet to be actualised. Transitioning the sector to sustainable transport is especially critical given that diesel and petrol accounted for 15% of the total imports value (2011–2016), where 75% of all imported petroleum products are consumed in the transport sector.⁹

Off-grid renewable energy technologies such as standalone solar systems are exempted from VAT and import duties, and feed-in tariffs will guarantee a market for renewable electricity sold to the national grid by independent power producers.

Rwanda's NDC 2020 highlights human settlements as a priority area. Specifically, the increase of high-density buildings and informal settlement upgrading. To accelerate these efforts, the government is incentivizing affordable housing developers through subsidizing up to 30% of the costs incurred in setting up infrastructure such as roads and utilities in high-density residential developments and offering 15% preferential income tax rate (GoR, 2021) for foreign investors. Interviews with key stakeholders indicate the government is focusing its efforts on the construction of affordable housing units to address the large deficit in affordable housing. The greening of settlements is still not a key agenda and the Green Building Minimum Compliance System is voluntary. However, the push to create more affordable housing will allow individuals and households to adapt to and build resilience to climate change.

3.3. Public finance

The National Fund for Environment – FONERWA

The Rwanda Green Fund, FONERWA, was one of the first dedicated climate funds to be set up in Africa. FONERWA acts as the centrepiece of Rwanda's climate financing plan, leveraging international climate funding and domestic sources of revenue. It invests in private, NGO/CSO and public projects that facilitate a stronger, more climate-resilient and green economy. It has so far mobilised \$217 million and committed investments of \$40.5 million to 45 projects, reducing the equivalent of 93,604 tonnes of CO₂ emissions (FONERWA, 2021).

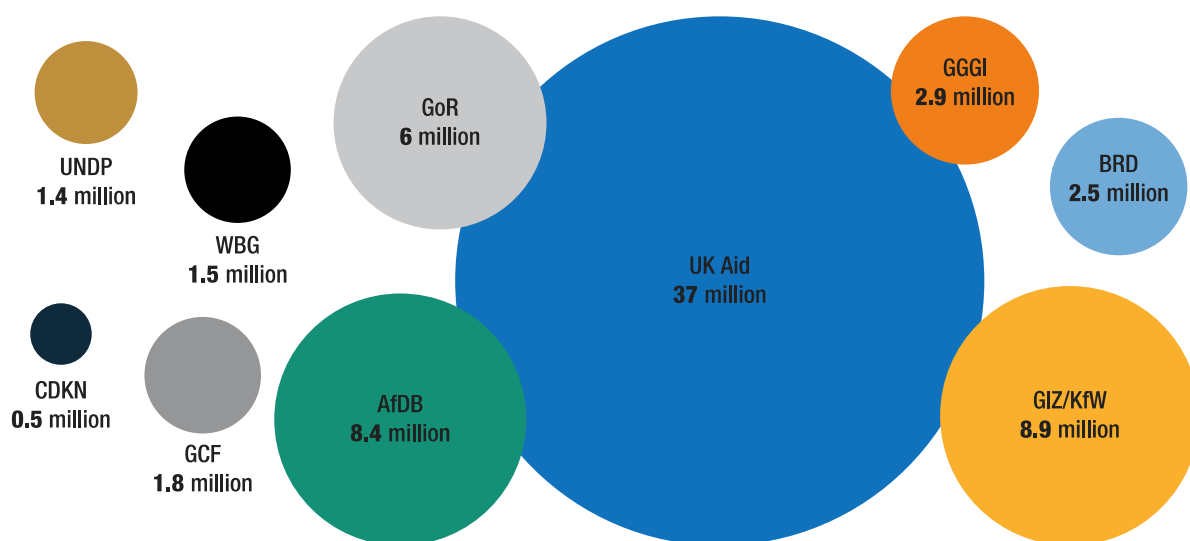
⁸ The East African (2016). Rwanda's used car importers decry new tax that has increased sale price. *The East African*. <https://www.theeastafrican.co.ke/tea/rwanda-today/rwanda-s-used-car-importers-decry-new-tax-that-has-increased-sale-price--1345834>

⁹ World Trade Organisation WT/TPR/S/384/Rev.1 • Rwanda

Figure 5 FONERWA's funding sources, disbursal instruments and beneficiaries (Adapted from FONERWA's brochure)

FUNDING SOURCES →	DISBURSAL INSTRUMENTS →	BENEFICIARIES
Domestic	Short-term	
Environmental fines and fees	Grant Component	NGOs/CSOs, Government Bodies, Commercial Banks
Environmental Impact Assessment Fees	In-kind (Proposal Development)	Government Bodies, NGOs/CSOs, Commercial Banks
Proceeds from Forestry and Water Fund	Medium-term	Commercial Banks
Seed Financing from domestic stakeholders	Low Interest Loans	Business Enterprises
Other Environmental revenue	Guarantee Component	Non-bank Finance Institutions
	Long-term	Individual or Group Loans
International	Investment Component	
Bilateral & Multilateral Development Partners	Other Innovative Instruments	
International Environment and Climate Funds		

The fund relies on domestic and international sources for financing as shown in Figure 5. The domestic sources of funding include fees from environmental impact assessments from projects in all sectors, proceeds from forestry and water funds, seed financing from domestic stakeholders and environmental revenue. Bilateral and multilateral funding is availed by partners such as World Bank, the German Development Bank KfW, the Global Green Growth Institute and the Green Climate Funds, as outlined in Figure 6. The fund has several investment products, including grants, innovation investments and credit lines.

Figure 6 FONERWA'S disclosed sources of funding in 2019

Budget support – sectoral environment and climate change mainstreaming

Aside from FONERWA, domestic resources are also directed to low-carbon pathways and climate resilience through a checklist for environmental and climate change mainstreaming annexed in each sectoral budget.

Prior to the adoption of the State budget, the Ministry of Finance and Planning (MINECOFIN) prepares a medium-term budget framework paper (BFP), which is the government statement of the global and domestic economic context of the forthcoming budget, along the fiscal policy objectives for the following three-year period. The fiscal policies reflect Rwanda's commitments outlined in the Economic Development and Poverty Reduction Strategy and Vision 2050.

The checklist was developed based on the Green Growth and Climate Change Resilience Strategy (GGCCRS), EDPRS II targets, and Vision 2020. Previously, each sector was required to submit its annual budget with strategic interventions that meet the objectives that outlined the GGCCRS. Now the sectoral budgets provide interventions that are in line with mainstreaming NDC actions. The proportion of budgetary allocation is not fixed and will vary from year to year.

3.4. Information instruments for climate-aligned investment planning

Informational instruments are expected to primarily influence behaviour through awareness and include certification and labelling, transparency initiatives, corporate strategies, awareness campaigns, statistical services, scenario analysis and stress testing, standards, plans and strategies, and disclosure requirements.

The proposed certification and labelling are in the National Housing Policy and give provision for a green certification system for green buildings and green production. The certification programme is complementary to the provision of tax incentives for green building materials and is expected to promote NDC mitigation measures such as efficient lighting in buildings.

3.5. Key actions considered to be inconsistent with climate objectives

Misalignment in the energy sector

As highlighted in Chapter 2, the energy sector accounts for 31% (1.68 million tCO₂) (GoR, 2020) of the estimated emissions in Rwanda in the baseline year of 2015. Under a BAU scenario forecast, fossil fuels will be the largest contributor of emissions leading up to 2030 due to increased power generation, road transport and energy use.

Considering Rwanda's transition into a middle-income country status, the government has outlined activities, investments and targets across four components. These are electricity generation, gas, petroleum and biomass. A review of the activities considered to be inconsistent or misaligned is further discussed below.

Electricity generation

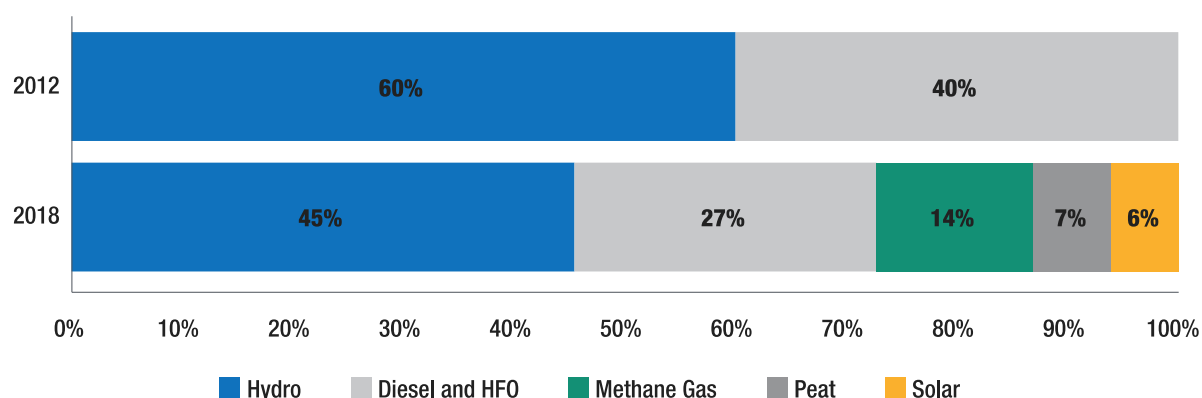
According to the Energy Sector Strategic Plan 2013-2018, Rwanda's electricity production for that period was from two main sources: i) hydro which accounted for 60%, and ii) thermal plants (diesel and heavy fuel oils, HFO) sources which accounted for 40% (Figure 7).

Due to the substantial reliance on thermal plants and imported fossil fuels, electricity costs were high, 25% higher (\$0.24/KWh) than the average tariff in East Africa (\$0.15 in Kenya and \$0.17 in Uganda) and over 20% higher than the regional average in sub-Saharan Africa (Bimenyimana et al, 2018).

Were an annual subsidy of \$40 million provided by the Government of Rwanda to lower the domestic electricity tariffs not considered, the annual prices would be even higher (Bimenyimana et al., 2018).

Government subsidy payments averaged 1.8% of GDP annually from 2015-2018. A percentage of the subsidy goes to fossil fuels import for electricity generation (not disaggregated) (World Bank, 2019).

Figure 7 Comparison of Rwanda's power generation sources in 2012 and 2018



Sources: Ministry of infrastructure, 2013; Ministry of Infrastructure, 2018

To partially mitigate the high cost of electricity supply, the government has diversified its electricity generation sources to reduce its reliance on thermal and hydro-plants. However, the production mix now includes peat and methane sources which still emit carbon. The government has also offered PPA and tax breaks in the investment code open to investors in the energy sector including actors dealing in electricity production from peat, which is misaligned with climate objectives.

Whereas in absolute terms, the introduction of peat and methane, rather than renewable options such as solar, wind, or geothermal, is considered a misalignment with climate objectives, it is important to note that the drive to low-emission pathways for Rwanda, as with most sub-Saharan Africa, is balanced against the need for cheaper electricity that meets the demand.

Petroleum sector

Diesel imports for electricity generation are expected to reduce as the government focuses on non-diesel generation projects (GoR, 2015). However, in the transport sector, it is predicted that aviation fuel demand will increase as the country positions itself as an air transport hub as well as seeing an increase in transport vehicles on the roads. The government is notably issuing subsidies for petroleum products mostly for price stabilisation hikes that would affect transportation.

Such subsidies may therefore increase as COVID-19 related lockdowns and travel restrictions are lifted, and demand and therefore prices for petroleum products rise.

The Government of Rwanda is also actively exploring for deposits of oil and gas in the Lake Kivu Belt. The size of the deposits remains unknown and the government has made available \$1.012 million (Nkurunziza, 2021) to continue these exploration activities. It has also developed the National Petroleum Exploration and Production Policy to ensure exploration activities are coordinated, and has set up institutional and regulatory frameworks to attract and incentivise investors.

The discovery of gas and oil may help secure domestic energy security by reducing imports and helping households transition from biomass to LPG for cooking fuel. However, continued efforts to divest from thermal-powered plants and invest in more renewable sources are key to affordable energy.

Misalignment in the agricultural sector

The agricultural sector

As described in Chapter 2, the agricultural sector in Rwanda had the highest GHG emissions in 2015 (55% of total emissions). The largest proportion of these emissions stemmed from enteric fermentation. This can be partly attributed to the Girinka 'One Cow per Poor Family' agricultural programme that was developed in 2006 as a national social protection initiative.

As of 2017, approximately \$518 million¹⁰ of government and private sector funding had been allocated for the distribution of cows leading to an increase in methane emissions. This programme, while beneficial, is inconsistent with low-carbon development. The conundrum in this case is the trade-off between increasing food availability, improving household nutrition and improving incomes for poor households versus the high levels of GHGs generated as a share of Rwanda's total emissions. However, Rwanda has launched an official partnership with Jersey Finance to reduce emissions in the dairy industry through a cross-breeding programme.

¹⁰ The figure is derived by computing the total number of cows distributed under the programme as of 2017, which is 259,087 (Rwanda Governance Board, 2018) at the average price of a high-grade dairy cow estimated at \$2,000.

+ 4. Private sector actions towards consistency of finance flows with 2.1c



4.1 Introduction

The government-led tools to stimulate consistency of finance flows with climate ambitions presented in Chapter 3 above are also key in redirecting private sector finance with low-carbon development.

This chapter provides an overview of Rwanda's private financial sector and describes various institutions that have been set up to mobilise and leverage private sector finance to achieve Rwanda's climate ambitions. One of those, the Rwanda Green Fund, FONERWA, was developed based on plans in the 2011 Rwanda Green Growth and Climate Resilience Strategy (GGCRS).

Another entity, the Rwanda Development Board (RDB), is stimulating private sector development towards climate-related priority sectors including the agriculture and energy sectors, based on provisions made in the investment code.

This chapter also describes actions by the financial sector and private sector players that are responsive to some of the levers outlined in Chapter 3. For example, the National Agricultural Insurance Scheme, a public funding lever by the government, has enabled private sector insurance firms to direct finance to climate adaptation and resilience-building among farmers. Conversely, a lack of financial strategies and fiscal instruments results in lack of activity in the private sector. A good example is the lack of green bond issuance due to the absence of green bond issuance guidelines.

4.2. Rwanda's private sector structure

Legally, the Paris Agreement addresses states and not private or other actors that have a role in determining finance flows (Bodle and Noens, 2018). The growing appreciation that climate change presents material risks to economic activity and the financial system is, however, leading to the growth of private-led commitments to align investments and portfolios with climate targets, as well as increased disclosure of climate risks (Bolton et al., 2020; NGFS, 2019; IMF, 2019; Batten et al., 2016).

Financial institutions, including private institutions, have the capacity to influence the real economy in the absence of policy direction (RMI, 2020). The recently concluded COP 26 in Glasgow underscores the necessity for private sector participation and financing and has ramped up pressure on private sector entities to support the race to net-zero emissions globally by 2050 (United Nations Climate Change, 2021).

In cognisance of the important role the private sector needs to play in supporting climate-resilient development, the Government of Rwanda outlined a dedicated Programme of Action (PoA) in the 2011 Green Growth and Climate Resilience Strategy focused on augmenting private sector investments. Rwanda's Vision 2020 also emphasised the need for strengthening the private sector to make it the principal driver of economic growth in the country. Its updated NDC from 2020 also anticipates intensive private sector investment to raise part of the \$11 billion required to attain its ambitious climate mitigation and adaptation target of 38% reduction in GHG emissions compared to BAU in 2030 (Updated NDC, 2020).

Despite significant attempts to improve the business environment and increase Foreign Direct Investment (FDI), Rwanda's private sector remains underdeveloped (World Bank, 2019, PSF 2020). This presents a serious impediment to mobilising private sector funding for low-carbon development. Currently, the private sector has about 222,195 private sector establishments (The National Institute of Statistics of Rwanda, 2021). Of these entities, 93.3% are informal establishments (World Bank, 2021; The National Institute of Statistics of Rwanda, 2021). Informal enterprises are described as entities which have not been registered by the Rwanda Revenue Authority and lack regular operational accounts in banks.

Table 5 below disaggregates the number of private sector establishments by economic activity and annual turnover as at 2016 in US dollars and Rwandese francs. The wholesale and retail trade sector has the highest number of private sector entities. Other economic activities with a high number of private sector establishments include accommodation and food services, manufacturing, and financial and insurance activities. After manufacturing, the financial sector has the highest number of companies with a turnover of greater than 50 million or \$48,376. The turnover for the different sectors could potentially be higher or lower in 2021.

However, more recent data on the distribution of private sector establishments by economic activity was not featured in the 2020 Establishment Census Report. This could potentially be due to difficulties in collecting turnover information from private establishments (NISR, 2021).

Table 5: Distribution of private sector establishments by economic activity and annual turnover in 2016 (NISR, 2020)

Economic Activity	No. of establishments per annual turnover category						
	Total Establishments	< 289	289 - 11,554	11,554 - 19,257	19,257 - 48,143	>48,143	Not Stated
		< 300,000	300,000 - 12 million	12 - 20 million	20 - 50 million	> 50 million	
Wholesale and retail trade; repair of motor vehicles and motorcycles	83,026	34,863	31,421	2,018	756	752	13,216
Accommodation and food service activities	28,058	15,610	6,682	298	144	142	5,182
Manufacturing	11,509	4854	4,287	230	109	208	1,821
Other service activities	10,427	5,580	2,779	119	57	62	2,075
Financial and Insurance activities	1,890	274	426	89	104	257	740
Professional, Scientific and Technical Activities	1,501	251	791	105	51	60	243
Administrative and Support Service Activities	896	205	406	36	36	54	159
Education	855	86	373	92	98	105	101
Information and Communication	750	214	307	26	9	32	162
Water supply, sewerage, waste management and remediation activities	741	399	136	6	3	3	194
Human Health and Social Work Activities	671	59	317	42	27	64	162
Transportation and Storage	575	43	233	49	52	76	122
Agriculture, Forestry and Fishing	346	65	169	38	16	24	34
Mining and Quarrying	244	18	90	21	15	34	66
Art, entertainment, and recreation	200	26	53	6	4	6	105
Construction	140	9	28	17	13	56	17
Real Estate Activities	124	7	47	16	13	33	8

Electricity gas steam and air conditioning supply	33	3	5	3	1	5	16
Total	141,986	62,566	48,550	3,211	1,508	1,973	24,423

Note: Values in grey are represent annual turnover in USD and values in blue represent the equivalent turnover in Rwandese Francs.

Key players in making private sector flows consistent with low-carbon development

In a bid to address the challenge of limited private sector participation in climate-resilient development, the government has mandated five core institutions with the role of expanding and enabling private sector growth and growing/redirecting private finance towards sustainable development. Entities that are focused on the first objective include the aforementioned Rwanda Development Board (RDB) and the Private Sector Federation while entities developed to achieve the latter include The National Fund for Environment -- FONERWA, the Development Bank of Rwanda (BRD) and Rwanda Finance Limited (RFL).

1. The Rwanda Development Board (RDB)

Established in 2008, the RDB is a government institution whose mandate is to accelerate Rwanda's economic development by attracting private FDI (RDB, 2021). The four key services it offers to foreign investors include providing information (e.g. on laws, policies, incentives, the investment climate, and trends); linking investors to local partners; acting as a one-stop centre for the establishment of businesses; and supporting initial business implementation by foreign private sector entities. (Government of Rwanda, 2013).

Concerted efforts by the RDB have increased the amount of FDI being channeled to Rwanda from \$300 million in 2010 to slightly over \$2 billion in 2018 (PSF, 2018). In raising this finance from international private investors, the RDB did not necessarily prioritise attracting FDI for climate mitigation and adaptation projects, as this was not explicitly required in their mandate. Discussions with a representative from the RDB also confirm that there were no special considerations made for mobilising international private funds for climate-relevant sectors. However, the RDB has been a significant entity in attracting funding for large government flagship projects that have features of low-carbon development, such as the Kigali Innovation City Project.

The newly released Rwanda Investment Code identifies priority sectors that investors are encouraged to channel funding into. Some of the promising priority sectors in terms of making private sector financial flows consistent with low-carbon development pathways include energy generation, transmission and distribution, transport, logistics and electric mobility and affordable housing (Investment Code, 2021). Conversely, priority sectors that present a potential misalignment of international private finance flows into Rwanda include investments in energy generated from peat as described in Section 3.6. The new Investment Code also elucidates corporate tax incentives for investors who are interested in channeling finance into Rwanda. The incentives range from elimination of corporate tax, provision of a corporate income tax holiday of 5–7 years, zero-rating of value-added tax, and the ability to carry forward losses for a certain duration of time.

Discussions with the RDB indicate that foreign investors are particularly interested in carbon off-setting.¹¹ Previous carbon offsetting projects registered under the CDM mechanism in

¹¹ A carbon offset is defined as 'any activity that compensates for the emission of carbon dioxide (CO₂) or other greenhouse gases (measured in carbon dioxide equivalents, CO₂e) by providing for an emission reduction

Rwanda have been focused on the clean cooking sector (Scheerooren et al., 2021). A policy paper by the International Growth Centre indicates that going forward electric mobility will be a very attractive option for the generation of carbon credits in Rwanda (ibid.).

The conclusion of the Paris handbook at the Glasgow COP 26, particularly the norms and operating standards of Article 6 on carbon markets, presents opportunities for the RDB to attract private sector investment while contributing to emissions reductions within the country (UNFCCC, 2021). Rwanda lacks a system to regulate the issuance of carbon credits or internationally transferred mitigation outcomes (ITMOs) (the term for Carbon credits under Article 6). The country has however adopted a pilot of the Standardized Crediting Framework (SCF), an approach brought by the Carbon Initiative for Development (CiDev) which is aimed at helping the country transition from the CDM to the proposed regulatory framework under Article 6 of the Paris agreement (Scheerooren et al., 2021). This will help it set up necessary structures to begin harnessing investment through carbon markets.

Box 3: Article 6 of the 2015 Paris Agreement

Article 6 of the Paris agreement provides a framework for operation of carbon markets defined principally under two operative paragraphs. The first, Article 6.2, allows countries to “use internationally transferred mitigation outcomes (ITMOs) to achieve mitigation targets outlined in their NDCs. It also underscores the need for countries using this mechanism to do so in a sustainable, transparent, and environmentally friendly manner. The second, Article 6.4, establishes a central United Nations mechanism for trading ITMOs (Kizzier et al., 2021). Article 6 also outlines non-market approaches like taxes and performance standards for limiting carbon emissions and potentially innovative forms of international corporation for emission reduction such as regional carbon clubs (International Emissions Trading Association, 2019). The broader Paris Agreement is silent on transitioning the Clean Development Mechanism (CDM) (Climate Focus, 2017). The CDM was the global system for trading GHG emissions between industrialized countries and developing countries to ensure countries met their emission reduction targets under the Kyoto Protocol.

Since the development of Article 6 in 2015, nations have struggled to finalize the rule book for the implementation of the Article due to its relative complexity. Some of the issues that stalled the development of rules for this article revolved around the challenges of double-counting of ITMOs, the Share of Proceeds (SoPs) for adaptation, additionality, and the carry-over of pre-2020 Kyoto mechanism units (Kizzier et al., 2021). The need to establish a clear set of rules was necessitated by the number of countries planning to leverage carbon markets to meet their emission reduction commitments as well as the potential savings that could be accrued through carbon markets. According to IETA, Article 6 has the potential to reduce the total cost of implementing NDCs by USD 250 billion per year in 2030 (International Emissions Trading Association, 2019). It will also be key in attracting private sector investment.

The finalisation of the Article 6 rulebook at COP26 represents a significant breakthrough that will unlock finance required for the achievement of NDC targets.

elsewhere' (1). In other words, carbon offsetting is a mechanism through which an individual or an organization can compensate for their CO₂ emission through the support of certified emission reduction projects that absorb or reduce CO₂ emissions. This action is realized through the purchase of carbon credits, where 1 carbon credit corresponds to 1 tonne of CO₂ absorbed or reduced by the projects (ClimateSeed, 2021)

2. The National Fund for Environment – FONERWA

The first Green Fund of Rwanda, popularly known as FONEWRWA and described extensively in Section 3.4 above, is also an institution that is central to making private finance flows consistent with climate-resilient development. The fund both invests in and mobilises resources from private sector organisations. As of 2021, it had mobilised \$217 million for low-carbon development through grant funding. However, the fund also in the process of developing mechanisms or instruments to harness private sector finance. The first is an innovation grant where private sector entities can apply for up to \$300,000 for research projects, proof of concepts, and demonstrations. To receive the funding through this mechanism, private sector organisations are required to provide 30% match funding. The second instrument has been developed in collaboration with the Development Bank of Rwanda (BRD). It allows entities to access credit at interest rates as low as 11.45% (the current national lending rate is 17.05%). Private organisations applying for this credit must provide 30% match funding (FONERWA, 2021). During COP26 in Glasgow, FONERWA also announced that they will be partnering with the BRD to establish a \$100 million investment facility dubbed the Rwanda Green Investment Facility (RGIF) with an objective to develop more bankable green initiatives that can leverage private sector financing. The facility will consist of two funding mechanisms, a project preparatory facility that FONERWA will be in charge of and a credit facility that the BRD will oversee.

3. The Development Bank of Rwanda (BRD)

The Development Bank of Rwanda is a public limited company that was founded in 1967. In 2014, the bank reorganised its operations and disposed of its commercial retail banking activities (31% of its business) to the Atlas Mara co-investment programme. This allowed the bank to reposition itself as the only development finance institution in Rwanda with the aim of supporting the achievement of the country's economic development objectives.

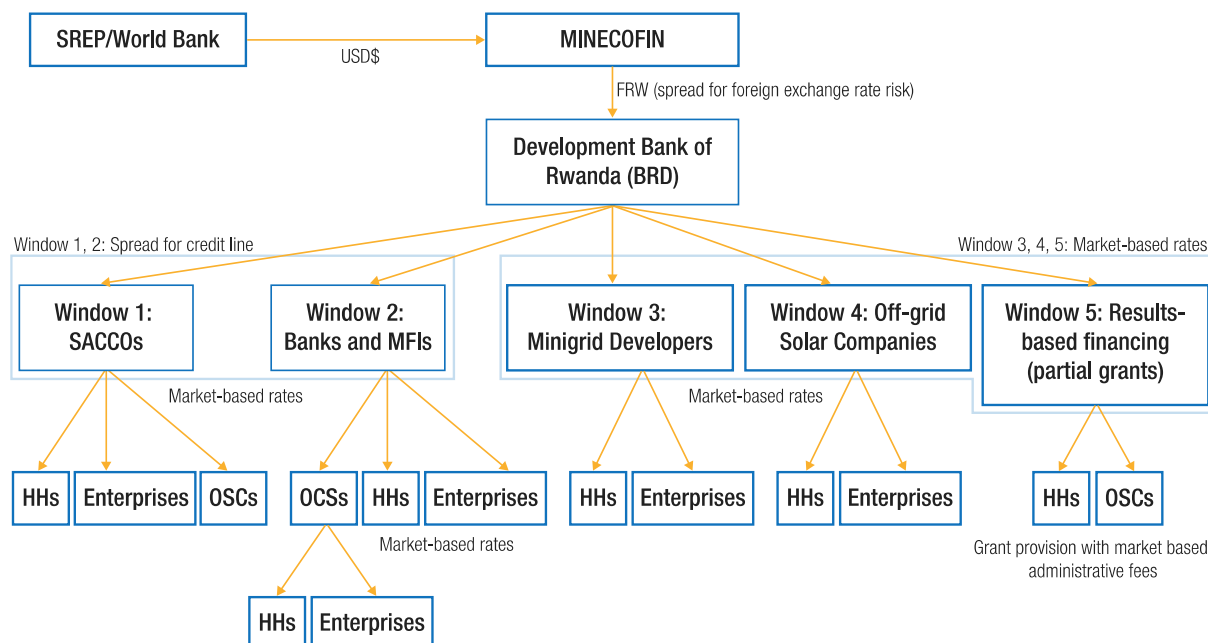
The BRD's latest strategic plan (2018–2024) outlines five priority sectors that the bank is expected to support. Of these, two are climate-relevant sectors including energy and agriculture. The BRD is expected to play a key role in an agriculture de-risking facility that is currently being developed by the Government of Rwanda (BRD, 2018). The funds from the facility will be directed at improving farmers' resilience to climate-related shocks through provision of micro-insurance.

This could see BRD supporting several private insurance institutions to provide adaptation finance in the agricultural sector. In the energy sector, the BRD is currently in charge of a \$48.94 million Renewable Energy Fund (REF) (Cana Uhendukiwe) (BRD, 2021). Among other things, the fund will be used to provide direct loans to private sector investors engaged in off-grid electrification and allow BRD to provide lines of credit to selected private financial institutions, which will then provide rural households with affordable loans to purchase off-grid systems. Additionally, to catalyse private sector investment under the REF, the BRD is being supported by the Swedish International Development Cooperation Agency (SIDA) to implement a guarantee facility of \$40 million (Climate Investment Funds, 2017).

BRD gets the bulk of its funding from international development finance entities and the Government of Rwanda (FitchRatings, 2021). For example, the funds for the REF were provided through a concessionary loan by the World Bank worth \$48.94 million (BRD and The World Bank, 2021). However, as described in the section above, BRD tries to use this public finance to leverage and attract private sector financing for its priority sectors (both climate-aligned and non-climate-aligned). Reports also indicate that the BRD is in the process of developing a green bond. BRD has partnered with the United Nations Development Program,

Rwanda Finance Limited (RFL) and the Financial Centers for Sustainability (FC4S) to coordinate the release of this bond.

Figure 8 The structure of the Renewable Energy Fund (REF)



Source: BRD, 2021.

During COP26, the Ministry for Environment disclosed that the BRD is also pursuing Green Climate Fund (GCF) accreditation to ensure Rwanda has more access to private financial instruments. This is specifically targeted at raising financing for the Rwanda Green Investment Facility (RGIF) described above. The nature of accreditation they are applying for is not clear (The New Times, 2021).

4. Rwanda Finance Limited (RFL)

In 2017, the Government of Rwanda set out to establish the Kigali International Financial Centre (KIFC). KIFC represents an ambitious effort to position Kigali as a regional sustainable finance hub to mobilise international and pan-African private finance. This means that Kigali will be the preferred financial centre for holding companies, fund management companies, fintech organisations, private foundations, international banks and angel investors looking to set up and operate in sub-Saharan Africa (PWC, 2021)

The initiative is being spearheaded by the Rwanda Finance Limited (RFL) – a government-owned entity. RFL is working to promote the Kigali International Finance Centre (KIFC) through a combination of investment promotion initiatives, sector training and upskilling programmes and policy advocacy (RFL, 2021).

RFL has also fostered strategic alliances with other financial hubs and leading development finance institutions globally including the Dubai International Finance Centre, Qatar Finance Centre and the CDC investment group. The CDC group will support the creation of a new legal framework for the financial hub (PWC, 2021). Luxembourg also signed a bilateral corporation agreement with Rwanda in October 2021 to support the further development of the KIFC. Part of this support will include the development of sustainable finance in Rwanda (The New Times, 2021).

Continued efforts by the RFL to materialise the vision of the KIFC have seen the KIFC debut on the renowned Global Financial Sectors Index which serves as a reference for investment decisions (The New Times, 2021). While the initiative is still nascent, if implemented well, it has the potential to leverage large amounts of funding from the private sector. Discussions with a representative from RFL revealed that the organisation is in the process of developing a roadmap to establish how it will position KIFC as a hub for sustainable finance. The roadmap will outline strategies to attract sustainable finance.

RFL is also looking to release a green bond in partnership with the BRD before the end of 2022. It has partnered with the United Nations Development Programme (UNDP) and the International Network of Financial Centres for Sustainability (FC4S) to coordinate the release of this bond. RFL also recently launched a strategic partnership with the Green Digital Finance Alliance (GDFA) to develop a tool that banks can use to rate SMEs that are seeking funding. The tool will enable banks to verify the greenness of their portfolios and make informed lending decisions based on the green status of SMEs seeking investments (IGIHE Network, 2021).

5. Private Sector Federation Rwanda – PSF

The challenge of making private sector financial flows consistent with low-carbon development in Rwanda lies not just in attracting and incentivising private organisations and financial institutions but also more broadly in developing the country's private sector. More than 90% of private enterprises in Rwanda are informal enterprises that do not pay taxes and lack financial access (NISR, 2020).

Consequently, they are unable to effectively contribute to socioeconomic developments. The aim is to transit some of these informal enterprises into dominant larger entities that create more value and employment (PSF, 2018). Organisations like the Private Sector Federation Rwanda – PSF were established to support this transition. PSF was developed in 1999 as an umbrella body to represent the interests of private sector organisations within Rwanda. Among other services, the PSF offers business development services, leads selected advocacy efforts, and links its members with local and international resource persons/entities.

4.3 Financial sector structure

Financial sector contribution to the realignment of financial flows

The Glasgow Climate Pact (the document summarising the key decisions from COP26) calls upon the financial institutions to mobilise additional resources to achieve the scale of finance required to achieve climate adaptation and mitigation actions. As shown in Table 5 above, financial sector entities have some of the highest turnovers in Rwanda. Consequently, the impact they stand to make on climate-resilient development is significant.

Financial sector structure

According to the 2019-2020 Rwanda Financial Stability Report, the Rwandan financial sector is dominated by the banking sector which accounts for 67% of the total sector assets (National Bank of Rwanda, 2020). Other players in the sector include pension schemes, insurers, microfinance institutions, foreign currency dealers and remittances, and lending-only institutions.

Table 6: The structure of the financial sector (Source: Rwanda Financial Sector Stability Report 2019-2020)

Regulated Financial Institutions	Jun-19				Jun-20			
Assets in FRW Billion	Number	Assets in FRW billion	Assets in USD Million	% of Total Assets	Number	Assets in FRW Billion	Assets in USD Millions	% of Total Assets
Banks	16	3,252	3,154	66	16	3,854	3,738	67
Commercial Banks	11	2,622	2,543	53	11	3,142	3,048	55
Microfinance Banks	3	76	74	2	3	66	64	1
Development Banks	1	247	240	5	1	265	257	5
Cooperative Banks	1	307	298	6	1	381	370	7
Pension Schemes	13	877	851	18	13	990	960	17
Public	1	837	812	17	1	941	913	16
Private	12	40	39	1	13	49	48	1
Insurers	14	477	463	10	14	544	528	10
Life	3	49	48	1	3	52	50	1
Non-Life	11	428	415	9	11	492	477	9
Microfinances	457	313	304	6	459	330	320	6
U-SACCOS	416	138	134	3	416	139	135	2
Other SACCOs	22	89	86	2	24	97	94	2
Limited Companies	19	86	83	2	19	94	91	2
Foreign Currency Dealers & Remittances	99	8	8	0	97	9	9	0
Forex Bureau	85	8	8	0	83	9	9	0
Remittance Companies	8		-	-	8	-	-	-
Money Transfer Agencies	6		-	-	6	-	-	-
Lending only institutions	4	18	17	1	4	20	19	0
Grand Total	603	4,945	4,797	100	603	5,747	5,575	100

Investment portfolios for banks, microfinance entities, pension schemes and insurance entities have been compiled based on information from the 2020 National Financial Stability Report. These do not indicate whether financial sector entities are redirecting finance to low- carbon development but broadly illustrate where financial flows are being channelled and the nature of investment vehicles in the sector.

Table 7: Financial institution asset mix (Source: Rwanda Financial Sector Stability Report 2019-2020)

Type of asset	Asset mix by financial institution			
	Banking sector	Pension schemes	Insurers	Microfinance
Placement in banks	n/a	19%	42%	35%
Government securities	18%	20%	19%	1.6%
Investments in properties	n/a	17.90%	9%	17.9%
Receivables	n/a	n/a	11%	n/a
Loans	56.70%	n/a	n/a	52%
Tangibles	n/a	n/a	n/a	9.20%
Placements in foreign financial institutions	4.70%	n/a	n/a	n/a
Cash	n/a	n/a	n/a	2.10%
Cash and reserves at the Central Bank	7.10%	n/a	n/a	n/a
Dues from other financial institutions	6.70%	n/a	n/a	n/a
Fixed assets	4.20%	n/a	n/a	n/a
Other assets and securities	2.40%	14%	7%	n/a
Equity investments	n/a	32%	12%	n/a

One of the challenges the financial sector faces is a limitation in the type of investment vehicles signalling a need for overall development and deepening of the financial sector. There is also paucity of granular data on what investment vehicles financial institutions are currently utilising.

The table below captures a few private sector-led actions in Rwanda, across a range of activities in the financial sector that can be interpreted as being consistent with climate objectives, while others can be considered inconsistent. These are outlined in Table 8 and elaborated further in Sections 4.4 to 4.8.

Table 8: Summary of private sector-led actions in Rwanda with relevance to the consistency of finance flows with climate objectives

	Actions considered consistent with climate objectives	Actions considered inconsistent with climate objective	Actions considered neutral to climate objectives
Bank Lending	RFL in partnership with the Green Digital Finance Alliance (GDFA) are developing a green-rating system to allow banks to vet SMEs and make lending more sustainable.	-	Commercial banks in Rwanda lack explicit ESG strategies and only have CSR strategies with environmental sustainability sections.
Bond Markets	-	-	Most of the proceeds from the 2 sovereign bonds released by Rwanda have been channeled to debt repayment.
Insurance Sector	Three insurance providers, SONARWA, Prime Insurance and Radiant are offering farmers insurance to cope with losses arising from natural disasters (Climate change adaptation). As of September 2020, 115 million Euros had been paid as compensation to farmers. (ICCO, 2021).	-	-
Listed Equity	-	Companies listed on the RSE are not mandated to report on ESG (Sustainable Stock Exchanges Initiative, 2019).	-
Private Equity	Companies that are investing in large scale infrastructure that may have an impact on the environment are legally required to conduct an environmental impact assessment. Conducting of EIAs is a requirement under the organic law (Article 67).	There are no existing ESG screening, integration and reporting guidelines for foreign private capital investments.	-

4.4. Bank lending

The banking sector's loan portfolio indicates that lending is concentrated in mortgage industries, transport and communication and manufacturing as captured in Table 7. Discussions with the National Bank of Rwanda and the Ministry of Finance and Economics indicate that there are no national financial policies mandating banks to make Environmental, Social and Governance (ESG) disclosures. Generally commercial banks in Rwanda lack

explicit ESG strategies but have Corporate Social Responsibility (CSR) strategies with environmental sustainability sections (IUCN, 2016).

A newly launched initiative by Rwanda Finance Limited to develop a green-credit index for SMEs is also a step in making bank lending more consistent with low-carbon development pathways. This is because it enables banking entities to make more sustainable lending decisions based on the green-status of SMEs.

While not a commercial bank, the Development Bank of Rwanda (BRD) - the only development finance institution in the country- is focusing its lending priorities on climate-relevant priority sectors including affordable housing, agriculture, and the energy sector. It provides a combination of de-risking instruments, affordable credit and guarantees to commercial banks. BRD's integrated annual report for 2020 indicates that the bank had approved loans worth RWF 81.4 billion (USD 78.5 million) across all sectors representing a 49% increase from the loan approval rate in 2019 worth RWF 54.4 billion (USD 52.4 million) (The Development Bank of Rwanda, 2020).

Table 9: Loan Portfolio in the Banking Sector (Source: Rwanda Financial Sector Stability Report 2019-2020)

Activity sector	% of total loans			
	Jun-17	Jun-18	Jun-19	Jun-20
Consumer loans	7.9	8.4	8.3	7.5
Agriculture and livestock	1.8	1.5	1.5	1.2
Mining activities	0.1	0.2	0.2	0.1
Manufacturing	9.7	10.5	11.5	11.8
Water and energy	2.6	2.6	4.3	4.8
Mortgage industries	34.5	37.1	36.7	34.3
Trade	19.4	17.2	15	15
Restaurant and hotel	10.2	8.1	7.6	9
Transport and communication	8.7	9.8	11.1	11.1
Other Financial Intermediary (OFI) and insurance	1.7	1.3	1.2	1.2
Other service sector	3.3	3.3	2.7	4

4.5. Bond markets

There are a total of 28 domestic government bonds listed on the Rwanda Stock Exchange (RSE) which had a volume of \$300 million as at October 2021 (C-Bond Market Statistics, 2021). One of the listed bonds represents the only local corporate bond issued by Energicotel (ECTL) – a private energy investment company. Proceeds from the first tranche of the bond will be channelled to refinancing existing bank loans by Energicotel, investment into operational power plants (these are Hydropower plants) and covering bond issuance- related expenses (Rwanda Capital Markets Authority, 2021).

Rwanda has released two sovereign bonds with a total value of \$1.02 billion as of October 2021. The first Eurobond issued by Rwanda in 2013 was valued at \$400 million. Its proceeds

were channelled to repay outstanding debts on the Kigali Convention Centre and development plans for RwandAir and to finance the development of a hydroelectric power plant. The most recently issued sovereign bond valued at \$620 million will partly be used to retire the first Eurobond.

While it is not clear what the rest of the bond proceeds will be used for, reports from sector stakeholders indicate that it will finance priority government programmes in health and agriculture and support recovery from the COVID-19 pandemic. The only proceeds from the first bond aligned with low-carbon development were those used to develop the hydroelectric power plant.

As part of a debt stabilisation strategy between the World Bank, the Ministry of Finance and the National Bank of Rwanda, the World Bank issued the first bond denominated in Rwandan francs (RWF) in January 2020. The bond was listed on the London Stock Exchange and raised \$40 million that was channelled to a matching bond raised on the Rwandan Stock Exchange (RSE). Proceeds from the bond financed activities in the 2019-2020 budget and supported economic recovery from the COVID-19 pandemic (MINECOFIN, 2021) in what can be viewed as resilience-building or adaptation finance.

No green bonds have been released in Rwanda. However, the examples above show that some of the proceeds from existing bonds have facilitated the consistency of private sector flows with climate-resilient development. Discussions with the RFL indicate that they are working with the FC4S and UNDP to promote a green bond being developed by the BRD (See section on BRD above). The lack of green bonds in Rwanda could stem in part from the absence of guidelines and regulations on the development of green, ESG-related, social, and sustainable, bonds, as highlighted in Table 3 above.

4.6. Insurance

The National Agricultural Insurance Scheme represents an example of making financial flows in the insurance sector consistent with climate-resilient development. The scheme was developed to assist farmers to cope with losses arising from natural disasters (MINAGRI, 2020). It was initially launched as a pilot Public-Private Partnership (PPP) between the Government of Rwanda and three insurance providers, SONARWA, Prime Insurance Company, and Radiant. Under the PPP, the government subsidised the cost of insurance premiums offered by the three companies by 40%, with the remaining 60% covered by the farmers and farmer cooperatives. Due to the success of the pilot, the government is looking to expand the programme countrywide.

There are no mandatory requirements for insurance sector entities to integrate and report on ESG within Rwanda.

4.7. Listed equity

The Rwandan Stock Exchange (RSE) is a relatively young bourse that was launched in January 2011. In 2012, there were four companies listed on the RSE with a market capitalisation of \$831.5 million (CMA, 2012). As of November 2021, there were ten companies listed on the RSE (Table 10) with a market capitalisation of \$3.6 billion (RSE, 2021).

Table 10: Companies listed on the Rwanda Stock Exchange (RSE)

Sector	Listed company
Telecoms	Nation Media Group
	MTN Rwandacell
Finance	KCB Bank Group
	Bank of Kigali
	RH Bohpelo Ltd
	I&M Bank Rwanda
	Equity Bank Group
Manufacturing	Bralirwa Brewery
Retail	Uchumi Supermarket
Materials and buildings	Cimerwa Cement Ltd

In 2019, the International Finance Corporation (IFC), the Rwanda Capital Markets Authority, and Sustainable Stock Exchange (SSE) collaboratively led a workshop to improve integrated reporting by listed companies on the RSE and to strengthen disclosure requirements for environmental, social, and governance (ESG) by the companies.

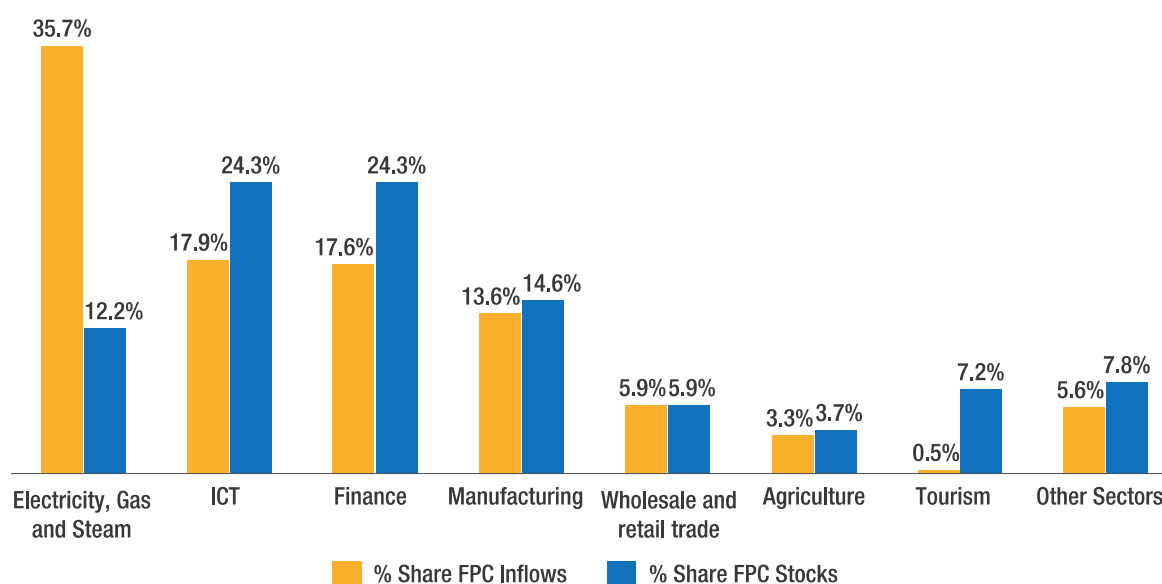
The goal of the workshop was to help build investor trust, attract capital, and grow strong capital markets in Rwanda (Sustainable Stock Exchanges Initiative, 2021). Later in October 2020, as part of improving ESG disclosure, a virtual forum was held to allow stakeholders to consult on the revised Corporate Governance Code in Rwanda. The IFC and SSE seek to support national efforts to revise the Corporate Governance Code in Rwanda and to spearhead the development of an ESG Scorecard and Reporting Guidelines for the CMA (Sustainable Stock Exchanges Initiative, 2021).

The latest progress report by the SSE released in 2019 however shows that companies listed on the RSE are not mandated to report on ESG (Sustainable Stock Exchanges Initiative, 2019).

4.8. Private equity

According to the 2017-2018 Foreign Private Capital (FPC) census report, capital inflows into Rwanda have increased by 2.4% from \$452.2 million in 2017 to \$463 million in 2018. The largest share (82.5%) of FPC in 2018 was from FDI, followed by other investment at 16.2%, and Portfolio Investment (PI) at 1.3%.

In terms of per sector inflows, the FPC census report indicates that a large portion of the international private capital was channelled towards the electricity, gas, and steam sectors, the ICT sector, and the finance sector. Private sector investments in electricity and gas, and particularly in methane gas production, could be considered misaligned with low-carbon emission pathways but, as underscored in Section 3.6, this needs to be balanced against the need for affordable electricity and development in Rwanda.

Figure 9 FPC inflows and stocks by sector of activity (Adapted from the FPC Census 2019)

Information on the largest private company investments in Rwanda in 2020 according to the RDB is showcased in Table 11 below (The New Times, 2021). However, these have not yet been assessed to determine how climate-compatible they are.

Table 11: List of major investments by private organisations in 2020

Entity/organisation	Amount of investment (in \$ millions)	Investment activity
Agro-processing industry, One Acre Fund and Western Seed Company.	193	Seed production plant
Phoenix Plaza	179	Residential apartment complex
Duval Great Lakes and a local businessman Vicky Murabukirwa.	69	Development of the Inzovu Shopping Mall
China Sinohydro Corporation Limited	66	Development of a hydroelectricity generation dam
Girinzu Developers	41	Affordable homes
Petrocom Building	35	Affordable homes
Bboxx Africa Management Ltd	29	Off-grid energy solutions and other renewable energy products
Bralirwa	26.2	Brewery expansion
Norrskén Rwanda	12	Development of an entrepreneurship and innovation hub
Nexus Academy	4.45	Set up of a professional aviation training academy

Discussions with the RDB, the body mandated with attracting private sector investment into the country, indicate that there are no existing ESG screening, integration and reporting guidelines for foreign private capital investments.

However, companies that are investing in large-scale infrastructure that may have an impact on the environment are legally required to conduct an Environmental Impact Assessment (EIA). Conducting of EIAs is a requirement under the organic law (Article 67) The Ministerial Order N° 004/2008 of 15 August 2008 outlines the projects that require EIAs, including construction and repair of international and national roads, large bridges, industries, factories hydro dams and electrical lines, public dams for water conservation, rainwater harvesting for agricultural activities and artificial lakes, large hotels and public buildings which accommodate more than 100 people per day, extraction of mines and public landfills (Nkundabose et al., 2020).

REMA is the custodian of the EIA process, however, the RDB has been tasked to administer EIAs through its unit of Environmental Compliance, Awareness and Cleaner Production to facilitate investors. Rwanda Finance Limited (RFL) has also partnered with the East African Venture Capital Association and the African Private Equity and Venture Capital Association to catalyse private sector investment flows not only into Rwanda but the broader East African region (RFL, 2021).

+ 5. Conclusion



This paper is the first substantial assessment of how well Rwanda's public levers and private sector activities today comply with Article 2.1c of the Paris Agreement. While it may not yet be fully comprehensive or conclusive, it clearly reveals areas where Rwanda is relatively advanced, while also highlighting areas where more work is needed to align financial flows with the third long-term goal of the Paris Agreement.

The approach has been twofold: first, to identify a set of relevant themes and categories for assessing the implementation status of the measures, the level of climate ambition of undertaken measures and the availability of data required to enable state and non-state actors to track progress against their own targets and against the fulfilment of the Paris Agreement goals; and second, to identify relevant sources of information and data to use to fill in the assessment tables.

Based on this exercise, some implications and conclusions can be drawn for Rwanda's progress towards implementing Article 2.1c, and for the Global Stocktake (GST) more generally.

5.1. Implications for Rwanda

The study illustrates the importance of having a guiding or cornerstone national policy around climate change to fast-track or jumpstart the alignment of financial flows with the third objective of the Paris Agreement. In the case of Rwanda this was the Green Growth and Climate Resilience Strategy (GGCRS) in 2011 that galvanised public entities to mainstream and prioritise climate mitigation and adaptation. As a result, all public sector ministries are required to allocate a proportion of their budgets/redirect their annual funding to climate mitigation and adaptation.

The GGCRS also included provisions for the establishment of Rwanda's Green Fund, FONERWA, which has been a key driver in securing international climate finance investments. **As climate finance evolves, there is need for Rwandan authorities to update this policy or develop an explicit climate finance regulation or policy to expand on the climate finance provision outlined in the GGCRS.** The climate finance policy and regulation would essentially guide how the finance required to achieve NDC targets can be raised from international and domestic sources.

Closely tied to the development of an overarching climate finance policy is the need for a taxonomy or guide elaborating what climate finance for mitigation and adaptation is. As underscored in the introduction, most countries including Rwanda as evidenced by this case are more invested in their response to climate change through mitigation activities as opposed to developing climate resilience and adaptation measures. However, this may not be a true picture because of the challenges of disaggregating finance allocated for development and finance allocated for adaptation and resilience-building as a result of a lack of clear definitions.

It is therefore necessary to develop a harmonised definition/taxonomy to ensure the correct categorisation of financial flows. This could have broader implications on the GST by creating problems of underestimation or overestimation of the actual progress on aligning financial flows.

The relative shallowness of the Rwandese financial sector presents both a challenge and opportunity for the alignment of financial flows for climate-resilient development.

The primary challenge lies in the fact that it may take quite long to marshal the amounts of domestic finance required to meet the ambitious unconditional targets set out in Rwanda's updated 2020 NDC.¹² This is because the set-up and roll-out of various policies, regulations and standards to not only realign flows in the financial sector but also to develop it could take some time.

However, the nascent/growing financial sector presents stakeholders with the opportunity to develop it while simultaneously greening it. **As illustrated in the report, there are unexplored opportunities around the development of green finance instruments such as green bonds, ESG-linked loans, and carbon tax instruments, among others.** There are also promising opportunities to grow the capital markets, the stock exchange, and the banking sector sustainably by mandating the disclosure of ESG by listed companies and banks.

There is sufficient scope within the Rwandese public sector to increase the number and type of fiscal policies and incentives for the realignment of financial flows. Taxation for non-exempt solar products stood at 0.07% of the import tax which could potentially be eliminated. Incentives in Rwanda also revolve around tax elimination and exemption but could be extensively expanded to include levies or taxation on high-carbon enterprises (such as a carbon tax), government transfers and subsidies for low-carbon initiatives. Sectors like green housing and climate-smart agriculture present a potential area for the development of additional fiscal measures.

It is important to consider how to make just transitions towards net-zero emissions across various sectors in Rwanda. Some of the misaligned financial flows captured in this case are geared improving the lives of low-income earners. This includes the provision of subsidies for fossil fuel generated electricity to reduce the cost of electricity¹³ and the distribution of one cow per poor family to improve nutrition outcomes and to increase income for low-income households.

The current energy mix is also still partially reliant on non-renewable energy sources such as peat and methane which emit carbon; however, the mix is less carbon intensive than say five years ago. It is important to recognize that the need for energy security will continue to be prioritized or balanced against mitigation which is not ideal but a more realistic option for sub-Saharan Africa to develop. All the examples above underscore the urgency of resolving the just transition challenge.

¹² 40% of the \$11 billion outlined in the NDC needs to be raised through public and private domestic funding. This represents 16% of the emission reductions that Rwanda needs to attain by 2030.

¹³ Rwanda has an electricity tariff that is 22.2% more expensive compared to the highest electricity tariff of other East African Community (EAC) countries.

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+ Annex

Annex 1: List of stakeholders actively engaging through interview, survey and group discussion

	Organisation	Name	Email
1.	Ministry of Finance and Economic Planning (MINECOFIN)	Benjamin Kabandana	benjamin.kabandana@minecofin.gov.rw
2.	Rwanda Development Board (RDB)	Philip Gasaatura	philip.gasaatura@rdb.rw
3.	Ministry of Agriculture and Animal Resources	Bisangwa Innocent	ibisangwa@minagri.gov.rw
4.	Ministry of Infrastructure	Fabrice Barisanga	fabrice.barisanga@mininfra.gov.rw
5.	Financial Sector Deepening () Africa	Shakila Kerre	shakila@fsdafrica.org
6.	Rwanda Environment Management Authority (REMA)	Dukuzemari Darie	mdukuze@rema.gov.rw
7.	Access to Finance Rwanda (AFR)	Iyacu Jean Bosco	iyacu@afr.rw
8.	Access to Finance Rwanda (AFR)	Agnes Uwanyiligira	agnes.u@afr.rw
9.	National Bank of Rwanda (BNR)	Dr. Thierry Kalisa	tkalisa@bnr.rw
10.	Global Green Growth Institute (GGGI)	Okechukwu Daniel Ogbonnaya	dan.ogbonnaya@gggi.org
11.	KfW	Charlotte Povel	Charlotte.Povel@kfw.de
12.	GIZ	Ksenija Maver	ksenija.maver@giz.de
13.	World Bank	John Kalisa	jkalisa@worldbank.org
14.	Rwanda Finance Limited (RFL)	Hortense Mudenge	hortense.mudenge@rfl.rw
15.	FONERWA (Rwanda Green Fund)	Teddy Mugabo	t.mugabo@fonerwa.org
16.	FONERWA (Rwanda Green Fund)	Bright Ntare	b.ntare@fonerwa.org
17.	Ministry of Finance and Economic Planning (MINECOFIN)	Ayandev Saha	ayandev.saha@minecofin.gov.rw
18.	Affordable Housing and Construction Value Chain Consultant	Fatou Dieye	fkdieye@gmail.com

Annex 2: List of guiding survey and interview questions

1. The National Fund for Environment – FONERWA

Background to FONERWA

1. Explain how FONERWA sources/mobilises its funds?
2. What percentage of these funds is from domestic sources and what percentage is from international sources?
3. Please tell us a bit more about the following major projects that FONERWA is working on. Specifically, their sources of funding and whether their development is hinged on a particular policy or strategy (please highlight the policy).
 - a. Direct public spending of FONERWA on the “Investing in Climate Smart Agriculture”.

- b. The from Trash to Treasure Project focused on the development of a national e-waste management strategy
- c. Green City Kigali
- d. Investing in Sustainable Construction Materials project
- e. Green Gikumbi Project

General strategies and financial policy and regulation

- 4. In relation to the second project above on the development of a national e-waste management policy, are there similar projects that FONERWA has executed on developing sectoral strategies around climate adaptation and mitigation?
- 5. What kind of support does FONERWA offer MINECOFIN? Describe the relationship between the two entities.
- 6. What kind of support does FONERWA offer the National Bank of Rwanda? Describe the relationship between the two entities?
- 7. Has FONERWA supported either MINECOFIN or the National Bank of Rwanda to develop financial, fiscal, or monetary policies that support climate adaptation or mitigation?
- 8. In a meeting we had with REMA they mentioned that each ministry has an environmental checklist within each of their implementation budgets. Does this help REMA to be more deliberate about channelling finance to green initiatives and could you please share with us one ministry budget?
- 9. Specifically, how does FONERWA assist with mainstreaming of climate change into financial sector policies and other sectoral policies?

Private finance

- 10. We understand that to access climate finance in the form of grants or credit lines from FONERWA, private sector parties are required to raise match funding. This represents one of the ways the private sector can redirect flows to low-carbon development pathways. We also understand that FONERWA has earmarked 20% of the funds it received for the private sector. (FONERWA private sector guidelines). Are there other ways FONERWA is leveraging private sector investments to channel more financing to green and sustainable initiatives?
- 11. How does FONERWA work with the Development Bank of Rwanda and the Rwanda Development Board to attract green private sector investments?
- 12. Can you tell us more about the green investment index for private sector companies and whether this has been developed?

Fiscal policies

- 13. Discussions with GGGI and other ministries reveal that the following fiscal levers exist to channel finance to sustainable development:
 - a. Import/tariff waivers for electric buses
 - b. Tax breaks and incentives for international investors and entrepreneurs offered by the RDB. While the tax incentives are not defined based on whether the entrepreneurs are starting a green business or not, it still serves as a way to attract private investment into Rwanda.
 - c. Subsidies for the increased uptake of solar-off grid products in rural areas of Rwanda
 - d. There are no explicit policy incentives for green building materials however there are incentives such as additional floor area or additional vertical areas as an incentive for green buildings.
 - e. An environmental levy on imported single-use products and plastic carry-bags.
- Are you aware of any other government subsidies, levies, royalties, transfers, or tariffs currently being imposed to aid the redirection finance to green and sustainable activities?

COVID-19 adaptation response and disaster risk management

14. Discussions with other KII respondents from the Ministry of Agriculture indicate that the Ministry of Emergencies is developing a National Disaster Response Fund. Could you tell us a bit more about this? Please highlight the expected size of the fund and the prospective sources of funding and what activities the fund will be used to support. The information on the fund is not readily available on the ministry website. We understand that the disaster response fund was developed based off the 2015 Law on Disaster Management in Rwanda.
15. Does the Government of Rwanda have a contingent Credit Facility for Natural Disaster Emergencies/ Risk Pools? Please describe this
16. Could you kindly share with us the National Strategy on Disaster Risk Reduction (NDSRR)?
17. How did the COVID-19 pandemic affect Rwanda's climate objectives or progress on climate finance? What has FONERWA done to address this?

The National Bank of Rwanda

1. Describe the current monetary policy framework in Rwanda? How do the policies support the greening agenda in the country?
2. Are there any policies that require banks in Rwanda to factor in Environmental Social and Governance (ESG) risks while lending?
3. Are there financial incentives to encourage private sector to finance low-carbon pathways?
4. How is the National Bank of Rwanda supporting the development of the capital markets and pension and insurance markets? Could you describe some of the greening initiatives around sub-sectors of the broader financial sector, e.g. support to develop green bonds?

Questions on adaptation and resilience

5. How is the National Bank of Rwanda working to stabilise debt in the country? Are you aware of the financial fiscal or monetary policies that the government has put in place to stabilise the debt situation and reverse Rwanda's downgraded debt rating?
6. Describe the structure and size of the economic recovery fund in Rwanda?
7. What temporary monetary policy structure did the National Bank of Rwanda put in place to support businesses, banks and individuals across the country to cope with the COVID-19 pandemic?
8. Discussions with other KII respondents from the Ministry of Agriculture indicate that the Ministry of Emergencies is developing a National Disaster Response Fund. Could you tell us a bit more about this? Please highlight the expected size of the fund and the prospective sources of funding and what activities the fund will be used to support. The information on the fund is not readily available on the ministry website
9. Does the Government of Rwanda have a contingent Credit Facility for Natural Disaster Emergencies/ Risk Pools? Please describe this.

The Ministry of Environment (MoE)

1. What were the sectoral policies guiding the mainstreaming and adoption of the green strategy policy adopted in 2011?
2. In what ways did the government finance the programme of activities outlined in the green strategy?
3. How much was financed from domestic sources vs. international sources or aid?
4. How did budgeting and allocation of funds to projects change with the agenda of climate change? Was there any coordinated effort between the Ministry of Finance, RDB?
5. The strategy was applicable to the period of 2011-2018, what were the main lessons in allocating finances to green or low-carbon projects?
6. What policies and procedures were established in financing green initiatives?
7. What sectoral finance incentives were put in place to support the programme of activities?
8. What are the three ways in which the Ministry of Environment is working with the financial sector (banks, microfinance institutions, investment funds) to also allocate funds to these projects?

9. With the third communication of Rwanda's NDC to the UNFCCC, the climate action plan raises ambition but also requires \$11 billion for implementation. How is the government planning to raise funding for these activities? (Are there systematic policies in place and coordinated with the Ministry of Finance?).

Ministry of Emergency Management (MINEMA)

Financial policies and general questions

1. Discussions with other KII respondents from the Ministry of Agriculture indicate that the Ministry of Emergencies is developing a National Disaster Response Fund. Could you tell us a bit more about this? Please highlight the expected size of the fund and the prospective sources of funding and what activities the fund will be used to support. The information on the fund is not readily available on the ministry website. We understand that the disaster response fund was developed based off the 2015 Law on Disaster Management in Rwanda.
2. Does the Government of Rwanda have a contingent Credit Facility for Natural Disaster Emergencies? Please describe this
3. Could you kindly share with us the National Strategy on Disaster Risk Reduction (NDSRR)?
4. What aspects of disaster risk reduction are included in Rwanda's latest National Adaptation Plan?
5. How much is allocated for Disaster Risk Management under the National Adaptation Plan?
6. How has the Global Facility for Disaster Risk and Reduction (GFDRR) supported Rwanda's disaster management efforts? Please describe the support they have offered under the projects below:
 - a. Strengthening urban resilience in Rwanda
 - b. Support to urban flood risk mitigation in Rwanda-
 - c. Building resilience to flood hazards in North-West Rwanda through improved national and local capacity.
7. Was the government decision to work with the GFDRR based off a certain policy, law, strategy or regulation?

Fiscal policies

8. Are there any tax exemptions provided by the government to enhance disaster risk reduction activities or to ensure communities become more resilient? Please describe them.
9. The government launched an agricultural insurance scheme to ensure farmers can adapt to the negative effects of climate change. Could you describe this scheme?
10. Describe some of the formal social-safety nets that MINEMA has in place to protect households from the impact of economic shocks?
11. Describe some of the disaster risk reduction/management projects being implemented by MINEMA. This could be research projects around certain adaptation technologies, construction of more resilient infrastructure such as climate-resilient water infrastructure etc.

COVID-19 relief

12. What programmes did MINEMA put in place to support communities to recover from COVID-19?
13. Were these based on any specific COVID-19 relief policies?
14. In addition to the World Bank credit facility of \$14.25 million provided for the Rwanda COVID-19 Emergency Response Project, and the \$100-million loan from the Beijing-based Asian Infrastructure Investment Bank (AIIB) to the SME sector, what other debt/equity/grant facilities have been provided to support Rwanda in the COVID-19 recovery and by which local and international players?

The Rwanda Environmental Management Authority (REMA)

1. What were the sectoral policies guiding the mainstreaming and adoption of the green strategy policy adopted in 2011?
2. In what ways did the government finance the programme of activities outlined in the green strategy?
3. How much was financed from domestic sources vs. international sources or aid?
4. How did budgeting and allocation of funds to projects change with the agenda of climate change? Was there any coordinated effort between the Ministry of Finance, REMA and the MoE?
5. The strategy was applicable to the period of 2011-2018, what were the main lessons in allocating finances to green or low-carbon projects?
6. What policies and procedures were established in financing green initiatives?
7. In which ways has environmental indicators been mainstreamed into financial budgeting and planning?
8. What sectoral finance incentives were put in place to support the programme of activities?
9. Please describe the financial and fiscal incentives set-up for the Kigali Special Economic Zone.
10. Did the Development Bank of Rwanda develop a green investment index? Are there similar initiatives for the implementation of NDCs?
11. With the third communication of Rwanda's NDC to the UNFCCC, the climate action plan raises ambition but also requires \$11 billion for implementation. How is the government planning to raise funding for these activities? (Are there systematic policies in place and coordinated with the Ministry of Finance?).
12. Please describe some of the environmental fiscal reforms (past and planned) that are aimed at raising revenue or penalising non-green projects?
13. What are the public financing mechanisms in place to encourage green consumerism and investment?

The World Bank

Questions to gain an understanding of World Bank's work in climate change in Rwanda

1. Describe the key climate change projects that the World Bank/IFC/MIGA are supporting or working on Rwanda:
 - a. The revision of key strategy documents
 - b. Supporting FONERWA to develop new climate finance instruments
 - c. Two carbon-finance projects around clean cooking
 - d. Approaches for landscape restoration and flood protection being piloted in Northern Rwanda
 - e. Technical analysis support to MINECOFIN for natural capital accounting
 - f. The Rwanda Urban Development Project -Phase II.
 - g. The NDC Deep-Dive Support Project.
 - h. The Housing Re-finance Facility
2. For each of the described projects above, please try to indicate the underlying fiscal or financial policy drivers behind them?
3. Describe how the IFC is supporting investment climate reform in Rwanda?
4. What support is the World Bank providing in the revision of the Environment and Natural Resources Sector Strategic Plan 2021-2024? Why is it necessary to revise this document and what will the new key additions be? Will there any touch on climate finance?

Indirect adaptation support

5. Other than the review of the strategic plan described above has the World Bank supported the development of financial sector policies and other policies aimed at greening?
6. Please describe the Rwandese Social Protection System. Please provide information on projects like the Vision 2020 Umurenge Programme (VUP). What are the gaps in social safety nets provided by the government?

7. Please describe the process of developing the first IBRD/IDA bond for Rwanda that was listed on the London Stock Exchange? What will the bond proceeds primarily be channelled into?
8. How is the World Bank supporting Rwanda in debt stabilisation? Are you aware of the financial and fiscal policies that the government has put in place to stabilise the debt situation and reverse Rwanda's downgraded debt rating?

Questions on the private sector broadly

9. Describe activities/actions across the banking sector, the bond markets, the insurance sector, the capital markets and with private equity investors that support/detract from the realignment of financial flows towards 'low-emission climate-resilient development'. These could be for example the development of green bond guidelines, participation of the capital markets of Rwanda in the sustainable stock exchanges initiative, divestment from fossil fuels, among others?
10. We understand that you are also supporting the government to develop green bond guidelines. Could you tell us more about this?

Financial Sector Deepening (FSD) Africa

General questions

1. Describe the support offered to the Rwanda Capital Markets Authority specifically, around the development of the Rwandan Ten-Year Capital Markets Master Plan. What progress has been made on this project?
2. Are there any aspects of the plan that indicate a redirection of finance to low-carbon development, e.g. the development of a green segment of the stock exchange, development of green bond guidelines, mandating ESG disclosure for listed companies, participation of the capital markets of Rwanda in the sustainable stock exchanges initiative?
3. Could you describe any plans in the pipeline for the release of a green bond within Rwanda?
4. What can you highlight about the type of adaptation support Rwanda is offering to refugees based on your work to enhance financial inclusion among refugees in Rwanda?
5. Would you say that this is premised on any existing financial policies such as the Rwandan National Financial Inclusion Strategy for 2021-2024?
6. Describe/list any large-scale climate-aligned projects/initiatives that the FSD Africa is implementing or funding in Rwanda, the amount of funding allocated towards these projects. What are the policy levers behind the development and implementation of these projects?

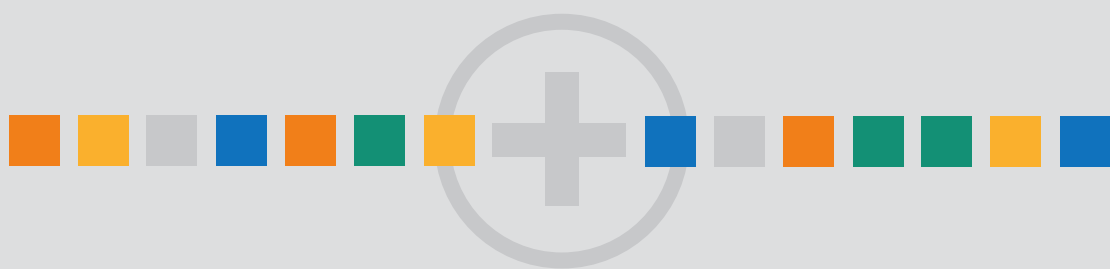
Information

7. Is there a taxonomy or a guiding strategy, policy, or standards to harmonise understanding of climate finance and important terminologies in the country?
8. If none, are you aware of the development of a taxonomy?

Access to Finance Rwanda (AFR)

1. Describe existing and planned financial policies, regulations, and implementation strategies (across various sectors including agriculture, energy, transport) and how they support the realignment of financial flows towards 'low-emission, climate-resilient development pathways' (Financial Sector Development Programme (FSDP) II).
2. How has AFR partnered with the government in the implementation of these policies?
3. Would you say that the described policies (listed above) are being effectively implemented? If yes, how so? If not, what needs to be done to streamline implementation?
4. Has AFR partnered with the private sector? If so, how?
5. What green finance interventions has AFR implemented so far and what are the planned future interventions?

6. What innovations / products and services has AFR developed in terms of deepening financial inclusion and what led to their development? (Describe how the Markets Work for the Poor – M4P approach works).
7. How was its funding sourced and allocated?
8. At present, what are the approximate flows of financing to climate change adaptation/mitigation?
9. Are there any government subsidies on sustainable/climate-aligned products or projects that you are aware of, especially in the sectors that AFR deals with?
10. Are there any contingency funds set aside spending on climate-related event relief and recovery?



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