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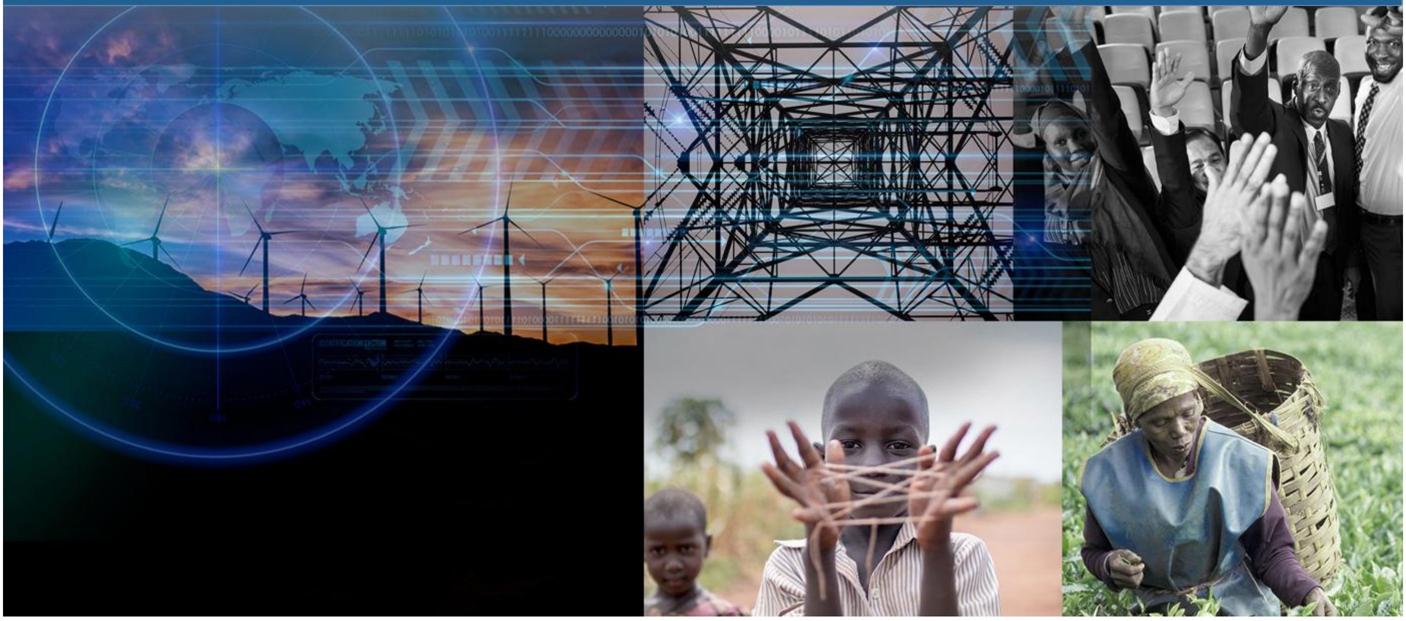

INTRODUCTORY POLITICAL ECONOMY ANALYSIS OF THE CLIMATE PHILANTHROPY SPACE IN ETHIOPIA

For ClimateWorks Foundation

Prepared by Africa Practice

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1 INTRODUCTION

While Africa is not currently a significant producer of greenhouse gases (GHGs) at a global level, it has the potential to be in the future, and there is an opportunity to prevent large future emissions if the problem is addressed now. With a view to informing decision-making in this space, Africa Practice conducted a tailored, high-level political economy analysis of six countries – Kenya, Ethiopia, South Africa, Nigeria, Ghana and Senegal – to serve as an introductory resource for philanthropic organisations seeking to understand foundational climate change issues and opportunities across these countries.

The bespoke political economy analysis framework was designed to help identify and understand feasible entry points into the countries, as well as tangible opportunities for philanthropic engagement and potential partnerships. The bespoke framework developed for this analysis can be replicated and will enable philanthropy to build robust strategies for investment and engagement across the whole continent. The report below summarises our findings on Ethiopia.

2 TABLE OF CONTENTS

3 METHODOLOGY

We developed a bespoke framework of assessment, rooted in political economy analysis, but also focusing on Ethiopia's specificities vis-à-vis the five main structural transformations that drive emissions on the continent:

- **Urbanisation**, taking into account the housing demand for 900 million more urban residents by 2050.
- **Land use changes**, with agriculture set to feed a growing population and cause up to 84% of deforestation.
- **Industrialisation**, which constitutes the backbone of many African governments' development strategies over the next decade. Across the continent, manufacturing is growing faster than anywhere else in the world.
- **Electrification**, on which industrialisation itself is heavily premised. It is estimated that 1.6 TW of power generation would be needed in Africa by 2030 and 600 million people would require access.
- **Oil and gas,** with governments balancing international pressure to adopt more rigorous environmental standards against the imperative to exploit discovered resources in order to boost energy security.

We used our consultants' deep contextual knowledge, as well as intelligence from expert sources, to inform and triangulate our **qualitative research programme**, which comprised a review of:

- **Statistics and risk indices compiled by national governments, multilateral institutions, NGOs and think tanks.** These covered: data from the Central Statistical Agency of Ethiopia; World Bank (climate change) data and indices such as Ease of Doing Business and Governance; Yale University's Environmental Performance Index (EPI); UNEP climate change data (CDF, REDD+) and UNFCCC data; the Climate Change Performance Index (CCPI); IMF data and bilateral consultation reports; summary data from the Extractive Industries Transparency Initiative and local chapters; Transparency International Corruption Perceptions Index; Mo Ibrahim Index; KPMG Africa Fiscal Guides; OECD Failed States Index; and the World Economic Forum's Global Competitiveness Report and Global Human Capital Report.
- **Other relevant grey literature.** This included, among others, recent reports by international donors, multilateral organisations, and European and North American state departments, as well as materials published by various government agencies focusing on climate change and relevant fields.
- **Media sources.** We examined open-access and subscription-based articles in English, related to recent and historical developments of relevance to the countries in question, both local and international.

4 EXECUTIVE SUMMARY

Ethiopia's political economy is in flux. Since 2018, the country's political apparatus and economy has been undergoing a fundamental reconfiguration. Under the leadership of Prime Minister Abiy Ahmed (Abiy), the government is pursuing an ambitious democratisation, liberalisation and national unification agenda. While Abiy's reform programme was initially heralded as a much-needed break with a repressive and overly state-led past, it has also lifted the lid on long-standing ethnic, regional and religious fault lines within Ethiopia's federal system.

Having opened up the political space in Ethiopia, the prime minister is now facing a backlash from both the formerly entrenched elite and new political aspirants. Protests, violence and an ensuing heavy-handed crackdown by federal security forces are increasingly common and have attracted substantial scrutiny, mostly domestically, but also increasingly on the international stage. These dynamics have developed into a major legitimacy crisis for the state in the form of the ongoing and escalating conflict in northern Ethiopia. The violent challenge of federal authority by the previously dominant Tigray People's Liberation Front, and the equally violent reaction from the federal authorities, has exacerbated political polarisation in the country, and led to significant international and diplomatic pressure being placed on the government. This is significantly affecting not only Abiy's broader reform agenda, but climate priorities and the government's ability to mobilise and allocate revenue, as the economic impact of the conflict takes a further toll on an economy dealing with the economic shocks of the COVID-19 pandemic.

In this volatile context, policy-making, including climate change considerations, has lost momentum and coherence. Despite the ruling Prosperity Party's resounding win in the general election – held in June 2021 – politicking continues to dominate the policy sphere as the new government that took office in October deals with ongoing political and economic challenges. Climate change considerations are unlikely to be a priority for the Abiy administration as it seeks to consolidate power and maintain stability throughout the country, in what is currently deemed by the government to be a campaign for the "survival" of Ethiopia.

Despite this challenging environment, Ethiopia has strong potential for organisations advocating on climate issues. In 2011, the government adopted the Climate Resilient Green Economy Strategy (CRGE), which is being implemented through the National Adaptation Plan to Address Climate Change 2017. The strategy focuses on: reducing agricultural emissions; protecting and expanding forests; expanding renewable energy generation; and adopting energy efficient technologies in transport, industry and construction. The government's institutional capacity to successfully implement this strategy is severely constrained, even if at ministerial level there are a number of experienced technocrats in charge. Additionally, corruption and poor resourcing continue to undermine the functioning of Ethiopia's government.

A potential opportunity for engagement could revolve around the CRGE Facility, which is intended as a fundraiser to support the implementation of the respective strategy. It sits within the Ministry of Finance and Economic Cooperation, and is currently developing a new strategy for private resource mobilisation. We understand that an expansion of fiscal incentives will form part of the strategy, and that the facility will work more closely with non-state entities. This has not previously been well developed, with non-state actors having minimal involvement in the initial development of the CRGE facility and its strategy. This has begun to change slowly, with non-state actors engaged as part of Ethiopia's updated Nationally Determined

Contribution, published in July 2021. Cooperation is, however, still largely nascent and remains a potential area of growth. As with other institutions in Ethiopia, however, the CRGE Facility suffers from a lack of technical capacity and a degree of opacity regarding its operations.

Out of the four sectors that were assessed, urbanisation presents the strongest set of opportunities in Ethiopia, with particular potential for investment in household energy use. We also identified opportunities in land use change, particularly in the forestry sub-sector. Electrification could also be under consideration as Ethiopia has one of the cleanest energy mixes in Africa. The key opportunities in this sector pertain to expanding electricity access for consumers by displacing biomass.

5 ASSESSMENT MATRIX

METRIC	ASSESSMENT*	FINDINGS
POLITICAL		
Instability, conflict and insecurity		Very challenging context with deep-rooted, structural sources of instability that have come to the fore in the past 12 months. The conflict in Tigray, which has now spread into neighbouring regions, poses the main source of domestic instability. Significant potential for this violence to spread further, and undermine the government's authority and its climate priorities.
Government change		Prime Minister Abiy Ahmed has retained power, as expected, following the June 2021 general election. Despite the election, the focus on political grievances, including as a result of the conflict in Tigray and concerns over the legitimacy of the election, are likely to undermine climate priorities.
Environmental policy and commitment		Moderate enabling context driven by a clear and coherent policy framework, but haphazard implementation in the context of devolved authority; environmental policy is secondary to other priorities (e.g. infrastructure and education).
International influence		Major opportunity due to Ethiopia's responsiveness to and engagement with international environment-focused bodies.
INSTITUTIONAL		
Governance and corruption		Weak enabling context due to governance issues and corruption's deep impact on climate change leadership, as well as their repercussions on development partners' involvement.
Environmental leadership		Moderate enabling context due to the calibre, vision and empowerment of the head of the Environment, Forest and Climate Change Commission.
Reform commitment and budgetary prioritisation		Weak opportunity despite a strong reform commitment; the latter has been severely hampered by budgetary constraints and other priorities.
Structural capacity		Moderate institutional capacity to support climate interventions and achieve sustainable outcomes due to structural, financing and technical challenges.
Donor and development partners' support		High levels of support from donors and development partners for climate interventions; demonstrated ability of the government to attract funds. However, donors have cut budgetary support in the wake of the Tigray conflict, with some partner governments imposing sanctions. Donor support is likely to remain weak until the conflict is resolved – with the prospect of further cuts in a bid to apply pressure for a ceasefire and negotiations.
Dialogue with non-government actors		Moderate appetite and receptiveness by government institutions to consultation with actors from the private sector, academia and civil society.
COVID-19 impact		Strong negative impact on economic growth prospects, with implications for ability to finance and prioritise climate action.
SECTORAL		
Urbanisation		Strong opportunities in this segment, particularly with regard to clean cooking fuels; limited opportunities in the cement and low-carbon construction materials sub-sectors.
Electrification		Moderate opportunities in this segment, primarily by expanding electricity access while displacing biomass in the energy mix.

Industrialisation		Weak opportunities given low-carbon practices are largely voluntary; lack of awareness among business managers.
Land use change		Some opportunities in this segment, particularly in the forestry sector in terms of mitigation.
Oil and gas		Weak opportunity to influence decision-making, but some scope to engage with government regulators to contain GHG emissions.

*Assessment definitions:

1	Very strong enabling context for climate-spend impact with negligible limitations
2	Strong enabling context for climate-spend impact with some limitations
3	Moderate enabling context for climate-spend impact with several limitations
4	Weak enabling context for climate-spend impact with notable limitations
5	Challenging context for climate-spend impact with major limitations

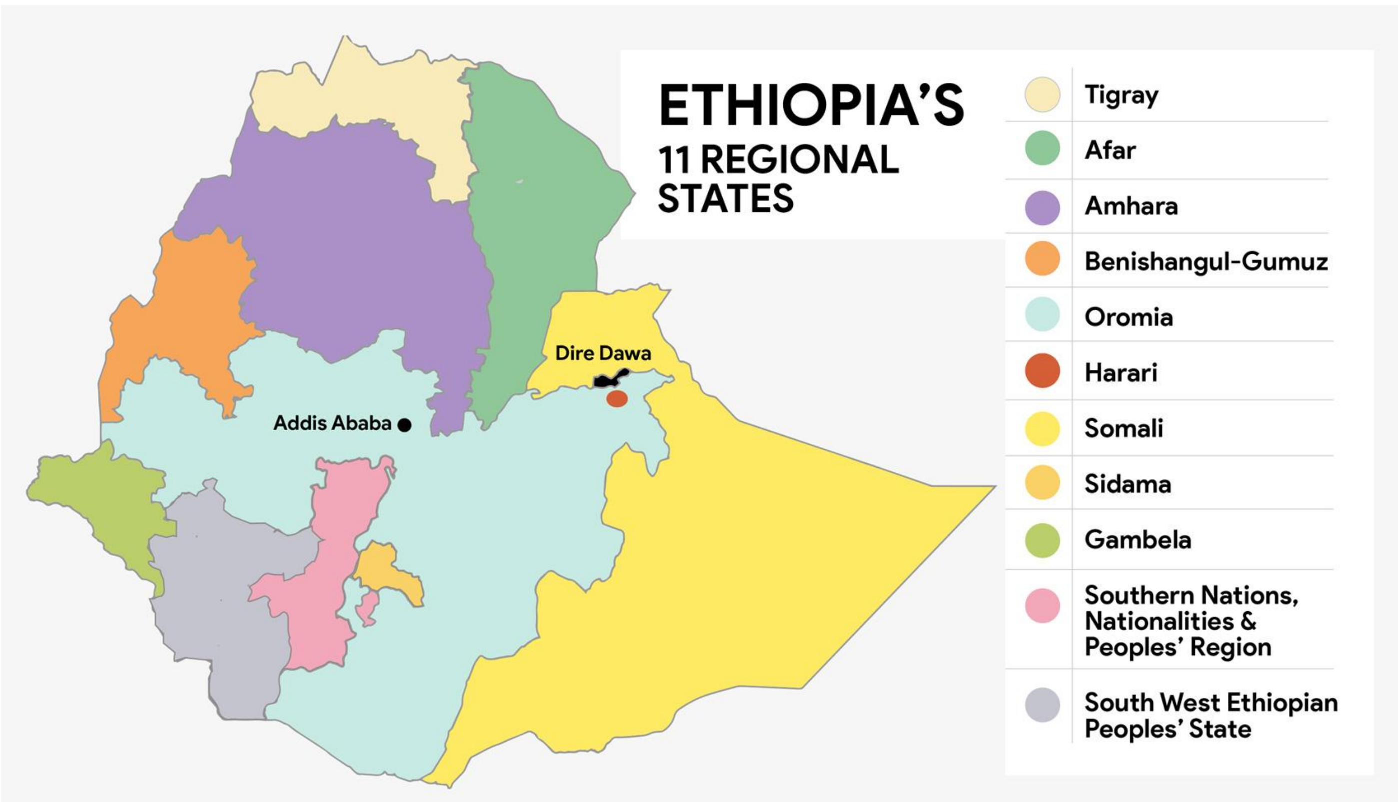
6 ETHIOPIA

6.1 Political

6.1.1 Instability, conflict and insecurity (challenging)

Ethiopia's political system is in a state of flux, largely due to the political, security and socio-economic effects of the year-long conflict between the federal government and Tigrayan forces. This conflict, which has now spread into the neighbouring Amhara and Afar regions, threatens to undermine the stability of the country and the wider region, of which Ethiopia remains a key anchor.

Since ascending to power in April 2018, Prime Minister Abiy Ahmed (Abiy) has adopted a far-reaching reform programme which sought to reconfigure the political and economic system. Since 1991, the ruling Ethiopian People's Revolutionary Democratic Front (EPRDF) coalition has held a tight grip over the country, suppressing ethnic and regional calls for autonomy. In practice, the Tigray People's Liberation Front (TPLF), the oldest member of the EPRDF coalition, dominated the political space. Mass civil unrest between 2015 and 2018 that led to Abiy's predecessor, Hailemariam Desalegn, resigning was seen as a particular public repudiation of the TPLF and its rule. Although Abiy was elected as Chair of the EPRDF, his initial popularity was underpinned by increasing rhetoric against previous political and economic domination by the TPLF. This gradual fracture of the coalition led to the dissolution of the EPRDF and the establishment of a pan-Ethiopian Prosperity Party (PP). Abiy's reshaping of the political space has allowed ethnic groups hitherto excluded from the TPLF-dominated regime a voice. However, the TPLF vehemently opposed these plans and gradually withdrew its representatives from central government roles, voted against multiple government rulings in parliament, and focused its attention on strengthening its position in its home region of Tigray.



While Abiy has been praised by some for his democratisation of the political landscape, his rapid opening up of a previously repressed and closed political space has led to multiple fissures. This has included competing ethnic and political groups jostling for power, leading to protests and recurrent instances of ethnic violence and breakdowns in law and order. Politics in the country has now become characterised by continued instability fuelled by previously suppressed ethnic factionalism and grievances coming to the fore.

Ethiopia's transition since 1990

Since the 1990s, Ethiopia's political system has been characterised by ethnic federalism. The country has a highly diverse population with over 80 different ethno-linguistic groups,[1] and a long history of ethnic conflict. The 1995 constitution provides the framework for an Ethiopia divided into ethno-linguistically distinct regional states[2] and two chartered cities (see map above). Structural tensions between neighbouring ethnic groups pertaining to land and resource disputes – as well as marginalisation by the repressive EPRDF government – were an enduring feature of this institutional arrangement. Grievances were specifically directed at the Tigrayan elite, who, despite accounting for approximately 6% of the population, had a monopoly on political and economic power through the Tigray People's Liberation Front (TPLF), a former constituent party of the EPRDF.

The 2015-2018 period was characterised by heightened tensions following accusations of land grabbing in the Oromia region[3] and around Addis Ababa, leading to violent protests and culminating in Prime Minister Hailemariam Desalegn's resignation in 2018 and the beginning of a transition period. Abiy was appointed by the EPRDF to herald a new vision for the country. Ethnic federalism was to be replaced with national unity, alongside a raft of reforms aimed at strengthening institutions and increasing political space, inclusivity and freedoms. However, these reforms attracted widespread opposition, further fuelling tensions. Since 2018, Ethiopia has been affected by the rise of identity-based conflict – as well as increasingly frequent instances of large-scale, ethnically motivated violence.

Tigray conflict (November 2020 - present)

This increasing polarisation between the TPLF and federal government eventually led to conflict erupting in Tigray in early November 2020. In September 2020, the dispute escalated when Tigray decided to hold its own regional elections, in contravention of central government directives. The central government subsequently cut all ties with Tigray and suspended all funding to the region.

Whilst the exact trigger for the conflict is disputed, the military intervention from the federal government was ordered following an attack by the TPLF on the Northern Command, based in the regional capital, Mekelle. Military intervention drew in militias from the neighbouring Amhara region and troops from the state of Eritrea (with which the then TPLF-led federal government had gone to war in 1998-2000). Abiy had spearheaded a peace agreement with Eritrea in July 2018, which saw the resumption of diplomatic and trade

[1] The largest ethnic groups, according to the last census in 2007, are as follows (% of population): Oromo (34.0%), Amhara (29.8%), Somali (6.2%), Tigrayan (6.1%), Sidama (4%).
[2] There were nine regional states between 1994 and 2020. In June 2020, the Sidama people's demand for ethnic-based statehood was ratified by the Southern Nations, Nationalities, and Peoples' Region (SNNPR) Council. In September 2021, a further referendum approved the creation of an eleventh regional state, South West Ethiopia Regional State.
[3] Oromos account for a third of the population but have long complained of marginalisation and exclusion from political decision-making and economic development.

relations after two decades. This had also resulted in a particularly close political relationship between Abiy and President Isaias Afewerki of Eritrea, a strident critic of the TPLF.

Tigray was cut-off from many basic services, including telecommunications, banking and electricity. After 3 weeks of heavy fighting, the federal government took control of Mekelle and installed an interim administration. Nonetheless, fighting continued and led to the eventual recapture of Mekelle by Tigrayan forces at the end of June 2021, and the withdrawal of federal military forces from the region.

The fighting in Tigray has displaced over 2 million people, leaving thousands dead and hundreds of thousands without access to basic services and food and at risk of starvation. All warring parties have been accused of war crimes and atrocities against civilians, and there are now growing international calls for dialogue. This has however been refused by both sides, and the conflict has seen further escalation since July. Following the recapture of Mekelle, Tigrayan forces have gone on the offensive in the neighbouring Amhara and Afar regions, and have also made claims of willingness to fight onto Addis Ababa to remove Abiy from power. Concurrently, Abiy has called for a national mobilisation to fight for the "survival" of Ethiopia, and militias from Ethiopia's remaining federal states, as well as the federal military, have been deployed to war fronts in northern Ethiopia.

With the first anniversary of the conflict in early November, domestic and international attention was further heightened by a series of key events. Tigrayan forces claimed to have taken control of the strategic cities of Dessie and Kombolcha in Amhara, with the stated aim to march on Addis Ababa, enabling them to potentially cut the main highway with Djibouti, on which landlocked Ethiopia relies for 95% of its maritime trade. With an advance on Addis seemingly looming, multiple foreign countries issued warnings against travel to Ethiopia, advising their citizens to leave the country. On 2 November, the Council of Ministers declared a nationwide state of emergency for six months, with Abiy calling for citizens to rise up and defeat the rebels. This potential expansion of the conflict has further focused international diplomatic efforts, with both US and AU Special Envoys shuttling to Ethiopia to increase pressure on all sides to declare a ceasefire and negotiate a political solution to the conflict

Outlook

The Tigrayan forces' retaking of the regional capital, Mekelle, from federal forces, and the expansion of the conflict into Amhara and Afar, has signalled a new phase in this conflict. Tigrayan armed groups are calling for all Eritrean and Amhara forces that are aligned with the federal government to withdraw or face violence. Meanwhile, the federal government has cut off basic services to the region, leaving thousands without electricity and complicating aid efforts. It has also stated it has no intention to negotiate with the "treasonous" and "traitorous" TPLF.

These dynamics have the potential to develop into a major crisis which could undermine the state's authority and ultimately derail the government's climate mitigation planning. If Abiy is to prevent further instability, he must find a way to co-opt dissenting factions through inclusive dialogue in a manner that de-escalates political and ethnic grievances and tensions.

While Abiy does have a strong majority in the next parliament, the ruling PP will continue to face scrutiny at home and abroad, which may affect his government's ability to implement its ambitious political and economic strategy. International partners continue to expand sanctions, with the prospect for further restrictions, on both TPLF and federal government figures. The expansion of sanctions, and the ensuing economic fallout, could affect the PP's intention to push further economic liberalisation, and undermine government spending plans.

6.1.2 Government change (weak)

Ethiopia's highly anticipated general elections were originally due to take place in August 2020, but were postponed twice until June 2021. This was owing to the COVID-19 pandemic and various logistical and technical challenges detailed by the National Electoral Board of Ethiopia (NEBE). This necessitated an extension of the government's five-year term, beyond its constitutional end date of 10 October 2020. The extension by the House of the Federation and the Council of Constitutional Inquiry was opposed by key political actors, most notably the TPLF. They deemed this extension "unconstitutional" and a power grab by Abiy's administration.

Unconvinced of the NEBE's reasons for delay, and upholding itself as the vanguard of "defending" the federal constitution, the TPLF pushed ahead with holding elections for its own regional parliament in September 2020. Although there was nominal opposition, the TPLF won 98.2% of the vote. This move was condemned by the federal government as "null and void" and further heightened tensions with authorities in Addis Ababa.

As referenced above, Abiy's ruling PP secured an overwhelming victory in the June elections. This is expected to be repeated in the remaining seats that are due to vote on 6 September. Despite Abiy's inability to convene a large cross-section of the electorate, the advantage of incumbency, a fractured and disparate opposition, and a boycott in key regions, helped the PP to a widely expected victory.

However, the legitimacy of the election has been questioned both domestically and internationally. Opposition parties, with disparate goals and support bases, have claimed that there remains a repressive political and media environment, including targeted attacks against party representatives on election day. In the country's largest federal state, Oromia, the opposition Oromo Federal Congress (OFC) and Oromo Liberation Front (OLF) parties boycotted the poll, leaving the PP to run unopposed.

Despite the election having been largely completed, the politicking as a result of these elections will continue to dominate the Ethiopian policy sphere. Climate change considerations are unlikely to be a priority for the Abiy administration as he seeks to consolidate power in his first full term as PM and maintain stability throughout the country – a complex situation further exacerbated by the ongoing conflict in northern Ethiopia (see section 6.1.1), and the COVID-19 pandemic (see section 6.2.7).

6.1.3 Environmental policy and commitment (moderate)

Ethiopia is highly vulnerable to climate shocks and historically has been ranked by UNEP as among the top ten countries most exposed to climate change. In recent decades, increasingly erratic rainfall and extreme weather events have led to regular localised droughts. In a country where over 80% of the agricultural workforce is reliant on rainfed crops, this has resulted in widespread famines and additional economic and health impacts. The future effects of climate change are expected to accelerate existing land degradation issues and increase the country's vulnerability to drought, floods and famine.

Over the past three decades, Ethiopia has gained a reputation as a pioneer in combating climate change, having enacted a series of innovative policies and programmes designed to rehabilitate degraded land and boost the resilience of local communities who are most prone to climatic disasters. The federal government has historically implemented multiple operational plans at the national, regional and sectoral levels. Over the past decade, regional governments have invested over USD 1.2 billion in restoring degraded lands in multiple regions. In 2016, Ethiopia was one of the first countries in Africa to sign up to the Paris Agreement on Climate Change, committing in the process to limit its carbon emissions by 2030, and has become a champion for the climate change accord. In the same year, it received accreditation to join the UN's Green Climate Fund, which has significantly boosted the country's ability to attract funding.

In 2011, the government adopted the Climate Resilient Green Economy Strategy (CRGE). The CRGE demonstrated the political will of the former Prime Minister Meles Zenawi's administration (1995-2012) to formalise climate change within a national policy framework. While the CRGE was retained by successive governments, we understand from our sources on the ground that it is currently under revision, as is the Second Growth and Transformation Plan (GTP II 2016-2020). Our sources said that it is unlikely that the CRGE's main objectives (see text box below) will be materially altered, but they did comment on the impact of the current political crisis on their implementation.

Owing to the highly devolved nature of policy implementation in Ethiopia in general, the federal government has limited authority to enforce or oversee climate-related developments at regional state level. Implementation at state level varies widely between regions, and has become increasingly complex and challenging in the current political context characterised by growing inter- and even intra-regional tensions.

Abiy did enact a series of high-profile land restoration policies to reinforce Ethiopia's reputation as a leading pioneer on climate change, but those were seen as superficial by the majority of our sources. The most famous of these policies is the Green Legacy initiative, a mass tree-planting scheme which saw citizens plant 4 billion trees across the country in 2019, according to the government. In 2020, 4.2 billion trees were reportedly planted and a target of 6 billion declared for 2021. The country aims to have planted 20 billion by 2022. These initiatives have won Abiy significant acclaim, and have seen Ethiopia nominated for the Climate Coalition Green Heart Award. However, the initiative has also faced criticism from climate experts, who warn the mass planting of trees could have an adverse impact on local wildlife and ecosystems.

The Climate Resilient Green Economy Strategy: provisions and implementation mechanism

The CRGE aims for Ethiopia to become a carbon-neutral, middle-income country by 2025. Ethiopia also intends to limit its GHG emissions to 125 Mt CO2 or lower by 2030, which would represent a 255 Mt CO2 reduction on the "business-as-usual" emissions of 400 Mt CO2 in 2030 (or a 65% reduction).

The CRGE is being implemented via the National Adaptation Plan to Address Climate Change 2017 (NAP-ETH), which is costed at USD 6 billion per annum, and is based on four key pillars:

- Reducing agricultural emissions
- Protecting and expanding forests
- Expanding renewable energy generation
- Adopting energy efficient technologies in transport, industry and construction

The CRGE is supported by the CRGE Facility, a vehicle established in 2011 which serves as the central funding mechanism for climate action in Ethiopia. The facility comes under the direct supervision of the

Ministry of Finance, and allows the government to access and mobilise domestic and international public and private resources to support the CRGE implementation. The CRGE has been integrated into national political structures via CRGE units, which are based within key line ministries and encourage the development of sector-specific climate policies.

6.1.4 International influence (strong)

As a pioneer in the field of climate change, and with the ambitious goals enshrined in the CRGE, Ethiopia enjoys credibility among international partners especially vis-à-vis action in the developing world. The country was the first to submit its Intended Nationally Determined Contribution (INDC) to the UNFCCC Secretariat ahead of COP21 in 2015. It was the first African country to hold the presidency of Climate Vulnerable Forum (2016-2018). Additionally, Gebru Jember Endalew, an Ethiopian climate expert, served as the chair of the UN's Least Developed Countries Network – a group of 47 countries which are most affected by climate change – between 2017 and 2019. Gebru's position gave Ethiopia a strong platform to advocate for initiatives in the developing world.

Ethiopia's position as the headquarters of the AU has made it a central meeting point for international stakeholders and led many, including UNEP, to establish permanent offices in the capital, Addis Ababa. Ethiopia regularly hosts major international climate change events which convene policymakers, donors and businesses. Most recently, in 2019 it hosted the 8th Climate Change and Development in Africa conference.

Ethiopia has also taken a leading role in the promotion of the African Continental Free Trade Area (AfCFTA), although its tenets clash with the fact that certain sectors of the Ethiopian economy remain closed to foreign investment. Despite this, as part of Abiy's liberalisation programme, Ethiopia deposited its ratification of accession to the AfCFTA just one year after the beginning of his premiership. The Ethiopian government noted the "historic" nature of the occasion, marking the country's first free trade agreement. Whilst it has enacted some of the key aspects of the agreement, including contributing to free movement of people through visas on arrival for citizens of AU member states, it has continued to protect strategic sectors, such as financial services, from private competition. These mixed policy signals will likely continue, as Ethiopia's aspirations to become a regional economic hub are subordinated to domestic political considerations that lead the state and local companies to maintain dominance in key sectors.

Since the start of the Tigray conflict, however, Ethiopia's international image, and particularly that of Abiy, has rapidly deteriorated. Criticism of the Ethiopian government's execution of the conflict, including alleged human rights abuses and war crimes, as well as the involvement of troops from neighbouring Eritrea, has resulted in sustained condemnation from many of Ethiopia's key international partners, most notably the US and EU. This criticism has resulted in practical measures, including withdrawal of budgetary support from the EU and targeted sanctions on high-level Ethiopian officials by the US. As the conflict spreads, and further mass mobilisation takes place, these measures continue to be strengthened and widened as part of international pressure to halt the conflict and push both sides into negotiations.

6.2 Institutional

6.2.1 Governance and corruption (weak)

Corruption has long been a feature, if not a defining one, of the Ethiopian political and commercial landscape. Low levels of accountability and transparency within government – combined with weak institutional frameworks and the centralisation of resources – have seen corruption flourish, primarily in the form of clientelism. Ethiopia's rating on the Transparency International Corruption Index has remained consistently low since 2012, seeing a slight improvement in 2018 after Abiy took office on an anti-corruption pledge (see below).

Corruption represents a direct concern for organisations advocating on climate change policy in Ethiopia in the form of political, reputational, integrity and operational risks. These risks relate primarily to procurement and tendering, financial mismanagement and misappropriation, invoicing fraud, bribery, and grantee or partner fraud. We also note the energy sector in Ethiopia is particularly prone to corruption. High levels of investment in the sector have allowed officials to embezzle funds and inflate the price of services.

While Ethiopia has anti-corruption laws and structures in place, these are poorly implemented and have been largely ineffective. The Federal Ethics and Anti-Corruption Commission (FEACC), the government's primary vehicle for combating corruption, has been widely perceived as a tool for successive regimes to conduct political witch hunts. The judiciary has also historically been closely tied to the executive, and the Office of the Attorney General is highly politicised, which has further undermined the credibility of anti-corruption drives.

Abiy came to office promising to make anti-corruption his top priority. He claimed corruption represented an existential threat to the country's development, and pledged to clean up Ethiopia's state-owned enterprises (SOEs). His administration has targeted multiple government officials who have been dismissed or detained for alleged corruption and abuse of office. Abiy also successfully dismantled METEC, a military-run corporation, which had dominated numerous critical sectors, including energy. His decision to do so was widely perceived as aimed at sapping the revenue sources of the TPLF, who were historically closely associated with Ethiopia's military.

Abiy's anti-corruption efforts have attracted criticism as he appears to be targeting some of his political opponents and further marginalising the TPLF. He has, however, successfully managed to carry out some reforms to increase the independence of the judiciary and of anti-corruption bodies. These efforts have been welcomed by civil society groups, even if there is widespread dissatisfaction over the slow pace of the fight against corruption.

6.2.2 Environmental leadership (moderate)

Ethiopia's Environmental, Forest and Climate Change Commission (EFCCC) and the Ministry of Finance and Economic Cooperation (MoFEC) are responsible for overseeing the high-level strategy of the CRGE. Both are led by respected technocrats with long-standing experience in government. The day-to-day implementation is managed by the CRGE Secretariat, whose technical team sits within the EFCCC and provides guidance and direct technical support to line ministries. The Secretariat's finance team and implementation unit sits within MoFEC.

The key line ministries involved in environmental policy include: the Ministry of Agriculture; the Ministry of Industry; the Ministry of Mines; the Ministry of Transport and Logistics; the Ministry of Urban Development and Infrastructure; the Ministry of Irrigation and Lowland Areas Development; and the Ministry of Water and Energy.

Environment, Forest and Climate Change Commission (EFCCC)

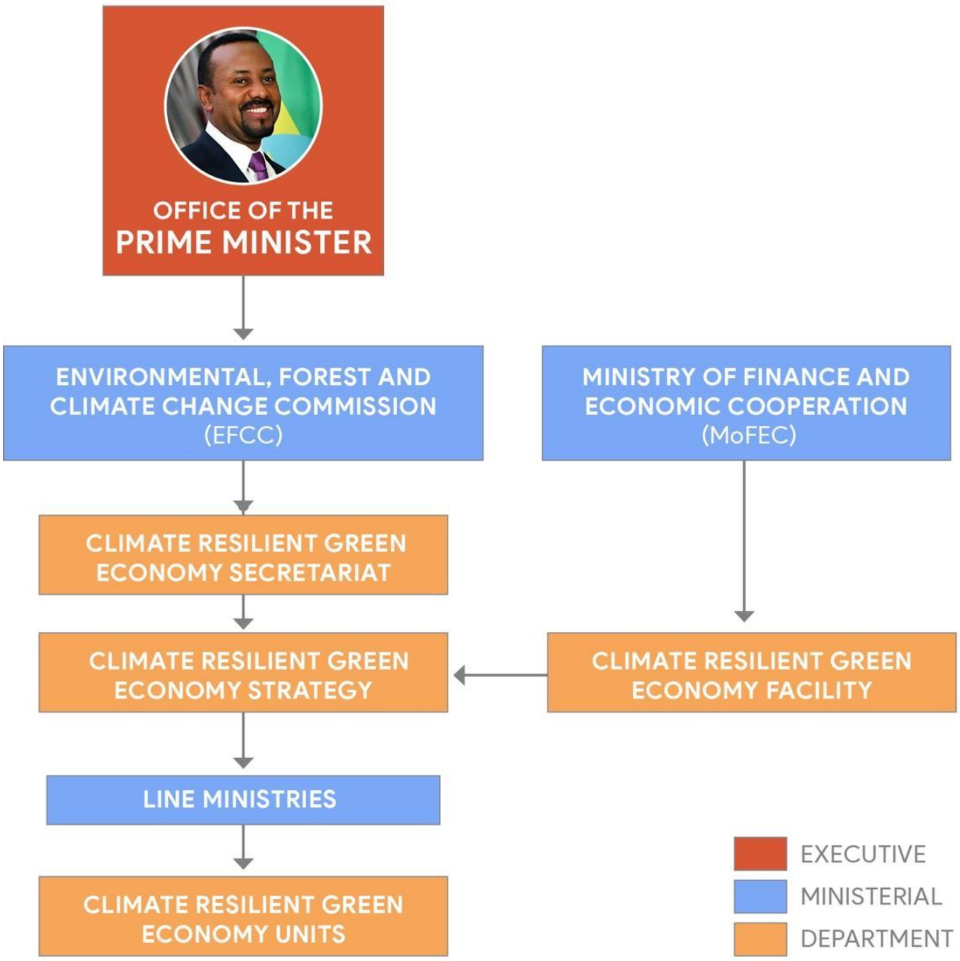
The EFCCC (formerly the Ministry of Environment, Forest and Climate Change) is the apex federal institution responsible for managing the environment in Ethiopia. It ensures the realisation of the CRGE through coordinating the various line ministries and establishing systems and programmes. The EFCCC is also central to the development of key climate legislation.

- **Fekadu Beyene**: Beyene has served as the Commissioner for Environment, Forest and Climate Change since 2018. Beyene is an academic who previously served as Minister of the Ministry of Livestock and Fisheries and State Minister of the Ministry of Agriculture and Livestock Resource. He has sat on numerous national steering committees relating to environmental issues and coordinated multiple bilateral and multilateral projects. He thus has strong ties with the international donor community and led Ethiopia's delegation to COP26. He has been a strong advocate of Abiy's Green Legacy initiative.

- **Kebede Yemam**: Yemam serves as Deputy Commissioner at the EFCCC. A former Minister of Environment, Forest and Climate Change (2016-2017), he has extensive experience of climate issues. During his ministerial tenure, he oversaw a major national exercise to map and assess Ethiopia's forests with a view to generating investment in land rejuvenation projects.

Ministry of Finance and Economic Cooperation

- **Ahmed Shide**: Shide was appointed Minister of Finance in October 2018. He is a long-serving government official who has held positions as Minister for Transport, and as Minister for Government Communications. Beyond his ministerial positions, he also leads the Ethiopian Somali People's Democratic Party (ESPDP), a party historically allied with the former EPRDF. Despite this, Shide is considered to be a close ally of Abiy.



- **Eyob Tekalign Tolina**: Eyob has served as State Minister of Finance since October 2018. A political economist by training, Tolina has had a varied career in both the private and public sectors. He has served as an economic adviser at the Ethiopian Embassy in Washington DC, and advised Ethiopian officials at the IMF and the World Bank on economic policy. He has also worked directly for several large-scale international bodies including UNECA, COMESA and the IFC. Prior to his current ministerial posting, Tolina served as Minister in charge of the Planning and Development Commission in 2018. Eyob's appointment as State Minister of Finance was a strategic move by Abiy who sought to install young, internationally savvy figures in key posts to modernise the economy. Eyob has therefore played a central role in the economic liberalisation of Ethiopia.

6.2.3 Reform commitment and budgetary prioritisation (weak)

Ethiopia has made a strong commitment to both mitigation and adaptation action and was the first least developed country to submit its INDC to the UNFCCC. In July 2021, Ethiopia submitted its updated NDC to UNFCCC, with a pledge to reduce GHG emissions by 69% below business-as-usual levels by 2030. Despite this, the country faces significant financial barriers to climate action that impede progress.

According to the CRGE, Ethiopia requires annual spending of USD 7.5 billion to respond to climate change. Meanwhile, the INDC indicates that the full implementation of Ethiopia's climate actions with the greatest mitigation potential requires expenditure of more than USD 150 billion by 2030 – equivalent to a quarter of Ethiopia's GDP as at 2018. These figures do not cover sector-specific climate change resilience-building programmes such as those undertaken by the Ministries of Water and Energy, and Agriculture, respectively estimated at USD 895 million and USD 1.5 billion.

The CRGE acknowledges the vast funding gap that exists between Ethiopia's climate finance requirements and available resources. The most recent reliable data[4] suggests Ethiopia's domestic climate change-relevant spending is much lower than the requirements identified in the CRGE, standing at approximately USD 440 million per year. Moreover, the rigorous tracking of climate change finance is relatively new – the CRGE Facility Financial Team within MoFEC only approved its national methodology in 2019 before piloting it in a small number of sectors.

The government has relied heavily on its own resources for climate-change relevant expenditure. In 2011-2012, 80% of this expenditure originated from government sources, while the remainder consisted of donor support. Climate action at the sub-national level is primarily funded with transfers from the federal government to the regional states, though this support remains limited.

Domestic funding for climate action has been superseded by other policy priorities, namely in pro-poor sectors such as education – which has historically received the lion's share of federal budgets, being allocated 21% in 2019-2020 – and infrastructure, which has received approximately 22% of the total budget in recent years. An analysis of budgetary allocations over the last ten years reveals line ministries involved in the implementation of the CRGE have not seen an increase in their allocation in line with their adaptation and mitigation responsibilities.

International pressure as a result of the Tigray conflict has seen a limited sanctions regime, confined to travel restrictions for high-level officials of the TPLF and federal government, put in place by the US. However, as the

[4] From a 2014 study by the Overseas Development Institute.

conflict continues and spreads, there is a high risk that this sanctions regime could be further extended. This will negatively impact the country's already fragile economic situation, and limit the ability of the federal government to allocate scarce resources to climate change mitigation efforts.

6.2.4 Structural capacity (weak)

Despite the existence of a structured institutional framework for the implementation of the CRGE, its capacity remains weak and subject to intergovernmental malcoordination. The CRGE is implemented via the mainstreaming of actions into sectoral programmes. Funding for climate action is managed by MoFEC via the CRGE Facility. Government policy is informed by reports submitted by the Ethiopian Panel on Climate Change, which convenes climate experts on a regular basis.

Ministries have established CRGE units, whose action is coordinated by the CRGE Secretariat. Line ministries must regularly report on the progress of their respective CRGE units to the EFCCC. The process is monitored by a national-level management committee which comprises key stakeholders: the EFCCC, the Ministry of Finance, the National Planning Commission, representatives from line ministries, and donors.

Relevant institutions and stakeholders:

- **Environment, Forestry and Climate Change Commission.** Via its Measuring, Reporting and Verification (MRV) Directorate, the EFCCC is responsible for monitoring all climate change activities carried out under the CRGE and for gathering and centralising all climate-related data from line ministries. It reports directly to the Office of the Prime Minister and to international partners. Since its original creation in 1995 as the Environmental Protection Authority (EPA), the EFCCC has undergone multiple structural changes before taking on its current form in 2015. Local contacts said this has hindered the organisation's internal functioning, leading to high staff turnover, insufficient capacity building, an over-reliance on short term training and low pay. This has resulted in slow resource mobilisation, poor data gathering and impeded policy implementation.

- **MRV Directorate.** The MRV Directorate suffers from significant capacity constraints, notably with regard to staffing and technical capacity, specifically in terms of IPCC inventories and use of UNFCCC and IPCC MRV guidelines, software and reporting. The directorate's work is also hampered by the lack of IT equipment and high-speed connectivity to all CRGE units in ministries.

- **CRGE Secretariat**. The Secretariat's technical team sits within the EFCCC and provides guidance and direct technical support to line ministries. Its finance team and implementation unit sit within MoFEC.

- **CRGE Facility.** The facility is intended as a fundraiser to support the implementation of the CRGE strategy. It sits within MoFEC and is currently developing a new strategy for private resource mobilisation. We understand that an expansion of fiscal incentives will form part of the strategy and that the facility will work more closely with non-state entities. The UK and Norway have played key roles in supporting the growth of the CRGE Facility. As with other institutions, the CRGE Facility suffers from a lack of technical capacity, with the organ relying heavily on international consultants, although there have been improvements in recent years, according to our sources.

- **CRGE Units/Climate Change Units.** These units have been established within all ministries to mainstream climate change policy within their respective sectors, and to report progress of mitigation and adaptation actions to the EFCCC. The units are restricted by their technical knowledge of climate change, compounded by the limited financial resources allocated to them. CRGE units are in need of training on the IPCC 2006 Guidelines and on data collection within their sectors, as well as IT equipment for data collection.

- **Regional states and sub-national units.** Ethiopia's federal system is highly decentralised, with the delivery of public services including agriculture and water supply devolved to the district-level. Responsibility for the CRGE implementation relies heavily on regional states in collaboration with federal institutions. Regional institutions suffer from a structural lack of capacity – both technical and financial – given limited support from the federal government. This is particularly salient in MRV. Moreover, there is limited tracking and transparency at the sub-national level in terms of climate change action progress. Clear data on this is crucial to inform future national climate planning.

6.2.5 Donor and development partners' support (moderate)

Ethiopia has historically taken a proactive approach to engaging with international partners on climate change issues. The country has been engaging in climate diplomacy since 2009, paving the way for the establishment of the Conference of African Heads of State on Climate Change.

In 2019, the EFCCC hosted the first CRGE Forum, in partnership with the EU and Norway, to enhance collaboration between Ethiopia and its climate change partners in the implementation of the CRGE strategy. The inaugural forum in January 2019 allowed the EFCCC to outline to partners its key challenges – lack of finance, technology and overall capacity to implement the CRGE due to a weak MRV Directorate. Despite this, local contacts indicated the forum has struggled to organise regular meetings and suffers from a lack of organisational capacity.

The CRGE Facility has attracted funding from a range of bilateral donors, including the UK, Norway, Denmark and Austria, with commitments totalling USD 56 million as of 2017. According to Climate Funds Update, Ethiopia received USD 174.4 million from multilateral climate funds between 2002 and 2019, with the country receiving approximately USD 65 million between 2017 and 2019. Close to half of this funding has gone to adaptation, with approximately a third and a fifth allocated to mitigation and REDD+ projects, respectively. The country has received a total of USD 120 million in financing from the GEF and USD 45 million from the GCF, after initially seeking USD 99.6 million. This request was rejected by the GCF board in May 2017 due to its size and the difficulty in distinguishing adaptation from development projects.

Ethiopia's relations with some of its key donors, most notably the US and EU have been undermined by the ongoing conflict in Tigray. Both have been highly critical of the Ethiopian government and have implemented practical measures curbing financial support to the government. In January 2021, for example, the EU suspended EUR 88.5 million (USD 107 million) of budgetary support to Ethiopia until unfettered humanitarian access to Tigray was guaranteed, with the proviso that further cuts could be made. The EU had previously committed EUR 542 million to budgetary support to Ethiopia between 2014 and 2020, and the conflict has escalated as the organisation plans its budgetary commitments for 2021 through 2027. With 40% of EU funding, by far the largest single share, earmarked for spending on climate change, sustainable energy and green growth, such cuts would further impact the country's climate mitigation efforts.

The conflict continues to spread across northern Ethiopia, and calls by the UN, EU and US for a ceasefire and negotiations between both the federal government and Tigrayan forces have not been heeded. With both sides unwilling to currently negotiate for a political solution, donors could put further limitations on funding to Ethiopia to increase political and diplomatic pressure on the government.

6.2.6 Dialogue with non-government actors (moderate)

Ethiopia is home to a vibrant community of NGOs operating in the climate change sphere, though their role is significantly limited by legal and administrative barriers. Many NGOs have avoided direct involvement in policy advocacy in fear of falling foul of restrictive legislation. Instead, most have focused on disseminating information about climate change, particularly in the context of limited physical and financial capacity on the part of national agencies.

The Climate Hearings that were held across the country in 2009 ahead of Ethiopia's first climate change conference marked the first time the government consulted citizens specifically with regard to climate change. The following year saw the creation of the National Climate Change Forum, a local civil society organisation which advocates for low-carbon and climate-resilient policies. The forum convenes representatives from government, non-government, and civil society, as well as international partners including the UN, embassies, donors, academic institutions and the private sector. It provides a holistic coordination function and is capable of facilitating international, as well as domestic partnerships and initiatives.

The Ethiopia Civil Society Network on Climate Change is a coordination network with more than 50 local civil society members. It regularly disseminates information, produces publications, and provides members with training and opportunities to consult with the government. The network has also been participating in climate change negotiations under UNFCCC.

The role of the private sector (if any) is not clearly defined in the CRGE. This is despite the need to mobilise vast pools of (external) funding, including from the private sector, to finance the government's plans.

6.2.7 Non-government influencers

Environment and Climate Research Centre (ECRC), Policy Studies Institute

ECRC was set up in February 2015 with the aim of supporting green, climate-resilient development through acting as a research and knowledge hub. The centre "focuses on policy-relevant research on the economics of climate change, environment, energy, natural resource management and sustainable development," and works closely with a variety of key domestic and international stakeholders. These include the EEFCC, the Ministry of Finance and the World Bank. The ECRC formally sits under the Policy Studies Institute (formerly the Ethiopian Development Research Institute), and was set up in partnership with the Environment for Development Initiative (EfD) and the Global Green Growth Institute (GGGI).[5]

Forum for the Environment (FfE)

FfE was set up in 1997 as an environmental communication and advocacy group. It serves as a platform to build links between people and institutions working on the Ethiopian environment. The forum works across

[5] GGGI is working closely with the Ministry of Finance and the EFCCC to help build organisational and delivery capacity and strengthen Ethiopia's engagement with the GCF. As part of its work it has, for example, conducted workshops in December 2020 and February 2021 bringing state and non-state actors together to help build knowledge and strengthen relationships in order for them to access GCF investments.

five thematic areas, namely forests, protected areas, urban environment, energy, and climate change. FfE also acts as the host for the Climate Change Consortium of Ethiopia (CCCE), itself composed of 60 member organisations working on climate change issues.

Population, Health and Environment Ethiopia Consortium (PHEEC)

PHEEC is a consortium of over 60 NGOs and local development organisations founded in 2008. It brings together organisations working across multiple sectors, with the aim of "promoting and enhancing the integration of population, health and environment through multi-sectoral approaches." It's member base includes the non-profit development organisations in some of Ethiopia's key regional states, including the Oromia Development Association (ODA), Amhara Development Association (ADA) and the Relief Society of Tigray (REST). Among its climate change-focused projects is a project in one woreda of Southwest Ethiopia that aims to create community and environmental resilience, as well as build policy advocacy and operational level integration to address environmental sustainability and climate change adaptation. Supported by the Danish government, the project is aimed as a model to be replicated across the country.

6.2.8 COVID-19 impact (challenging)

The COVID-19 pandemic has had a major impact on Ethiopia's growth trajectory, with growth dropping to 6.1% for 2020, down from 9.0% in 2019, according to the IMF. This figure has been projected to nudge slightly higher to 2.0% in 2021. However, the economic impact of conflict has seen growth projections revised, as military activity drains the national exchequer. In October 2021, the IMF declined to provide an economic growth forecast for Ethiopia for 2022, likely due to the economic fallout of the conflict.

The reduction in economic activity – combined with a drop in exports and remittances, both key sources of foreign earnings – has major implications for Ethiopia's public finances. These dynamics will constrain the government's ability to service its burgeoning debt[6] and mobilise resources to allocate to its developmental and climate change priorities.

The Ethiopian government adopted a budget of ETB 561.7 billion (USD 12.9 billion) for the 2021-22 fiscal year, marking a 18% increase on the previous year. Between 2018 and 2021, the budget increased by more than ETB 170 billion (USD 3.93 billion). Approximately 66% of the budget is expected to be raised from domestic sources and a further 22% from loans and grants – an over-optimistic assessment in the context of an unfavourable environment characterised by widespread domestic and international economic turbulence.

Against this backdrop, climate action will be of secondary importance relative to more pressing imperatives, including national defence spending (as the conflict in northern Ethiopia widens), strengthening the health system, protecting social safety nets that millions of Ethiopians rely on, servicing foreign debt and shoring up the finances of Ethiopia's numerous SOEs.

[6] Public debt has risen sharply in recent years, with Ethiopia undertaking significant borrowing – primarily from China – to finance its vast infrastructure drive. The country's debt-to-GDP ratio rose from 47% in 2014 to 61% in 2018, before dropping to 58%. However, in September 2021, Eyob Tekalign, stated that the debt-to-GDP ratio had dropped further to 50%. This had been helped by a raft of measures including the cancellation of all interest-free loans by China, up to the end of 2018, and the restructuring of an additional USD 1 billion of debt announced in July 2021, as part of the G20 common framework.

6.3 Sectoral

ETHIOPIA
SECTOR OPPORTUNITIES & RISKS

Sector	Opportunities	Risks
Urbanisation	• Clinker substitution • Shift to sustainable use of biomass • Energy efficient equipment • Waste heat recovery	• High cost barrier to technology shift • Low-carbon construction materials not part of CRGE • Traditional reliance on biomass for cooking • Prohibitive cost of electricity
Electrification	• 90% of power generating capacity from hydropower • Ambitious access plans through NEP • Increasing investor interest, notably in geothermal	• Precarious energy security • Financing hurdles • No PPP law • Currency and tax regimes - price hikes
Industrialisation	• Prioritisation of energy-efficient industrial parks	• Lack of robust regulation • Limited technical understanding • Aggressive industrialisation • Ad hoc sustainability practices
Land use change	• Adoption of higher-productivity livestock breeds • Forest Proclamation 2018 • Droughts, floods and locust invasions highlight importance of the issue • Promotion of clean cooking fuels	• Low production levels • Food security vs mitigation • Rising fuelwood consumption • No land use planning • Inadequate incentives for forest management
Oil and gas	• Calub and Hilala gas fields have gone undeveloped since the 1970s owing to sustained political and security risks, indicating their future as stranded assets	• Government supportive of Ethiopia's future as an oil exporter and plans for a 770km gas export pipeline

6.3.1 Urbanisation (strong)

Ethiopia is urbanising rapidly and by 2030, a third of its population will live in cities – up from 21% in 2019. The country is currently urbanising at a rate of 4.6% per annum and this is likely to accelerate given the youth bulge. As of the most recent census in 2007, an estimated 41.5% of the population was below the age of 15. Between 2010 and 2030, Ethiopia's urban population is forecast to grow from 13.5 million 32 million.

These dynamics result in potential opportunities for investment in two key areas: construction and housing; and household energy use.

- **Construction and housing.** Cement is currently the largest industrial GHG emitter, with emissions increasing tenfold between 2010 and 2015, driven largely by Ethiopia's infrastructure drive. According to the CRGE, emissions from cities are projected to rise from 4.7 Mt CO2e in 2010 to 10.2 Mt CO2e 2030 through the adoption of new technologies in the cement sector. The CRGE specifies several initiatives to this end – including clinker substitution, use of biomass, energy efficiency equipment and waste heat recovery – with a combined abatement potential of 15.8 Mt CO2e.

  Investment opportunities here could include in-depth, technical studies and policy support to key institutions, such as the Chemicals and Inputs Industry Development Institute, to encourage substitution of coal with locally-produced biomass. Beyond this, there are opportunities to promote the use of locally made, low-carbon construction materials to fulfil the demand driven by an increasingly urban population.

There are significant barriers that impede the adoption of modern, lower-carbon technologies in the cement sub-sector. These include the high cost barrier to switching to more efficient,[7] less emitting technologies, which has led Ethiopia to lock in outdated technologies that have lower upfront investment requirements. The total cost required for a green retrofitting of the cement sub-sector between 2011 and 2030 is estimated at just under USD 5 billion. Another potential challenge revolves around a legacy reliance on concrete or handmade mud buildings, with little use of innovative materials. There have been few government interventions to increase adoption of innovative, low-carbon construction materials – they do not form a part of the CRGE.

- **Household energy use.** Households in Ethiopia represent 91% of all energy consumption, with biomass constituting 90% of total final energy consumption. While almost all households in secondary cities use electricity for lighting, only 14% of them use it for cooking as of 2011, with biomass remaining the main source of energy.

  Ethiopia thus has an opportunity to shift to more sustainable forms of biomass, including bio-ethanol, briquettes made from collected agricultural waste, and electricity. These interventions have significant potential to reduce emissions and urban pollution but need to be scaled up. The shift to electricity for cooking has been slow given the traditional reliance on biomass, the prohibitive cost for many households of both equipment and electricity costs, and the frequent power outages.

6.3.2 Electrification (moderate)

Ethiopia has one of the cleanest energy mixes in Africa, with an estimated 90% of power generating capacity coming from hydropower. While Ethiopia has significant clean energy potential, electricity only covers approximately 3% of the total energy needs of the country, while hydrocarbons – mainly used in the transport sector – cover about 7%. The remainder, as outlined above, consists of traditional biomass energy.

The key opportunities in the electrification sector thus pertain to expanding electricity access for consumers by displacing biomass. Achieving this requires significant capital investments in grid and off-grid infrastructure, as well as an enabling policy environment. Organisations advocating on climate change – in combination with established technical partners – can play a role in advancing these objectives by funding technical and policy support.

Ethiopia has undertaken extensive efforts to improve electrification coverage, setting itself a target of full electrification by 2025, up from approximately 58% as of 2018. It launched its National Electrification Programme (NEP) in 2017 to achieve this ambitious target, combining both grid and off-grid solutions with a focus on last-mile delivery to consumers. A second NEP was launched in 2019. The financing for the 2017-2022 period of the NEP is estimated at USD 1.5 billion, with the World Bank providing significant support through its USD 375 million Ethiopia Electrification Programme (ELEAP), while the second phase of the NEP requires USD 6 billion in direct investment and technical assistance.

[7] Dangote Cement, which entered the market in 2015, opted for modern cement making technologies. More than half of the plants currently in use rely on old technologies such as vertical kilns, which are less efficient.

Ethiopia's energy drive is motivated primarily by the energy security imperative rather than decarbonisation. The country has the highest available generation capacity in sub-Saharan Africa, with nearly 100% coming from renewable energy – primarily hydropower, alongside significant and untapped solar, wind and geothermal potential. Despite this potential, Ethiopia is experiencing energy shortages and load shedding as it struggles to meet a demand that is rising by an estimated 30% annually. Moreover, a diversification of electricity sources will insure the country against the risk of droughts. Ethiopia is ranked 81st globally in the Bloomberg New Energy Finance's Climatescope Index, which measures investments and opportunities in clean energy.

While the government has made significant progress in terms of expanding its hydroelectric capacity (see text box below), it is now seeking to diversify its energy mix with other sources such as wind, solar and geothermal to achieve a more climate-resilient power system. Key projects currently underway include the 100MW Metahara solar IPP project and the Corbetti and Tulu Moye geothermal projects, which have a combined generation capacity of over 1,000 MW. The country was also a pioneer in launching Africa's first waste-to-energy facility – the 25 MW Reppie plant in Addis Ababa – in 2018. Lastly, the Scaling Solar initiative, launched in 2019, is a key project which aims to develop up to 500 MW of solar power.

The GERD project

The 6.4 GW Grand Ethiopian Renaissance Dam (GERD) – which was launched in 2011 and estimated to cost USD 4.5 billion – is the most prominent hydropower project Ethiopia has undertaken. Filling of the GERD dam began in July 2020, though disputes and negotiations with downstream countries – Egypt and Sudan – are still underway. The construction of the dam has proven highly contentious geopolitically. In July 2021, the GERD issue was referred to the UN Security Council, who decided that the AU-led negotiating process was the most appropriate venue for solving the trilateral dispute. This coincided with the second filling stage of the GERD, and Ethiopia has stated it expects power generation from the GERD to commence this year. Other key hydropower projects include the Gilgel Gibe II power plant, which is currently being upgraded.

Ethiopia faces structural constraints that hinder the participation of more investors in the sector. Financing is a major challenge due to the underdeveloped banking system in the country; most financing has come from development finance institutions and foreign investors. Additionally, there is no PPP law that would allow IPPs to negotiate PPAs directly with the state-owned utility. An overvalued currency has resulted in price hikes during periods of devaluation. Beyond this, there is a lack of clarity on the tax regime for importers of off-grid solar products, with some companies being subjected to VAT, hindering progress in the sector.

6.3.3 Industrialisation (weak)

The Ethiopian government has made light manufacturing the centrepiece of its economic development plans. Five sub-sectors make up the bulk of its industrial GHG emissions in the country: cement; textile and leather; steel and engineering; chemicals (including fertiliser), paper and pulp and food processing; and mining. Together, these sub-sectors have the highest emission growth of all sectors.

There have been no priority actions related to improved energy, water or resource efficiency in the manufacturing or industry sector, aside from those undertaken in the creation of eco-industrial parks.[8] Government initiatives and targets have focused exclusively on the abatement potential of the cement sector (see section 6.3.1), given that it is the most important driver of industrial emissions.

The textile and leather industry – accounting for 17% of industry emissions in 2011 – has a gross abatement potential of 2 Mt CO2. Yet, there have been few initiatives to reduce emissions due to the highly competitive global manufacturing market and lack of domestic regulation imposing high standards on Ethiopian companies. Ethiopian manufacturers have been reluctant to invest in high-cost, climate-smart machinery and have instead prioritised profitability.

While Ethiopia has sought to accelerate its manufacturing industry through the creation of industrial parks, uptake by private companies has been much slower than expected due to the persistent, structural challenges with Ethiopia's economy. Forex accessibility in particular, together with the difficulties in repatriating profits, have hindered FDI and investments in future-proof technologies that reduce emissions.

There is also a lack of technical understanding and awareness among the managers of SOEs and private companies regarding low-carbon and sustainable practices. Ethiopia has few resource efficiency standards and companies are driven by minimum compliance. There is thus an opportunity to engage directly with the government, the Industrial Parks Development Corporation of Ethiopia and business associations to promote a greater understanding of low-carbon practices in the manufacturing sector.

The government's prioritisation of growth in the manufacturing sector at the expense of stringent standards means that implementation of more sustainable practices remains voluntary and ad hoc. In this respect, climate philanthropy can play an important role, by partnering with existing on-the-ground bilateral and multilateral technical partners to fund technical studies that make a strong (business) case for more sustainable practices in specific sub-sectors.

6.3.4 Land use change (moderate)

Land use – forestry, agriculture and livestock management – accounted for 88% of national GHG emissions in 2010 and thus forms a key part of the government's mitigation strategy as part of its NDC.

- **Livestock sub-sector**. Agriculture represents Ethiopia's largest source of GHG emissions, accounting for approximately half of them. To date, government efforts in the sub-sector have focused primarily on improving food security and securing higher farmer incomes, as opposed to mitigation. There have been few government interventions to reduce emissions through improved livestock management practices or changing inputs, with more government action focused on diversifying the animal mix away from cattle. The cattle sub-sector continues to be affected by low production levels and poor feed conversion efficiency.

  There is thus an opportunity to promote the adoption of higher-productivity and lower-emitting livestock breeds that are suited to Ethiopia, as well as specific diets, by engaging with the Ministry of

[8] These government-owned parks are designed with centralised and standardised facilities to optimise environmental performance.

Agriculture, Agricultural Transformation Agency, International Livestock Research Institute and farmers' associations.

- **Forestry sub-sector**. The majority of Ethiopia's mitigation efforts are concentrated in the forestry sub-sector, which is expected to contribute a reduced total of 130 MtCO2e relative to a business-as-usual scenario by 2030. The sub-sector is the largest contributor of GHG emissions after agriculture. Ethiopia has been one of the world's most active countries working with the REDD+ framework and has placed significant emphasis on developing new forestry laws. These include the Forest Proclamation 2018, which has actively sought to encourage community-based forestry and participatory forestry management[9] to support afforestation and reforestation in recent years. Nonetheless, the deforestation rate between 2010 and 2015 is estimated to have reached 1.25% per year, driven by rising fuelwood consumption, the absence of land use planning and inadequate incentives for forest management.

  Assistance from organisations advocating in the forestry sub-sector could come in the form of technical and financial support for state-of-the-art remote sensing to enable IPCC-compliant data – an area in which Ethiopia has historically suffered from a lack of capacity. Likewise, promoting the use of clean cooking fuels as outlined in section 6.3.1 would have a strong positive impact on deforestation and forest degradation.

6.3.5 Oil and gas (Weak)

Ethiopia has been cited as a potential natural gas producer since the Calub and Hilala fields were discovered in the Ogaden basin in the early 1970s. Reserves were never developed, owing to their remote location, the absence of a local market, and regional instability. China's Poly-GCL Petroleum acquired Calub and Hilala and adjacent blocks in 2013, and proceeded to drill three wells, estimating 4 TCF of gas reserves. In 2018, Poly-GCL discovered an additional 3 TCF at Dohar; and the following year, British energy firm, New Age Energy, confirmed a further find of 1.6 TCF in gas reserves in El-Kuran, further to the south.

Rather than targeting the Ethiopian market, Poly-GCL Petroleum proposes to construct a 770km gas pipeline to neighbouring Djibouti, where gas will be processed and liquified prior to export as LNG. The project was expected to cost around USD 4 billion, which would have made it the most expensive project ever built in the Horn of Africa. It is unclear how the state-owned Ethiopian Minerals, Petroleum and Bio-Fuel Corporation, which owns a 15% stake in the project, would finance its share of the development costs. The federal government stated that gas produced in the Somali region could be used to supply a USD 3.7 billion fertiliser plant planned for the eastern city of Dire Dawa.

Abiy reportedly took an interest in the fields' potential to produce crude oil, which was extracted during tests in 2018, although it was unclear that oil had been discovered in commercial quantities. Although Djibouti agreed preliminary terms for the pipeline and export terminal in February 2019, and the House of Peoples' Representatives approved the deal in December 2019, the COVID-19 pandemic subsequently derailed progress. Ethiopia's ongoing conflict has also sapped investor appetite, while the local community has voiced its opposition to the programme following a series of mystery deaths in the vicinity, which it has blamed on

[9] As outlined above, Ethiopia has embarked on vast tree planting initiatives, planting 350 million trees in a day in 2019 as part of a 4 billion tree planting project on 1.5 million hectares. The country has pledged to restore 15 million hectares of degraded forests by 2030 as part of the Bonn Challenge.

toxic chemicals being leached into the environment. Environmental impact assessments have reportedly been carried out, although their results have never been released.

Both the federal government, and the Somali State regional government led by Mustafa Omer, remain committed to the prospect of continuing to develop these deposits. In an October 2020 visit to the region, the Minister of Mines and Petroleum, Takele Uma, confirmed that the ministry would work to ensure the country's natural gas potential, particularly that of the Somali region, would be exploited to its fullest. This was deemed particularly important as the extractives sector is seen as a key pillar of the national economic growth agenda. In March 2021, the Ministry of Mines and Petroleum (MoMP)[10] stated that it aimed to amass revenues in excess of USD 17 billion from the sector in the next decade. As per a 2019 revenue sharing agreement bill passed by the House of Peoples' Representatives, the Somali State regional government would receive 50% of all oil and gas exploration revenues, ensuring local buy-in for the project.

Challenges to the sector remain. There is continued concern about security in the region, particularly after a 2007 attack on a Chinese-run oilfield in the region, which resulted in the deaths of 74 Chinese workers and the destruction of the facility. Although the group that claimed responsibility, the Ogaden National Liberation Front (ONLF), has now returned to peaceful politics in Ethiopia, insecurity remains a concern. Furthermore, plans that were put in place to develop the region's oil and gas reserves have publicly failed. The most notable is the USD 3.6 billion agreement between the MoMP and US-based GreenComm Technologies, signed in April 2020, for the construction of an oil refinery in the Somali State regional government. This agreement collapsed in early 2021, when an investigation revealed that the US-based company did not have the necessary technical credentials or petroleum industry expertise.

Although organisations advocating on climate change have little means to influence decision making concerning the development of gas deposits by Chinese investors, close engagement with the Ethiopian authorities could strengthen oversight of the projects. For instance, efforts to ensure that government regulators scrutinise and seek to control gas flaring might help to control greenhouse gas emissions should investments proceed.

[10] Renamed as the Ministry of Mines with the formation of the new government on 6 October 2021, although we do not view this as having affected political will to develop these resources, since the personnel remain unchanged and a State Minister continues to have responsibility for Mines and Petroleum Development and Scrutiny.

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