Transitioning to a low-carbon economy

Lessons from Ethiopia’s progressive climate policy

Case study
November 2020
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More on this case study
This case study is part of an ongoing series where the Least Developed Countries share their experiences, successes and challenges in strengthening national policy and legislative frameworks to take climate action. The series offers transferable lessons and an opportunity for mutual learning to support climate ambition through developing countries:
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Introduction

Ethiopia’s rapid socio-economic development over the last decade\(^1\) has not compromised on a proactive approach to protecting its citizens and environment from the impacts of climate change. Most notably, it unveiled the forward-looking Climate-Resilient Green Economy (CRGE) strategy in 2011, setting out the vision of becoming a middle-income country by 2025. Ethiopia is classified by the UN as a ‘Least Developed Country’ (LDC) and has negligible current or historical contributions to global greenhouse gas emissions (Box 1). Its climate leadership has been rightfully applauded by the international community.

But what were the foundations for Ethiopia’s progressive climate policy? What opportunities and challenges remain for implementing and further increasing climate ambition at the international level? And what lessons can be learned and applied by other LDCs? To explore these questions, we have drawn on key informant interviews, analysis of policy documents and the authors’ own experiences working both in-country and within intergovernmental processes on climate change.

In this case study, section 2 provides a snapshot of the country’s characteristics and its climate change challenges. Section 3 gives a brief overview of constitutional provisions related to the environment that laid the foundation for future climate policy. Section 4 takes a closer look at how the government has addressed climate change at the international and national levels — paying particular attention to the delivery of Ethiopia’s United Nations Framework Convention on Climate Change (UNFCCC) commitments and the CRGE. Finally, section 5 outlines the challenges that have arisen over the last ten years and explores some ways forward for Ethiopia that offer lessons for other LDCs embarking on low-carbon climate-resilient development pathways.
BOX 1. LEAST DEVELOPED COUNTRIES AND CLIMATE CHANGE: A BRIEF HISTORY

The United Nations General Assembly established the Least Developed Country (LDC) category in 1971, in recognition that the poorest and most vulnerable developing countries require particular support from the international community. LDC status is determined by a country’s level of income, human assets and economic vulnerability to external shocks. Today, there are 47 LDCs, comprising over 1 billion people but less than 1.3% of world GDP.

LDCs bear the least historical responsibility for climate change and their current contribution to global greenhouse gas emissions remains negligible. But their geography and limited resources mean these countries are among the most exposed and vulnerable to the adverse effects of climate change. To counter this, special provisions for support are made for LDCs under the United Nations Framework Convention on Climate Change and the Paris Agreement of 2015.

Addis Ababa, Ethiopia. Urban housing is identified as a priority area in the National Adaptation Plan, as one of the sectors assessed to be most vulnerable to climate change.
Understanding the climate context

Home to 112 million people, Ethiopia is both the largest and most populous country in the Horn of Africa. Landlocked, it shares borders with Eritrea, Djibouti, Somalia, Kenya, South Sudan and Sudan. The country’s 1.104 million square kilometre area includes some of the highest and lowest points on Earth (such as the Danakil Depression, at 126 metres below sea level, as well as mountain peaks over 4,500 metres high). In the lowlands, temperatures currently average at between 25–30°C, while in the central highlands, the range falls to between 15–20°C. Rainfall seasons also vary depending on altitude (see Figure 1 and Box 2).

Such large topographical and climatic differences pose their own development challenges. Typically among the LDCs, agriculture is the backbone of Ethiopia’s economy (accounting for approximately 40% of GDP) and agricultural practices continue to be predominantly traditional (non-mechanised, rainfed and so on). Women make a significant contribution to agricultural production through activities ranging from crop sowing to harvesting and livestock management, but continue to experience unequal access to and control of productive resources and services. Just 19.5% of land is owned by women. Alongside high levels of multi-dimensional poverty, the country has also long grappled with drought-related food insecurity, particularly in rural areas.

Climate change exacerbates these profound challenges. Under all future emission scenarios for East Africa, median temperatures are projected to rise and rainfall patterns are expected to alter, though the direction of change remains highly uncertain. As a result, Ethiopia faces greater risk of extreme weather events, including recurring drought and riverine flooding. Exposure to devastating locust swarms and mosquito-borne diseases is also expected to increase.
FIGURE 1. REGIONAL CLIMATE VARIATION IN ETHIOPIA


BOX 2. SEASONS

Ethiopia has two rainy seasons and a dry season:

- The **Belg** (February–May) is the short rainy season, with occasional showers
- The **Kiremt** or **Meher** (June–mid-September) is characterised by heavy rainfall
- The **Bega** (October–January) is dry, although the South experiences some rainfall.
To draw lessons from Ethiopia’s low-carbon climate-resilient development journey, we must first consider how safeguards for people and places are built into the governance structure. This will help us understand how strong environmental protections within the Constitution and within federal-level legislation laid the foundation for Ethiopia’s climate policy.

The Constitution, adopted in 1995, states that “All persons have the right to a clean and healthy environment” (Article 44, Environmental Rights). It expressly requires the government to protect its citizens and the environment accordingly (Articles 44, 90, 92). Article 43, on the Right to Development, further dictates that “All international agreements and relations concluded, established or conducted by the State shall protect and ensure Ethiopia’s right to sustainable development.” To meet this obligation, the government has enacted laws on a variety of issues related to environmental management, impact assessments and pollution control, among others. Ethiopia has two independent levels of government: federal and regional, the latter composed of nine regional governments and two city governments. The Constitution states that any government function or power not explicitly given to the federal government (alone or concurrently with regional states) falls on the regional governments. So regional states enact their own laws without contradicting the federal legislation. In practice, regional states’ own legislation often closely mirrors federal law.
Linking national and international priorities

Ethiopia’s joined-up approach to low-carbon transition looks both outside the country and within. Strong engagement with the international community leverages external drivers, while a focus on national priorities supports the creation of country-specific cross-sector commitments.

**Leveraging international conventions**

Ethiopia signed the UNFCCC in 1992 and ratified it in 1994. It has been a Party to the Kyoto Protocol since 2005. Fulfilling these treaties shaped much of the country’s early national climate policy and action (see Table 1).

During negotiations on the Paris Agreement, Ethiopia was the first LDC — and among the first countries in general — to put forward their Intended Nationally Determined Contribution (INDC). This crucial move was taken as the negotiations entered their final and most critical stage. Ethiopia’s leadership demonstrated ambition from the LDCs and other low-income countries to act swiftly on climate change and put pressure on high-emitting countries to do the same.

Following the adoption of the Paris Agreement in December 2015 and its ratification by Ethiopia in January 2017, the country was again among the quickest to finalise and communicate its Nationally Determined Contribution (NDC). Both the INDC and NDC build on Ethiopia’s CRGE strategy, which we explore next.

**The Climate-Resilient Green Economy strategy**

The major boost in Ethiopia’s domestic climate policy came in 2011, with the unveiling of the CRGE strategy. This set out an ambitious vision to become a middle-income country by 2025 through zero net carbon growth. Ethiopia emitted 150 megatons of CO₂e in 2010; using this as a baseline, a business-as-usual trajectory would see annual emissions reach 400 megatons by 2025. But almost ten years into the CRGE strategy, annual emissions remain close to 2010 levels (see Figure 2).

In developing the strategy, nearly 150 projects and programmes were identified to help
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<th>Area</th>
<th>Actions</th>
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<td></td>
<td><strong>Initial National Communication</strong> submitted to UNFCCC in 2001</td>
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<td>Mitigation</td>
<td><strong>Second National Communication</strong> submitted to UNFCCC in 2016</td>
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<td>Reported national greenhouse gas emissions in 2013 were approximately 447% higher than 1994, but 34.5% and 24.6% lower than 2000 and 2010, respectively. The highest emitting sectors were: land use, land-use change and forestry (LULUCF) (approximately 79%) and energy (15%). Ethiopia additionally submitted a forest reference emission level for 2000–2013, based on average annual emissions (19.5 mega tons of CO₂e per year) and removals (10.2 mega tons).</td>
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<td><strong>National Appropriate Mitigation Actions (NAMA)</strong> communicated to the UNFCCC in 2010</td>
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<td>Includes Light Rail Transit (LRT) system flagship project in Addis Ababa, which aims to shift freight transport from the roads into an electric rail network powered by renewable energy. It has been hailed as a great example of sectoral opportunities for LDCs to leapfrog onto low-carbon and more efficient technologies.</td>
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<td>Adaptation</td>
<td><strong>National Adaptation Programme of Action (NAPA)</strong> submitted in 2007</td>
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<td>Outlined Ethiopia’s most urgent and immediate adaptation priorities and provides a basis for projects funded by the Least Developed Countries Fund (LDCF). The NAPA screened 11 priority projects out of 37 projects (predominantly agricultural interventions) to ensure food security.</td>
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<td><strong>National Adaptation Plan (NAP)</strong> finalised in 2019</td>
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<td>Ethiopia was among the first countries to complete a NAP.</td>
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<td>Means of implementation</td>
<td><strong>Successful access to funds from the UNFCCC, Kyoto Protocol and Paris Agreement's financial mechanisms, including the LDCF, Adaptation Fund and Green Climate Fund</strong></td>
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<td>Funded projects have focused on climate-smart agricultural practices, cleaner cooking, watershed rehabilitation, women's empowerment and other issues.</td>
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<td><strong>Technology needs assessment (TNA)</strong> report submitted to UNFCCC in 2007</td>
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<td>Indicates areas where national greenhouse gas emissions might be reduced, including energy, agriculture, LULUCF and waste sectors.</td>
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<td>Cross-cutting</td>
<td><strong>National Action Plan for Gender Equality</strong> and <strong>Second Growth and Transformation Plan</strong> (both 2006) outlined a commitment to gender equality</td>
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<td>Developing the <strong>action plan for gender equality</strong> also involved an analysis of gender considerations, with concrete recommendations made to address these in preparation for and during its implementation</td>
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achieve its vision. Of these, about 60 were selected based on four criteria:

- Institutional and technical capacity to implement the project
- Contribution to economic growth and transformation (in particular, poverty reduction, food security, GDP)
- Contribution to emissions reductions
- Cost of emissions reductions.

The strategy follows a sectoral approach, with a green economy plan based on four pillars:

1. Improving crop and livestock production practices for higher food security and farmer income while reducing emissions
2. Protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks
3. Expanding electricity generation from renewable sources of energy for domestic and regional markets
4. Leapfrogging to modern and energy-efficient technologies in the transport and industrial sectors, as well as buildings.

The comparatively lighter ‘climate resilience’ aspect of the strategy has become more concrete since 2011. Notably, Ethiopia developed climate-resilient sectoral strategies in 2015 for agriculture and forestry, water and energy, and transport, reflecting long-standing national priorities. Building on established priorities meant existing flagship sustainable development programmes were well-placed to help meet Ethiopia’s adaptation needs and contribute to the CRGE vision; these include the Productive Safety Net Programme, the Sustainable Land Management Programme and the Participatory Small-scale Irrigation Development Project.

Finally, in 2019, Ethiopia’s National Adaptation Plan (NAP) addressed medium- to long-term adaptation needs. While catalysed by international-level decisions, the process of developing a NAP is country-driven and country-specific; in Ethiopia’s case, it is explicitly stated to be a core part of the CRGE strategy and vision. The NAP focuses on the sectors it assessed to be most vulnerable to climate change: agriculture, forestry, health, industry, power, transport, urban housing and water. Within these, it identifies 18 ‘adaptation options’ to realise at multiple levels across different sectors (pages 55–61 of the NAP offer a detailed list). The NAP also outlines how Ethiopia will proactively and iteratively pursue further integration of climate change adaptation in its development policies and strategies, at all levels.

**FIGURE 2. COMPARISON OF ETHIOPIA’S GREENHOUSE GAS EMISSIONS**

![Figure 2: Comparison of Ethiopia's Greenhouse Gas Emissions](https://climateactiontracker.org/countries/ethiopia; © 2020 Climate Analytics and NewClimate Institute)

Adapted from https://climateactiontracker.org/countries/ethiopia; © 2020 Climate Analytics and NewClimate Institute
Farmers irrigating onion. Both agriculture and water are priority sectors within the National Adaptation Plan
Moving forward: challenges, opportunities and transferable lessons

Exploring Ethiopia’s progress in four common areas of challenge — and of potential opportunity — offers lessons that will be of use to any developing country embarking on its own low-carbon climate-resilient development pathway.

**High-level political commitment**

The late Prime Minister Meles Zenawi was deeply committed to acting on climate change at national, regional and international levels. In 2009, he moved the mandate for addressing climate change from the National Meteorological Agency to the Environmental Protection Authority (EPA). After Prime Minister Zenawi’s untimely passing in 2012, Ethiopia’s high-level commitment seemed unchanged — under Prime Minister Hailemariam Dessalegn, the EPA was elevated to become the Ministry of Environment, Forest and Climate Change (MEFCC) and the CRGE strategy was integrated into the current five-year development plan.

But a second, unexpected change in government in 2018 threatened a reversal, with the MEFCC downgraded and renamed the Environment, Forest and Climate Change Commission (EFCCC). This created confusion about responsibilities and reporting lines on climate change issues both within government and among development partners and the private sector. Concerns were somewhat allayed by initiatives like the Green Legacy, a vast national tree planting effort led by current Prime Minister Abiy Ahmed himself. Meanwhile, the CRGE strategy remains central to Ethiopia’s upcoming ten-year development plan (known as the ‘Perspective Plan’).
TRANSFERABLE LESSON: having climate champions at the highest level of government aids rapid action, but maintaining strong commitment through political change can be challenging. Ethiopia’s experience highlights the importance of translating climate ambition (including articulated targets and objectives) into enforceable legislation that can withstand changes in leadership.

Institutional standing and capacity

The downgrade of the MEFCC has cast doubt over the status of climate action as a government priority. The climate change portfolio is no longer represented at cabinet level (via the Council of Ministers), shaking the confidence of both development partners and the private sector in Ethiopia’s commitment to climate action and, consequently, their own commitment towards supporting its low-carbon, climate-resilient transition.

However, some argue that the apparent demotion is a positive: the EFCCC, unlike other commissions, bypasses ministerial level to report directly to the Prime Minister. This means that climate change issues are represented at the highest level — the very head of government. That said, confusion around the Commission’s status (relative to other ministries) does pose several practical challenges, including:

- Impeding its role in coordinating delivery of the CRGE strategy — caused by an absence of specific directives, guidelines or protocols delineating clear lines of responsibility
- Insecure funding — unlike the MEFCC, the EFCCC cannot defend its budget at annual budget allocation hearings
- Preventing monitoring, reporting and verification (MRV) functions — these should take stock of progress on implementation of the CRGE strategy and other climate commitments.

Current barriers to robust MRV include a lack of expertise within government; weak coordination within and across sectors for preparing greenhouse gas inventories; poor institutional memory; and missing quality assurance and quality control systems. Challenges also exist around accessing and sharing real time data, which can be as fundamental as limited internet access and electricity outages.

TRANSFERABLE LESSON: translating climate commitments into legislation is critical, not least to provide clarity on institutional mandates and federal government roles and responsibilities for carrying out and coordinating climate action. It is also critical to integrate climate change into national budgeting. Similarly, necessary but often overlooked systems — such as those for MRV and information management — should be institutionalised through legal directives or guidelines. The Ministry of Finance’s mechanism for tracking climate finance expenditure offers a good example to follow.

Cohesion and coordination

The breaking up of governmental resources, policies and activities has undermined Ethiopia’s transition to a low-carbon climate-resilient economy by delivering a largely project-based and siloed implementation of the CRGE strategy. The upgrading of the EPA to a Ministry in 2013 was in part to improve policy coordination and reduce fragmentation on climate change issues across government. However, as discussed above, the EFCCC’s new non-ministerial status has reduced its ability to achieve this.

Reducing fragmentation and enhancing coordination is also critical for climate diplomacy, especially given Ethiopia’s strong engagement in UNFCCC negotiations and with the African Union. Currently, the EFCCC plays an active role in the UNFCCC process, while engagement from the Ministry of Foreign Affairs is minimal. Greater coordination between the two offices could help Ethiopia speak in one consistent voice across various spaces.
Finally, regional governments must become more engaged with delivering the CRGE strategy and climate actions. Ethiopia’s work on climate change has been primarily led by the Federal Government; however, most of the country’s emissions come from the land-use sector. The Federal Government should therefore ensure regional laws also act to advance implementation of the CRGE strategy.

TRANSFERABLE LESSON:
in light of these challenges, the Government of Ethiopia has been taking steps towards a more holistic and coordinated implementation of climate actions, including the adoption of a programmatic approach to budgeting. The CRGE was well-integrated in the current country’s five-year plan and will be a central pillar of the upcoming Perspective Plan.

Finance and capacity

A low-carbon climate-resilient development pathway requires significant financial resources. The Green Economy pillar of the CRGE strategy alone was costed at US$150 billion.

In 2012, the Ministry of Finance established the CRGE Facility to mobilise resources from bilateral donors and international climate finance institutions. Jointly managed by the EFCCC, the Facility has been accredited to receive funding from the Adaptation Fund and the Green Climate Fund (GCF). It has accessed resources from both, as well as support from donor agencies. The Facility is now looking at alternative sources including the private sector, local and foreign financial capital, and public-private partnerships.

Domestic funding is also being established for the CRGE Facility, to finance projects on land rehabilitation, afforestation and reforestation. It will receive annual contributions from the government, drawing in part on international support. The annual contribution replaces an earlier plan to generate funding through a new carbon tax, as this was deemed incompatible with existing tax policy (while now a separate initiative, the Ministry of Finance is still working towards introducing carbon taxes).

Alongside financing, it is vital that federal and regional government agencies increase their capacity to design, implement, monitor and evaluate low-carbon development projects and programmes. While various capacity-building initiatives exist, supported by development partners and the government, they are rarely systematically delivered or institutionalised. The added challenge of high turnover among civil servants often limits the technical skills, expertise and institutional memory of government agencies.

TRANSFERABLE LESSON:
establishing a dedicated climate funding body allowed the rapid mobilisation of resources to execute the CRGE strategy and other climate commitments. Importantly, the CRGE Facility enabled direct access to international funds, bypassing intermediary entities (outside government). It is now looking at alternative resources, including domestic sources and the private sector. While much progress has been made on climate finance, there are still institutional capacity issues that limit the realisation of the CRGE strategy. Greater investment would support a systematic strengthening of capacity, able to withstand personnel changes.

Finding your national pathway

This case study has explored how Ethiopia’s climate policy emerged from a strong constitutional foundation and subsequently flourished as a result of strong political leadership. Ethiopia’s sustained ambition to become a low-carbon middle-income country is a model for LDCs and other developing countries — even though its implementation has had challenges. The lessons learned can be applied by other states keen to accelerate their own low-carbon climate-resilient development.
Harar, Ethiopia
Notes

2 UN-OHRLLS, About LDCs. http://unohrlls.org/about-ldcs
17 NR-172 - Ethiopia’s National Railway Network and Addis Ababa Light Rail
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Cover shows Danghesta village in Dangila district, Amhara region, Ethiopia, which runs on gravity where water from a tank flows into the irrigation tubes. The tank is filled using a small pump powered by a solar panel.
Ethiopia's commitment to low-carbon climate-resilient development has been hailed by the international community. And rightly so: despite negligible contributions to global emissions, the country's rapid development over the last decade has not compromised on protecting its citizens and environment from the impacts of climate change. By extension, Ethiopia is helping to protect the whole planet.

This case study explores the foundations of Ethiopia's ambitious climate policy, how it rose to meet national and international priorities, and what has helped this work flourish despite the challenges of implementation. Drawing on interviews, policy documents and the authors' own in-country and intergovernmental experiences, we present lessons from Ethiopia that can support any developing country seeking to climate-proof its future.

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