



# Becoming a climate-resilient green economy: Planning for climate compatible development in Ethiopia

By Robi Redda, CDKN; Rachel Roland, CIDT

## About this Working Paper

This Working Paper documents Ethiopia's lessons from the study 'Lesson learning from national climate compatible development planning', which aimed to capture and share institutional experiences of climate compatible development, and provide recommendations for the future. The study, in which Kenya, Mozambique and Rwanda also participated, was funded by the Climate and Development Knowledge Network (CDKN) and facilitated by the Centre for International Development and Training (CIDT) at the University of Wolverhampton, UK.

Ethiopia's learning study about national-level climate change planning, which took place from July 2013 to February 2014, comprised a literature review plus semi-structured interviews and questionnaires with over 30 stakeholders. A stakeholder workshop was also held in Addis Ababa, Ethiopia, in March 2014, to validate the key lessons and results. These discussions explored the key drivers, challenges, opportunities and lessons that could be shared within Ethiopia and with other interested countries.

This Working Paper highlights some of the results from this study in Ethiopia's priority thematic areas for climate change planning: building a knowledge and evidence base; governance and institutional arrangements; and planning, budgeting and financing. It also summarises recommendations for future work.

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## About the authors

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A train on Addis Ababa's light rail transit system

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### Key messages

- In the last decade, Ethiopia has emerged as an early mover and leader in Africa in terms of climate change, and is recognised for its commitments and substantial national investment in transforming to a climate-resilient green economy.
- Ethiopia has put in place a series of governance and institutional arrangements for the development and implementation of a climate-resilient green economy, which are being led by the Prime Minister's Office.
- Strong coordination between the ministries involved in implementing this has helped to attract investment of around US\$40 m since 2013, with opportunities to attract further finance from multilateral climate funds, particularly the Green Climate Fund and the Adaptation Fund.
- This coordinated engagement between the ministries responsible for the environment and finance, and the strong working engagement with the National Planning Commission, has helped to integrate the transformation to a climate-resilient green economy into the country's five-year National Development Plan. This integration is expected to be extended, to budgeting and related operational processes, in the near future.
- Ethiopia will continue to play an important role in the climate compatible development agenda, as demonstrated in its recent commitment to address adaptation issues comprehensively and reduce its greenhouse gas emissions by 64% by 2030.<sup>1</sup>

### Introduction

Ethiopia has emerged as one of Africa's champions in responding to the implications of climate change. This is demonstrated by the strong commitment shown by the country's political leadership on the issues. Much of this commitment has been driven by the impacts of climatic events in Ethiopia, mainly the drought episodes that have hit the country since the early 1970s (see Box 1). These experiences have contributed to the widespread understanding that climate change can have severe consequences, and has the potential to hold back economic progress and reverse the gains made in Ethiopia's development.

Although climate change poses significant threats, the international response – especially capacity-building and climate finance initiatives – offers considerable opportunities for poor countries like Ethiopia to leapfrog to adopting green technologies. Recognising this, Ethiopia has actively pursued sustainability objectives as part of its overarching national development plans, namely the first and second Growth and Transformation Plans, which cover the periods 2010–2015 and 2016–2020 respectively.

Ethiopia, along with Kenya, Mozambique and Rwanda, participated in a study called 'Lesson learning from national climate compatible development planning', which was supported by CDKN. The study's objective was to capture and share best practices emerging from national-level climate change planning.

Ethiopia's experience shows that when there is commitment at the highest level, and the right decisions are made on large-scale investments using domestic resources (e.g. wind- and hydro-based renewable energy, green transport, sustainable land and natural resource management), it is possible to move towards a low-carbon and climate-resilient development path. Between 2008 and 2012, 14.5% of Ethiopia's national budget was used for interventions relevant to climate adaptation and mitigation.<sup>2</sup> This national investment in climate compatible development demonstrates the Government of Ethiopia's ownership of the agenda, and creates the right investment environment for additional support from bilateral and multilateral partners.

“We plan to sustain our current double-digit rates of growth for the next 15 years, so that by 2025 we become a middle-income country. We plan to do so in a manner that would allow us to have zero net-carbon emissions by 2025.”

– His Excellency Meles Zenawi, former prime minister of the Federal Democratic Republic of Ethiopia, on behalf of the African Group, Copenhagen, Denmark, December 2009

“We recognise that economic development that is not equitable and that can adversely and, in many cases, irreparably affect our local and global environment is not sustainable.”

– His Excellency Hailemariam Desalegn, prime minister of the Federal Democratic Republic of Ethiopia, during a speech at the Global Green Growth Forum, Copenhagen, Denmark, October 2013

### Box 1. Key drivers for pursuing climate compatible development

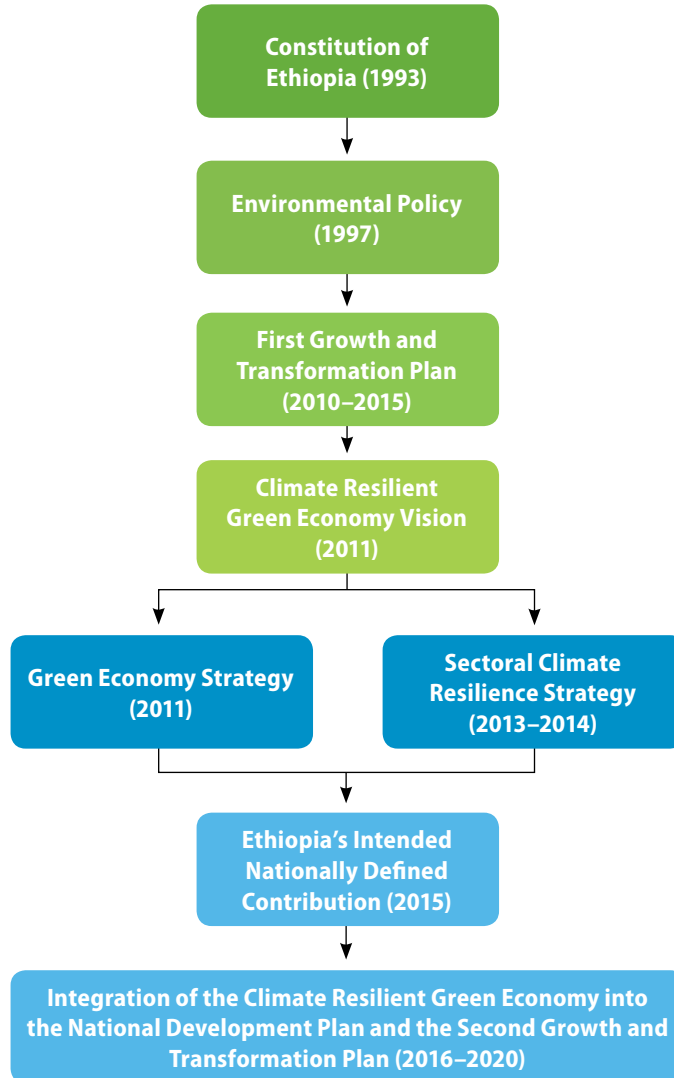
There were several factors behind Ethiopia’s drive to pursue a climate-resilient, green-growth path.

- **Political leadership.** The Government of Ethiopia, represented by the late prime minister Meles Zenawi, played a prominent role in leading the climate agenda for Africa in the international arena. His ongoing commitment to climate change and development catalysed the development of the Climate Resilient Green Economy Vision at the national level. He also led the African delegation at the 15th Conference of the Parties (COP 15) in Copenhagen, negotiating on behalf of Africa (and Ethiopia) and eventually signing the Copenhagen Accord in 2009. This international leadership role, which has been followed by continued engagement from the current prime minister, Hailemariam Desalegn, has enabled Ethiopia to make the right green-growth investment decisions in terms of its domestic resources, and establish a governance and institutional structure conducive to attracting and using climate finance from the various international sources in recent years.
- **Experience of extreme climatic events.** The impacts of climate change in Ethiopia over the past five decades<sup>3</sup> have been an important driver behind the decision to act. The most devastating climate-related events have been a series of droughts, the worst of which occurred in 1984/85. Even at the time of writing this Working Paper, parts of Ethiopia, particularly the central and north-east regions, are facing drought conditions exacerbated by El Niño. This has affected 10.2 million people, and several hundred million dollars have been spent on emergency responses and government-led safety net programmes (of the total US\$1.4 bn required to address the current crisis).<sup>4</sup> Ethiopia’s climate extremes, particularly drought but also environmental degradation, have also led to reduced agricultural productivity.
- **Economic arguments.** One source of evidence for the Climate Resilient Green Economy Strategy was an economic assessment, undertaken for the first time in Ethiopia, that estimated the financial investment required to move the country towards a climate-resilient, low-carbon economy by 2025. This assessment also provided quantitative data on the greenhouse gas emissions from priority economic sectors, and identified sectoral interventions that could substantially reduce these emissions without having major implications on economic growth.<sup>5</sup> Hence, this important assessment provided evidence to support the case for embarking on this new development path.

## Developing a climate-resilient green economy

Ethiopia has established a series of documents and legislations to set out its pathway towards achieving climate compatible development. Figure 1 shows the hierarchy of legislation.

**Figure 1. Ethiopia’s vision for a climate-resilient green economy**



Source: Authors, adapted from Federal Democratic Republic of Ethiopia<sup>6</sup>

### The Climate Resilient Green Economy Vision

In 2010, Ethiopia launched its first Growth And Transformation Plan. This was the first of three five-year, overarching national strategic plans that aimed to bring about economic growth and sustainable development to 2025. But unlike previous national development plans, it made reference to climate change as a cross-cutting issue that required attention.

The response to climate change set out in this plan was subsequently strengthened in the Climate Resilient Green Economy Vision (2011), a holistic guiding vision that outlines Ethiopia’s aspiration to become a low-carbon and climate-resilient economy. Ethiopia’s constitution, which is underpinned by the 1997 Environmental Policy, provided the platform to drive the development of this economy-wide vision, along with several other factors (see Box 1).

The Climate Resilient Green Economy Vision outlines a roadmap that will enable Ethiopia to attain middle-income status by 2025, while building climate resilience and achieving growth with a zero net increase in carbon emissions from 2010 levels. It makes the case for why a carbon-neutral and climate-

resilient development trajectory is a priority for the country, and thus for the implementation of the Growth and Transformation Plans. The vision also makes use of existing knowledge about responding to climate change by Ethiopia by incorporating good practices from environmental policies and strategies that were developed before 2011.

### **The Green Economy Strategy**

Building on the Climate Resilient Green Economy Vision, the Green Economy Strategy was developed by the Government of Ethiopia under the leadership of the Prime Minister's Office. Completed in 2011, it was presented at COP 17 in Durban, South Africa, in December that year. Ethiopia was one of the first countries in Africa to develop such a green growth strategy.<sup>7</sup>

The strategy identified six sectors that were considered to have high carbon-abatement potential: agriculture; forests (e.g. through the Reducing Emissions from Deforestation and Forest Degradation, or REDD+, initiative); transport; energy supply; green cities; and industry. The four pillars of the strategy were: (1) the adoption of agriculture and land-use efficiency measures; (2) increased greenhouse gas sequestration in forestry, by protecting and re-establishing forests for economic and ecosystem services; (3) the deployment of renewable and clean power generation; and (4) the use of appropriate advanced technologies in industry, and the transport and building sectors.<sup>8</sup>

One of the most important outcomes of the strategy development process was an estimate of the financial implications of Ethiopia becoming a low-carbon economy by 2030, based on the identified opportunities and benefits of such a transformation. The strategy also estimated the country's potential future greenhouse gas emissions and the potential emission reductions that could be attained from embarking on a low-carbon development path.

### **Sectoral climate-resilience strategies**

Considering the early emphasis of the Green Economy Strategy on mitigation, sector-specific climate-resilience strategies were also developed during the period 2012–2014, which built on the National Adaptation Plan of Action (2007) and Ethiopia's Programme of Action on Climate Change (2011). Agriculture and forestry contribute 47%, on average, of national gross domestic product through export commodities and employ 85% of the country's population.<sup>9</sup> Thus, a climate-resilience strategy for these sectors was the first to be developed. Subsequently, strategies were also developed for the water and energy sectors.

### **Ethiopia's Intended Nationally Determined Contribution**

Ethiopia was the first least developed country, and the third African country (after Gabon and Morocco), to submit its Intended Nationally Determined Contribution (INDC), which occurred on 10 June 2015. This was mainly based on existing climate-resilience and green-growth strategies and set short-term and long-term goals on adaptation and emission reductions for many sectors. The INDC explicitly highlights the need for the active participation of all citizens to achieve the planned goals, in particular farmers and pastoralists. It also aims to integrate actions to improve the status of women and young people in the country, and the welfare of children.

## **Putting the climate-resilient green economy into practice**

Several different processes and initiatives enabled the strategies for realising climate-resilient green growth to be acted upon. This section describes the steps involved.

### **Existing initiatives**

Even before these different strategic plans for a climate-resilient green economy were launched, Ethiopia was implementing important climate compatible initiatives, particularly in terms of natural resource management and renewable energy. For instance, a report by the Overseas Development Institute<sup>10</sup> shows that even before the development of the Climate Resilient Green Economy Vision in 2011, around 14.5% of the national budget was used for interventions relevant to climate adaptation and mitigation. In fact, during 2011 and 2012, government funding accounted for roughly 80% of expenditure on climate-relevant development initiatives, with donor funding accounting for the remaining 20%.<sup>11</sup>

Furthermore, shortly after the launch of the Green Economy Strategy (also in 2011), several initiatives were underway that made use of the initial flow of finance from bilateral and multilateral donors to support climate-resilient and low-carbon economic growth.

### **Creating an enabling governance structure**

Considering that climate change is a cross-sectoral issue and a national priority, Ethiopia put in place the governance and institutional arrangements needed to develop and implement a climate-resilient green economy. Important features of these arrangements were the strong engagement of the Prime Minister's Office, which led the agenda, and the technical and financial management oversight provided by the Ministry of Environment, Forest and Climate Change<sup>12</sup> and the Ministry of Finance and Economic Cooperation respectively. Ministries responsible for priority sectors – including agriculture, forestry, energy, industry, transport and urban development – were engaged to develop and implement interventions within their respective sectors.

The governance structure, which started to be put in place in early 2011, includes two high-level governance committees and a facility:

- The Climate Resilient Green Economy Inter-Ministerial Steering Committee, which is represented by the priority sectors at the ministerial level, facilitates cross-governmental coordination and ensures overall policy coherence. It was initially chaired by the Prime Minister's Office and more recently by the Minister of Environment, Forest and Climate Change.
- The Climate Resilient Green Economy Management Committee was formed in 2013, after the establishment of Ethiopia's National Climate Fund in 2012/13. It is chaired by the state ministers from the Ministry of Environment, Forest and Climate Change.
- Under this Management Committee, the Climate Resilient Green Economy Facility, which is comprised of members of the Ministry of Finance and Economic Cooperation, provides oversight on the operational aspects of Ethiopia's newly established National Climate Fund, and guidance related to the prioritisation, development and implementation of the initiatives for sectors and regions.

These have been very effective in coordinating the implementation of initiatives to develop a climate-resilient green economy.

### **Inter-sectoral ministerial coordination**

In order to implement the strategies for a climate-resilient, green economy, sectoral units were established within the line ministries of priority sectors. Most of these were either reorganised from the existing environmental units in various sector ministries, which had been established under Proclamation 295/2002 (the environmental organs establishment proclamation), or established as new entities within these ministries.

These units were intended to facilitate cross-sectoral engagement and prioritise climate change as a cross-cutting issue at both federal and regional levels.<sup>13</sup> As such, they have served an important function as the entry points for climate compatible development within these sectors. Going forward, however, it will be important to strengthen the processes through which these units engage with their respective ministry's planning and budget units, to ensure that the established channels for planning and programming at the sector level are used, and the proliferation of parallel structures within ministries is avoided.

The establishment of the Climate Resilient Green Economy Facility was another important step for institutional coordination. The Ministry of Finance and Economic Cooperation, which is the primary channel for planning and programming, plays a central role in this, in collaboration with the Ministry of Environment, Forest and Climate Change. This has improved the coordination of interventions at the sector level.



### Establishing entities to attract and channel climate finance

In the Climate Resilient Green Economy Vision (2011), the establishment of a national climate fund was identified as one of the main components for implementing a climate-resilient green economy. This fund, the Climate Resilient Green Economy Facility, which began operating in December 2013, created a dedicated entity to attract and channel climate finance from international, public and private sources to implement initiatives towards establishing a climate-resilient green economy.

In 2014 and 2015, the Climate Resilient Green Economy Facility was provided with around US\$40 m from bilateral development partners (Austria, Denmark, Norway and the UK). Using this capital, the Facility is already funding several promising climate change projects and programmes in priority sectors under its Fast Track Investment initiative.

In parallel, Ethiopia is making substantial investments from its national budget in infrastructure for green growth, mainly wind- and hydro-based renewable energy projects. Ethiopia is also investing in its railway network (see Box 2). The role of these fast-track projects was important in supplementing these large-scale investments.

The Facility also spearheaded important undertakings to prepare for international climate finance access, which required the improvement and better articulation of systems for financial and programme management, as well as the environmental and social safeguards in line with the requirements of multilateral climate funds. As an outcome of this work, in March 2016 the Ministry of Finance and Economic Cooperation was given the accreditation needed to directly access finance from the Adaptation Fund and Green Climate Fund, enabling it to manage projects of up to US\$10 m and US\$50 m respectively.<sup>14</sup>

Alongside these financial management roles, the Facility has played a key role, through its co-hosting ministries, in supporting the National Planning Commission in integrating the strategies for the climate-resilient green economy into the Second Growth and Transformation Plan (2016–2020). This was put into operation in 2016 and will be the primary vehicle to drive the mainstreaming of the climate change agenda across different sectors over the next five years. Integrating these will help to ensure that climate change becomes a cross-cutting developmental issue, with performance indicators articulated in Second Growth and Transformation Plan to track climate-related results in different sectors.

The involvement of Ministry of Finance and Economic Cooperation is particularly important, given its role in managing the national budget for all sectors and mobilising additional finance from international funds and partners. It will be able to ensure that sectoral budgets do integrate the interventions needed to realise a climate-resilient green economy, at the budgeting and operational levels.

#### Box 2. The power of demonstrating results through national investment

The Addis Ababa light rail transit is a 34-km transport system that can carry up to 15,000 passengers an hour around Ethiopia's capital city. The system was built using a loan from the Export-Import Bank of China, although 100% of this will be repaid from national resources.

This green urban transport system, which began operating in 2015, uses renewable energy from the national grid, of which 97.9% comes from renewable sources, including hydropower, wind and geothermal.<sup>15</sup> This will reduce Ethiopia's greenhouse gas emissions by 9 million tonnes of CO<sub>2</sub> equivalent each year, compared to 'business as usual' projected levels, and demonstrates the country's commitment to low-carbon development.

In a similar project, a new 750-km railway line connecting Ethiopia to Djibouti is being built at a cost of US\$4 bn. This will facilitate the country's growing import and export network; as a landlocked country, most of Ethiopia's imports and exports pass through Djibouti.

Sources: Ethiopian Railway Corporation (2015);<sup>16</sup> Ministry of Water, Irrigation and Electricity (2015)<sup>17</sup>

## Key barriers

Ethiopia's commitment to establishing a climate-resilient green economy is clear, and the Climate Resilient Green Economy Vision and supporting strategies provide a strong framework for this economic transition. However, there are several challenges and barriers that still need to be overcome.

- There is a clear realisation among decision-makers that achieving the opportunities and ambitions of a climate-resilient green economy depends on its **full integration into all budgeting and operational processes** – beyond its integration into the current Growth and Transformation Plan. Cognisant of this, such mainstreaming work of the climate-resilient green economy at the budgeting and operational levels is expected to be carried out during the implementation of the second Growth and Transformation Plan.
- Fully realising the transformational opportunities of a climate-resilient green economy also depends on Ethiopia's ability to **develop its human capital**, in particular building the technical expertise and knowledge needed.
- The sectoral units established to realise a climate-resilient green economy were mostly organised as ad hoc entities, being built from the existing environmental impact assessment and/or planning units of different ministries. It will be necessary to **formalise these entities within sectors and create strong working links** to the budgeting and planning units of these ministries. This process is already underway in most ministries, with the units becoming more coherent and formal entities, and starting to establish better working links.
- Ethiopia, being a federal country, gives its regions autonomy to design and implement programmes. Hence, there is a need to **strengthen the capacity of regional governments** to successfully replicate the existing working modalities and experience at the federal level, and to better connect the regions to the federal government and strengthen climate-related actions at the regional level.
- Despite Ethiopia's existing investment in climate compatible development, the continued availability of **predictable, sustainable and reliable support**, in terms of finance, capacity-building and technology transfer from developed countries, will be vital for realising its ambitions.
- Ethiopia has been proactive in attracting and channelling finance from multilateral climate funds, but **substantial finance has yet to flow** from these to Ethiopia; so far, most financial support has come from bilateral and multilateral development partners. It is hoped that more capital will flow from climate funds, which will enable the country to undertake all of the interventions stipulated in its Climate Resilient Green Economy Vision.

## Conclusions and lessons learned

Establishing a climate-resilient green economy is a nationally owned process and a priority for Ethiopia. It is being driven domestically, with substantive investments – being made from national budgets, international climate finance, and multilateral and bilateral partners. As a result, there are several large-scale initiatives underway in a range of priority sectors, which will bring about substantial climate-resilience and low-carbon benefits.

Other decision-makers and development practitioners can learn from the Ethiopian experience, which includes the following lessons.

- Financing from international climate funds should be available to countries that pursue a holistic, ambitious and nationally driven development agenda that includes climate-related goals, such as zero growth in net carbon emissions or enhancing the adaptive capacity of communities. The opportunities presented by international climate funds set the tempo for Ethiopia to realign its strategic thinking in order to attract this financing for climate compatible development.
- Engagement by political champions enhances the development and implementation of the governance and institutional arrangements, strategies and frameworks needed for climate compatible development.

- Robust governance and institutional structures form a strong basis for establishing effective cross-government working relations. These are important for the development and implementation of climate compatible development interventions, which are inherently cross-cutting in nature.
- Collaboration between the ministries responsible for finance and the environment creates a solid platform for the coordinated implementation and mainstreaming of climate compatible development into national development plans.
- Commitment, ownership, nationally driven investments and the demonstration of results on the ground are critical for unlocking additional finance to implement climate compatible development programmes and projects.
- In planning and mainstreaming climate compatible development, decision-makers should give consideration to long-term technical and institutional capacity development, particularly in terms of the ongoing need to prepare fundable project and programme proposals and subsequently to implement these.

## Endnotes

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- 9 FDRE (2014) Op. cit.
- 10 Eshetu et al. (2014) Op. cit.
- 11 Ibid.
- 12 In July 2013, the Environmental Protection Authority was transformed and re-organised as the Ministry of Environment and Forest. In 2015, this was renamed as the Ministry of Environment, Forest and Climate Change, as the Government of Ethiopia recognised that a strong ministerial-level institution was required to coordinate the country's venture to build a climate-resilient green economy.
- 13 The Ethiopian Federal Government follows a parliamentary system that allows the legislature to exercise oversight and control over the executive. The constitution confers a number of limited powers and responsibilities upon the Federal Government, ranging from the formulation and implementation of national policies, plans, strategies and standards. Constitutionally, Ethiopia is formed of a federation of nine regional states and two chartered cities (Addis Ababa and Dire Dawa). A council governs each region, with members elected to directly represent districts (*woreda*). Each council has a president, who is elected by the council. The regions are semi-autonomous and have the power to raise and spend their own revenues, and develop and deliver their own economic, social and development state policies and programmes. Each region also has an executive committee, whose members are selected by the president from among the councillors and are approved by the council. Each region has a sector bureau, which implements the council mandate and reports to the executive committee.
- 14 Redda, R. (2016) 'Feature: Ethiopia's investment in climate compatible development'. London: Climate and Development Knowledge Network. (<http://cdkn.org/2016/03/feature-ethiopia-investment-in-climate-compatible-development>).
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## About CDKN

The Climate and Development Knowledge Network (CDKN) aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channelling the best available knowledge on climate change and development to support policy processes at the country level.



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