

Mass tree planting

Prospects for a green legacy in Ethiopia

Daniel Fikreyesus, Solomon Gizaw,
James Mayers and Sam Barrett

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Forests

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About the authors

Daniel Fikreyesus is a Director at Echnoserve; Solomon Gizaw is senior researcher; James Mayers is Director of the Natural Resources Group at IIED; Sam Barrett is a Researcher at IIED.

Corresponding author email: daniel@echnoserve.com

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International Institute for Environment and Development
Third Floor, 235 High Holborn, London WC1V 7DN, UK
Tel: +44 (0)20 3463 7399
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Ethiopia's forests have been declining due to agricultural conversion, increased wood extraction for fuel and construction, and livestock over-grazing. The country has several high-profile tree-planting programmes, including the Green Legacy Initiative (GLI). Proponents say the GLI will help re-green the country, improve local livelihoods and build climate resilience, while critics say it serves as a tool primarily for political gain. This report examines how the GLI and other such programmes could achieve positive outcomes in the post COVID-19 recovery. What are the best ways to plant the right trees in the right places with the right incentives for the right people to take care of them?

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Acronyms

ANR	assisted natural regeneration
CRGE	Climate Resilient Green Economy
CSA	Central Statistics Agency
EFCCC	Environment, Forest and Climate Change Commission
FAO	Food and Agriculture Organization of the United Nations
FSTU	Forest Sector Transformation Unit
GDP	gross domestic product
GERD	Grand Ethiopian Renaissance Dam
GGW	Great Green Wall
GHG	greenhouse gas
GLI	Green Legacy Initiative
GPG	global public good
ISFSDP	Institutional Strengthening for Forest Sector Development
LPG	local public good
MoA	Ministry of Agriculture
MoIT	Ministry of Innovation and Technology
MT	metric tonnes
NCPO	National Programme Coordination Unit
NDC	Nationally Determined Contribution
NFSDP	National Forest Sector Development programme
PSNP	Productive Safety Net Programme
REDD+	reducing emissions from deforestation and forest degradation
SLMP	Sustainable Land Management Programme
SNNPR	Southern Nations, Nationalities and Peoples Region
tCO ₂ e	tonnes (t) of carbon dioxide (CO ₂) equivalent (e)
WB	World Bank
WHO	World Health Organization

Summary

Ethiopia's government made global headlines in July 2019 when it claimed to have broken a world record by planting more than 350 million trees in one day. Since then, Prime Minister Abiy Ahmed's Green Legacy Initiative (GLI) has become an annual tree-planting drive. Proponents say the GLI will help re-green the country, improve local livelihoods and build climate resilience. It is claimed that some 20 million volunteers at village level, and in government, the private sector and NGOs, participate in the annual drive, but it is not clear who benefits from the trees. The initiative lacks effective institutional integration with key local actors at regional and woreda level; further the work has been constrained by the COVID-19 pandemic in 2020 and 2021; and planting can raise questions about ecology. Nevertheless, for the 2021 campaign, the government claims to have allocated about US\$22 million to reach its target of planting 6.2 billion seedlings. This study identifies the conditions under which the GLI and other high-profile tree-planting pledges and programmes in Ethiopia might work in the post COVID-19 recovery. How could they result in the right trees in the right places with the right incentives for the right people to take care of them? The research looks at the political and governance context in which these campaigns and programmes are designed. It identifies the political forces, organisations, actors and political economy dynamics involved.

The analytical framework examines three arenas: the driving narratives, implementation and outcomes. For comparative purposes, as well as the GLI, the study analyses the Sustainable Land Management Programme (SLMP) (funded largely by the World Bank) and the REDD+ Investment Programme (supported primarily by the government of Norway). The analysis was conducted through literature review, key informant interviews and field study.

The GLI: parsing socioeconomic, environmental and political aims

Ethiopia's forest coverage has been declining in recent years and stands at about 17 million hectares or 15% of the country's land area. Of this, about 15.8 million hectares is natural or naturally regenerating forest and the remainder is plantations. In addition, the country has about 18 million hectares of 'degraded' highlands suitable for forest restoration. The main causes of deforestation are agricultural conversion, increased wood extraction for fuel and construction, and livestock over-grazing. Large-scale agricultural investments are drivers of deforestation in Gambella and Benishangul-Gumuz regions. Weak enforcement of policies legislations and regulations, and insecure local land tenure and forest user rights, are widely reported to have contributed to these pressures on forests.

The GLI is promoted as locally designed, implemented and owned. Immediate benefits flowing from the campaign ostensibly include job creation and increased opportunities for youth and women. Meanwhile, it claims to provide longer-term benefits such as improved agricultural productivity, food security, water resources and biodiversity conservation. The global public good benefit of contribution to greenhouse gas (GHG) sequestration has also recently been added to the list of benefits. Whilst spearheading national tree planting, urban greening has also become an important focus of the GLI as it aims to clean polluted rivers in urban areas and support green space development initiatives in major cities and towns. Furthermore, the GLI is expected to inspire neighbouring countries that have shared interest in its objectives, with claims made that it could reduce the displacement of people triggered by conflict over access to grazing land, water and forests.

The prime minister continues to be the driving political force behind the GLI. The Prime Minister's Office (PMO) has launched campaign slogans each year to mobilise the masses for planting trees such as "Let's Adorn Ethiopia" in 2021. It has also encouraged voters

to plant a tree after voting. Some other politicians also raised their public profiles noticeably through support for the GLI and a green agenda. Other key actors in the GLI are the Ministry of Agriculture; the Environment, Forest and Climate Change Commission; Ministry of Water and Energy and the Ministry of Innovation and Technology. The respective regional bureaus of these agencies also have a major role in implementation.

Encouraging gains for youth – fewer yet for farmers or the environment

Local young entrepreneurs appear to have gained economic benefit from the GLI. They were able to prepare nurseries and supply large numbers of seedlings to government agencies at attractive prices. The initiative thus appears to have boosted local short-term employment and incomes amongst youth. Private nursery entrepreneurs have been able to sell tree and fruit tree seedlings to members of the public inspired by the GLI to plant trees in their home gardens, along streets, or around city parks. It is possible that this may stimulate a complete privatization of the growing of tree and fruit seedlings with a view to providing more job opportunities for youth. Improved supply of high quality seeds would likely also be needed for this approach to work.

But farmers have yet to benefit from the GLI. Local interviewees indicated that during the first year of GLI planting, adults had only one day's notice to attend sites for planting. Most didn't know what was going on.

With such little local participation in planning, it is perhaps unsurprising that many trees were planted on rocky areas and land inappropriate to sustain them. In the 2020 and 2021 seasons, both local and external informants agree that more efforts were made to mobilise local communities to actively participate.

These informants also agree that emphasis on planting fast-growing trees helps boost incomes and encourage farmers to actively participate in both planting and monitoring. But they also contend that exotic trees should not be routinely favoured over native trees. The latter are more likely to be suited to local conditions and present fewer environmental risks.

Area targets, such as planting seedlings, are used to focus attention on the GLI. But so far post-planting watering and weeding, survival rates and monitoring have been weak. The GLI Technical Committee reports average survival rates of planted seedlings of 83.4% in 2019 and 79% in 2020. These figures need to be treated cautiously given the GLI's lack of monitoring and accountability.

Conclusions

Local ownership is key. Compared with the SLMP and REDD+ Investment Programme, the GLI has not yet provided incentives for local participation, offered alternative long-term sources of income or engaged with local communities in planning, implementation and monitoring. Without this local ownership, tree-planting gains to date may not be sustainable.

The GLI's claim to provide economic benefits for the country and local communities is not yet proven. Local informants suggest that communities and households should be allowed to grow and manage trees, including cutting, selling and replacing them after a few years. In this way, local communities will improve their livelihoods and greatly scale up their involvement in, and ownership of, the programme.

The GLI is reportedly moving towards a central funding facility and perhaps joining with other initiatives. Steps begun in 2021 may allow the GLI to adopt some lessons learned by SLMP, the REDD+ Investment Programme and some other land rehabilitation programmes. They could also lead to the GLI merging with such programmes, or perhaps becoming an integral part of them.

One of the GLI's key successes appears to be greatly raised awareness amongst some sections of the country's population, particularly urban dwellers, of increasing land degradation. Yet this appears to be limited to a general sense of 're-greening'. It does not increase understanding of what is needed to ensure the right trees are planted, regenerated or cared-for in the right places.

After only three years of operation, it is perhaps too early to judge the GLI. Unlike other land-use and restoration programmes backed by government, donors and local organisations, the GLI has strong personal patronage from the prime minister and a considerable budget from the national treasury. This means it can more easily and quickly achieve scale. But it is also more fragile because of its reliance on the personal engagement of the prime minister, alignment with short political cycles and reliance on simple messages.

In time, the GLI may orient its re-greening to ensure that local rights over forests and land are restored, instituted or strengthened. Its protagonists may learn to treat sites for tree planting or restoration as the political arenas they are. They may also ensure the range of local interests converging on the site can fully participate in decision making. Trees will only grow and help local livelihoods if high-level politics support local organisation and decision-making power.

Introduction



1.1 Background

The COVID-19 pandemic has disrupted Ethiopian society and the environment significantly. While data on the specific effects of COVID-19 remain poor, Ethiopia appears to share the experience of some other countries. Some indicators suggest the downturn in economic activity, travel restrictions and absence of tourists have led to improvements in air and water quality, as well as a return of wildlife. However, the pandemic has also clearly plunged many more people into poverty. Lower incomes and less availability of food can lead people in rural communities to turn to forests and forest products for subsistence. Charcoal production, conversion of forests to agricultural land, and other informal and illegal economic activities may also put pressure on the environment, forests and biodiversity.

In response, Ethiopia, like many developed and developing countries, is pursuing a 'green recovery' to address the economic, health and environmental crisis COVID-19 has wrought. A green recovery "brings economies out of recession through redesign to reduce our greenhouse gas emissions, create jobs, increase the resilience of infrastructure and communities, and prioritize equity" (Bozzi and Rao 2021).

Before the pandemic, the Ethiopian government was already committed to a Climate Resilient Green Economy (CRGE). As part of this approach, it focused on tree planting to help build the resilience of local communities. Trees have potentially both economic and environmental benefits. They diversify income-generating opportunities across seasons and products, which can reduce economic risk. Potential products from trees include construction timber, energy for cooking, thatch and rope, fruits and nuts, spices, cosmetics and medicinal oils, gums, resins and powders. In urban areas, some researchers identify the positive impacts on mental and physical health of tree planting (Wolf et al. 2020).

Pre-pandemic, in 2019, Ethiopian Prime Minister Abiy Ahmed launched his Green Legacy Initiative (GLI), which targeted the planting of 20 billion trees over four years. His administration claimed that over 350 million trees had been planted over a 12-hour period in a single day in late July of that year, which was touted as a world record. The stated objective of the GLI now includes green recovery and strengthened resilience in the aftermath of COVID-19 (ENA 2020).

This study explores the impact of tree-planting programmes in Ethiopia in the context of COVID-19 and green recovery, with special attention to the GLI. It asked the question "Under what conditions might high-profile tree-planting pledges and programmes result in the right trees in the right places, with the right people taking care of them?"

1.2 Forests, climate and people

Ethiopia is Africa's seventh largest country with an area of 1.14 million square kilometres of diverse topography. It has elevations from 110 metres below sea level in Danakil to over 5,000m above sea level at Ras Dashen Mountain.

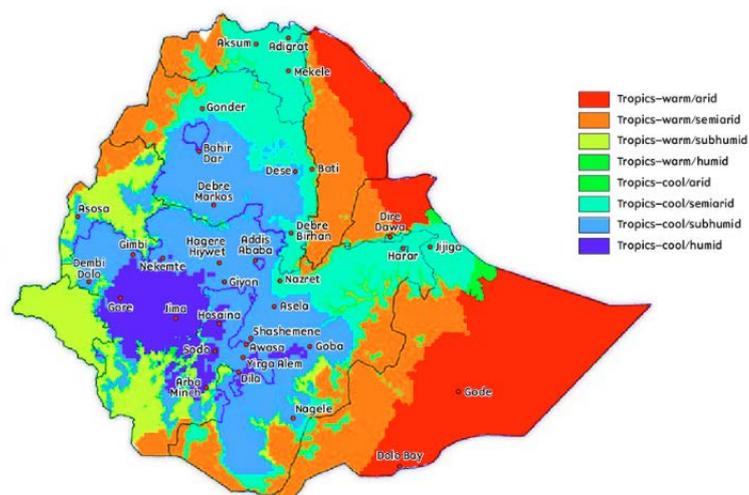
It is also Africa's second most populated country. Its estimated population of 115 million may surpass 200 million by 2049 owing to a 2.7% annual growth rate (UN, 2019). Ethiopia is ethnically and linguistically diverse as well. Most of its people are of Semitic, Cushitic, Omotic and Nilotic descent. While Amharic or Amharigna is the official language, it is home to about 80 nationalities speaking more than 200 dialects.

Ethiopia is a federal democratic republic composed of ten national regional states – Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations, Nationalities and Peoples Region (SNNPR), Sidama, Gambella and Harari, as well as two administrative councils – Addis Ababa and Dire Dawa.

A heterogeneous climate supports a range of agricultural systems and livestock rearing practices. Traditionally, Ethiopia's agro-ecologies are categorised into 5 major groupings and 18 sub-groupings (see Figure 1). The major groupings are: a) hot and dry; b) hot and wet; c) warm; d) cold and wet; and e) cold and dry (Amede et al. 2017).

Much of Ethiopia experiences twice-yearly rainfall, allowing for cultivation of two crops per year. A short wet season in March/April is followed by long rains between June and September. Smallholder farmers have an average farm size of 0.5 to 2 hectares and collectively account for 95% of the sector's production, with commercial farms making up the balance (CSA 2012). Agriculture contributes some 33% of GDP (gross domestic product) (MoA 2020a), while food accounts for an estimated 69% of total household consumption (World Bank 2020a).

Figure 1 The tropical zones of Ethiopia



Source: Amede et al. (2017).

The major cereals grown in Ethiopia are maize, wheat and teff (77% of total volume), while barley, sorghum and millet are also widely grown. Pulses and oilseeds, including coffee, chickpea, sesame, sunflower, groundnut and various beans, are grown for domestic consumption and export (Alemayehu et al. 2011). Ethiopia has the highest number of livestock in Africa, with 52.13 million cattle, 30.7 million sheep, 30.2 million goats, 1.2 million camels and 59.5 million poultry (CSA 2016). Livestock, particularly in dryland areas, is the principal capital of pastoralists and agro-pastoralists.

Traditional forms of agroforestry thrive in the biodiverse southern region (Madalcho and Tefera 2016). In the highland valleys, agroforestry practices or home gardening may involve growing fruits, vegetables, corn, tree crops and fodder, sometimes with chickens and livestock roaming in between. Sorghum, maize and chat (*Catha edulis*) are commonly grown in eastern Ethiopia in such systems. Growing chat as a cash crop has also favoured soil conservation in the hilly landscapes of Hararghe – eastern region (Bishaw and Abdelkadir 2003). But coffee, one of the mainstays of the Ethiopian economy, remains the most valuable agroforestry product. An estimated 45% of the country’s total production of coffee is ‘forest coffee’ or ‘semi-forest coffee’ (Partnerships for Forests 2020). Agroforestry, where it exists, appears to have helped manage land resources in a sustainable way and has boosted incomes and agricultural productivity.

The economic, social and environmental contributions of forests in Ethiopia are substantial. One recent report suggests that “12.9% of national GDP already comes from forests, and an estimated 57 million people work full- or part-time in the forest sector. Of them, more than 11 million rural households rely almost exclusively on forests for their sustenance” (Shiferaw and Anderson 2020). The report cites a honey and beeswax business in Kaffa that employs 3,500 people and a bamboo furniture company that contributes US\$2.6 million (91 million birr) to the national economy. The authors estimate that forest products grown by businesses and communities add more than US\$2.6 billion (91 billion birr) to Ethiopia’s GDP. They also suggest that demand for wood and forest products in Ethiopia may increase by 27% over the next 20 years.

Ethiopia’s forest coverage stands at about 17 million or 15% of its land area. Of this, about 15.8 million hectares are natural forest and about 1.2 million hectares are plantation. In addition, the country has about 18 million hectares of degraded highland area that could be suitable for forest restoration. The country’s forests are largely located in western parts of Oromia and in the SNNPR. Benishangul-Gumuz, Gambella and Amhara regions also have some forest coverage (see Table 1 and Figure 2a and 2b).

Table 1 Ethiopia forest coverage by region and change 2000 to 2018

ADMINISTRATIVE AREA	TOTAL AREA (HA)	TREE COVER IN 2000 (HA)	TREE COVER IN 2010 (HA)	TREE COVER IN 2018 (HA)	COVER IN 2018 (%)	LOSS 2001–18 (HA)	LOSS 2000–2000 (%)
Addis Ababa	54,154	753	848	671	1%	265	35
Afar	9,462,223	426	3,611	3,610	0%	5	1
Amhara	15,549,015	122,417	323,472	322,070	2%	2,125	2
Benshangul-Gumaz	5,024,260	2,089,418	1,941,358	1,921,574	38%	47,463	2
Dire Dawa	105,663	2	14	14	0%	0	0
Gambella Peoples	3,065,861	1,208,364	1,283,475	1,269,687	41%	22,913	2
Harari People	37,228	1	1	1	0%	0	0
Oromia	32,327,727	5,294,514	5,455,065	5,356,616	17%	187,640	4
Somali	31,244,750	714	736	729	0%	170	24
SNNPR	10,908,205	3,330,313	3,329,178	3,257,857	30%	123,808	4
Tigray	5,260,225	4,774	34,978	34,851	1%	178	4

Source: Mongabay (2020).

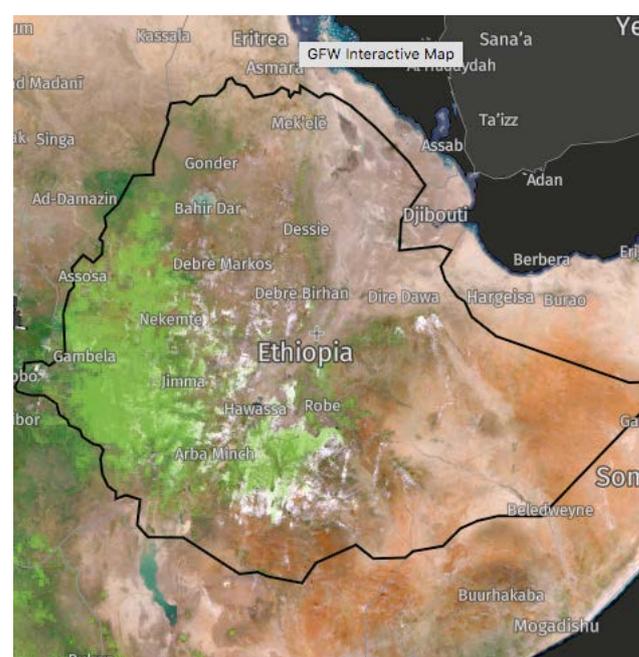
Note: Data are based on a definition of 30% tree cover. Areas with less than 30% canopy cover are excluded.

Figure 2a Ethiopia forest coverage 2020



Source: Global Forest Watch 2020.

Figure 2b Satellite image of Ethiopia forest coverage

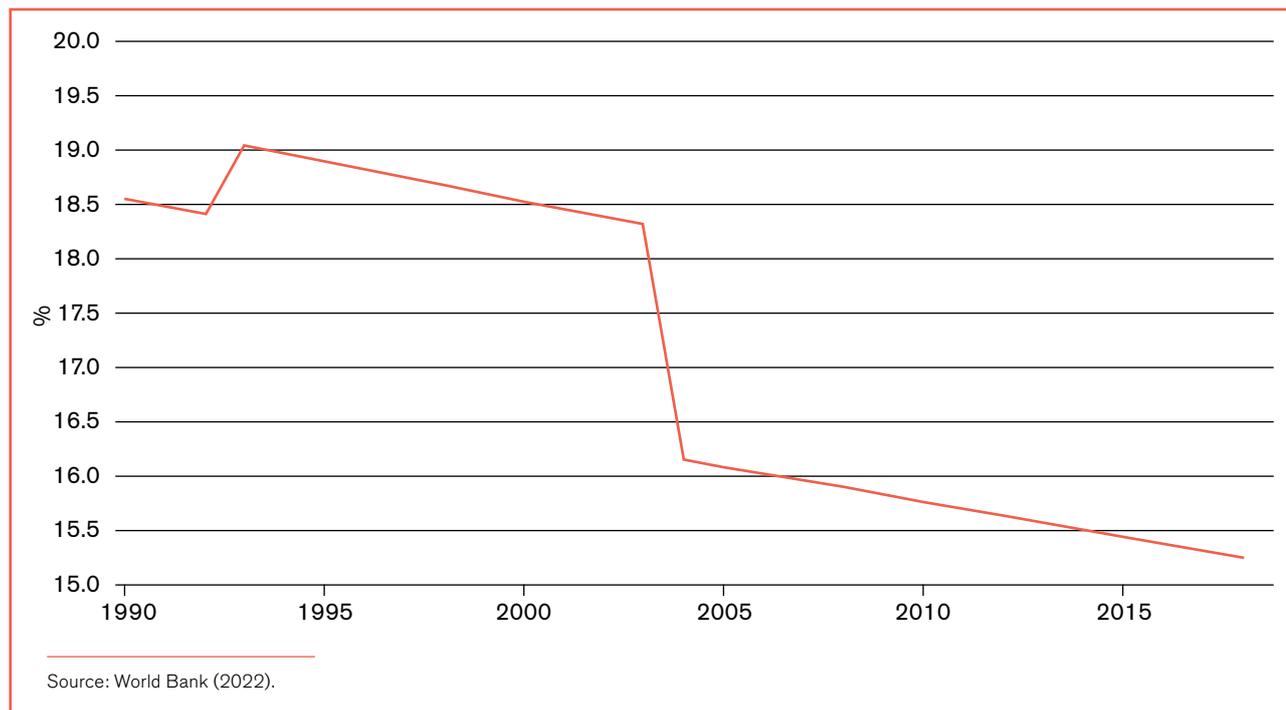


Source: Global Forest Watch 2020.

Most analysts cite agricultural conversion, increased wood extraction for fuel and construction, and livestock grazing pressure as the main causes of deforestation (Figure 2–3). Ethiopia's growing population has put pressure on the country's forests as demands for food, agricultural land and fuelwood grow apace. Large-scale agricultural investments are also major drivers of deforestation in the Gambella and Benishangul-

Gumuz regions. In Gambella region, for example, some 1.1 million hectares of farmland were allocated to foreign and local companies/investors between 2010–18. Tropical grasslands, forestland and wetland area decreased by 15%, 13% and 8%, respectively, in the region over the period (Degife et al. 2018). In contrast, 'barren land' and farmland increased by 177% and 29%, respectively.

Figure 3 Forest area of Ethiopia



Analysts widely conclude that weak enforcement of regulations, as well as lax implementation of forest policy, has also contributed to deforestation. They also conclude that Ethiopia's land tenure policy combined with vague forest user rights have both contributed to inadequate protection of forest (Sisay 2020). Land policies, which do not recognise private ownership, discourage individual farmers or communities from investing in forestry or natural resource management of communal land. Ethiopia also lacks clear laws and mechanisms that could allow communities to benefit from carbon credits or similar market-based transactions. Lack of such mechanisms, for example, has meant that farmers participating in the Bale Mountain Ecoregion REDD+ Project (implemented by the Oromia Forest Enterprise) have received limited financial or material benefits.

Voices in the government of Ethiopia have for some time stressed the significance of forests to climate change, and environmental and socioeconomic benefits. In 2011, they identified the forest sector as one of the key pillars of the government's CRGE Strategy (FDRE 2011). The CRGE Strategy, in turn, identified 60 mitigation strategies in five sectors. It envisions Ethiopia achieving middle-income country status by 2025, with no net increase in GHG emissions from 2010 levels. Based on the CRGE estimate, the forestry sector is the second-largest contributor of GHG emissions in Ethiopia after agriculture. The CRGE targets protection of the existing

17 million hectares of forest. At the same time, it seeks to double total forest coverage from 15–30% by 2030 through large-scale afforestation and reforestation.

The REDD+ Investment Programme is expected to help achieve the forest target. The government considers it as a flagship climate mitigation and adaptation programme, generating finance to support investment in forestry, while reducing carbon emissions and increasing the overall resilience of communities and ecosystems (FCPF 2016). The programme is part of the government's REDD+ Strategy and integral to the CRGE Strategy.¹ The CRGE Strategy's principles for REDD+ aim to ensure that climate benefits bring co-benefits for biodiversity and livelihoods, while respecting the rights of local communities and forest-dependent communities. The strategy is further expected to address legal and regulatory framework challenges, as well as to strengthen local institutions.

1.3 COVID-19 in Ethiopia

Since the collection of data began in March 2020 until early 2022, Ethiopia had more than 405,000 confirmed cases and more than 6,900 deaths from COVID-19. It had also delivered about 11 million vaccine doses (WHO 2020). Daily new cases increased during the summer rainy seasons of 2020 and then again in March/April, July/August and December 2021.

¹ The REDD+ Investment Programme works on specific actions implemented at field level while the CRGE Strategy provides an overall umbrella laying out the government of Ethiopia's approach to REDD+.

The government instituted a partial lockdown during the initial months of the pandemic. It then gradually eased or lifted restrictions to help encourage resumption of economic activity. Ethiopia also experienced a drastic economic decline during the same period. Between 2019–20, Ethiopia's economic growth declined from about 9% to 6%. This decline has been attributed to the slump in both external and internal demand. Foreign direct investment also declined by 20% in 2020. The decline in economic activity has put further strain on government revenue, which has led to a decline in social services. Analysts believe this may have detrimental long-term effects on the poor (World Bank 2020a).

The World Bank conducted a household survey in 2020 to assess the economic and social impact of COVID-19 in Ethiopia. The survey revealed the pandemic has affected economic activity, household incomes and food security. About 1.4 million jobs were at risk in the second half of 2020, accounting for 19% of employment at that time. The survey results indicated that about half of households had experienced either a reduction or a total loss of income in the period assessed. The study further noted that in rural communities, about four in ten households had experienced moderate or severe food insecurity compared to three in ten in urban areas (World Bank 2020b).

The same study estimated the effect of reduced availability of commodities and purchasing capacity. It concluded a slowing economy would lead to a 3.9–6.4% decline in income. The national rate of poverty was projected to climb from 24.8% to 26.6%, an increase of 1.8 percentage points. This increase in poverty would affect more rural than urban households as Ethiopia's exports are dominated by agricultural products (World Bank 2020b). According to one study, the impact of COVID-19 is expected to generate a loss of about 4.3–5.5% of annual GDP due to decline in exports, increased cost of imports and fewer remittances (Aragie et al. 2020).²

The government of Ethiopia has reportedly responded to the anticipated severe social and economic impacts of COVID-19 with various measures. These include more spending on healthcare; temporary incomes support and/or emergency food aid to the vulnerable; temporary tax exemptions; preferential access to currency for firms importing raw materials and equipment to be used for COVID-19 responses; and allowing businesses to carry forward losses incurred in 2019 and 2020. The National Bank of Ethiopia also made 15 billion birr liquidity available for private commercial banks to provide debt relief and refinancing to customers in need, and extended forbearance limits (World Bank 2021).

Ethiopia has also reportedly adjusted Productive Safety Net Programmes (PSNPs). These changes include waiving work requirements of beneficiaries, increasing coverage to more beneficiaries and temporarily increasing benefits to vulnerable households. Meanwhile, it halted expansion of Urban PSNPs and support for affected urban poor households, including refugees and host communities. Urban PSNPs have also focused more on supporting youth employment and enhancing job search services to support the economic and social recovery (World Bank 2021).

Analysts have varying opinions about the impact of COVID-19 on the forest sector. One report suggests the pandemic threatens the jobs of an estimated 1.5 million Ethiopians, primarily the urban poor. This may cause many of them to migrate back to their rural homelands to make ends meet. This, in turn, will increase pressure on forest resources (Siferaw and Anderson 2020).

Other analysts suggest the pandemic's effects on the forest sector are Africa-wide or general (Attah 2021). They note that value chains for goods and services, including the forest sector, are disrupted both domestically and internationally. Furthermore, they point out restrictions on travel and other physical activities have affected all aspects of forest production.

In some contexts, timber exports have declined alongside a decrease in timber demand from the developed world. On the other hand, analysts posit or observe that rising food insecurity and decreasing household incomes tend to increase the reliance of smallholder farmers on forests and forest products for subsistence, including medicinal plants and wildlife. This can result in overharvesting of natural resources.

Reverse migration from cities to rural areas could increase illegal charcoal production. In addition, more forest could be converted to agricultural land to accommodate a growing need to farm. Other unplanned activities could occur where legal livelihood options are limited. Small and medium-sized enterprises, which are the norm in many forest sectors, are highly vulnerable given that the pandemic has halted ecotourism (Attah 2021).

A shift in government spending is also likely to impact government- and donor-supported forest-related activities. The Food and Agriculture Organization of the United Nations (FAO) has predicted reduced availability of public and private investment to fight climate change. It also predicts postponement, and in some cases outright cancellation, of forest management activities. This would have serious short-term and uncertain longer-term effects (FAO 2020).

²Three external sector channels were the focus of the Social Accounting Matrices analysis: commodity exports, strategic imports and remittances.

Methodology



2.1 Key research questions

The research looked at the political and governance contexts for the design of tree-planting campaigns and programmes. It identified the political forces, organisations and actors involved. It also analysed the political economy dynamics in the context of COVID-19 and green recovery.

The analytic framework for the study, shown in Figure 4, focuses on three main aspects of the political and governance context: the driving narrative, implementation arena and outcomes.

Driving narrative addresses who is calling for trees to be planted, why and for what purpose. It probes the ideas and interests, as well as roles and mandates, of different actors in the campaigns and programmes. It also looks at the counter narratives of actors with different perspectives than campaign leaders.

Implementation arena analyses who actually does what, plus the social, economic and political schemes and incentives from which implementers expect to benefit. It also looks at the scheme beyond the actors, exploring what happens to planted trees in terms of follow-up, monitoring and ownership.

Outcomes looks at the social, environmental and political outcomes for campaigns and programmes. It identifies who stands to gain and lose from the campaigns. To that end, it highlights positive and negative outcomes related to assets, livelihoods,

employment and incomes. In addition to individual and household benefits, it explores communal and environmental benefits.

2.2 Key tree-planting programmes

This study analysed three initiatives, namely the GLI, the SLMP I and II, and the Institutional Strengthening for Forest Sector Development (ISFSDP) together with the REDD+ Investment Programme. Analysis focused on the GLI with a view to assess the conditions under which it may succeed. The others were chosen as two of the main programmes in Ethiopia with comparable objectives, including tree-planting components. They are thus useful for comparisons about political, institutional and environmental contexts.

2.2.1 Green Legacy Initiative

Prime Minister Ahmed initiated the GLI campaign in 2019 to plant 20 billion trees within four years. The campaign's office claimed to have met the target of planting 4 billion trees in its first year. The GLI, sometimes called the Green Legacy Campaign, targeted the planting of 5 billion trees in 2020 and 7 billion in 2021. The prime minister reaffirmed his commitment to the GLI at the 75th General Assembly of the United Nations (a virtual meeting) in which he declared: "Our objective should not only be to recover and rebuild a better future, but to do so in a green and

Figure 4 Research framework

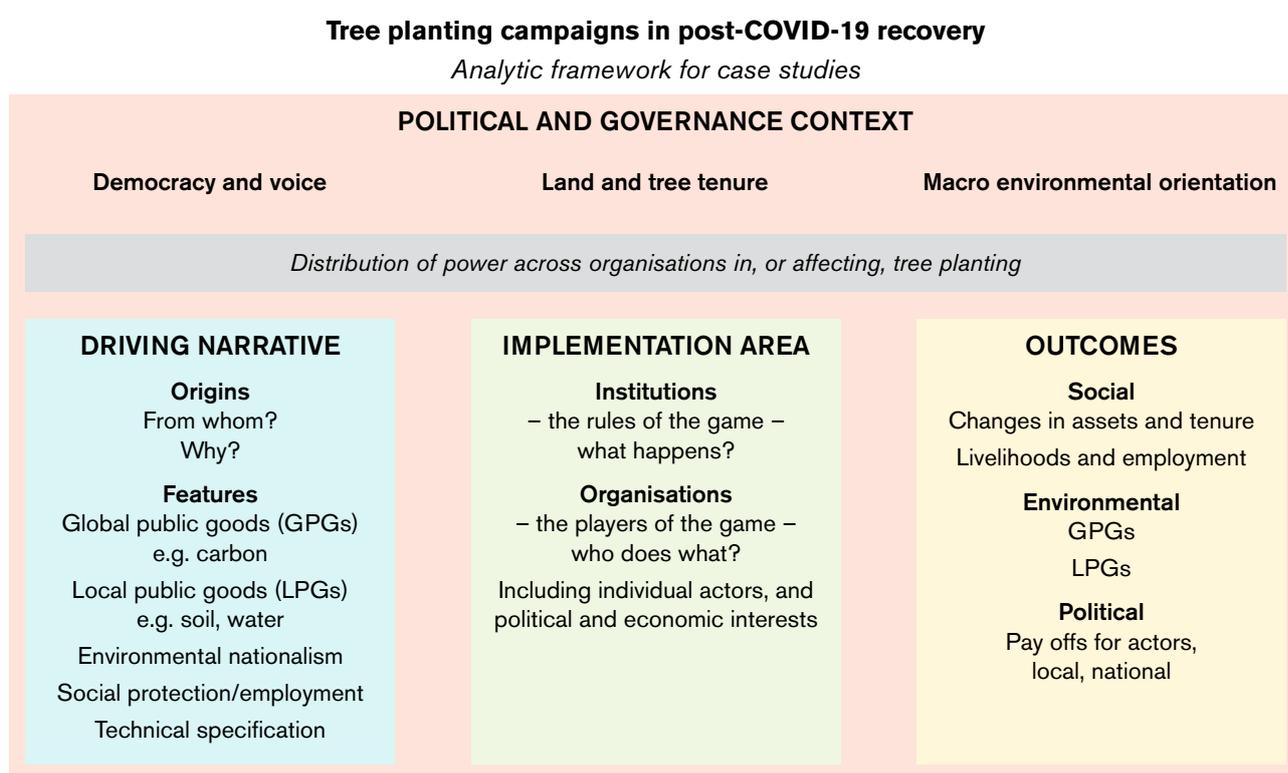


Figure 5 Images from the GLI website of Ethiopia Prime Minister Abiy Ahmed tree planting



Photos: Green Legacy Initiative, <https://greenlegacy.et/green-legacy/home>

climate resilient way. There is no more stark reminder of the need for urgent action than the devastating impact of climate change that we are witnessing in various parts of the world” (EFCCC 2020).

In 2019, the programme targeted the planting of 200 million trees in a one-day nationwide mobilisation. The target was reportedly exceeded, with 354 million trees planted on 30 July 2019 (Mwai 2019). The GLI office further claimed that about 23 million people were mobilised for the 2019 campaign. These participants exceeded the annual target, planting 4.75 billion trees (2.45 billion forest trees and 2.3 billion mixed agroforestry species).

The PMO has overall leadership of the GLI. However, three federal offices – the Ministry of Agriculture (MoA) and the Environment, Forest and Climate Change Commission (EFCCC) (co-chairs) and the Ministry of Water, Irrigation and Energy (MoWIE) – play roles in overall coordination and implementation. These three offices call, organise and manage meetings at the federal level; allocate tasks for implementation and monitoring of tree planting amongst federal and regional entities; coordinate and supervise funds; and contribute to reporting and communication with the public. The Ministry of Innovation and Technology (MoIT) also plays a role in data management. Other government ministries have roles in mobilisation and planting of trees. For example, the Ministry of Education works with universities, while the Ministry of Women, Children and Youth promotes involvement of youth.

2.2.2 Sustainable Land Management Programme

The SLMP is now known as the Resilient Livelihoods and Landscapes Project (RLLP). The first two phases of the SLMP, implemented between 2008 and 2019, aimed to build resilience, mitigate climate change and boost local livelihoods. They were implemented by the government of Ethiopia through the MoA’s Natural

Resources Management Directorate. The SLMP received support primarily from the World Bank, and other partners such as the Global Environment Facility and the governments of Canada, Germany and Norway. The third phase, under the RLLP name, is expected to continue working to improve livelihoods and productivity, as well as to address climate change.

The SLMP II had three key components. Watershed and landscape management dealt with the participatory process of scaling up and adoption of sustainable land and water management technologies and practices by smallholder farmers. The second phase also focused on institutional strengthening, capacity development and knowledge generation. Finally, its project management component included monitoring and evaluation (M&E). Evaluations of SLMP I and II suggest it helped restore productive capacity and build resilient livelihoods in 135 major watersheds in Ethiopia’s highlands and contributed to afforestation or reforestation of more than 80,000ha (World Bank 2020c).

In its third RLLP phase, the programme builds on and scales up the two previous completed SLMP projects. It has a strong focus on climate change with building climate resilience and carbon storage as key objectives. Component 1, which is similar to Component 1 of SLMP II, includes work on “rehabilitation of communally-owned degraded forest, pasture and woodlands”.

2.2.3 ISFSDP and the REDD+ Investment Programme

The ISFSDP, with funding primarily from the governments of Norway and Sweden, is implemented by the EFCCC. It runs in two phases from 2015 to 2022 with reported funding of about US\$23 million. The ISFDSP is channelled through the United Nations Development Programme (UNDP) (MEFCC 2018a). It targets 15,400ha for afforestation and 145,600ha for assisted natural regeneration.

The ISFSDP aims to strengthen government capacity in the forest sector at all levels and spearhead implementation of forestry activities under the CRGE Strategy. It looks to increase forest coverage through afforestation and assisted natural regeneration. It also seeks to enhance biodiversity conservation and other environmental benefits through improved forest coverage. Finally, it aims to improve private sector engagement in the forest sector.

The REDD+ Investment Programme is intended to support the CRGE Strategy and National Forest Sector Development Programme (NFSDP). It is financed by Norway's International Climate and Forest Initiative through a grant of US\$80 million.

The four-year programme seeks to transform the way landscapes are managed in Ethiopia's major forest regions in two ways. First, participatory forest management (PFM) for forest conservation aims to reduce carbon emissions from deforestation and forest degradation. Second, forest restoration aims to increase carbon sequestration.

The programme is implemented in five Ethiopian regions: Amhara, Gambella, Oromia, SNNP and Tigray Regions. The EFCCC implements the programme through three federal departments: the Forest Sector Transformation Unit (FSTU); the National Programme Coordination Office (NPCO) of the NFSDP; and the National REDD+ Secretariat. It covers 113 woredas (54 targeted for assisted natural regeneration [ANG], and 59 for avoided deforestation and degradation). Some 24,000ha are expected to benefit from afforestation, 395,700ha from ANG and 494,000ha from PFM (CRGE Facility 2020).

2.2.4 Differences in tree-planting approaches

SLMP I and II, ISFSDP, REDD+ Investment Programme and the GLI take different approaches to tree planting and afforestation. SLMP I and II take a more holistic view of natural resources management, income generation and livelihoods over relatively small areas of land. They aim for active community involvement and, in this way, envisage both planted trees and long-term sustainability.

The REDD+ Investment Programme, in addition to promoting afforestation, aims to strengthen local institutions for future afforestation. Though field-level afforestation is relatively small, actions are expected to provide lessons for scale-up. The mobilisation of people and potential area coverage of tree planting by the GLI is high compared to the SLMP and REDD+. But to date the campaign lacks the components of the other programmes aimed at institution building, and sustainable forest and land management.

While the GLI is primarily funded by the government of Ethiopia, external donors support the SLMP and ISFSDP/REDD+ programmes. This external support has been accompanied by more elaborate procedures and formal structures. These different structures and modalities allow for comparisons and lessons to be drawn on what seems to work and not work for successful tree planting.

2.3 Data collection methodology

This study was conducted through three different approaches: literature review, key informant interviews and field visits. Initial literature review identified past and recent trends in policies and programmes, as well as helped formulate interview questions. Following the literature review, key informant interviews were held with stakeholders in government institutions.

The literature review and documentation of institutions identified stakeholders with a crucial role in the design and implementation of these programmes. In addition, a consultation with the EFCCC and the CRGE Facility verified those stakeholders and added others. In all, the study held 14 interviews.

Field visits to afforestation areas observed mass planting under the GLI and sought local perspectives during and after the activities. Researchers made field visits to Dekabe Kebele, Suluta Woreda of Oromia Region, about 60km north of Addis Ababa; and to the Aleltu Woreda of Sendafa surrounding town, some 40km from Addis Ababa.

Analysis

3

3.1 Driving narrative

3.1.1 Shifting emphasis: from green economy to deforestation and climate

The government of Ethiopia first identified deforestation as a challenge many years ago. More recently, the SLMP, the REDD+ Investment Programme and the GLI have all been expressly designed to address deforestation and environmental rehabilitation. Large-scale tree planting has also been promoted in different ways at different times for many years. The recent intensity of public interest has been due to the prime minister, who has made tree planting central to his agenda. Meanwhile, the country pursues increased forest coverage to improve environmental integrity and enhance economic benefits primarily through the government's regular forest sector plans. To date, the GLI has been implemented outside these plans. The EFCCC has been limited to providing technical support and guidance to the GLI.

The GLI is advanced as a project that is locally designed, implemented and owned. Immediate benefits are reportedly job creation, and increased opportunities for youth and women. Meanwhile, longer-term benefits ostensibly include improvements in agricultural productivity, food security, water resources and biodiversity conservation. The global public good benefit of contribution to GHG sequestration has also recently been added to the list.

Politicians have argued the GLI demonstrates the extent to which Ethiopia recognises the importance of an integrated national greening initiative. Such an initiative, they argue, encompasses agroforestry, forest sector development, greening and renewal of urban areas, and integrated water and soil resources management. They further argue the GLI has both national and international benefits. On the one hand, it contributes towards the country's long-term social, economic and environmental development goals. On the other, it aims to help Ethiopia meet its international commitments such as the Paris Climate Change Agreement, the 2030 Sustainable Development Agenda and the African Agenda 2063 (EFCCC 2020).

During the 2021 GLI campaign, the PMO indicated that several strategic documents would guide efforts on the ground. These included the CRGE Strategy, the ten-year NFSDP, the national REDD+ Strategy and the Bamboo Development Strategy and Action Plan (MEFCC 2018a; EFCCC and INBAR 2020). These programmes and strategies are generally designed to be aligned with global goals. They collectively provide guidance for Ethiopia's afforestation, restoration, urban greening, forest protection and sustainable use of forest resources for the coming decade.

The government expects the GLI to provide a key mechanism to achieve its Nationally Determined Contribution (NDC) to combat climate change. In its revised NDC submission, the government has indicated it aims to increase the country's forest coverage by 30% by 2030 or reach 15 million hectares forest coverage. Its submission cites the GLI and strategic actions for REDD+ as the two main strategies to achieve the NDC target (FDRE 2021). However, it seems highly questionable these strategies will lead to a doubling of forest cover in ten years. Success is unlikely due to recent deforestation trends (see section 1.2); the impact to date of these mechanisms; and the indications of investment in finance and human resources.

3.1.2 Differing core ideas and mandates

The PMO issued mandates for tree planting within the GLI to the MoA, the EFCCC, the MoIT and the MoWIE. A steering committee (SC) chaired by the MoA and a technical committee (TC) chaired by the EFCCC drive the process at the federal level. Regional governments shoulder the main responsibilities of translating the idea into action on the ground through their agriculture or environment bureaus. The respective regions have similar coordination platforms for the various stakeholders involved in tree-planting initiatives. Table 2 compares the main actors and ideas in the GLI to the two other main tree-planting programmes.

Table 2 Actors and ideas behind three programmes with tree-planting components

	GREEN LEGACY INITIATIVE	SLMP	REDD+ INVESTMENT PROGRAMME
Lead	PMO	MoA and World Bank	EFCCC and Norway
Managers	Planting is managed by local bureaus of agriculture, environment and forest. Post-planting management unclear.	Planting and rehabilitation managed by local bureaus of agriculture. Post-activity land management by local organised associations.	Planting and afforestation managed by local bureaus of environment. Post-planting management by locally organised associations.
Idea	<p><i>“An ambitious undertaking to become a green society by planting various types of eco-friendly seedlings”</i> (strapline for the programme on the GLI website). A green path to economic development.</p> <p>Tree planting for national pride: <i>“Let’s adorn Ethiopia”</i> (2021 GLI theme).</p>	<p>Land rehabilitation – trees planted and naturally regenerating will contribute to better agricultural land.</p> <p>Land rehabilitation is essential for agricultural improvement, economic growth and (more recently) climate resilience.</p>	<p>Afforestation and reforestation help forests make a positive contribution to the environment.</p> <p>Local benefits are aligned with the global benefits of REDD+.</p>
Interest	‘Legacy’ – long-term impact of the government for the public – part of a popular agenda for nation building.	Positive impact on the local environment with livelihood and economic improvements.	Environmental improvement locally, with a global contribution. Institutional building for long-term benefit.
Accountable to	Unclear	MoF and donors	MoF and donors
Outcome	Greener Ethiopia	Rehabilitated land and improved livelihoods	Carbon sequestration

3.1.3 Area targets focus attention

Through research based on satellite imagery in partnership with the World Resources Institute (WRI) and the EFCCC, the government has suggested that Ethiopia has 54 million hectares of land “suitable for reforestation or forest restoration”. Of this, 11 million hectares need immediate reforestation or restoration to protect from further climate hazards such as soil erosion (Woldmariam et al. 2021).

Prior to this analysis, the national REDD+ strategy drew on information provided by regional experts to identify 18 million hectares of degraded land in the country “suitable for afforestation and reforestation”. The CRGE Strategy targeted afforestation and reforestation of this degraded area by 2030. Meanwhile, Ethiopia had

pledged to the Bonn Challenge on restoration to cover 15 million hectares of land.³ To date, progress by the SLMP, REDD+ Investment and GLI programmes has not been properly assessed against these targets. GLI results are reported in seedlings. This makes it difficult to compare results to the SLMP and the REDD+ Investment Programme, which are assessed by hectare.

3.1.4 Emerging criticisms of the GLI

While widely embraced by the public in Ethiopia, the GLI also has its critics. Some foresters and academics argue that the campaign is likely to fail over time unless it is institutionalised effectively. They also point out that proper accountability and follow-up monitoring are sorely needed. Institutionalisation would imply having

³Bonn Challenge website, <https://www.bonnchallenge.org/pledges/ethiopia>

one or a combination of institutions with strong and appropriate capacity to design, implement and monitor through full project cycles. Given its lack of monitoring, the campaign has no information about what happens to the trees once planted and little basis for accountability.

There are additional criticisms. Some contend that the campaign is run by politicians rather than foresters and sustainable land-use professionals. As a result, the campaign is used as a political tool both locally and nationally. In addition, critics argue the initiative is not based on good science and uses seedlings that may not be well suited to the environment. Eucalyptus, for example, is reportedly being planted in areas that could damage the environment.

Others have suggested the GLI could undermine, or be undermined by, other ongoing large-scale programmes in the same areas. Examples include the PSNP/Public Works programme and the SLMP, which are both run by the MoA. Under both programmes, families and individuals must contribute up to 40 days of labour a year for which they receive either cash or food assistance. Cash benefits range between 14 and 18 birr per individual per day. In areas where the PSNP/PW and SLMP are implemented and the GLI promotes tree planting, local communities might expect to benefit from such planting. Furthermore, if they did not continue to receive such benefits, they might not have a strong desire to maintain the planted trees.

3.2 Implementation

3.2.1 Institutions and capacities

The GLI has various stakeholders involved in planning and implementation. At the federal level, the GLI is governed by a national SC composed of the MoA (Chair), the EFCCC (Secretary), the MoWIE (member), the MoIT (member), the Ministry of Urban Development and Construction (member) and the Ministry of Education (member). The SC answers to the PMO and is advised by the national GLI TC representing the above-mentioned sectoral institutions. The EFCCC coordinates the national TC. Regional state and city administration levels have similar governance structures.

The SC has diverse functions. It provides guidance; mobilises resources for the GLI; approves the GLI annual plan, seedling and plantation site distribution to regions and city administrations; and addresses any implementation challenges. It also sets the GLI official starting and closing dates for each season, and other matters in consultation with the PMO. The TC is mainly responsible for day-to-day planning, implementation and reporting of GLI activities. It advises the MoIT, which takes the lead on knowledge management and maintains the GLI database. Both the SC and

TC communicate official figures and achievements of the GLI.

For the SLMP, the MoA has an overall coordination and implementation role. The Project Coordination Unit (RLLP-PCU) within the MoA coordinates activities, technical support, annual work plans and progress reports. It also reports on implementation progress and environmental and social risk management. The MoA also works with the Ministry of Finance (MoF), the MoWIE and the EFCCC. The project also has its own national SC and TC. At regional levels, project implementation is led by bureaus of agriculture, which approve the annual work plan and progress reports from the woredas. A regional SC composed of heads of relevant sectors provides guidance and leadership at the regional level.

At the woreda level, the woreda offices of agriculture (WOA) implement the SLMP jointly through the Woreda Technical Committee (WTC), Kebele Technical Team (KTT) and communities. An independent focal person appointed at woreda levels takes the lead in implementation. The WTC and KTT will assist communities in (i) developing annual work plan and budgets for submission to the region for endorsement and integration into the regions' work plan and budgets; (ii) facilitating community participation in watershed planning and rehabilitation; and (iii) environmental and social screening, implementing mitigation measures, monitoring and reporting.

The EFCCC is the key actor in the implementation of the REDD+ Investment Programme. The MoF/CRGE Facility also has financial management and reporting responsibilities. UNDP and the Norwegian and Swedish embassies offer technical support in implementation, as well as in M&E. Technical and administrative bodies at regional and local levels also regularly implement, monitor and follow up the programme execution. Nine offices in selected project woredas serve local activities. These offices are linked with the NPCO, which is hosted within the EFCCC through the regional REDD+ coordination offices. An SC composed of different entities at the federal level provides overall guidance for implementation.

3.2.2 PMO: initiator, driver and beneficiary

As the initiator of the GLI, the PMO is the driving political force. Prime Minister Ahmed started the programme and is still the main voice in pushing its agenda. Other key actors are the MoA, the EFCCC and the MoIT. In recent years, the MoWIE has also been increasingly involved, largely due to the Grand Ethiopia Renaissance Dam (GERD) and the importance of forest for water resources.

Each year, the PMO launches campaign slogans to mobilise the masses for planting trees. For example, it initiated the “Let’s Adorn Ethiopia” slogan in 2021 and encouraged people to plant a tree after voting in the June elections. The prime minister’s efforts are largely responsible for the involvement of large numbers of people whose livelihoods are not directly tied to farms or forest. Previous attempts by the EFCCC or MoA to galvanise the public to plant trees have been much less successful.

GLI tree-planting targets have been increasing every year. Based on MoIT reports, the campaign’s achievements also exceed targets every year, both in terms of seedlings planted and the number of people involved. These achievements have occurred despite the COVID-19 pandemic and other economic disruptions and political crises in the country. In the 2020 campaign year, the Ministry of Health issued guidelines for planting during the pandemic. These were widely circulated and apparently quite well observed. However, this effort was not repeated at a similar scale in 2021, despite little change in COVID-19 infection numbers. In 2021, the campaign reportedly resulted in the planting of 6.9 million trees (Ethiopian Monitor 2021).

Technocrats organising the campaign indicated the PMO has made no major change or adjustment in GLI planning or its target due to the pandemic, the global economic downturn, or local economic and political crises. Rather, GLI organisers have presented trees and afforestation as a public good that benefits the environment and is essential for the sustainable development of the country.

In 2021, Prime Minister Ahmed indicated the GLI would be extending its reach; it was reported that 1 billion seedlings would be sent to neighbouring countries. Institutions in Djibouti and South Sudan expressed their interest to participate (Sahul 2021). During 2021, there was an indication that the GLI, or Green Legacy, was used for political purposes with the government officially promoting tree planting on election day (June 21). In addition, campaign posters with the prime minister promoting the election and tree planting were visible throughout Addis Ababa. The slogan “we plant while electing” circulated widely online and in print media.

Figure 6 A Green Legacy poster in Addis Ababa featuring Prime Minister Ahmed



Note: One slogan, widely circulated by the campaign, is “We plant while electing” <https://greenlegacy.et/green-legacy/home>

3.2.3 Links amongst tree-planting programmes

Despite its success in creating public awareness and mass mobilisation, the GLI has yet to establish links with afforestation programmes that will likely be key for monitoring and sustainability. Large-scale projects by the government and its partners have already established implementation and monitoring structures from federal to woreda level. These include the SLMP and the REDD+ Investment Programme, the PSNP and the Agricultural Growth Programme.

These other programmes also have key information on land status at local level. Such information could, for example, help identify which plots of land are either available for natural resource rehabilitation or are already being rehabilitated. The GLI could potentially connect with these programmes to access such information, focus tree planting on appropriate lands and collaborate on follow-up and monitoring. This has not been attempted to date. Table 3 unpacks the roles of actors in these programmes to reveal the connections, and lack of connections between actors and programmes.

Table 3 Political forces within and between the GLI, SLMP and REDD+ Investment Programme

ACTORS	GREEN LEGACY INITIATIVE	SLMP	REDD+ INVESTMENT PROGRAMME
PMO	Driving force in framing and visibility of the agenda and campaign. Limited coordination of implementation other than planting by high-level officials.	Little involvement of the PMO due to its apparent interest to keep the GLI independent of other programmes and limited personnel at PMO.	PMO not involved as it apparently wants to keep GLI independent of donor-funded programmes. EFCCC has initiated a discussion to link and record some REDD+ activities for the GLI.
MoA	Co-Chair: strong implementation role (nursery, site selection) and coordination. MoA structures at local level (woreda) give strong leverage. Experience in mass mobilisation through PSNP and SLMP gives MoA credibility to lead implementation. Contributes financially for seedlings and logistics.	Key role in designing and implementing the programme, including through local actors at regional and woreda level. Technical limitations have led to increasing influence of the World Bank.	Limited involvement as all forest sector activity moved to EFCCC in 2014 (previously REDD+ was under the MoA/Natural Resources Management Directorate).
EFCCC	Co-Chair: mandated for afforestation, but its voice is weak, including for follow-up, as it is a commission and not a ministry. Absence of the EFCCC at woreda levels pushes work to MoA. Political actors lack representation on the GLI committee. EFCCC provides limited financial contribution for seedlings and logistics.	Limited involvement due to strength of MoA in controlling the programme. But EFCCC has growing interest to capture and report achievements of SLMP in GHG reduction and reporting for NDC.	Key implementing role and influence in programme design. But it is losing ground due to poor record in implementation stemming from lack of presence at the woreda level.
MoIT	Involved in data management with resources and capacity to build database and manage data. MoA provides information.	No involvement in data management (MoA has its own system for SLMP).	No involvement in data management (FAO and the WRI provided support for the EFCCC in forestry data management, but information not linked to GLI).
MoF/CRGE Facility	Tasked by the PMO to build on the CRGE Facility and lead establishment of mechanism for continuous funding of GLI.	MoF is considered the World Bank client and responsible for financial reporting to the World Bank.	Fund management and reporting role. Consolidates both technical and financial support from the EFCCC and woredas for submission to the funders, led by Norway.
MoWEI	Increasing role in campaigning and public relations. Linking the role of trees to water resources, it has played an increasing role in mass mobilising for tree planting. It is supported by the PMO, which identified the growing public popularity of MoWEI due to the GERD.	Limited involvement due to mandate –small-scale irrigation and water resource initiatives are under the MoA, while MoWIE is responsible for large-scale water resources.	No apparent involvement.

ACTORS	GREEN LEGACY INITIATIVE	SLMP	REDD+ INVESTMENT PROGRAMME
World Bank	The World Bank was briefed by the PMO on the GLI as part of the donor community, but it is a relatively passive recipient of information. Involvement limited to a few staff planting trees.	Funder. Provides technical assistance and influence in key parameters such as inclusion of climate component and landscape third phase (SLMP became RLLP). Secured GCF co-funding for the programme.	Supports REDD+ through the CRGE Strategy; no direct support to the REDD+ Investment Programme.-
Government of Norway	Has provided some limited financial support. Officials have taken part in planting.	Provided funding to multi-donor trust fund through the World Bank.	Provides financial support through the CRGE Facility and has influence in the design of the programme, particularly in relation to institutional setup.
Other donors	Sweden and others have made small contributions, some via UNDP. Staff of several embassies and donors have planted trees.	Contributors. Germany provides technical assistance through the MoA, as well as through regional bureaus. Special focus on institutionalising planning at local level and M&E.	Contributors.
Regional governments	Coordination and active participation in planting, largely through the bureaus of agriculture. Regional head of administration is responsible for overall regional coordination.	Implementers but limited influence in design. The MoA PMU supports regional bureaus of agriculture, which handle field-level implementation. Federal and regional entities do joint monitoring.	Implementers but limited influence in design. Regional and woreda level offices, supported by the EFCCC and project offices, implement in the field.
Media	Publicity campaigns but only during planting season. Local media has encouraged mass planting, shown its success and highlighted government achievements. International media has given high visibility to the mass mobilisation but been more critical of its successes.	No significant coverage. The public is largely unaware of the programme.	No significant coverage. The public is largely unaware of the programme.
NGOs and private sector	Limited in-kind contribution during the planting season. Active staff/ volunteer involvement during planting.	Some NGOs provide technical assistance.	Limited involvement to date.
Farmers/ community members	Largely limited to planting of trees. Community leaders involved in mobilising community members.	Site selection, planning, planting of trees, watershed rehabilitation and maintenance.	Planting of trees through community mobilisation, maintenance of trees.

Figure 7 Norwegian parliamentarians plant a tree in support of the Green Legacy Initiative in 2019



Photo: Embassy of Norway, <https://www.norway.no/en/ethiopia/norway-ethiopia/news-events/news2/visit-from-the-norwegian-standing-committee-on-foreign-affairs-and-defence-in-addis-ababa/>)

3.2.4 Design versus implementation

While it leads the GLI, the PMO has had little influence on the SLMP or the REDD+ Investment Programme. In these two programmes, technical implementing entities (the MoA and EFCCC) and donors have lead roles in both programme design and implementation. These programmes have developed complex management structures oriented to annual planning; quarterly and annual financial and technical reporting from woreda to federal level; and continuous environmental and social safeguard monitoring, as well as procurement and other oversight. Substantial numbers of full-time qualified project staff are involved, paid by the government and donors. The PMO has not yet developed such structures and systems for the GLI. The PMO has sought to tap into the resources and capacity of the MoA and EFCCC to design and implement the GLI. But it has chosen to keep the GLI separate from the

programmes they lead in an apparent attempt to avoid the influence of donors and other stakeholders.

3.2.5 The GLI's urban focus

The GLI has focused primarily on campaigning and mass mobilisation in urban areas, while most SLMP and REDD+ Investment Programme activities take place with rural communities. In the 2020 GLI campaign in Addis Ababa, 1.3 million people reportedly planted 2.5 million trees both within the city and in surrounding rural areas – about 2 trees per person. Overall, some 13.7 million rural residents and 6.2 million urbanites reportedly took part in the 2020 campaign.⁴ The urban participants thus constituted some 35% of total participants. Given that about 15% of the Ethiopian population lives in urban areas, the campaign clearly emphasises participation of urban dwellers. Some plant trees in urban areas, while others travel in large numbers for a day trip to plant trees in rural communities.

Figure 8 Mass mobilisation during planting campaign in urban areas



Photo: Daniel Fikreyesus and Bayu Nebsu

Note: Left: Addis Ababa Administration and Addis Ababa Planning Commission organising to travel. Right: planting trees in Debre Tsege.

⁴Green Legacy website, <https://greenlegacy.et/>

3.2.6 The impact of land ownership

The context of land ownership in Ethiopia profoundly influences the selection of areas for the GLI and other programmes. Under law, the government owns all land. Private citizens, groups or businesses can lease land for various purposes, depending on location. But land generally cannot be sold or used as collateral by banks for lending purposes.

The MoA has divided rural Ethiopia into two categories in its large-scale projects: productive and non-productive woredas. The PSNP is implemented in non-productive woredas where households and communities receive cash, livelihood and other support. It also has limited land rehabilitation work in the same woredas. Conversely, the SLMP and Agricultural Growth Programme focus on productive woredas to increase economic growth and intensify agricultural productivity. The REDD+ Investment Programme's afforestation and reforestation activities have also selected woredas in productive areas.

Implementation woredas of the SLMP and the REDD+ Investment Programme are identified and selected based on their environmental status, but there is no apparent scientific basis for site selection for the GLI. Federal and regional bureaus of agriculture largely select GLI woredas. But WOA apparently select the sites based on availability of public land for planting. Since the state owns both rural and urban land, state-sanctioned programmes such as the GLI, SLMP and REDD+ can implement activities on lands considered 'unused' by farmers or other entities in rural agricultural areas.

Significant planting has taken place on communal land in hillside areas deemed unusable for farming. The relative absence of animal grazing and land-use activities may help the trees to survive. But on many sites it is doubtful the trees can be maintained. In addition, public lands held by institutions such as the Ethiopian Power Authority are also used. This creates further challenges to tree survival. For example, as the trees grow, they may interfere with power lines and be cut down.

Local interviewees indicated that during the first year of GLI planting, adults had only one day's notice to attend sites for planting. Most didn't know what was going on. With such negligible local participation in planning, it is perhaps unsurprising that many trees were planted on rocky areas and land inappropriate to sustain them. The survival rate appears to be low in such locations. Although more notice was given in the second year, much of the planting was done in the same areas. This suggests that survival rates from the first years must have been low and that lessons about site selection and local participation had not yet been learned.

Figure 9 Trees planted beneath a power line on land held by the Ethiopian Power Authority on the Addis to Sendafa road



Photo: Daniel Fikreyesus

Unlike some of the tree-based degraded landscape restoration programmes, the GLI has been implemented on communal lands. In some places at least, organised user groups that usually focus on women and youth are essentially managing these GLI planting sites. It is not yet clear how many sites they manage or their relative strengths. The sustainability of tree planting under the GLI is likely to depend largely on the land access and use rights of these groups. For now, public- and community-based institutions involved in the GLI are caring for their tree-planting sites. They provide fencing, and modest financial, material and technical support to local groups. In some cases, local governments have issued ownership certificates for the seedlings to organised youth and women's groups.

3.2.7 GLI costs are murky

The government of Ethiopia does not have an official budget line for the GLI. Consequently, GLI spending is spread across many events, and the figures lack coherence. Fundraising for the GLI is in part pursued by re-directing funds, or cutting budgets, from ongoing projects and programmes.

Since the GLI launch in 2019, the MoF has apparently allocated more than 420 million birr (about \$US11.6 million) to federal ministries, agencies, regional states and city administrations (interview with MoF). In addition to this direct allocation, various federal entities and regional bureaus have transferred funds from ongoing projects and programmes, as well as from their annual budgets, to GLI activities. During the 2020 planting season, some funding sources were as follows: the MoA (183.1M birr), the MoWIE (83.2M birr) and the EFCCC (74.5 million birr) – a total of 340.8 million birr (EFCCC, 2020).

Using this unstructured method of fundraising, the MoA has allocated funds for regional states and city administrations for GLI activities (interview with MoA). Ethio telecom and other government revenue-generating entities have also supported GLI initiatives at various levels. Ethio telecom, for example, allocated over 20 million birr for the 2021 GLI planting season (Capital Newspaper 2021). All the federal institutions are understood to cover the costs of seedling procurement, planting and post-planting management from their resources.

The GLI TC has yet to publish a compilation of finance-related information. It focuses instead on data about the number of seedlings planted, hectares of land covered and number of staff participating in planting. Federal entities have been purchasing seedlings and paying for planting, site preparation and seedling transport, amongst other logistical expenses. If actions in the planting sites involve more than a day trip from their base, these entities must pay per diem and related expenses for participating staff. The prime minister appears to want the GLI to be seen as a local initiative financed by the government and not influenced by donors or external actors. But Norway, Sweden and UNDP have made some financial contributions.

The estimated financial requirement for the GLI is 4 billion birr or US\$ 88 million, which is a markedly different figure from those stated above. The TC offered this estimate without a basis for its calculation. Nevertheless, using this figure it appears that different government institutions have together spent about 1 billion birr per year. Given the estimates for seedlings planted to date (see sections 1 and 2), 4 billion birr also comes to about 1 birr per tree planted. This estimate appears to be well below the average cost of nursery production of a seedling, which we estimate to be about 12 birr.⁵ This means the figures either grossly underestimate the true cost of the GLI, or that far fewer trees have been planted than are being reported.

According to the GLI TC, some 6 billion seedlings were planted on 1.9 million hectares throughout the country in 2021. This comes to about 3,157 trees per hectare, which is a plausible planting density for areas of land under plantation. But the GLI financial requirement figures suggest the cost of covering 1 hectare of land with afforestation is about 11 USD. This would represent unprecedented efficiency in tree planting.

3.2.8 Weak follow-up

Unlike the SLMP and the REDD+ Investment Programme, the GLI has no structured mechanisms for follow-up after tree planting. But such mechanisms may be on the way. According to technocrats leading the

GLI, the federal and regional TCs have been actively considering these mechanisms and have taken some follow-up actions. For example, they report that about 13 million seedlings were replaced and 3.2 billion seedlings were watered and weeded in 2020. In addition, some regions have generated data on the planting sites. For example, the Amhara regional state has 435 geographically referenced planting sites and expects to carry out ground truthing assessments.

Interviewees report the GLI federal and regional agencies have taken various approaches to steer post-planting operations but have yet to fully integrate and coordinate them. These approaches have generally delegated post-planting tasks to organised youth and women groups living in and around the planting sites. These groups, who expect some funding for their efforts, aim to establish committees to oversee regular monitoring and follow-up on the planted sites. According to interviewees, the prime minister's personal interest in the GLI has motivated heads of agencies, bureaus and ministers to take steps in post-planting management and monitoring. Media broadcast agencies, too, have already paid some attention to post-planting, as well as planting activities stimulated by the GLI.

The GLI TC report average survival rates of planted seedlings of 83.4% in 2019 and 79% in 2020. These percentages are based on survival rate reports apparently from all regions and federal institutions, as well as from 'light check-ups' by experts from several federal agencies. Certainly, these figures need to be treated with caution. The TC has reportedly advised the SC to hire independent experts for scientific performance audits to develop a better understanding of the success of the GLI's planting.

3.3 Outcomes

3.3.1 Greater appetite for 're-greening'

The GLI has been implemented for more than three years and looks set to continue. Those involved in planning and implementation report that no systematic analyses of successes or impact have been made so far. They also suggest it is too early to judge outcomes.

One key success of the GLI appears to be greatly raised awareness of key issues amongst some sections of the country's population, particularly urban dwellers. These issues comprise increasing land degradation in Ethiopia, the need for land rehabilitation and re-greening, and the value of tree planting as a useful contribution to that. This awareness seems apparent from the surge in participation of citizens, families and communities in GLI tree planting.

⁵This is based on data collected from interviews in the field.

Figure 10 Ethio telecom staff about to plant trees



Credit: Ethio telecom and Capital Newspaper.

But people seem to understand the need for ‘re-greening’ in a general sense rather than the specifics required to ensure the right trees are planted, regenerated or cared-for in the right places. The technocrats who have led the GLI actions to date describe the love of one’s country as the primary incentive for participation. They say that millions of people want to contribute to greening Ethiopia and answer the call of the prime minister.

3.3.2 Benefits for politicians and youth

Politicians involved or aligned with GLI planning and action have benefited from visibility to both the public and other senior political actors. The 2021 planting season, for example, coincided with elections. Political candidates supporting the GLI and green agenda raised their public profiles.

Local young entrepreneurs appear to have benefited financially from the GLI. They were able to prepare nurseries and supply large numbers of seedlings to government agencies at attractive prices. The initiative thus appears to have boosted local short-term employment and incomes amongst youth. One youth association that supplied seedlings to a regional bureau of agriculture indicated it generated 1.8 million birr (about US\$ 40,000 at exchange rate of 45 birr to US\$ 1) in one month. This figure is perhaps four times what they would have generated during the rest of the year.

3.3.3 Farmers are yet to benefit

The lack of involvement of local farmers in the planning and monitoring of GLI tree planting is glaring. GLI planners and implementers acknowledge there have been no clear improvements to the asset base or tenure amongst local communities. This was also confirmed through discussion with farmers during visits to GLI planting sites. Few farmers see economic or social benefit from the GLI. Meanwhile, some have incurred losses after being denied access to land previously used for grazing and growing fodder. After the tree planting, they have been unable to use this land and been forced to buy fodder for their animals. Some

farmers suggested they had sold livestock because they couldn’t feed them. Some were also concerned that local environmental degradation may result from planting of eucalyptus.

During the first year of the GLI, local communities had limited involvement, especially around site and tree selections. Farmers interviewed generally said the woreda agricultural development agents told them to come out during the planting day. This planting day was the extent of the farmers’ involvement. Both local and external informants agree the GLI tried harder to mobilise local communities to participate actively in the 2020 and 2021 seasons. They also agree that emphasis on planting fast-growing trees would help boost incomes in the short term. This, in turn, will encourage farmers to participate actively in both planting and monitoring. But they stress that native trees should not be overlooked in favour of exotic species. Native trees are more likely to be suited to local conditions and to present fewer environmental risks.

3.3.4 Other programmes track outcomes better

The longer-running SLMP and REDD+ Investment Programme both have clear track records of outcomes. This is due to investments in monitoring, evaluation and reporting. SLMP I and II have contributed significantly to afforestation and land rehabilitation. The Project Implementation Completion Report indicates that 556,776ha of land were treated with SLMP practices (of which 65% was communally held and 35% was individually held). Of this, the SLMP restored about 36,373ha of land and reforested/afforested about 26,112ha, covering both individual and communal land. The report states that more than 270,000 individual households benefited from climate smart agriculture (CSA) interventions. This includes 65,536 farmers who applied high-value crop interventions and 84,924 farmers who applied other CSA practices. About 28% of households were reportedly female-headed (World Bank 2020d).

According to its reports, the REDD+ Investment Programme has established community forests in 54 woredas and 342 kebeles, afforested 24,000ha of land and restored 778,000ha of land. It has also provided alternative livelihoods and jobs for about 120,000 individuals (60% male and 40% female). These individuals benefited from livelihood interventions such as beekeeping, poultry or small ruminant keeping, and improved cook stove use. Other outcomes include demarcation of 660,000ha of natural forests; establishment of PFM in 59 woredas; and completed forest demarcation and participatory rural forest appraisal in the PFM areas. Despite these achievements, reports identify several challenges,

including its late start, high staff turnover, capacity constraints and slowdown caused by the COVID-19 pandemic (CRGE Facility 2020).

The reported successes of both the SLMP and REDD+ Investment Programme appear to rest on three main factors: the ability to provide incentives for individuals and households; tangible alternative sources of income; and strong community engagement. According to the SLMP I and II Project Performance Assessment Report, up-front economic incentives for farmers to adopt SLM have worked. Meanwhile, earlier failures to create sufficient incentives through benefit flows were not easily forgotten: they created long-standing constraints to successful soil and water conservation.

Alternative sources of income were a success factor for afforestation and land restoration. Providing livelihood benefits through improved access to small-scale irrigation and other inputs, for example, helped improve land productivity, livestock management and beekeeping. These activities helped boost and diversify incomes, including for the landless. Ultimately, this impacted the success of afforestation and land restoration.

In addition, the report notes that SLMP in communal areas did not always work because of a lack of alternative sources of fodder. The extent to which the project builds institutional capacity, engages with local communities and provides community support is key (World Bank 2020e).

Efforts to restore degraded landscapes with trees under the GLI, SLMP, REDD+ and other national programmes in Ethiopia aligned with the Great Green Wall (GGW) Initiative. This initiative aims to restore degraded soil through a mosaic of different land uses, including sustainable farming and restored patches of natural habitat, and to create green jobs. Under the GGW Initiative, Ethiopia has pledged 13.2 million hectares of intervention area across GGW target regions and districts. The GLI, which covers the entire country including the GGW target districts and localities, contributes to the GGW Initiative goals of restoring soil fertility and creating green jobs.

3.3.5 Local ownership is key

Compared with the SLMP and REDD+ Investment Programme, the GLI has yet to systematically provide incentives for local participation, to offer alternative long-term sources of income and to engage with local communities in planning, implementation and monitoring. Without this local ownership, tree planting gains to date may not be sustainable. The GLI's claim to provide economic benefits for the country and local communities is not yet backed by its practice.

Local informants suggest several factors could improve livelihoods of local communities and greatly scale up their involvement in, and ownership of, the programme. First, trees would need to generate benefits for agroforestry. Second, farmers need the right to grow fodder in tree plantation areas. Third, communities and households must be allowed to grow and manage trees, including cutting, selling and replacing them after a few years.

3.3.6 Towards centralisation and merger

In April 2021, the PMO directed the MoF to establish a mechanism to mobilise funds and manage disbursements. This move to institutionalise the GLI seems inspired by the experience of the CRGE Facility – a finance mechanism to support implementation of the CRGE initiative. The responsibilities of the new Facility include mobilisation, allocation and oversight of funds; it is co-managed by the MoF and the EFCCC. The Facility also manages multiple sources of donor funds. This suggests a possible policy shift in the PMO, moving the GLI away from its status as a government-funded entity.

Later in 2021, UNDP helped the MoF arrange for some design work for “a dedicated special national fund, which supports the GLI and other degraded landscapes initiative in Ethiopia”. This “landscapes restoration fund” would “help regional states and city administrations and local communities unlock their climate resilience building and greening potential and contribute to the vision of building a climate resilient and carbon neutral middle-income economy. In this regard, this fund aims to provide spatial allocation and performance-based flexible funds that can respond to Ethiopia's needs, on top of the large-scale donor-funded forestry and landscapes restoration programmes.”⁶

Steps taken to institutionalise the GLI more effectively would allow it to adopt some of the lessons learned by the SLMP, the REDD+ Investment Programme and some other land rehabilitation programmes. They could also lead to the GLI merging with such programmes, or perhaps becoming an integral part of them.

⁶From Request for Proposals to selected organisations from UNDP in December 2021.

Conclusions and recommendations



After three years of high-profile and extensive tree planting, the GLI has made its mark, and is becoming an institution that can be sustained. But it is still young. It could usefully invest in learning the lessons of its own experience and those of some related initiatives.

R1 Strengthen sustainability. Federal-level actors in the GLI have indicated that lessons are still being compiled. But they already recognise the crucial importance of clear ownership of both tree planting and post-planting management. Tenure security at local level is thus brought to the fore. These actors have also acknowledged the need to improve both the quality of seedlings, and the match of the right seedlings to the right site and local demand. Ideally, these actors will also conclude that the legal, financial and institutional basis for sustaining the GLI needs to be explored systematically.

R2 Adopt appropriate lessons from other tree-planting programmes. The SLMP, the REDD+ Investment Programme and some other initiatives offer several key lessons for the GLI. These include the importance of coordination amongst agencies, and from national to local levels, during both design and implementation; and a participatory design, management and monitoring approach with local communities.

R3 Ground the GLI in local experience. Senior GLI planners and organisers are recognising that strengthening village and community-level governance and accountability is key for success. Some have indicated that structures and processes are being created to engage local communities in decisions. Such participation is crucial. In the coming years, it will need to spread to local institutions, supporting local security of forest resource and land tenure. To that end, policy, technical and financial resources from a further-developed GLI would be a welcome innovation.

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Ethiopia's forests have been declining due to agricultural conversion, increased wood extraction for fuel and construction, and livestock over-grazing. The country has several high-profile tree-planting programmes, including the Green Legacy Initiative (GLI). Proponents say the GLI will help re-green the country, improve local livelihoods and build climate resilience, while critics say it serves as a tool primarily for political gain. This report examines how the GLI and other such programmes could achieve positive outcomes in the post COVID-19 recovery. What are the best ways to plant the right trees in the right places with the right incentives for the right people to take care of them?

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International Institute for Environment and Development
Third Floor, 235 High Holborn, London WC1V 7DN, UK
Tel: +44 (0)20 3463 7399
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