OCCASIONAL PAPER

The context of REDD+ in Ethiopia

Drivers, agents and institutions

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A site between Gore and Tepi, South-West Ethiopia

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Abbreviations and acronyms

3E	Effectiveness, efficiency, equity
BERSMP	Bale Eco-region Sustainable Management Program
CBOs	Community-based organizations
CDM	Clean Development Mechanism
CCF-E	Climate Change Forum-Ethiopia
CRGE	Climate resilient green economy (strategy)
EPA	Environment Protection Authority
EPACC	Ethiopia's Programme of Adaptation to Climate Change
EPRDF	Ethiopian People's Revolutionary Democratic Front
ESMF	Environmental social management framework
FAO	Food and Agriculture Organization of the United Nations
FDRE	Federal Democratic Republic of Ethiopia
FCPF	Forest Carbon Partnership Facility
GDP	Gross domestic product
GHG	Greenhouse gas
GTP	Growth and Transformation Plan
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forest
MoFED	Ministry of Finance and Economic Development
MRV	Monitoring, reporting and verification
NAMA	Nationally appropriate mitigation action
NAPA	National adaptation program of action
NGO	Nongovernmental organization
NFTP	Non-timber forest product
PASDEP	Plan for Accelerated and Sustained Development to Eradicate Poverty
PFM	Participatory forest management
REDD+	Reducing emissions from deforestation and forest degradation
R-PP	Readiness preparation proposal
R-PIN	Readiness plan idea note
RTWG	REDD+ Technical Working Group
SESA	Social environmental strategic assessment
SFM	Sustainable forest management
SLM(P)	Sustainable Land Management (Project)
SNNPR	Southern Nations Nationalities and Peoples' Region
SLMP	Sustainable Land Management Program

SWOT	Strengths, weaknesses, opportunities and threats
UNCBD	United Nations Convention on Biological Diversity
UNFCCC	United Nations Framework Convention on Climate Change
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WBISPP	Woody Biomass Inventory and Strategic Planning Project

Glossary of Ethiopian terms

Balabat	Local intermediary between the local people and the State during the imperial period
Gebbar	Tax payer, tribute payer
Kebele	The lowest level of government administration
Rist	Hereditary use right of land during the imperial period
Woreda	Administration level equivalent to district

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Executive summary

Notwithstanding the lack of reliable and up-to-date countrywide information, the total forest cover of Ethiopia including smallholder/private and state plantations is estimated to be around 13 million ha covering some 11.4% of the total land area of the country (FAO 2010). The major forest types identified in the country include: moist montane forests; dry evergreen montane forests; *Acacia-Commiphora* woodlands; lowland semi-evergreen tropical forests; combretum-*Terminalia* woodlands and bamboo thickets. In terms of climate change mitigation potential, scientific evidence, as thoroughly reviewed by Moges et al. (2010), indicates that Ethiopia has the potential to mitigate the release of 2.76 billion tons of carbon into the atmosphere if it protects and sustainably manages its forest resources. Despite this substantial potential, the long-standing trend is severe deforestation and degradation (Teketay 2001; Dessie and Christiansson 2008) driven by activities that are closely linked to the country's political, economic and institutional contexts in the recent past.

The major direct drivers of the deforestation and degradation process are: forest clearance and land-use conversion for smallholder agricultural expansion; promotion of large-scale commercial and state development investments in forest frontiers; illegal extraction and collection of forest products (mainly fuelwood collection and charcoal making); government-led human settlement in forest areas; forest fires; and increasing development of infrastructure and road networks in forest proximities. The dominant actors behind these direct drivers include smallholder farmers and pastoralists; foreign private investors; state-owned enterprises and government ministries such as the Ministry of Agriculture and investment agencies, among others. In the context of the Reducing Emissions from Deforestation and forest Degradation (REDD+) Programme, these direct drivers may pose significant challenges to achieving effective emission reductions from reducing deforestation and degradation.

In light of these direct drivers, the challenge for REDD+ appears to emerge from the fact that most of the activities causing the deforestation and degradation are closely associated with the country's political economy and broader development strategies. Historically, agriculture has been the main stay of Ethiopia's economy accounting for 46% of the national gross domestic product and 85% of total employment in 2012. For this reason, the current government adopted the Agricultural Development Led Industrialization (ADLI) as the country's main development strategy in 1994. As a result, a number of subsidiary policies, strategies and programs were introduced to promote the expansion, commercialization and export orientation of the agriculture sector. Complementing the ADLI strategy, the government developed the Plan for Accelerated and Sustainable Development to Eradicate Poverty in 2006 and the ambitious Growth and Transformation Plan in 2011. The latter aims to transform the country's economy to a middle-income level by 2025 through pursuing fast and broad-based development programs. The major strategy to achieve this goal is to attract direct foreign investment in large-scale commercial agriculture through allocation of extensive lands (mostly in forest areas) and provisioning of tax incentives to private investors. However, these economic-development policies and the approach in which they are being implemented are also bearing significant costs to the country's land and forest resources.

On the other hand, the deforestation process in Ethiopia is also driven by various underlying causes including: chronic poverty and the inherent dependence of the vast majority of rural poor on natural resources; rapid population growth; extensive legal and institutional gaps including the lack of stable and equitable forest tenure and property right arrangements, lack of a clear and standard definition and classification of forests, and weak forest governance and law enforcement capacities; lack of

pragmatic stakeholder participation and benefit-sharing schemes; and lack of effective cross-sectoral coordination and vertical integration between line ministries and executive bodies within each ministry. These shortfalls can significantly undermine both the effectiveness and equitability of REDD+ actions.

Amidst the enormous pressure on Ethiopia's forests from these drivers and actors, encouraging policy measures and practical undertakings are being made by the Ethiopian government to harness deforestation and reduce greenhouse gas emissions from deforestation and forest degradation. Evidently, the country has adopted the Climate-Resilient Green Economy (CRGE) strategy, which aims to build sustainable economic development through substantial CO_2 emission reductions in major economic sectors. The forestry sector is identified as one of the four fast-track implementation pillars responsible for achieving 50% of the national abatement potential. In view of this, the government has fully embraced REDD+ as an integral part of the national CRGE strategy. Another important milestone by the government is its issuance of the country's first forest policy and proclamation in 2007, with a set of incentives encouraging private sector and community participation in forestry activities. The country also established its first Ministry of Environment and Forestry in 2013, instituting the national REDD+ Secretariat under the new ministry. Ethiopia is also undertaking several multi-sectoral programs in its nationally appropriate mitigation actions including afforestation and reforestation programs, degraded lands rehabilitation and watershed management projects, among others, to mitigate the adverse effects of climate change.

The REDD+ policy process in Ethiopia is thus evolving in a context that it is firmly embedded in the country's development strategy and in an increasingly enabling political environment, especially at higher levels. In effect, the national REDD+ Secretariat is undertaking various activities to pave the way for the development and implementation of REDD+ policies and programs in Ethiopia. The country has completed the first phase of its Readiness Preparation Proposal (R-PP) development and is currently working on phase II of the R-PP, which endeavors to develop and consolidate the country's capacity and readiness in terms of REDD+ monitoring, reporting and verification, REDD+ financing, benefit-sharing schemes, and institutional, legal and policy options. National consultation processes and multi-stakeholder forums at various levels have been carried out and national REDD+ management structures are also under-development, among others.

Overall, recent policy developments and emerging undertakings by the Ethiopian government signify the building of considerable government commitment to REDD+ implementation and carbon emission reductions in Ethiopia. In light of the country's ambitious plan for building a climate-resilient green economy, the adoption of REDD+ will also likely reinforce the government's interest in embracing the new financial opportunities that REDD+ may generate. In sum, analysis of Ethiopia's context for REDD+ policy development and implementation demonstrates the presence of a promising environment for REED+ in many aspects, yet confronted with serious practical challenges and constraints that need to be addressed.

Achieving lasting results with the implementation of efficient, effective and equitable REDD+ in Ethiopia requires overcoming these challenges through enforcing appropriate policy options and targeted actions. The first milestone activity to ensure REDD+ effectiveness is reconciling the apparently contradictory policies and programs – notably policies for agricultural expansion, commercialization and large-scale investment versus initiatives for natural resources development and environmental safeguarding. The counterproductive impacts of large-scale commercial investments, infrastructure and road network developments in forest frontiers can be addressed though developing a broader land-use plan and set of legal frameworks that effectively align these programs with the country's forest conservation and development goals.

Equally important are improving forest governance and law enforcement capacities, clarifying and reforming forest tenure and property right arrangements, formulating equitable benefit sharing and participation mechanisms, enhancing institutional capacity and national competence for REDD+ implementation, and establishing strong cross-sectoral coordination and vertical integration of ministries and agencies involved in the deforestation reduction and forest development agenda.

Introduction

Located in the horn of Africa, Ethiopia covers a total area of 1.1 million km^2. The country had an estimated population of 95,045,679 in 2014, with an annual growth rate of 2.58% (Getachew 2008). Historically, smallholder-based traditional agriculture has been the mainstay of Ethiopia's economy. However, since 1992 the country's government has introduced a variety of reforms aimed at improving macroeconomic stability, accelerating economic growth and reducing poverty. Consequently, Ethiopia has taken a development path that puts the alleviation of poverty and enhancement of its people's livelihoods as its priority.

According to the government's development plan (Plan for Accelerated and Sustained Development to End Poverty, PASDEP), the country envisages rapid economic development through accelerated agricultural growth as a stepping stone to the subsequent development of other economic sectors. And indeed the country has achieved remarkable economic growth, particularly in the last decade (MoFED 2013). However, this economic growth is at the center of a heated debate on how the country's natural resources will concur with the government plan of achieving rapid economic development through promoting environmentally 'insensitive' agricultural expansion and large-scale commercial investment in forest areas. The country's forest resources provide vital economic benefits and livelihood supports in addition to critical environmental functions such as land stabilization, erosion control, regulation of hydrologic flows and climate change mitigation, among others. But recent data on the status of Ethiopia's forest resources, as reported by the Food and Agriculture Organization of the United Nations (FAO) (2010), places Ethiopia among those countries with a relatively high rate of deforestation – around 1.0 % per annum. As discussed in Chapter 1, this is the result of over half a century of deforestation and forest degradation driven by several complex factors.

Recognizant of the enormous pressure of these factors, and the growing impact of climate change on the country's economic growth and the wellbeing of its people, the government is now taking measures to reduce deforestation and land-use conversions. Reducing Emissions from Deforestation and forest Degradation (REDD+)[1] is one of the schemes that the government has shown commitment to as an alternative mechanism for financing its forestry development and enhancing the country's climate change mitigation potential.

In view of that, Ethiopia became an official member of the UN-REDD Programme in June 2011, and so became eligible to access funding and capacity building support for REDD+ policy development. In October 2012, the World Bank's Forest Carbon Partnership Facility (FCPF) approved a Readiness Preparation Grant for the Ethiopian government to formulate a National REDD+ Strategy and advance its institutional and technical readiness for REDD+. Accordingly, the government is taking steps to set up essential institutional arrangements for managing and coordinating REDD+ in the country. To that effect, the national REDD+ Secretariat was officially established in 2009 under the Environmental Protection Authority (EPA) as the body responsible for the overall implementation of the readiness process outlined in the Readiness Preparation Proposal (R-PP). In January 2011 the government established the REDD+ Technical Working Group (RTWG) as one of the members

1 REDD+ is a mechanism to reduce emissions from deforestation and forest degradation plus conserve forests to enhance forest carbon stocks. It is expected to present an opportunity for developing countries to limit CO_2 emissions through payment for actions that prevent forest loss or degradation.

of the multi-sectoral Climate-Resilient Green Economy (CRGE) Technical Committee responsible for supervising activities of emission reduction across the major sectors.

The aim of this country profile is to provide a comprehensive assessment of the policy, economic and institutional contexts in Ethiopia within the forestry and related sectors in relation to REDD+ implementation. It provides evidence-based analysis for informing national decision-makers, practitioners and international actors of opportunities and challenges in implementing the REDD+ scheme in Ethiopia. The study is part of the Global Comparative Study (GCS) on REDD+ being undertaken by the Center for International Forestry Research (CIFOR).

This report is organized into six chapters. The first chapter describes Ethiopia's forest resource types, forest coverage and cover changes together with the major direct and indirect drivers of deforestation and forest degradation. Chapter 2 analyzes national policy and institutional contexts including aspects of forest governance and legal frameworks relevant to REDD+. Chapter 3 examines the political economy of deforestation and forest degradation in Ethiopia in view of REDD+ policy development and implementation. It explains the interactions between the country's political-economic policy directions and the deforestation and degradation process. Chapter 4 describes the REDD+ policy environments and institutional development process in Ethiopia. Chapter 5 presents an overall evaluation and the implications of Ethiopia's current context for REDD+ implementation in terms of efficiency, effectiveness and equity. The final chapter draws the conclusions of the study and highlights important policy recommendations and entry points for successful REDD+ in Ethiopia.

1 Analysis of the drivers of deforestation and forest degradation

1.1 Current and historical overview of forest resources in Ethiopia

This chapter describes Ethiopia's forest resources, and the recent trends and drivers of change in its forest cover. It focuses on the contextual conditions that affect the REDD+ policy environment of the country. Accordingly, discussion of the country's forest carbon stocks and emission mitigation potential is also included.

1.1.1 Forest types and current status of forest cover

Descriptions of forest types are closely related to the definition of forest used and the classification scheme applied. However, two or more definitions and classification schemes are often present and applied by different users to the same context. As such, the current description of forest types is guided by the definitions and classification schemes being applied by the major sources of information for this document. These are FAO's forest resource assessment (2010) and the Woody Biomass Inventory and Strategic Planning Project (WBISPP) (2004), which are the two most commonly used and influential sources of information for describing Ethiopia's forest resources.

The WBISPP produced a comprehensive and reliable assessment of the country's forest resources in the 1990s and a detailed description of Ethiopia's forest types (Figure 1). FAO later attempted to build on and update the WBISPP assessment by applying its own definitions. The WBISPP distinguishes between high forests and woodlands using the number of storeys in the canopy layer and the maximum height of trees.[2] In contrast, FAO's[3]main criterion is crown cover. High woodland and low woodland are further distinguished by the WBISPP using a tree height threshold of 5 m, whereas trees higher than 5 m are reclassified as forests in FAO's definition. Of note, the WBISPP forest definition was used as the national forest definition in Ethiopia's R-PP (FDRE 2011c).

In terms of major natural forest formations in Ethiopia, the WBISPP identifies a bamboo forest and five types of high forests: (i) upland dry evergreen (*Juniperus procera*), (ii) mixed Juniper-*Podocarpus* upland evergreen, (iii) humid upland broadleaved with *Podocarpus*, (iv) humid upland broadleaved with *Aningeria* dominant and (v) riverine forests. Four types of woodlands are also identified: (i) broadleaved deciduous woodlands, (ii) *Acacia* woodlands, (iii) lower semi-arid *Boswellia-Commiphora-Acacia* woodland-shrubland and (iv) lower semi-arid to arid *Acacia-Commiphora* woodland-shrubland. These forest classifications mainly reflect the larger physiographic divisions

2 The WBISPP defines forest as "land with relatively continuous cover of trees, which are evergreen or semi-deciduous, only being leafless for a short period, and then not simultaneously for all species. The canopy should preferably have more than one story" (WBISPP 2004, 5). It defines woodland as "a continuous stand of trees with a crown density of between 20 - 80%. Mature trees are usually single storied, although there may be layered under-stories of immature trees, and of bushes, shrubs and grasses/forbs. Maximum height of the canopy is generally not more than 20 meters, although emergents may exceed this" (WBISPP 2004, 5).

3 FAO defines forest as "land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*" (FRA 2010, 5).

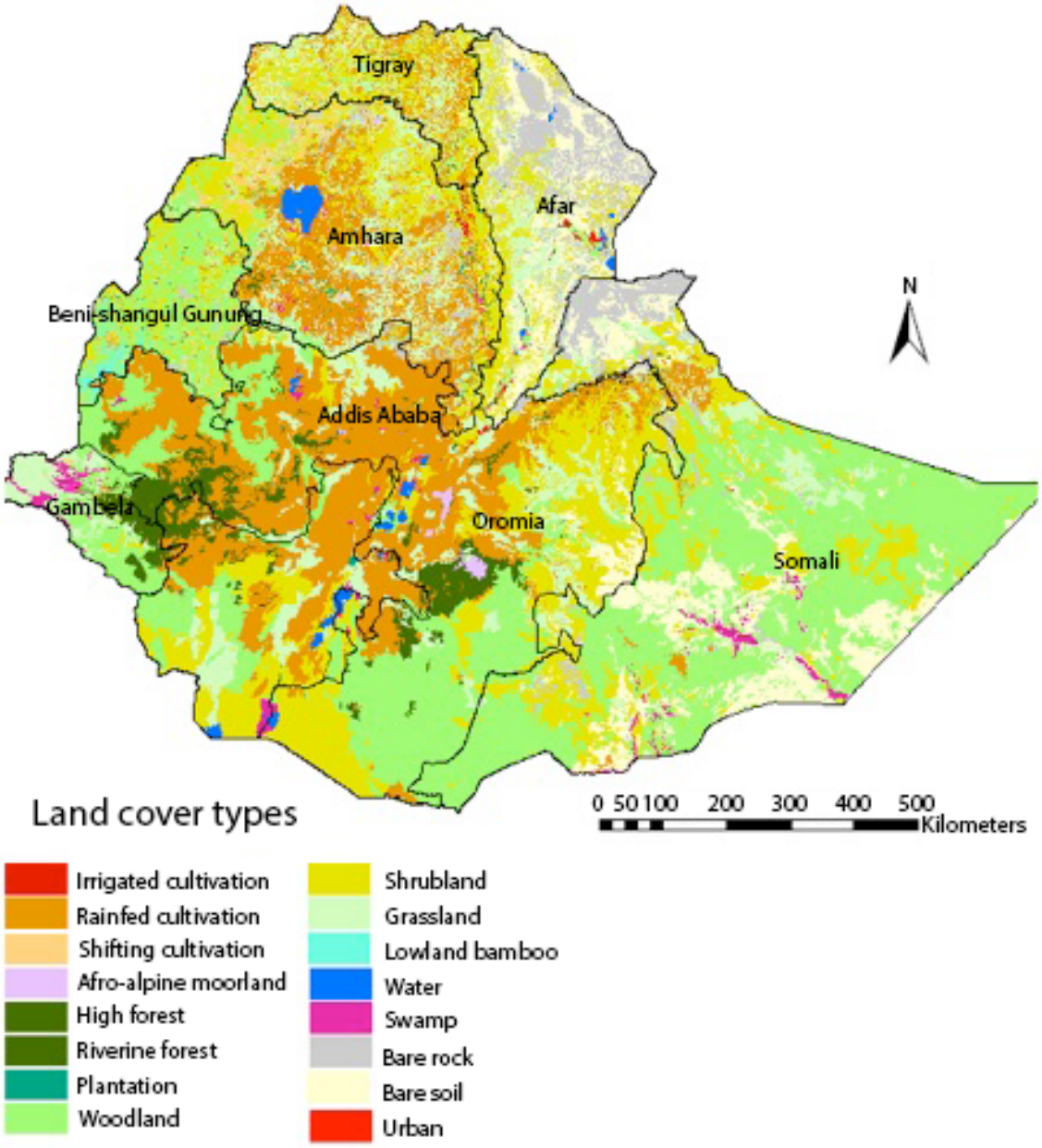

Figure 1. Land cover types of Ethiopia.

Note: Oromiya = Oromia; SNPP Region = the Southern Nations, Nationalities and Peoples' Region (SNNPR); Beni-Shangul Gumuz = Benishangul-Gumuz.

Source: WBISPP (2005, 15)

of highland and lowland forests, which are also associated with differences in important agro-ecological variables such as elevation, temperature and rainfall. As a result, they indicate useful biophysical and socioeconomic descriptors of each forest type that can help determine the drivers and dynamics of forest cover changes. For example, the highlands represent the most densely populated parts of the country (>100/km^2) whereas the lowlands are predominantly low population density areas (<40/km^2) (Atlas of Ethiopia 2011). The highlands –sitting between 1500 and 2500 masl – also constitute around 43% of the total area of the country and contain about 85% of the population, 95% of the cultivated land and 80% of the cattle population (World Bank 2004).

Table 1. Estimated forest and woodland cover by region for the year 2005, as projected by the WBISPP and FAO.

Region		WBISPP estimated cover (ha)			FAO estimated cover (ha)
	Total area (ha)	Forest	High woodland[a]	Plantation[b]	Forest
Oromia	36,015,130	2,032,012	4,869,511	62,770	6,964,293
SNNPR[c]	10,707,150	638,427	548,480	237,198	1,424,105
Gambela	3,185,109	461,586	899,578	0	1,361,164
Dire Dawa	128,798	0	0	0	-
Harari	32,552	216	0	0	216
Amhara	15,764,280	84,466	841,896	199,496	1,125,858
Tigray	4,940,367	9,332	0	649	9,981
Benishangul-Gumuz	4,926,985	68,495	2,454,991	0	2,523,486
Afar	9,620,275	39,197	0	0	39,197
Somali	29,122,340	4,257	18,160	1,410	23,827
Addis Ababa	62,350	0	-	7,900	7,900
ETHIOPIA	114,505,336	3,337,988	9,632,616	509,422	13,480,026

a *Combretum-Terminalia* woodland with trees >5 m in height and tree crown cover >20%.
b Mainly *Eucalyptus*, *Cupressus* and *Pinus* plantation with trees >5m and tree crown density >20%.
c SNNPR = The Southern Nations, Nationalities and Peoples' Region (SNNPR).

Source: FAO (2010)

The WBISPP and FAO projected forest cover for each region in Ethiopia for the year 2005 (see Table 1). According to the WBISPP estimates, about 61% of high forests and 51% of high woodlands are found in Oromia – the highest across the regions. With Oromia's high forests, and those of the Southern Nations, Nationalities and Peoples' Region (SNNPR) (19%) and the Gambela region (14%), 94% of the country's high forest cover is located in just three regions. Similarly, Oromia and Benishangul-Gumuz (25%) hold 76% of the total area of high woodlands in the country. Although the high woodlands are more widely distributed geographically than the forests, with three more regions also contributing more than 5% of the total woodland cover, these same four regions – Oromia, SNNPR, Gambela and Benishangul-Gumuz–contain about 91% of the total forest cover when FAO's forest definition is applied.

Table 2. Estimates of total forest and woody vegetation cover for the years 2000 and 2005 according to WBISPP definitions.

Forest type	Year			
	2000		2005	
	Area (ha)	Percentage of total land	Area (ha)	Percentage of total land
High forest	3,651,935	3.2%	3,337,988	2.9%
High woodland	10,049,079	8.8%	9,632,616	8.4%
Low woodland and shrubland[a]	46,297,529	40.4%	46,297,529	40.4%
Plantation	509,422	0.4%	509,422	0.4%

a All other woodland and shrubland <5m in height and with crown cover >20%.

Source: FAO (2010)

Table 3. Total forest and woody vegetation cover estimate after reclassification using FAO's forest definition.

Forest types	Year			
	2000		2005	
	Area (ha)	Percentage of total land	Area (ha)	Percentage of total land
Forest	13,175,000	11.5%	13,000,000	11.4%
Other wooded land[a]	44,650,000	39%	44,650,000	39%

a Land not classified as 'forest' spanning more than 0.5 ha with trees >5 m high and a canopy cover of 5%–10%, or trees able to reach these thresholds *in situ*, or with a combined cover of shrubs, bushes and trees above 10%.

Source: FAO (2010)

1.1.2 Historical overview of forest resources and forest cover change in the recent past

Historically, deforestation in Ethiopia, particularly in the long-inhabited highland areas, has been a severe and persistent process (Eshetu and Hogbeg 2000; Teketay 2001; Darbyshire et al. 2003; Dessie and Christiansson 2008). However, the prevailing narrative of once densely forested highlands that have become denuded of their forest cover through a linear and continuous deforestation process was questioned by McCann (1997). The suitability and potential productivity of the highlands have made them attractive for settlement for a long period of time (Place et al. 2006). This long-term occupation and exposure of these areas to ox-plow agriculture (McCann 1997) are the most widely given explanations of the heavy deforestation. The absence of regular forest assessments at national level has limited the availability of up-to-date information on the dynamics and extent of forest cover change. The most current and relatively thorough assessments of deforestation and degradation are therefore limited to specific forest areas connected to development projects on forest management and conservation, or those forests considered for academic or other studies. Therefore, countrywide information on deforestation can only be found in the form of projections made from the WBISPP assessment (Tables 4 and 5).

Table 4. Estimated change in forest cover across different time periods, as forecast by the WBISPP.

Region	Average annual percentage of change				
	1990–95	1995–2000	2000–05	2005–10	2010–14
Oromia	1.05%	1.79%	1.62%	1.41%	1.47%
SNNPR	0.47%	2.51%	2.83%	2.77%	3.30%
Gambela	0.33%	0.61%	0.63%	0.75%	0.87%
Total	0.86%	1.80%	1.73%	1.58%	1.73%

Source: WBISPP (2004)

Table 5. Estimated change in woodland cover across different time periods, as forecast by the WBISPP.

Region	Average annual percentage of change		
	2000–05	2005–10	2010–14
Oromia	0.98%	1.14%	1.03%
SNNPR	0.32%	0.45%	0.99%
Gambela	0.00%	0.06%	0.11%
Benishangul-Gumuz	0.17%	0.42%	1.01%
Total	0.69%	0.85%	0.95%

Source: WBISPP (2004)

The WBISPP forecast deforestation based on the assumption that population increase, and the associated increase in the demand for agricultural land, would be the predominant driver of deforestation. Forecasts were made for the major forested regions that, together, contain 94% of the country's high forests and 91% of its high woodlands. For example, the WBISPP (2004) estimated that in the three regions containing the most high forest – Oromia, SNNPR and Gambela – about 1.24 million ha of natural high forest would be cleared for agricultural expansion between 1990 and 2014. This amounts to a loss of a third of the 1990 high forest resources in the regions. However, the forecasts do not consider migration, clearing for coffee, large-scale commercial agriculture or any other causes of deforestation, due to the difficulty of getting reliable information on their actual contribution. As such, on the WBISPP's own evaluation, this and its other estimates are likely to be very conservative.

The most realistic estimate of forest cover loss is therefore expected to be larger than the figures in Tables 4 and 5. On the other hand, the impacts of forest management and conservation interventions in the past one and a half decade, mainly in the form of participatory management approaches, have also not been considered. Given the significant forest area (about 1 million ha) under such interventions, and that these areas are also more likely to be deforestation hotspots, further questions are raised about the precision of the forecast deforestation rates.

According to the FAO estimates (Table 6), the average annual rate of deforestation from 1990 to 2010 is 0.93%. However, most of the more location-specific studies conducted across the country give higher estimates (see Table 7). Given the WBISPP projections, FAO's estimates and the findings of the individual studies, the forecast forest and woodland cover change indicate that the average annual rate of deforestation is greater than 0.25%. This is the

Table 6. Estimated change in forest cover across different periods, after reclassification by FAO.

	1990	2000	2005	2010
Forest Area (ha)	15,114	13,175	13,000	12,296
Average annual percentage of change	–	**-1.28%**	-0.27%	-1.08%

Source: FAO (2010)

Table 7. Annual deforestation rate estimates of studies in different areas of Ethiopia.

Study	Time period	Location	Forest type	Average annual deforestation rate	Method
Mulugeta (2011)	1984–2002 2002–07	Central highlands	High forest	3.5% 8.8%	Unsupervised classification of satellite images with field verification
Assefa (2010)	1987–2006	South west Ethiopia	High forest	0.92%–0.98%	Unsupervised classification of satellite images with field verification
Garedew (2009)	1973–2006	Central Rift Valley	Woodlands	1.1%–1.2%	Participatory field point sampling and remote sensing
Dessie and Christiansson (2008)	1972–2000	South-central Rift Valley	High forest	2.9%	Satellite images with supervised maximum likelihood classification method
FARM Africa and SOS Sahel (2008)	1986–2006	Bale eco-region	High forest	0.25%	Remote sensing and GIS
Zeleke and Hurni (2001)	1957–95	Northern highlands	High forest	2.6%	GIS and remote sensing with field verification
Reusing (2000)	1971–97	South west Ethiopia	High forest	2.35%	Satellite images with detailed forest monitoring using black and white aerial photographs

threshold value used by Hosonuma et al. (2012) for what is known as the early forest transition stage, a period when the deforestation rate is relatively high but the remaining forest cover is still above 50% of the forest cover from 20 years earlier.

1.2 Review of the main drivers of forest cover change

As already indicated, the main drivers of forest cover change were established in the 1990s and forecasts have been made on the assumption that the same processes would continue in the near future (WBISPP 2004). More current information in this regard is available from only a few isolated studies conducted in specific parts of the country. However, these studies do provide detail on the extent and dynamics of the deforestation process (Zeleke and Hurni 2001; Dessie and Christiansson 2008; FARM Africa and SOS Sahel 2008; Mulugeta 2011).

For example, Dessie and Christiansson (2008) assessed forest cover change in the south-central Rift Valley of Ethiopia over 28 years (1972–2000), looking at mixed Juniper-*Podocarpus* upland evergreen forest covering a watershed area of 306,000 ha. The FARM Africa and SOS Sahel (2008) study was undertaken in relation to the implementation of the Bale Eco-region Sustainable Management Program (BERSMP), and assessed land-use and land-cover change from 1986 to 2006. The study covered a total area of half a million hectares and included both Juniper-*Podocarpus* upland evergreen forest and humid upland broadleaved with *Podocarpus* forest. Sherefa (2006) also conducted a land-use change detection and analysis study that covered about 1.3 million ha in the central and southern Rift Valley. The study included both high forest and *Acacia* woodland, and spanned a period of 27 years (1973–2000).

Recognizing the need for an up-to-date countrywide assessment, the newly established Ministry of Environment and Forestry (MoEF), with the support of FAO and the country's REDD+ Secretariat Office, is currently conducting an assessment of Ethiopia's forest resources across all regions.

1.2.1 Direct and proximate drivers of forest cover change

Direct causes of deforestation include the motivational factors and decisions of agents of deforestation that immediately impinge upon forests (Contreras-Hermosilla 2000), and proximal causes include the human activities (i.e. land use) that directly affect the environment (Geist and Lambin 2001). Table 8 lists five major drivers of deforestation and the extent of their impact on forest cover in Ethiopia according to the country's R-PP report (FDRE 2011c).

According to the WBISPP (2004), forest clearance for agricultural expansion is the main direct cause of deforestation. Consistent with this, several case studies have also identified agriculture as the

Table 8. The major direct drivers of deforestation in Ethiopia and their level of impact.

Causes of deforestation	Level of impact
Expansion of traditional smallholder agriculture in forest areas driven by population growth of communities around forests.	Large impact
Expansion of large-scale commercial agriculture and other development activities including road networks and mega development projects such as hydroelectric dams.	Large impact
Population growth due to government settlement programs relocating people to forest areas.[a]	Large impact
Increased extraction of wood and other forest products following massive population growth and the resultant high domestic energy demand.	Medium impact
Forest fires related to raising livestock (pasture improvement activities) and making charcoal, due to poor incentives to local communities for sustainable forest use and weak forest protection.	Medium impact

a The practice is currently pending but the policy remains active.

Source: FDRE (2011c)

Table 9. Share and total area of crop production by region in 2006 and 2012.

Region	2006		2012		Percentage change in total area
	Total area ('000 ha)	Share of land (%)	Total area ('000 ha)	Share of land	
SNNPR	1172.4	10.27%	1436.8	10.65%	22.5%
Oromia	5315.2	46.58%	6290.4	46.63%	18.3%
Amhara	3727.4	32.66%	4499.5	33.36%	20.7%
Tigray	864.3	7.57%	885.4	6.56%	2.4%
Benishangul-Gumuz	182.5	1.60%	251.7	1.87%	37.9%
Gambela	13.3	0.12%	15.1	0.11%	13.3%
Somali	81.9	0.72%	74.1	0.55%	-9.6%
Total[a]	11357	99.52%	13453	99.73%	18.5%

a The pastoralist region of Afar and city regions of Addis Ababa and Dire Dawa are not included in the data.

Source: CSA (2007; 2013)

major deforestation driver. For example, in parts of the south-central Rift Valley, agricultural land expansion accounts for 82% of the high forest lost (Dessie and Christiansson 2008). Similarly, in the central and southern Rift Valley, agricultural activity accounted for 80% of the observed change in land cover and degradation from 1973 to2000 (Sherefa 2006). In the same time period, Garedew (2009) estimates that in the semi-arid areas of the central Rift Valley, which have low agricultural potential, 30–33% of woodlands were converted for crop production. As for the relatively severely deforested northern highlands, forest clearance for agricultural expansion has resulted in the loss of nearly all of its existing forests until no land is left for cultivation including the "very last marginal areas and steep slopes with gradients >30%" (99%) (Zeleke and Hurni 2001, 184). On the other hand, in the relatively less populated forests of the Bale eco-region, the annual deforestation rate due to agricultural expansion is estimated as only 0.25% for the years 1986–2006 (FARM Africa and SOS Sahel 2008).

Deforestation and small-scale agriculture

Most of the case studies and the countrywide analysis by the WBISPP point to small-scale agriculture as the main driver of deforestation in the recent past. However, the WBISPP (2004) estimates need to be reconsidered in view of the recent rapid increase in investments in large-scale farms for the production of food crops and bio-fuels. Consistent with this, the R-PP report (FDRE 2011c) identified large-scale development activities as one of the major direct drivers of deforestation. With the exception of the study by Dessie and Christiansson (2008), most of the studies discussed do not provide details on the agricultural activity driving deforestation, details such as identifying the main agents of deforestation (e.g. subsistence versus commercial agriculture) and the types of crops. Dessie and Christiansson (2008), however, indicate that the emergence of coffee, haricot beans and chat in the south central Rift Valley has intensified forest cover changes by promoting economic activities, the establishment of new markets, and immigration and settlements. The cash crop chat[4] has the highest impact owing to its superior economic return and quick production; it can be harvested more than once in a year and is more suitable to cultivate inside the forest frontier. As a result, it contributed to the loss of some 30% of the forest cover in the major chat-producing study sites.

Despite the lack of information on the relative importance of small-scale and large-scale agriculture or of cash crop and staple crop cultivation as causes of deforestation, analysis of changes in the number of smallholders and area of crop production in the recent past, and comparison of the same between forested and non-forested regions in the country, might reveal informative patterns. Table 9 shows the total cultivated area of smallholder agriculture for the years 2006 and 2012 for major crop-producing regions in the country (CSA 2007; 2013). Although each regions share of

4 'Khat' is used by some sources to refer to the same crop.

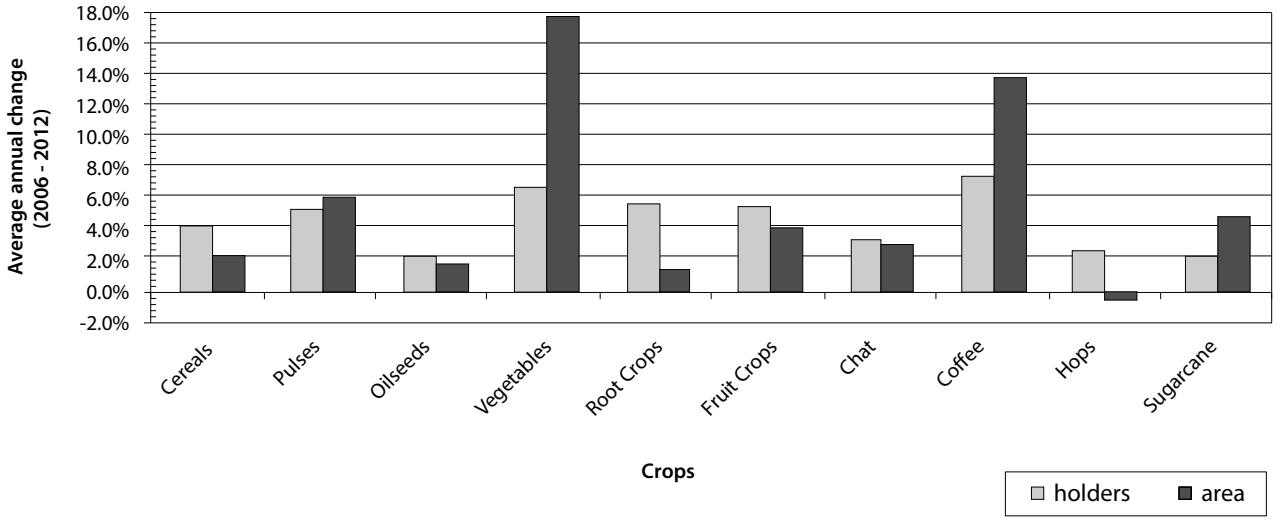

Figure 2. Average annual change in the number of holders and area of production of major crops from 2006 to 2012.

Source: CSA (2007; 2013)

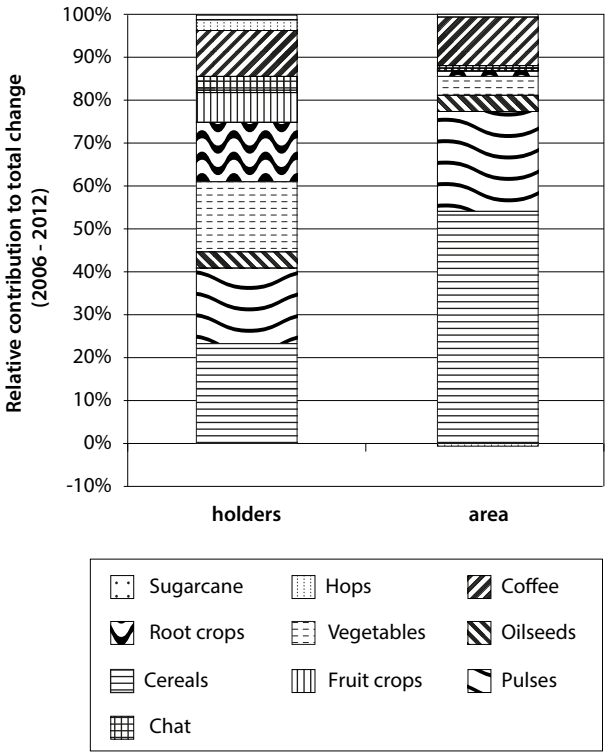

Figure 3. Relative contribution of major crops to the total increase in the number of holders and area of production.

Source: CSA (2007; 2013)

the total land used for crop production shows relatively little change from 2006 to 2012, there is a significant difference in the total area used for crop production across most of the regions.

The average annual increase in the total number of smallholders and total area cultivated between the years 2006 and 2012 is about 4.7% and 3.0%, respectively (CSA 2007; 2013). As indicated in Figure 2, the rate of change in cultivated area for four crops – vegetables, coffee, sugarcane and pulses – is higher than the rate of change in the number of holders, indicating an increase in area per holder (also see Figure 3). The larger contribution of cereal and pulses, which are the major staple crops, to the total change both in number of holders and area is, however, in line with the WBISPP's assumption of the significant role of smallholder subsistence agriculture in national land-use and land-cover change (Figure 3). Area per holder also increased for vegetables, coffee and sugarcane, whereas it decreased for cereals (Figure 4) indicating extensive agriculture for the former. The highest total change in number of holders was recorded for coffee (43%), which also showed a large increase in average area per holder (25%), only second to vegetables (45.7%). However, as much as this data allows an insight into details of agricultural activity driving

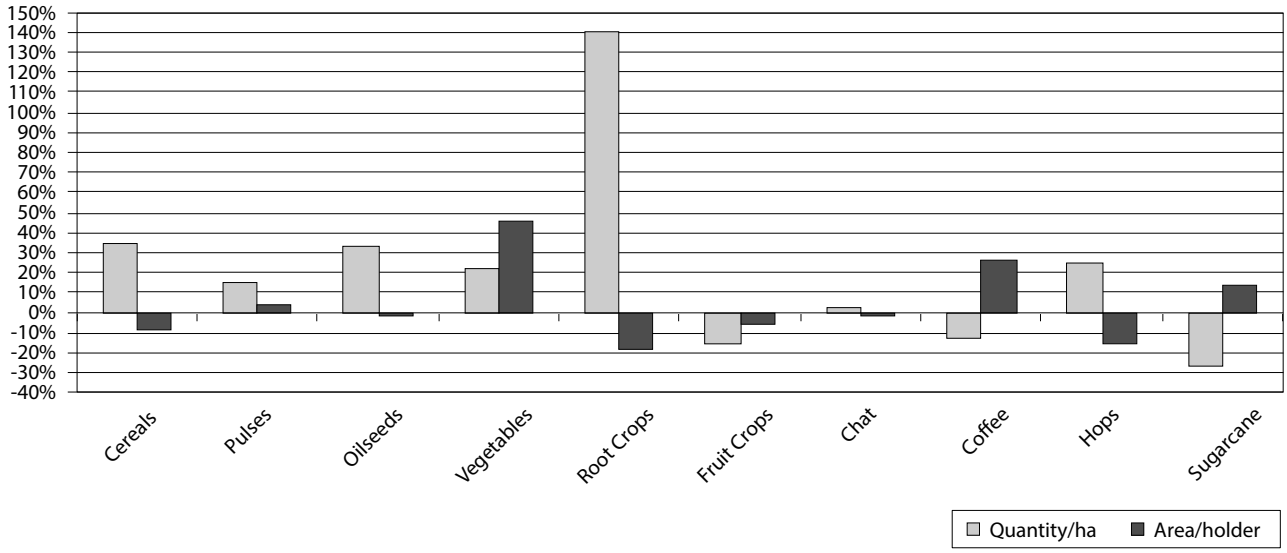

Figure 4. Increase in yield per hectare and area per holder for major crops.

Source: CSA (2007; 2013)

deforestation, importantly, data for two points in time may not indicate the overall trend in the period.

Comparison of the change in production area of major smallholder agricultural crops across regions, particularly separating the forested regions, might help to understand the role of different economic sectors and associated agents in driving deforestation. It might therefore be useful to compare similarities and differences between the four most forested regions – Oromia, SNNPR, Gambela and Benishangul-Gumuz – with the overall countrywide data in terms of contribution of major crops to total area change (see Figures 5 and 6). These comparisons show that the contribution of cash crops – coffee, chat and oil seeds – to total area change is higher for the forested regions than for both the non-forest regions and the country overall. Oil crops are particularly important in the Benishangul-Gumuz region.

The same analysis can also be made more focused by taking the two larger forested regions – Oromia and SNNPR – and examining the contribution of major crops to total area change of different zones within the respective regions. Separating the more forested and less forested zones in these regions and comparing the contribution of different crops to total change in agricultural area highlights the importance of specific crops at a smaller scale. Based on the distribution of high forests among the different zones within Oromia and SNNPR for the year 2000 (WBISPP 2004), the more forested and less forested zones can be identified (Table 10).

As shown in Figures 7 and 8 the contribution of coffee to total change in area of smallholder agriculture in Oromia is higher in its forested zones than in its less forested zones and across the region. This is particularly evident in the more-forested zones including Bale,[5] Illubabor, Jimma, and West Wellega – although Borena[6] shows a different pattern. The SNNPR region shows a similar pattern (see Figures 9 and 10). Next to coffee, oilseed and vegetables are also important contributors to changes in production area in Oromia and SNNPR respectively.

In conclusion, Figures 7–10 indicate that although the staple crops (cereals and pulses) are dominant in both number of holders and total area, and in their contribution to the total change in area of production, cash crops such as coffee and oil seed also play a significant role in land-use and land-

5 The area change for coffee was determined for the period 2007–12, thus the data used is likely an underestimate of the change from 2006 to 2012.

6 Area data for 2006 was extrapolated based on the area-per-holder information of 2012.

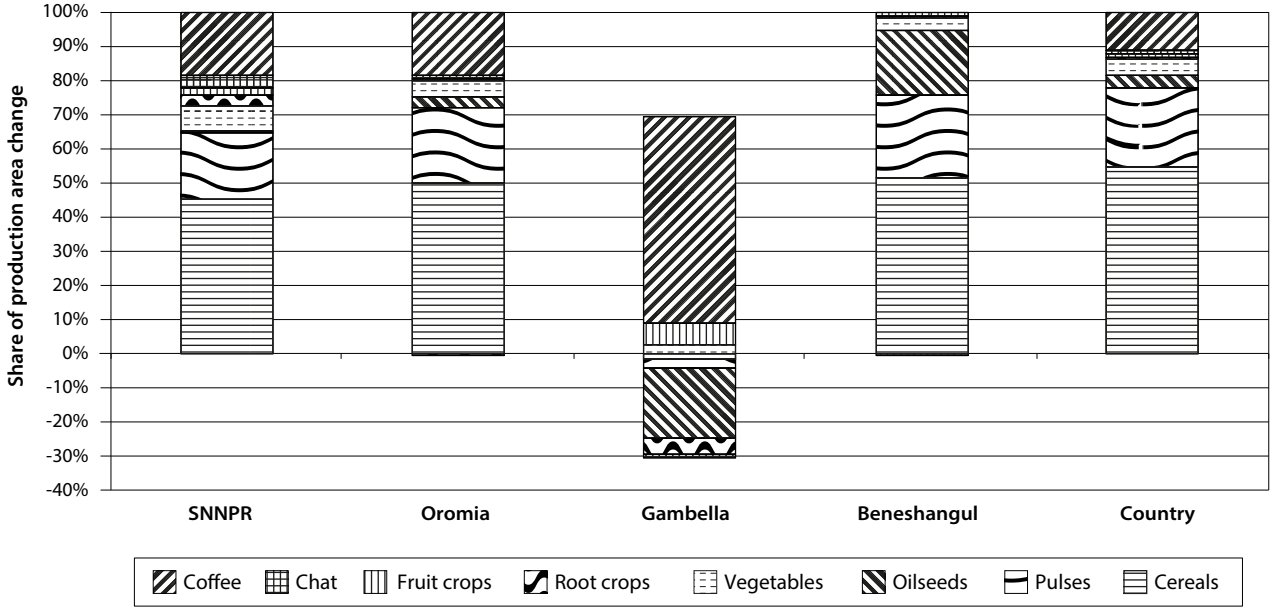

Figure 5. Share of major crops in production area increase from 2006 to 2012 in four forested regions and the country as a whole.

Source: CSA (2007; 2013)

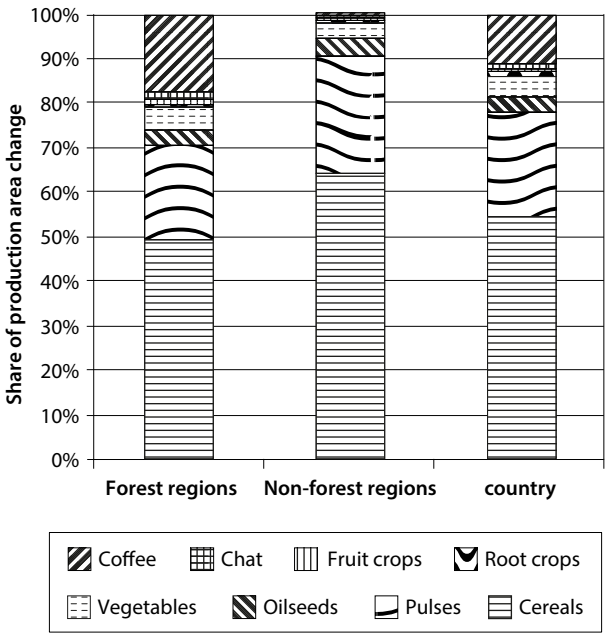

Figure 6. Share of major crops in the increase in aggregate production area in forested regions (Oromia, SNNPR, Gambela and Benishangul-Gumuz), non-forest regions and the country as a whole.

Source: CSA (2007; 2013)

Table 10. The distribution of forest cover among zones inthe Oromia and SNNPR regions.

Oromia		SNNPR	
Zone	**Share in forest cover**	**Zone**	**Share in forest cover**
Arsi	1.67%	Bench Maji	7.86%
Bale	33.51%	Darashe S.W.	0.00%
Borena	13.24%	Gedio	0.11%
West Harerge	0.72%	Gurage	0.07%
East Harerge	0.31%	Hadiya	0.00%
Illubabor	25.28%	Keficho-Shakiso	60.72%
Jimma	13.76%	Kambata-Alaba	0.00%
West Shewa	2.19%	North Omo (including Gamo Gofa and Wolayita)	16.64%
East Shewa	0.87%	Sidama	6.12%
North Shewa	0.06%	South Omo	6.06%
West Wellega	5.18%		
East Wellega	3.22%		

[a] Includes zones corresponding to the Central Statistical Agency's reports on area of crop production for the years 2006 and 2012.

Source: WBISPP (2004)

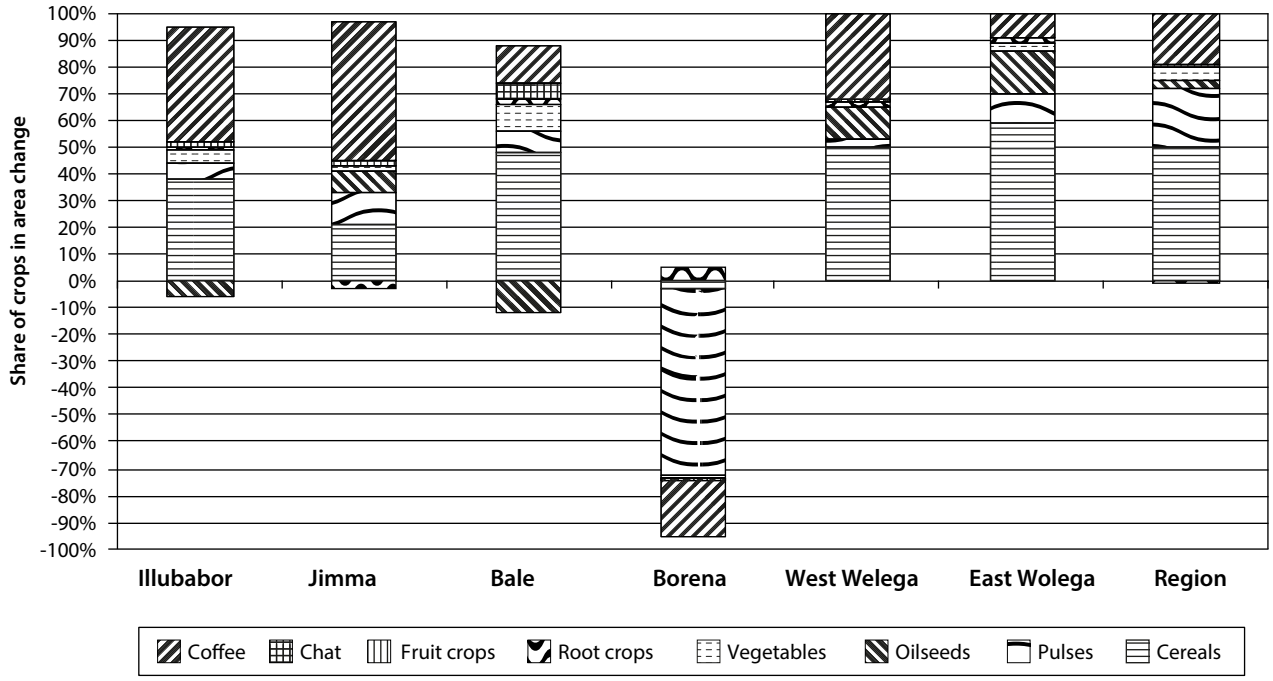

Figure 7. Share of major crops in the increase in production area from 2006 to 2012 for forested zones in Oromia and across the entire Oromia region.

Source: CSA (2007; 2013)

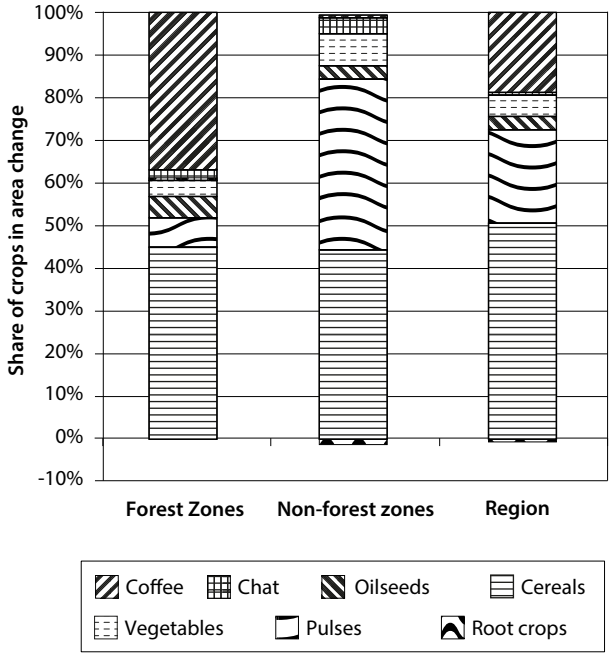

Figure 8. Share of major crops in the total production area increase from 2006 to 2012 in forested zones, less forested zones, and the entire Oromia region.

Source: CSA (2007; 2013)

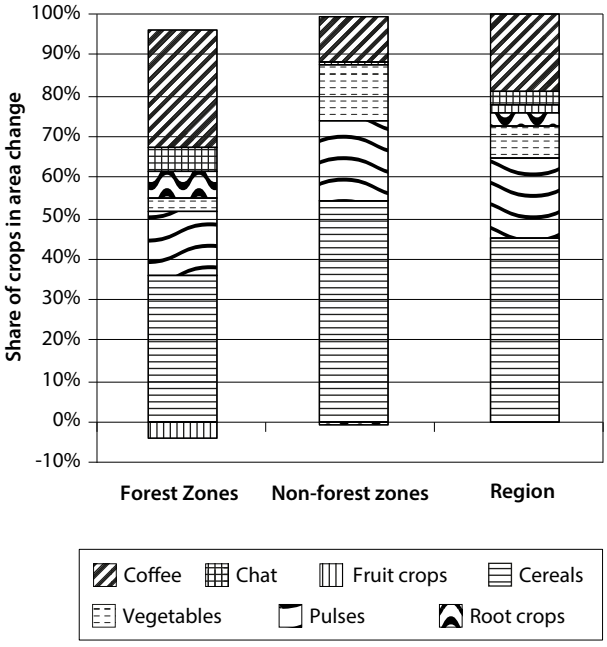

Figure 10. Share of major crops in the total production area increase from 2006 to 2012 in forested zones, less forested zones and the entire SNNPR region.

Source: CSA (2007; 2013)

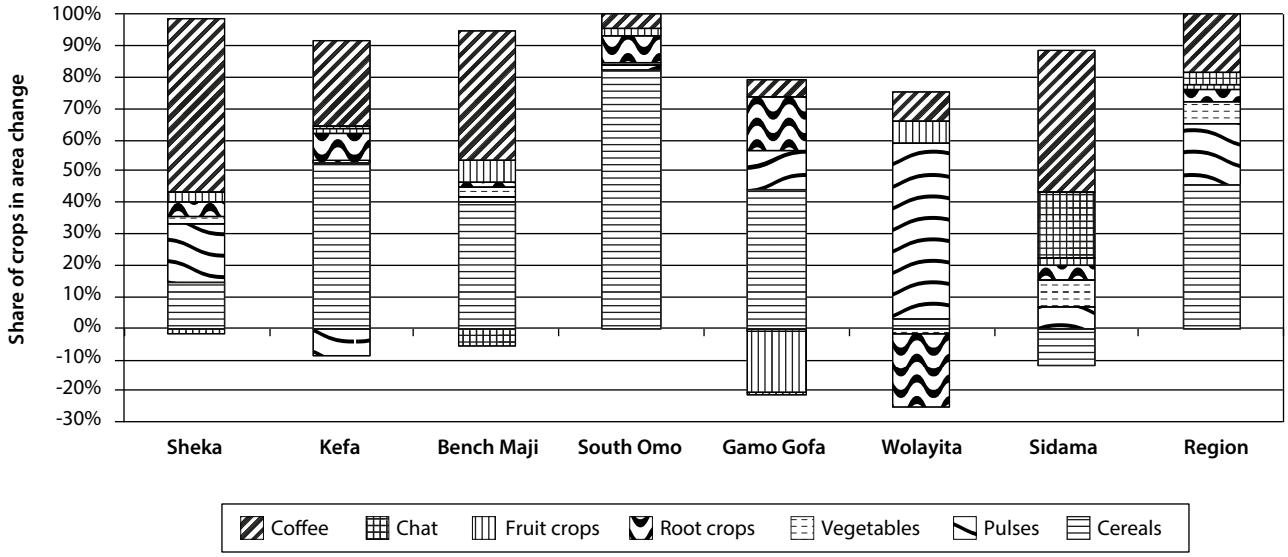

Figure 9. Share of major crops in the increase in production area from 2006 to 2012 for forested zones in SNNPR and the entire SNNPR region.

Source: CSA (2007; 2013)

cover change, particularly in the more forested parts of the country. However, the above figures only show the relative importance of crops in terms of their contribution to total area change in selected regions and zones. The observed patterns may not necessarily translate as causes of deforestation.

Deforestation and commercial agriculture and investments

In addition to the direct effect of forest clearance, large-scale activities in forest areas can have multifaceted impacts as they often occur in tandem with small-scale agricultural activities and can result in spontaneous transmigration (Geist and Lambin 2001). Desie and Christiansson (2008), for example, described a secondary effect of large-scale commercial farms in the Rift Valley of Ethiopia. That is, large-scale commercial farms often displace local farmers, who migrate into remaining forest areas, thereby encouraging migration and settlements, and resulting in a drastic change to the forest frontier.

The R-PP (FDRE 2011c) identifies the expansion of large-scale development activities as one of the causes of deforestation with particularly large impact. At the same time, the document states that there is a lack of clear information on the impacts and causes of large-scale clearance of forests in the public arena. In view of the country's focus on facilitating the commercialization and export orientation of the agricultural sector, the substantial impact suggested in the R-PP of large-scale activities – particularly large-scale commercial agriculture – on deforestation rates, appears realistic. For instance, the Plan for Accelerated and Sustained Development to Eradicate Poverty (PASDEP)(2006) identified coffee, tea and spices as important export products with huge potential to transform the agriculture sector. Increasing their volume of production is given high priority. The natural agro-ecological distribution of these crops is within the forested areas of the country, and thus they are anticipated to be the most important commercial crops in terms of pressure on forestlands.

In line with the focus on increasing investments in crops, huge areas of agricultural lands have been leased to establish commercial agriculture, with the support of a favorable incentive structure (Rahmato 2011). The period of the lease varies among different regions, ranging from 25 to 50 years. The low level of capacity at local administration level to inspect and control the actual areas converted to large-scale farms,

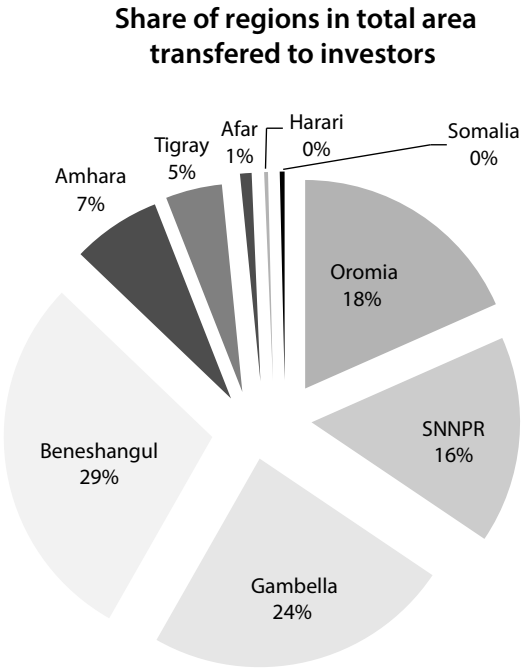

Figure 11. Regional share of the total area transferred for commercial agricultural.

Source: Oakland Institute (2011)

combined with non-transparent practices of land transfers, were observed to exacerbate the impact of these investments on deforestation. Importantly, these new developments are unlikely to be accounted for in the already-discussed forest cover projections of the WBISPP, FAO and specific case studies.

The data from the Land Investment Agency shows that about 2.5 million ha is leased to investors with the four more forested regions of Oromia, SNNPR, Gambela and Benishangul-Gumuz contributing to 87% of the total area transferred (Figure 11). This indicates the importance of large-scale investment as a driver of deforestation. Furthermore, the two relatively small regions of Gambela and Benishangul-Gumuz, which are mainly covered in woodlands, share 54% of the total area transferred. This reflects the high potential of the lowland regions for large-scale agriculture. Given that the lowlands also have a low population density relative to the highland areas, the importance of large-scale investment as a deforestation driver in these areas is likely to increase.

A study by the Oakland Institute (2011) indicates that the majority of these investments are occurring in areas where shifting cultivation is practiced. This suggests that the impact of large-scale agricultural activities may be even greater as it is likely to displace people who use shifting cultivation and so increase their own potential to impact on deforestation. Cotton, oil crops and pulses, respectively, are the three most important crops with a 67% share in the total land area transferred (Oakland Institute 2011). However, there is not yet clear information on the actual area of land in operation following the transfer, and neither is there information on the extent of deforestation as a result of these large-scale agricultural investments.

Nevertheless, field studies have reported that forests and woodlands in protected areas were included in these land transfers (Oakland Institute 2011; Rahmato 2011). Also of note, the concomitant construction of dams and other infrastructure such as road networks (Oakland Institute 2011), and the likelihood of accelerated rate of migration and settlements around such farms can result in increased demand for arable lands. This could further speed up the already high pressure from smallholder agriculture on forest resources, which would remain as a significant secondary impact of these large-scale commercial agricultural investments.

Direct causes of forest degradation

The R-PP identifies extraction of wood and other forest-based products, and forest fires related to raising livestock as the two most important causes of forest degradation (Table 11) (FDRE 2011c). In the most populated highlands, the effect of grazing livestock on forest regeneration can also be an important cause of forest degradation (Reusing 2000).

The national CRGE strategy document attributes 50% of forestry-related carbon emissions to forest degradation driven by fuelwood consumption (46%) and informal logging (4%) (FDRE 2011a). Fuelwood currently accounts for more than 80% of households' energy supply – particularly in rural areas – and the demand is expected to increase in proportion to the 2%–3% population growth expected in a business-as-usual scenario. Based on the WBISPP estimate for 2010, the amount of wood removed from the forest stock for fuelwood

Table 11. Major causes of forest degradation in Ethiopia according to the country's R-PP.

Causes of forest degradation	Level of impact on forest degradation
Expansion of smallholder traditional agriculture following population growth in forest areas.	Low impact
Expansion of large-scale development activities.	Low impact
Population growth due to government-led settlement programs in forest areas.	Low impact
Wood extraction and other forest products collection following population growth in forest areas and the resultant high wood energy demand.	Large impact
Forest fires related to livestock raising combined with no incentives to protect forest land.	Medium impact

Source: FDRE (2011c)

and charcoal (26.6 million tons) is much greater than that removed by clearing for agriculture (3.6 million tons). Charcoal is particularly important in the woodlands, which supply most of the 3 million tons or more of charcoal burnt each year in Ethiopia's major cities and towns (Bekele and Girmay 2013).

Forest fires are common in most forested areas, particularly the woodlands – though precise quantitative estimates of the impact on deforestation and forest degradation are lacking. Personal communication and case studies indicate that harvesting of forest honey and charcoal making are the major causes of forest fire in the high forests whereas hunting and pastoral activities are the major causes of fire in the woodlands.

In summary, both small-scale agriculture and large-scale agriculture can be considered major causes of deforestation in Ethiopia, though their importance appears to vary across regions and forest types. The available information indicates the relative importance of small-scale agriculture in the high forest areas, and large-scale agriculture in the woodlands. For small-scale agriculture, both staple crops (cereals and pulses) and cash crops (coffee) appear to be important whereas large-scale agriculture appears skewed toward the cash crops: coffee, cotton and oilseeds. Table 12 provides a summary of the important causes of deforestation and forest degradation and their significance.

1.2.2 Indirect/underlying causes of forest cover change

Indirect causes of deforestation and forest degradation refers to the broader economic, political, cultural, demographic and technological forces that influence the decisions of agents

Table 12. Direct drivers of deforestation and forest degradation, their agents, and the level of threat they impose.

	Direct driver/activity	Agents	Significance/threat level	
			Forests	Woodlands
Deforestation	Small-scale agriculture (cereals and pulses)	Farmers (smallholders)	High	Medium
	Small-scale agriculture (perennials and coffee)	Farmers (smallholders)	High	Low
	Commercial agriculture	Investors (foreign direct investment)	Medium	High
		Investors (local)	High	High
Degradation	Fuelwood	Collectors and producers	High	High
	Grazing	Local farmers	High	Medium
	Forest fire	-	Medium	High

involved in deforestation (Kaimowitz and Angelsen 1998), or the forces that are far removed in the causation chains from the deforestation agents and their immediate actions (Contreras-Hermosilla 2000). The underlying causes of forest cover change in Ethiopia include demographic, economic, social and institutional factors, as discussed in Chapter 2 of this report. Population growth is the most dominant underlying cause with its resulting increase in demand for agricultural land (impacting deforestation) and fuelwood (impacting forest degradation) (WBISPP 2004). Both the gradual, slow process of natural population growth and the rapid, drastic population increase following internal migration and settlement around forest areas are important underlying forces (Dessie and Christiansson 2008; Mulugeta 2011; Stellmacher and Eguavoenare 2011). Such continued population pressure on forest resources reflects the fast population growth unmatched by growth in agricultural productivity. This is amidst a highly agrarian rural economy with a low level of agricultural technology and prevalent poverty.

However, population growth and demand for land and forest products also operate within institutional and political contexts that are conducive to the deforestation process. In the past few decades, the institutional environment for the use of forest resources was characterized by the interplay of customary institutions and protective and exclusionary state control. This has often resulted in conflicting interests between the State and local people who traditionally are dependent on forests for their livelihood security (Bekele 2003; Stellmacher 2007). Similarly, the R-PP lists implementation of an unworkable regulatory approach, insufficient/unclear user rights for forests, lack of a benefit-sharing scheme, lack of empowerment of local communities and lack of law enforcement as the major institutional factors underlying the deforestation process in the country. In addition, political vacuums during government transition periods, such as the recent crisis in 1991, are occasional events with pervasive and extreme impacts on deforestation. These periods are typically when massive resettlement and deforestation takes place, drastically changing the forest frontier and setting the stage for ensuing deforestation processes (Bekele 2003). For example, 71% of the forestlands of a state-owned forest enterprise were converted to farmlands during the 1991 government change, resulting in settlements and agricultural activities deep inside the forest proper (Dessie 2007).

Another important underlying deforestation driver is the country's development strategy. In the past decade, the agriculture sector has been given a central role as an engine of economic growth (PASDEP 2006). Given the dominant role of agricultural expansion in the deforestation process, this development strategy has undoubtedly had significant impacts on the dynamics of forest cover change (FDRE 2010). Commercialization of agricultural products was the major thrust in the PASDEP (2006), with the commercialization of smallholder farming identified as the major source of agricultural growth in the past and current development strategy (FDRE 2006; 2010). The Growth and Transformation Plan (GTP) (FDRE 2010) has also pursued similar strategies including shifting to higher-value crops, promoting high-value export crops, facilitating the commercialization of agriculture, supporting the development of large-scale commercial agriculture and improving markets for agricultural products. In this regard, the global rise in prices of agricultural products combined with the increased commercialization of crop production and reduced distress-selling by smallholders (Loening et al. 2009) can be expected to increase the relative profitability of agricultural production at the expense of forests. The implications of the current agricultural development strategies for REDD+ are thus paramount, as evident in the effectiveness, efficiency and equity (3E) evaluation of REDD+ discussed in Chapter 5.

1.3 Carbon stocks of the forests of Ethiopia

The R-PP describes the information on carbon stock as fragmented and limited to specific regions and forest types under ongoing projects (FDRE 2011c). Therefore, the more comprehensive estimation by the WBISPP is identified as a better historical reference point than the data from project-based estimates, which tend to be very localized. The WBISPP's (2005) carbon stock assessment resulted in an estimate of 2,683,127 tons of carbon in woody biomass stock across the country. Following the estimates of Moges et al. (2010) and areas adjusted to the 2005

Table 13. Carbon stocks of forest vegetation categories.

Forest type	Above ground biomass (tons/ha)	Area ('000 ha)	Total stock (million tons)
Forest	106.68	**3,337,988**	356.1
High woodlands	42.75	**9,632,616**	411.8
Plantation	123.00	**509,422**	62.6
TOTAL			830.5

Source: Moges et al. (2010)

Table 14. Estimates of GHG emissions from agricultural clearing of major forested regions.

Region	Total GHG emissions from clearing for agriculture ('000 tons of carbon)	Percentage (%)
SNNPR	525	43.6
Oromia	444	36.9
Gambela	116	9.6
Benishangul-Gumuz	118	9.8
TOTAL	**1,203**	

Source: WBISPP (2004)

forest cover estimate of the WBISPP,[7] the total carbon stock of different forest types is given in Table 13. However, Moges et al. highlight that the WBISPP, compared to other small-scale studies, likely underestimate carbon density by a factor of two and suggest further classifying forest types for a more accurate estimate.

1.4 Mitigation potential

The CRGE document estimates that forestry contributes to 37% of the country's total greenhouse gas (GHG) emissions (150 million tCO_2e in 2010). It further adds that conversion of forests, woodlands and shrublands into agricultural land is the largest cause of emissions, amounting to 40 million tCO_2. Unsustainable fuelwood consumption is the second largest factor, emitting an estimated 25 million tCO_2 (FDRE 2011). According to the WBISPP (2005) report, the woody biomass stock of the country sequesters a much higher amount of CO_2 than it emits. It sequesters about 44 times and 478 times the CO_2 released by burning biomass fuel and clearing for agriculture, respectively. As shown in Table 14, the country's total emissions due to agricultural expansion is estimated as 1.2 million tons (WBISPP 2004). The two largest forested regions, Oromia and SNNPR, contribute about 80% of those emissions.

Agriculture is the largest contributor to forestry-related emissions (about 50%) but also provides 80% of the total labor employment in the country. Fuelwood consumption and illegal logging drive the remaining half of emissions in the forestry sector (FDRE 2011a). Arresting the deforestation impacts of expansion of agriculture is therefore the most apparent mitigation strategy as it is the dominant direct cause of deforestation in the country. Achieving this requires enhancing the productivity of the sector through intensification, and reducing the ever-increasing demand for arable land. Notwithstanding the current focus on mitigation of GHG emissions, past experiences have demonstrated the challenges that such a 'green revolution' can pose to smallholder agriculture and as such, significant change has remained elusive.

As indicated in the CRGE document, reducing the impact of agriculture on forest cover change requires the economy to diversify and reduce the share of agriculture in overall employment – a significant transformation. Accordingly, mitigation through reducing unsustainable fuelwood consumption and illegal logging seems to have more leverage in the short term. Enhancement of carbon stock through rehabilitation of degraded areas and afforestation activities could also be effective strategies in the short term. With this in mind, a thorough literature review by Moges et al. (2010) indicates that Ethiopia has the potential to mitigate the release of 2.76 billion tons of carbon into the atmosphere if it protects and sustainably manages its forest resources.

7 Moges et al. (2010) used the formula "Above ground biomass (tons/ha) = Free bole biomass (FBB) (tons/ha) × Biomass expansion factor (BEF) × 0.5" while using the 1995 forest area cover data to determine total carbon stock. This estimate adopted the same values (FBB and BEF) while forest areas were adjusted to the 2005 data of WBISPP estimates.

Table 15. Institutional capacity to monitor deforestation and forest degradation.

	Number of institutions (number of experts)			
Level of capacity	**REDD+ carbon accounting expertise**	**Forest inventory expertise**	**GIS expertise**	**Remote sensing expertise**
No expertise	5	6	2	2
Low level expert (only knows some basic principles, needs training in all aspects)	2 (6)	2 (5)	2 (5)	2 (4)
Medium level expert (needs additional training in certain topics)	4 (6)	4 (8)	7 (12)	6 (11)
High level expert (capable of performing the required action/analysis without any further training)	1 (1)	0	1 (1)	3 (3)

Source: FDRE (2011c)

1.5 Capacity for monitoring deforestation and forest degradation

According to Ethiopia's R-PP (FDRE 2011c), the country aims for Tier 2[8] emission quantification by 2015 and Tier 3[9] by 2020. It also outlines the intention to make use of the carbon stock monitoring experiences of projects being undertaken in the two major forested regions of the country (Oromia and SNNPR) in setting a reference scenario. The experiences of the WBISPP are, however, given the highest priority as a historical reference point owing to its comprehensive analysis of all forest resources over the entire country. Of note, the WBISPP also prepared detailed guidelines for developing a woody biomass monitoring system in the context of Ethiopia (WBISPP 2004). The R-PP emphasizes building on the forest inventory protocols of the WBISPP to make use of the detailed nation-wide inventories already compiled. The WBISPP was, however, originally initiated to obtain a clearer picture of the status and potential supply of woody biomass as fuel.

An assessment of the country's capacity for monitoring and carbon accounting expertise identified 12 relevant academic and other organizations (FDRE 2011c). As reported in the R-PP, the expertise capacity of these organizations on the major components of monitoring activity appears to be critically low (Table 15). A series of capacity building activities have, however, been undertaken by different regional pilot projects since the assessment reported in Table 15. As a result, the reported level of expertise is expected to change.

8 The approach used to estimate carbon stock changes is to assess activity data based on "tracking of conversions between land-use categories (between 2 points in time)" and carbon emissions based on "country-specific data for key factors between the two points in time" (FDRE 2011c, 109).

9 The approach used to estimate carbon stock changes is to assess activity data based on "spatially explicit tracking of land-use conversions over time" and carbon emissions based on "detailed national inventory of key C stocks" (FDRE 2011c, 110).

2 Institutional, environmental and distributional aspects

2.1 Putting forest governance in context

2.1.1 General

Forest governance refers to who makes decisions about forest resources and land, how the decisions are made and carried out, and who is accountable (De Zoysa and Inoue 2008). This rests in the context of the larger institution of property rights (formal and informal), and the legal frameworks that a country has developed and adopted through time to govern its resources. Therefore, forest governance is found nested in the broader land, forest and overall economic policies, and ideological orientation that a country tailors and follows. As Counsell (2009) noted, forest resource ownership and use rights across much of Africa are particularly tied to such policies and ideological orientation.

One of the most important institutions among a range of rules and regulations society has developed over time is that of property rights (Bromely 1991; Blaser et al. 2005). Property rights significantly affect sustainability and incentive mechanisms of resource management (Namaalwa 2008). Fairly constructed and stable property rights institutions presuppose tenure security and good governance, which motivate individuals and communities to participate in REDD+ activities. An important characteristic of an effective institution of property rights is its enforceability to the extent that the privileges of right holders are recognized by society at large and defended by the authority system (Bromley 1991; Agrawal and Elbow 2006).

In contrast to an effective institution of property rights, unfair and unstable property relations create insecurity. According to Agrawal and Elbow (2006), such a system invites conflict, wards off investment and discourages sustainable resource management. As Keefer and Shirley (2000) rightly stated, a focus on economic policy reforms to the exclusion of institutions (particularly that of property rights) would be an oversight. The realization of the first, economic policy reforms depends significantly on the attributes of the second, i.e. the institution of property rights. This chapter assesses forest property rights structures in Ethiopia and highlights how each change in the property rights institution affected the stability, fairness and efficiency of forest governance in the country. It also presents international environmental conventions, which the country ratified, and national legal frameworks and development programs impacting the forestry sector and hence REDD+ performance in the country.

2.1.2 Forest property rights

Property and resource rights have often been undermined in Ethiopia's past and most recent history. For example, in the last half century the trend in forest property has shifted from excessive individual ownership (feudal time) to an extreme form of state control (1974–91) and then to near open-access for nearly a decade following a change of government. The feudal period was illustrious for its unfair and unjust land holdings, particularly after the late 19th century territorial expansion to the southern half of the country. Local communities lost their claim over land and forests, and millions of hectares came under state control, which was then generously distributed to royal family members, feudal lords and army members in latter years. Nevertheless, it was during this period that the western notion of property rights was slowly taking root in the country's

legal system, particularly the practice of private property rights.[10]

In 1974 the popular uprising and the emergence of the military Derg regime led to the nationalization of all rural and urban lands and forests, interrupting the newly emerging institutions of property rights at the time. The revolution undermined most of the judiciary involvement in the administration of property relations and replaced it with spontaneous and arbitrary generation and execution of property rules (Bekele 2003). Rural Lands Proclamation No. 31/1975 (FDRE 1975b); Urban Lands and Extra Urban Houses Proclamation No. 47/1975 (FDRE 1975a); and the Forest and Wildlife Conservation and Development Proclamation No. 192/1980 (FDRE 1980) put all natural forests and privately established forest plantations under state ownership, effectively denying communities access to forests and imposing sanctions against 'illegal' entries. Alienated as they were, communities took advantage of the power vacuum created during the change of government in 1991 and destroyed various forest projects as an act of reclaiming the holdings they lost during the military regime. As a result, by 2011 state forest holdings had reduced by about 49% since 1991 (Bekele 2003). Despite the 1991 government change, the policy of state ownership over forests remains. However, control has become more relaxed resulting in the conversion of large tracts of forests into agricultural lands by local people.

Currently, forest property rights can be categorized as follows:

a) State forest. Since the nationalization of all rural and urban lands following Proclamations No. 31 and 47 of 1975, and Proclamation No. 192 of 1980, all forests, including plantation forests, remain under state ownership. The now abrogated forest proclamation of 1980 created a forestry organization to develop and manage the nationalized natural and plantation forests. The new Constitution of the Federal Democratic Republic of Ethiopia (1995) reconfirmed state ownership over land and natural resources including forests. Regional governments are responsible for the administration of the forests found in their respective territories. At present, natural forests under state ownership fall under two categories: forests organized under participatory forest management (PFM), and the rest, which are under district governments.

b) Private forest.[11] Before 1975, millions of hectares of natural forests and most plantation forests were under private ownership. Between 1975–91 state rural development programs heavily restricted private involvement in forest development. In fact the 1980 forest proclamation restricted forest ownership to the State and community. (The part of the proclamation that refers to community was largely unimplemented.) Currently, farmers' holdings under trees (woodlots) are certified as farm/crop lands, rather than forests, as is the case with the woodlot pictured in Figure 12. It is only in the last 8 years after the implementation of land certification programs that farmers have been able to more securely establish private woodlots around their homestead and farmlands (Chemdesa 2012; Hailmichael 2013). Of note, despite relatively attractive incentives (e.g. land grants and tax grace), there is a near absence of investment in medium- or large-scale forest plantation by private individuals or groups.

10 Private forest ownership was hardly acknowledged in the country before the mid-20th Century. Existing evidence (e.g. Mooney 1953; Breitenbach 1962) indicates that formal private property rights over forest was slowly taking root only after the Northern Kingdom territorial expansion to the southern half of present-day Ethiopia ended and consolidated at the beginning of the 20th Century. The territorial expansion led to land alienation, followed by State and individual occupation. Land, including forests, could also be acquired through purchase and state grants. After the Italian evacuation in 1941, people took advantage of the destruction of land records during the war to claim government lands as their own (Alem-Ante 1970). The creation of private forest property seemed accidental in the sense that the original intention of individuals was to own agricultural land, not forests as such. By the early 1970s, most lands granted by the State to civil servants and army members for their services were transferred to freehold. Slowly, trees began to be valued for their commercial return (as readily available resources) and attract individual ownership on a substantial scale with the emergence of a new mode of life after the Italian occupation. The Civil Code issued in 1955 presented an elaborated article in the protection of private property on movable and unmovable property.

11 The Forest Development, Conservation and Utilisation Proclamation (No. 542/ 2007) recognizes two types of forest ownership in the country: state and private. The understanding is that community forests fall under private ownership. However, with the forest law currently under revision, it has been suggested that community forest stand as an independent property-rights regime. That is, community forest is to include forests under PFM, and those resources purely under community ownership. The importance of this amendment, among others, rests in that it allows certification of individual (private) forests, as the current land registration and certification program only recognizes agricultural cropland.

Figure 12. Uncertified forest owner in his woodlot with his children, Western Arsi zone, 2013.

Photo credit: Melaku Bekele (CIFOR)

Figure 13. Church forest in northern Ethiopia.

Source: Google Earth Image

c) Church/monastery forest. The Ethiopian Orthodox church is the oldest in Africa. According to some sources there are some 35,000 churches in the country (Bongers et al. 2006), most surrounded by old forest stands ranging from a few to hundreds of hectares (e.g. Figure 13). These sacred forests, many with freshwater springs also known as Coptic forests, comprise a significant portion of the 5% of Ethiopia's remaining forests. Church forests are reminders of the forests that once covered the expansive highlands of northern and central Ethiopia (Bekele 1992).

Recently established churches (post 1960s) have, through area closure, rehabilitated forests around them (Wassie 2002). To their followers – according to Beeland (2011) – they are a sacred symbol of the Garden of Eden to be loved and cared for. The forests also serve as conservation sites and hot spots of biodiversity (Bongers et al. 2006). However, church or monastery forests are not without external pressures. Timber extraction, over-grazing by animals from neighboring villages and conversion to farmland are all becoming challenges (Adefires and Worku 2009).

d) Customary (forest) tenure. Although, the 1975 land nationalization act (No. 31) and the1980 forest and wildlife act (No. 192) abrogated all private and customary tenure, de facto rights over forests survived in many areas. In the southwestern rainforests, for example, de facto rights survived through *Kobo*-right-holders (those with custmary rights) among the dominant forest-dependent communities in the Sheka, Kaffa and Bench Maji zones of SNNPR. There are two types of customary *Kobo* arrangements: area-based holding in which a *Kobo* right-holder has rights over all plant/tree resources found within the limits of his holdings; and tree-based ownership where the *Kobo* right-holder's claim is limited to the big trees within a specified area. Access by non-owners to either holding requires the permission of the *Kobo* right-holder, a request that is not often denied. In the case of hanging beehives or lumber extraction (pit-sawing) however, the non-owner enters a 'share-cropping' arrangement with the right holder (field interview, June 2014). De facto customary right over forests and woodlands also survived in the Gambela and Benishangul-Gumuzregions and in the expansive dry pastoralist areas of the country. It is likely that, customary rights have survived in Ethiopia, due to the lack of state administrative capacity to prevent them rather than due to a deliberate policy of tolerance. Currently, however, the national and global markets are in full swing, penetrating almost all corners of lowland Ethiopia and placing customary rights under increasing pressure.

e) Evolving forest tenure rights, with PFM as an entry point. In Ethiopia, PFM as an approach was introduced by international nongovernmental organizations (NGOs) in the mid-1990s in a few forest areas. It was initiated as a response to the institutional failure of state-owned forests and their management. Today, PFM is increasingly recognized by both federal and regional governments as an important, and perhaps as the only, viable option for sustainable forest management in the country. The introduction of REDD+ to Ethiopia also enhanced the acceptance of the approach, extending it to cover over a million hectares of forest. One region after another is adopting the approach (see Figure 14), and it appears to have the support of various international donors. The new MoEF is also revising its forest laws and regulation to give a legal space for PFM. The draft law anticipates that PFM will act as a means of transition to full-fledged community forest ownership.

Where PFM has taken root in forested areas of the country, forest degradation has shown substantial decline and tree regeneration has improved (Ameha et al. 2014). Although the economic return has to substantially improve, PFM members are now able to access forest resources legally.

2.1.3 Legal frameworks governing forests and their enforcement

a) International conventions. After Rio (1992), the interest of the global community widened to include concerns for biodiversity, forest environmental services and sustainable forest management – a move from the early focus on rehabilitation of depleted tree-stocks to protect the various goods and services that forests provide. Today, the apparent link between climate change and sustainable forest management (SFM) vis-a-vis poverty alleviation has convinced national and regional governments to consider forest development in their programs. Ethiopia is either a

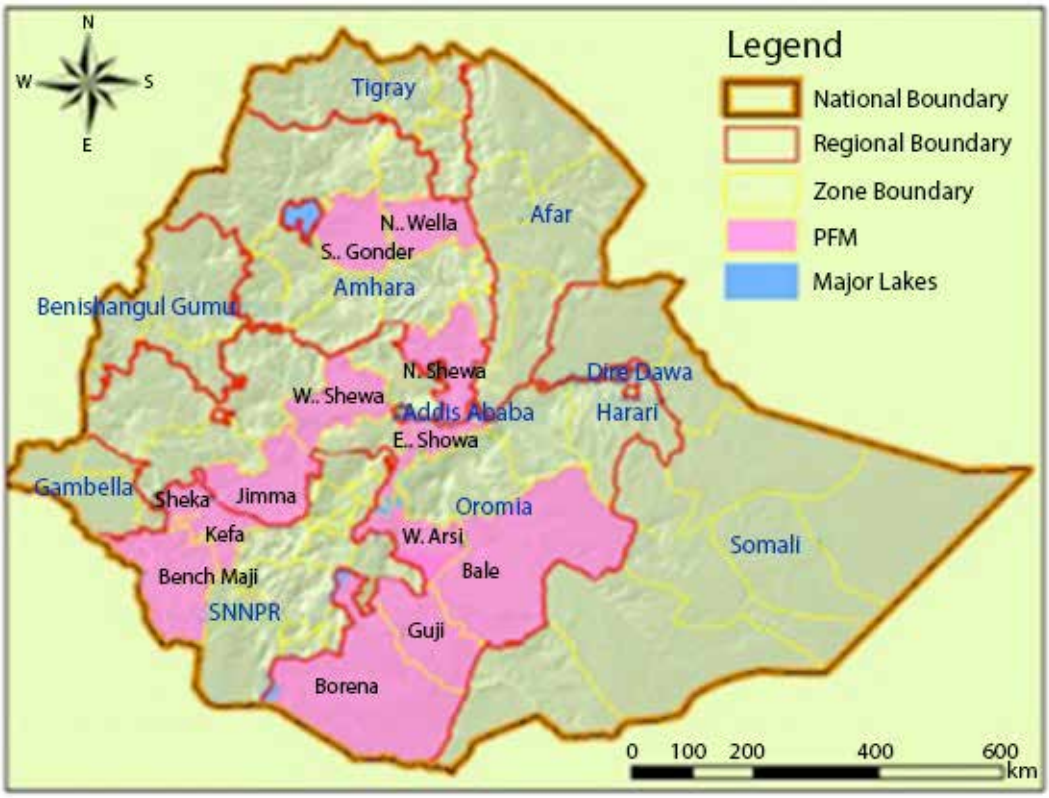

Figure 14. PFM areas in Ethiopia

Note: Benishangul Gumu = Benishangul-Gumuz, Gambella = Gabela.

Source: Winberg (2010)

party or a signatory to some 23 international and regional environmental conventions and agreements that are relevant to REDD+ activities. The country is also an active participant in the global climate change initiatives. Among the conventions, that the country ratified, those listed in Table 16 are the most relevant to REDD+.

In 2004, the Ethiopian EPA developed an implementation document for the three Conventions (UNFCCC, UNCBD and UNCCD). According to the National Action Program document, the realization of the international conventions failed partly because the EPA was not able to establish environmental databases and exchange information between the focal institutions. The problem was furthered by EPA's inability to create awareness on the objectives of the conventions among implementing agencies. The document also identifies lack of incentives and low capacity of executive bodies responsible for the implementation of the conventions. Low level of involvement by the regional states was also mentioned as one of the constraints in the document. As a result, such weaknesses, not only limited the implementation of the conventions, but also prevented the country from using earmarked international support for related projects.

Surveys in eight regional states were completed by REDD+ focal persons and showed a lack of awareness of existing international conventions and national legal frameworks[12] by the focal persons themselves. Most noted that they have some information about the international conventions but lack a deeper understanding of their contents and relevance to tackle the country's environmental problems. Lack of effective forestry institutions to deal with forestry issues at all levels and weak enforcement of the laws were identified as the biggest challenges for the sector, according to the REDD+ focal persons. Most also identified an absence of coordination among concerned government bodies within a region, as well as a lack of established working relations between the regional offices and federal bodies like MoEF.[13]

b) National legal frameworks. As already discussed, in spite of the 1991 change in government, property laws governing land and forests remained fundamentally the same. Nevertheless, the unitary state structure was replaced by decentralized administrative arrangements. Moreover, new policies, laws and regulations, and development programs[14]

Table 16. International and regional conventions ratified by Ethiopia.

Convention	Year	Responsible office
Convention on International Trade in Endangered Species of Wild Fauna and Flora	1973	Ethiopian Wildlife Conservation Authority
Convention on the Elimination of All Forms of Discrimination against Women	1979	Ministry for Women and Youth
United Nations Framework Convention for Climate Change (UNFCCC)	1992	Environment Protection Authority now MEF
United Nations Convention on Biological Diversity (UNCBD)	1992	Institute of Biodiversity Conservation
United Nations Convention to Combat Desertification (UNCCD)	1994	Ministry of Agriculture (MoA)
Convention for the Safeguarding of Intangible Cultural Heritage	2003	Ministr1y of Culture
Convention on the Protection and Promotion of the Diversity of Cultural Expressions	2005	Ministry of Culture

12 The current effort by the national REDD+ Secretariat to enhance the awareness level of the federal and regional officials and experts on the objective and purpose of REDD+ is encouraging. (See Chapter 4).

13 MEF was established recently after the absence of such a ministry for over two decades. Currently the national REDD+ Secretariat, which is under MoEF, is working to engage regions in its effort to implement its objectives.

14 Some of the national programs, policies and laws with direct impact on REDD+ performance include: CRGE (2011), GTP (2010), forest policy and law (2007), wildlife policy and law (2005), environment impact assessment law (2002), environmental policy (1997), energy policy (1994), rural land administration and land use law (2005) and women policy (1993). The 2002 environmental impact assessment proclamation is particularly important (FDRE 2002). It prohibits implementation of any project before its impact is assessed and approval is given by a concerned authority. Article 7 of the proclamation requires a proponent (government or private project initiator) to undertake an environmental impact assessment of his project by a professional and to fulfil the terms and conditions of approval during implementation of the project.

were introduced with the aim to enhance agricultural productivity and promote rapid economic development. These national policies and laws are having some influence on the management and use of forest resources with huge potential to enhance REDD+ performance in the country. The CRGE[15] strategy, which considers forestry as one of the four pillars to achieve green economy objectives, is an important opportunity in the fulfillment of REDD+ objectives.

The most relevant legal texts with direct impact on REDD+ performance are the 2007 forest policy and forest law documents. The forest policy is the first of its kind to be issued in the country. All previous forestry laws and regulations were issued in the absence of a prudently constructed forest policy with clear objectives and purpose. The current forest policy is explicit in its declarations of the importance of community participation. A statement in the policy delivers a set of incentives with the aim to encourage private investors to engage in forest production and industrial development. The proposed incentives include issuance of lease-free land and land tax exemption until trees mature for harvest, as well as provision of technical support. However, so far the forest policy and the associated forest law have brought little change, as they are not supported by a stable and efficient implementing agency with adequate financial support and the necessary human power. However, the establishment of a new MoEF and REDD+ Secretariat has, in the last 2 years, revitalized the implementation of the forest policy. It has now become necessary to revise the law and prepare forest regulations to respond to the requirements of REDD+ activities.

Interviews conducted with senior foresters in the country, and personal reflection concerning the major reasons for the lack of much needed progress and the problems of good forest governance, greatly correspond to what Rey et al. (2013) identified as shortfalls in institutional settings, legal frameworks and public participation.

The cornerstones of SFM include: (1) efficient and adequately financed forestry institutions equipped with prudently constructed forest policies and laws that are built on stable and fair tenure rights, and (2) genuine stakeholders' participation (particularly forest-dependent communities) in forest development decision-making processes. When the Ethiopian forest development and governance is examined in light of the above elements, the results appear vastly inadequate as briefly clarified below.

Legal framework. In the past 40 years, the country has issued six forest proclamations and three regulations, one after the other. Except for the latest proclamation – the 2007 forest law[16] (the implementation of which is yet to be seen) – none of those proclamations succeeded in improving the forestry situation in the country. The 1980 forest proclamation may have resulted in increasing state-owned forest plantations. What is still observed in Ethiopia, according to César and Ekbom (2013), is inadequate capacity in environmental management,[17] and poor law enforcement and monitoring to move toward a greener economy.

Forestry organization. From among Ethiopia's government agencies in the past half-century, there is no one organization that remained more unstable than that of forestry (Bekele 1992). Until June 2013, when MoEF was established, there had been no credible forest institution at the federal level for two decades. More recently,

15 CRGE (2010/11-2025) is a strategy developed by the Federal government to protect the country from the adverse effects of climate change and help realize its development goals through the building of a green economy. It aims to advance development through an environmentally sustainable and climate resilient economy that will be able to cope with, mitigate and avoid GHG emissions while achieving the country's ambitious growth targets to arrive at the level of middle income countries. The green economy plan is based on four pillars: (1) improving crop and livestock production practices for higher food security and farmer income while reducing emissions; (2) protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks; (3) expanding electricity generation from renewable sources of energy for domestic and regional markets; and (4) leapfrogging to modern and energy-efficient technologies in transport, industrial sectors and buildings. The implementation is to be led by the Prime Minister office itself having asteering committee at ministerial level. Since May 2013 the newly constituted MoEF has taken a leading role with the REDD+ Secretariat under it.

16 Seven years after the production of the forest policy and law (2007), there is still no regulation prepared to facilitate its implementation.

17 Due to reduced activities for over a decade or more after the 1991 change of government, many foresters shifted their professional orientation from forestry proper. Many field level foresters employed by the Ministry of Agriculture and Rural Development were routinely engaged in non-forestry activities for many years.

some regional forestry organizations have been re-organizing themselves. However, the sizable gaps in the legal frameworks, organizational capacity[18] and financial commitment by the government to the sector are obvious. According to the African Development Bank (2012), lack of competence in environmental management and enforcement are other serious challenges in the country. The same source indicates that there is a shortage of trained human power in key sectors, such as pollution control, and monitoring, reporting and verification of abatement measures.

Forest tenure. Since 1975 all natural and large plantation forests have remained under state ownership. Communities remain alienated from forests that they have been using for centuries. As Counsell (2009, 23) notes, while states claim forest ownership rights, almost nowhere in Africa do governments have the capacity to exercise any real control over the forest resource. Such inaction will always lead to an open access situation. In Ethiopia, in spite of state constitutional and legal title over the country's forests, de facto 'ownership' seems more efficient than the de jure claim by the state.

Public participation. Most forest and related legal frameworks that came after 1991 have well recognized the importance of community participation. All documents acknowledged public/stakeholder participation in the management of resources as a warrant for sustainable management. In some cases the proclamations even made the consideration of community interests mandatory in any forest projects. However, they all lack clear operational guidelines on how to involve communities to participate. In practice, participatory approaches in forest management remain confined only to a few NGOs working on PFM. Even, in the NGO undertakings, participation falls far short of a required standard due to marked reservation by district officials and foresters themselves of communities' capacity to fully own or manage forests (field observation, 2013).

2.1.4 Forest governance in areas under high threat of deforestation

Areas under high threat of deforestation are those places with relatively low population density, but relatively better forest and woodland covers, and where people's livelihoods mainly depend on either livestock herding, or forest products and shifting cultivation. These areas include the humid lowland forests of Gambela, the dry woodlands of Benishangul-Gumuz, SNNPR, Afar, Amhara and Oromia. A number of biophysical and socioeconomic studies (e.g. Abiyu et al. 2010; Bongers and Tennigkeit 2010; Mengistu 2011; Woldamanual 2011) show that the lowland forests and woodlands of Ethiopia are being turned into competing grounds for big global capitals, national investors, encroaching farmers, charcoal makers and state-initiated settlers.[19] In response to the above pressure, local communities are turning to individualize the commons. These areas are typical examples in Ethiopia where de jure claim by the state and de facto possession by local communities are manifested. As a consequence, the ecosystems are subject to deforestation, fragmentation and degradation.

Apparently, the four largest investment sectors since 2006 have been flori-horticulture, food, meat and biofuels. The procedure of land lease follows that investors identify land they want to lease and apply to the federal MoA. The Ministry sends the investor with an approval letter to the region where the land is located, and the region then passes the land to the investor through the *woreda* administration.[20]

According to Cotula et al. (2009), in the Gambela region for example, community elders use to participate in negotiations concerning land deals. This was, however, abandoned after 2009 when the federal government assumed the duty of approving land leases bigger than 5000 ha. As land leasing intensified, the federal government created a "land

18 The establishment of MoEF has produced high optimism among foresters, although its future has yet to be weighed in its performance.

19 Since the 1950s different governments of Ethiopia have been trying to resettle landless people and those farmers with unproductive lands in the highlands to more fertile areas of the country. In the 1980s, resettlements were done forcefully. In recent times the government resettlement has been on a voluntary basis.

20 There are rumors that land leases are accompanied with corruption but there is little evidence to substantiate such accusations.

bank". The regions 'transferred' over 3.6 million ha of land to the land bank, of which only the federal government is responsible for its allocation. By 2010 the country had leased over 2.8 million ha of land to national and international investors[21] (Friis and Reenberg 2010).

The federal expropriation law permits compensation, not for the land as such, as the land belongs to the State, but for property situated on the land and for permanent improvements made to the land. Since 2005/6 farmers are being certified. The law becomes problematic in its application in the case of pastoralists or other non-farming or forest-dependent communities who have made little 'permanent improvement' on the land and do not have a holding certificate to show to claim compensation (Bekele and Kassa 2014).

Commercial logging is limited to small-scale pit-sawing by poor farmers and landless rural youth who in many cases are 'employed' by townsmen with a long practice of smuggling lumber to big wood markets in Addis Ababa. It is believed that felling trees using crude hand tools and turning them into lumber (pit-sawing) is a slow activity with no big impact on forest resources. Yet, the haphazard nature and long history of the activity suggests that it must have some long-term effects. The other illegal activity carried out by poor landless youth is charcoal making. With little regulatory provision of the charcoal industry and the absence of any public body to regulate the industry (Bekele and Girmay 2013), over 42,000 sacks of charcoal (weighing between 35–50 kg each) enter Addis Ababa each day from the dry woodlands of the Afar and Oromia regions.

21 At the **national level**, although the discourse is dominated by growth economics, it is obvious that the social and political exigencies to satisfy society through impressive economic growth are the dominant driving force. At the **international level**, investment is driven by little environmental control, inexpensive land lease, cheap labor, less bureaucratic procedure to lease land, tax incentives, etc. One can easily observe the congruency between the national cry for investment and the global readiness to do so once conditions are fulfilled. The interest of the **local agents,** who in different ways have carved out individual holdings, rest in the expansion and legalization of possessions. The local community members who have clearly observed the events (huge land lease by external agents) that are taking place in their areas have entered the land race – they enclose common lands, the process of which will eventually lead to the individualization of the commons (Bekele and Kassa 2014).

2.1.5 Implications for REDD+ performance

REDD+ works only in the context of prudently constructed forest policies and legal frameworks with stable forest property-rights regimes and efficient organization. Governance, and the related enforcement of rules, is a prerequisite for effective REDD+ strategies (Kanninen et al. 2007). In Ethiopia, the scale of forest degradation indicates the government's reluctance to enforce equitable forest tenure and build institutional capacities that help to ensure the protection and sustainable management of its forest resources (USAID 2008). However, recently there has been a resurgence of improved practical direction to reinforce the forestry sector. This can be seen in:

- the establishment of MoEF
- ongoing revision of the forest laws and regulations along with the construction of national forest strategy
- the establishment of the REDD+ Secretariat and active participation in global climate change issues
- growing government adoption of PFM approaches
- adoption of a CRGE strategy prioritizing forestry as one of the four pillars to build a green economy.

In the context of REDD+, these policy initiatives could have significant positive impacts. In particular, given the growing support for PFM, it has the potential to rehabilitate degraded forests, control deforestation, create fair and equitable benefit among stakeholders, and most importantly, empower communities. What is more, it can serve as a foundation for future implementation and success of REDD+ in the country.

Despite positive moves to support the forestry sector, whether the government considers areas with high deforestation risk to be the focus of REDD+, is unclear. An assessment by Angelsen et al. (2012) shows that in the case of Brazil and Indonesia, REDD+ projects are more likely to be created in high deforestation areas. However, although experts in Ethiopia are considering areas of high deforestation, it is unlikely that those areas will be prioritized in the near future, for fear of interrupting agricultural investments.

2.2 Decentralized forest governance and benefit-sharing

2.2.1 General

Decentralized resource administration has become a common approach of improved governance among many countries around the world. Already, at the close of the last century, more than 80% of all developing countries and countries with economies in transition were experimenting with some form of decentralization (Manor 1997). Larson and Soto (2008) also noted that decentralization of natural resources became increasingly acceptable following the end of colonial and dictatorial rules in Africa and Latin America respectively. Governments have come to recognize the advantages of local peoples' participation,[22] particularly in the management of forests. These include less management cost for governments and more equitable wealth distribution in society. This section presents the legal frameworks that constitute Ethiopia's decentralization exercise and examine its adequacy to serve REDD+ objectives.

2.2.2 Decentralization in Ethiopia

In 1974/75 the country jumped from a quasi-feudal system to a military dictatorship with socialist orientation, both organized in a firmly unitary state structure. Then, after the 1995 Constitution was adopted, a completely contrasting government structure based on ethnic federalism was created. Each of the systems has distinct understanding and explanation of legitimacy, and unique ways of organizing the functions and structure of government, as well as contrasting economic policies. Although, the government structure has five levels: federal, regional, zonal, *woreda* (district), and *kebele* (neighborhood), major power is exercised at regional and *woreda* levels.

Regional states. The 1995 Constitution of the Federal Democratic Republic of Ethiopia (FDRE) divided the country into nine regional states, where each region was constitutionally provided with rights to self-determination, including and up to secession (FDRE 1995, Article 39). The regions have administrative zones, *woredas* and *kebeles*. The Constitution provided regional governments with power to establish state administration that best fits their specificities, pass and execute state policies, laws and strategies, administer land and natural resources, levy and collect taxes reserved to the State, and enact and enforce laws on state civil service. Although, Article 52 sub-article 4 of the Constitution requires regions to follow the federal laws in the administration of land and natural resources, including forests, they can pass laws and regulations specific to their conditions without overriding federal laws. The regions also have considerable fiscal authority, both in expenditure responsibility and revenue collection powers (Dickovick and Gebre-Egziabher 2010).

***Woreda* power.** The *Woreda* Level Decentralization Program (DLDP) was issued in 2002 and claims to have the intention to bring decision-making power on local affairs closer to the people. This is with a view to enhance democratic participation and capacity to make development plans and administer finances (Tewfik 2010). Officially, the *woreda* makes its own development program and sends it to the region for approval. It then receives block grants from the region and allocates the funds as it sees appropriate. In practice, however, the autonomy (for planning local development) is entangled by instructions from higher authority such that most development plans are made and sent as a quota to the *woredas. Kebeles* are the lowest units of administration in the government structure and are instrumental in implementing *woreda* development programs. *Kebeles* get their budget from the *woredas*. They have social courts, which address less serious, non-criminal cases.

Beside the Federal Constitution and other administrative proclamations that determined the structure and contents of decentralization in the country, there are also other sectoral policies and laws referring to particular resources, such as land, forest, wildlife, biodiversity, etc., that provide communities with rights and benefits (see Section 2.3). Regardless of the enormous challenges discussed earlier related to institutional and legal

22 On the other hand, a study by Korhonen-Kurki et al. (2014) indicates that countries with centralized and relatively authoritarian systems, or those that have strong national leadership over the process, did not need to follow a participatory process to establish the basis for REDD+. Ethiopia had such an experience during the Military regime between 1974-91. However, its fall in 1991 resulted in the destruction of nearly half of the forestry projects established during this period. For such a system to be successful, it likely needs to hold power for a long period of time.

frameworks, and community participation to implement effective decentralized forest governance in Ethiopia, emerging experiences indicate the potential of community-based forest management projects for successful implementation of the REDD+ objectives.

The Bale Mountains Eco-region REDD+ Project, the Clean Development Mechanism (CDM) Humbo Ethiopia Assisted Natural Regeneration Project, and the Sustainable Land Management Program (SLMP)[23] are important practical examples of the significant value of decentralized resource administration, despite its limitations in many aspects.

Bale Mountains Eco-region REDD+ Project. This project (funded by Norway through the World Bank) is located in Oromia regional state and is the largest REDD+ pilot project in the country to date. The program was initiated by Farm Africa and SoS Sahel to organize PFM in the Bale eco-region and help local communities sustainably manage forests. REDD+ payments are envisaged to help establish additional incentive to communities, and ensure forests and income sustainability. The project covers about half a million ha and is intended to run for 20 years during which it is estimated to bring 18 million tCO_2 in emissions reductions. If realized according to plan, the project will generate lessons on REDD+ implementation and carbon benefit sharing for the entire country.

The Humbo Ethiopia Assisted Natural Regeneration Project. In 2005 World Vision initiated the afforestation/reforestation project over 2700 ha of highly degraded lands in SNNPR. The project seeks to re-establish biodiversity, reduce soil erosion, stabilize water supply and thus create economic opportunities to communities who are organized under seven cooperatives with legal ownership over the rehabilitated lands. The project was identified and validated as an afforestation/reforestation project under the CDM in 2009. Today, besides its environmental benefits, the project has become an alternative income source to villagers through sustainable harvesting of forest resources and non-timber forest products (NTFPs) mainly for domestic use Moreover, carbon revenues (World Bank's BioCarbon Fund) from the project are being invested for local infrastructure development and food security activities through a participatory approach as per the needs of the entire community.

Sustainable Land Management Program 2008-13.[24] The first phase of the project included: integrated watershed and landscape management; institutional strengthening, capacity development and knowledge generation and management; and rural land administration and certification. The project achieved remarkable progress in targeting degraded areas, which had previously proved uneconomical and unproductive. Implemented across 45 critical watersheds in six separate regions, the program identified and designed appropriate interventions for degradation factors and impacts, and benefitted a total of 98,000 rural households. The most impressive achievement has been the work done on land registration and certification – millions of people received a holding certificate resulting in improved tenure security on farmlands. The program will soon start its second 5-year phase with a cadastral survey.

2.2.3 Benefit sharing

Ethiopia is in the second phase of its R-PP implementation but has not yet developed a formal benefit-sharing mechanism in the REDD+ process. The country's only experience of benefit sharing is that of the PFM model, which can be summarized under three categories:

1. **Economic/livelihood benefits.** To determine the level of benefit to members, first, foresters determine the extraction capacity of the forest. Then a committee elected by members generates a proposal specifying the allocation of resources to each household and the conditions of access. The committee's proposal is then endorsed by a general assembly. In many cases, this process results in a reduction of wood extraction per household.[25] Before PFM is organized, the forest is used like an open access resource; after PFM, extraction of

23 All three pilot projects and the SLMP are serving as testing ground for future up-scaling to realize the REDD+ objectives are all externally financed.

24 For details, see:http://slmethiopia.info.et/

25 To help households fill the income gap created byreduced access to forest resources, NGOs often build a livelihood diversification mechanism by establishing saving and credit schemes or community development fund.

products from the forest, especially timber and fuel wood in the form of charcoal, are significantly reduced. This subsequently affects the income level of each household. Depending on the type and nature of the forest under PFM, the process of resource extraction and benefit sharing varies as follows:

a. In the southwest forests, where many people are dependent on natural resources for their livelihood, benefit arrangements are similar to rights over NTFPs such as bee-hiving, and collection of coffee and spices. When a member requests timber, he/she first applies to the PFM committee. If approved, final permission is then sought from the district agricultural offices. In some areas such as Bale, where communities are organized under PFM, members use naturally fallen trees for timber and share the benefit with the forest enterprise owned by the regional government. The money from the timber sale is divided between the community (70%) and the government (30%).
b. In areas where there are plantation forests (e.g. Chilimo PFM site), income is much better and benefits are shared as in (a) above. The regional government claims 30% of the share to recover the establishment cost of the plantation.
c. Benefit sharing from trophy hunting[26] involves the federal, regional and district bodies, and the organized community by sharing among themselves the income from hunting.

2. Environmental benefits. The total area of forest under PFM in Ethiopia has grown to over 1 million ha. Most evaluations of PFM pilot projects in the country conclude that the approach shows potential to rehabilitate degraded forest landscapes and reduce deforestation (Limenih and Bekele 2008; Gobeze et al. 2009; Amha 2011). And indeed, forests under PFM are slowly coming out of the long-standing open-access situation and more of their trees are regenerating, especially in areas where grazing is restricted. The significant reduction in deforestation and forest degradation, and the growing sense of ownership among members have persuaded many to look to the future potential of the forest rather than simply to the immediate income they can extract.

3. Social benefits. In some cases PFM has served as a social redeemer for communities who until then were denied their age-old customary rights. For example, people of the Menja minority tend to be completely dependent on forests for their livelihoods. However, social segregation was such that, among other things, people who were non-Menja would not buy anything produced by a Menja except firewood. PFM served as a social redeemer, empowering the Menja communities to voice their opinions and contribute to decision making (Bekele and Bekele 2005; Limenih and Bekele 2008). Other disadvantaged social groups such as women have also been supported through PFM to build self-reliance and confidence, and improve and increase decision making related to their livelihoods and rights.

2.2.4 Implications for REDD+

One of the results of decentralization in Ethiopia has been the establishment of community-based forests, or PFM. The potential contribution of PFM to the implementation of REDD+ seems attractive, even from the limited Ethiopian experience. Viana et al. (2012), writing on the experience of community forests in Brazil, noted that PFM helps to address the root causes of deforestation and degradation, and therefore contributes to reducing emissions. However, the author also identifies key elements for successful community forestry including: effective decentralized forest management, clear tenure over land and forests, improved technical and administrative capacity and clarification of benefit-sharing mechanisms.

Viana et al. (2012) also hinted that establishment of community-based forests in areas where deforestation is high can be a key strategy to tackle deforestation. This is evident in southwest Ethiopia where communities organized under PFM are challenging the expansion of tea and coffee plantations. Nevertheless, Ribot (2010) identifies two impediments to decentralized forest administration in sub-Saharan Africa: the first is the failure of central governments to create local administrations that are empowered and

26 Trophy hunting is the selective hunting of wildanimals where parts of the animal are kept as a trophy.

accountable to the local population, and the second is the failure of line ministries to work with local governments, even when they are legally established and made responsible. As Koch (2004) rightly noted, community-based natural resource management and associated use rights profoundly rely on the apparent willingness of governments to make the necessary legal and institutional instruments. Even when a policy is put in place, it often faces tough bureaucratic entanglement and may fail before it reaches any maturity.

With respect to the above challenges to PFM in Ethiopia, in-depth interviews with field experts and administrators, and personal observations in southwest Ethiopia revealed considerable reservation on the part of local administrators, and even professional foresters, to transfer additional decision-making powers to communities organized under PFM. The foresters often argued that communities do not have adequate technical and administrative capacity to assume more power and responsibility than they have now. Foresters' resistance partly rests in the genuine concern of mishandling of forests by communities. District officials also mention similar concerns in their argument; however, their reluctance toward full transfer of forest rights might come from a different angle. That is, forests and forestlands are becoming lucrative sources of rent for local officials. As the only 'open' land in rural Ethiopia, forestlands attract agricultural investors and small-scale farmers who secure land through different mechanisms.

2.3 Customary rights and international and national legal frameworks

2.3.1 Customary rights

Customary land rights govern/regulate traditional holdings (Qoricho 2011). Their legitimacy is rooted in the social values and traditions of local ethnic groups (Kane et al. 2005). Customary tenure rights reflect the accepted practices and norms of a society in traditionally acquiring, using and distributing its land (Falloux 1989). The systems do not consider land as a commodity that can be traded for personal gain (de Soto 1993).

Although these customary rights have long histories of effectively managing and conserving land resources in many African countries, including Ethiopia, they are currently being undermined and replaced by formal state institutions. According to Wily (2010), laws that countries have produced do not recognize customary rights over land and forests, for example: Ethiopia (1994), Eritrea (1997), Somalia (1975), Rwanda (2005), Burundi (1986) and Mauritania (2004). On the other hand, countries such as Sierra Leone clearly recognize customary laws as part of the country's common laws (Kane et al. 2005, 5). Rakai and Williamson (1995) divided customary rights over land into two categories: (1) formal customary land tenures – referring to those officially sanctioned by state laws and regulations, and (2) informal customary rights – those without formal recognition but used under collective ownership.

2.3.2 International conventions on customary rights

A number of international human rights treaties were enshrined to protect local peoples' cultural, economic and resource-use rights. The most prominent of these include: the International Labour Organization's Indigenous and Tribal Peoples Convention No. 169, adopted in June 1989, and the UN Declaration on the Rights of Indigenous Peoples adopted by the General Assembly in September 2007. The African Charter on Human and Peoples' Rights is another document that declares elimination of discrimination against women (Article 18, sub-article 3) and protects people's rights over their wealth and natural resources (Article 21, sub-articles 1 and 2). However, Ethiopia is not a signatory to the Declaration on the Rights of Indigenous Peoples and was also absent, along with 35 other countries, during the voting on the Declaration and the Indigenous and Tribal Peoples' Convention**.** As a member of the African Union, the country is, however, a party to the African Charter on Human and Peoples' Rights. As the implementation of these international agreements is dependent on the willingness of nation-states to adopt them in their respective legal systems, the international community has little leverage for their ratification and implementation by independent states.

2.3.3 National legal frameworks and community rights

Some of the national legal documents, including the FDRE Constitution of 1995 (FDRE 1995), provide recognition to customary rights to the extent of ensuring security of tenure to holders. However, many practical cases have highlighted the conflict between laws, where the lower law refutes what is provided in the Constitution.

1. **The FDRE Constitution of 1995.** Article 40, sub-articles 4 and 5 declare: "Ethiopian peasants have right to obtain land without payment and the protection against eviction from their possession" (FDRE 1995, 14). Similarly, sub-article 5 states: "Ethiopian pastoralists have the right to free land for grazing and cultivation as well as the right not to be displaced from their own lands" (FDRE 1995, 14). However, again its enforcement lacks specific law. Article 43, sub-article 2 of the constitution states: "Nationals have the right to participate in national development and be consulted with respect to policies and projects affecting their community" (FDRE 1995, 16). But in practice, participation is insufficient, if at all.
2. **Land Administration and Land Use Proclamation No. 456/2005.** The constitutionally accepted customary land rights mentioned above are not recognized in Proclamation No. 456 (FDRE 2005b). To the contrary, the Proclamation undermines the constitutional prerogative given to common property holders. Article 5, sub-article 3 of the same proclamation reads: "Government being the owner of rural land, communal rural land holdings can be changed to private holdings as may be necessary." Proclamation No. 456 establishes cadastral mapping and certification of land, and provided no time limit for rural land holding rights of farmers. Although, it allows the transfer of use rights through inheritance to family members, and also leasing of land to investors for a limited period of time, the law commonly applies to farmers engaged in agricultural crop production but not to pastoralists or forest dependent communities.
3. **Land registration and certification program.** Proclamation No. 456 provides farmers with perpetual use rights on their agricultural holdings, and this right is being strengthened by issuing certificates and maintaining registers. The program: provides non-alienable use-right certificates, rather than full titles; promotes gender equity, with joint land ownership by spouses; and enables a cost effective, participatory process for land registration. It also allows holders to transfer or rent land, and receive compensation for the property in case of expropriation, the practicality of the latter is, however, often inadequate.
4. **Expropriation of Landholdings for Public Purposes and Payment of Compensation Law No. 455/2005**. This law (FDRE 2005a) gives power to district authorities to seize rural or urban holdings for public purposes; this includes land to be leased to investors. The law permits compensation, not for the land as such, as the land belongs to the state, but for property situated on the land and for permanent improvements made to the land. The law again becomes problematic in its implementation in the case of forest dwellers, pastoralists or other non-farming communities under customary practices, as they hold no certificate to claim compensation.
5. **The wildlife policy and legislation of 2005.** This legislation emphasizes the need for rehabilitating and conserving resources in the wildlife sector to enhance its contribution to the economy in general and support the livelihood of surrounding communities. Proclamation no 482/2006 deals with access to genetic resources, community knowledge and protection of community rights with the objective to ensure benefit to the country and communities arising from genetic resources. The document details access rights, obligations, and types of benefit and benefit-sharing principles.
6. **The 2007 forest policy.** Ethiopia's 2007 forest policy formalizes the participation and benefit sharing of local communities in the

development and conservation of state forests. This is the first indicator of the government's interest in PFM, a strategy that so far has been conducted by NGOs without formal adequate legal backing from the federal government. The law also extends to protecting the interests of communities stating, "where the designation and demarcation of a state forest results in the eviction of the local community, priority shall be given to the protection of the interests of the community in accordance to land administration laws."

2.4 The argument over community rights

The current government policy of economic growth and transformation that aims to bring the country to the level of middle income countries by 2025 (GTP, 2010/11-2015) appears to have been caught between two seemingly conflicting trails: the need to bring fast and sustainable growth mainly by increasing agricultural production, and the necessity of protecting the land rights and interests of local communities. The conflict rests with the manner capitalism works and the social issues of equity and fairness, which are seldom the maxim of capitalist economics.

The informal institutions that gradually evolved through village life and are based on the values of impartiality and fair distribution of resources, could not defy the new global and national forces that came with the more dynamic economic drive of profit making. Added to this strongly emerging phenomenon, the country's long tradition of statehood has meant many villagers have long lost their customary rights over land. As a result, the Ethiopian government has been criticized for putting aside the interest of local communities when it leased away lands to foreign investors; lands upon which local people depend for their livelihood. The government is being condemned by international human rights organizations for forcefully evicting local communities from their ancestral lands, disrupting their livelihoods and social institutions (HRW 2012).

The government, on the other hand, denies giving away land to investors and thereby dislocating farmers from their farmland. It explains that lands leased to investors are vacant or unoccupied. Such lands, the government argues, must be used to help the economy grow and create job opportunities, produce raw materials for industries, enable the country to be food self sufficient, and generate or save much needed foreign currency by exporting agricultural products produced by big farms**,** etc.

Most criticism comes from human rights advocates outside of Ethiopia, such as Human Rights Watch. In some cases, the local human rights association voices its concern over displacement of local communities due to land lease for large-scale agriculture. The functions of civil organizations related to local community rights in the country seem to be restricted by Charities and Societies Proclamation No. 621, 2009. The law limits international NGOs from working in areas related to human rights, for example, the rights of children and women as well as lobbying for equality.

2.5 Who shall have rights over carbon?

To date, only a few countries have passed national laws that govern tenure rights over carbon. An assessment by Almeida et al. (2014) shows that of the 23 countries examined, covering some 66 % of forests in developing countries, only Mexico and Guatemala have passed national legislation defining tenure rights over carbon. Ethiopia has not yet developed a (legal) benefit-sharing mechanism from carbon gain,[27] even though it has entered the second phase of its R-PP, and the REDD+ pilot project (Bale) is in its final stage. The R-PP, which was approved in October 2012 and entered the implementation phase in January 2013, has however accepted the principles of benefit sharing equally among all relevant rights holders and stakeholders. The remaining task is to define or identify who the stakeholders are, what share each should receive and how. These questions have not been openly discussed among the concerned offices (personal communication with government official,

27 The CRGE Facility is a financial mechanism designed to support the implementation of the CRGE Strategy, which includes the REDD+ Program. Overseen by the Ministry Of Finance and Economic Development (MoFED), the facility is responsible for sourcing domestic and international sources of funding for the CRGE Strategy implementation. The facility is also in charge of managing results-based payments such as REDD+-project generated carbon credits.

2013). However, regional states such as Oromia (the region with the largest forest area and with the Bale REDD+ pilot project) would like to see communities benefit the most. This idea does not appear to be shared by the concerned federal offices, however. As noted by Luttrell et al. (2013), the government has to recognize that benefit sharing is an integral part of REDD+ and that dealing with this question at an early stage will avoid delays in the process.

2.6 Implications for REDD+ performance

The REDD+ safeguards take a clear stance on local communities' rights and the protection of their indigenous knowledge and institutions. In keeping with these, Ethiopia's R-PP recognizes community rights to forest resources, including customary claims by forest dependent people, and the need to improve the livelihood security of forest-dependent communities, with special attention to vulnerable and marginalized groups. In this regard, the R-PP document states Ethiopia's commitment to the REDD+ safeguards.[28]

Nevertheless, the government is expected to introduce a number of institutional and legal reforms to address longstanding policy that disfavors customary rights.[29] Furthermore, the economic rationale to employ what is thought to be 'open' land to more 'productive' commercial investment should not be used to justify seizure of customary holdings. The perception that forestland is reserve agricultural land, especially among high-level decision makers in the country, needs to change. If economic development necessitates expropriations, a regulation that governs such measures through proper compensation should be put in place.

28 The seven Cancun REDD+ safeguards are: (1) actions complement or are consistent with the objectives of national forest programs and relevant international conventions and agreements; (2) transparent and effective national forest governance structures, taking into account national legislation and sovereignty; (3) respect for the knowledge and rights of indigenous peoples and members of local communities; (4) full and effective participation of relevant stakeholders, including, in particular, indigenous peoples and local communities; (5) actions that are consistent with the conservation of natural forests and biological diversity; (6) actions to address the risks of reversals; and (7) actions to reduce displacement of emissions.

29 The 2007 forest law is under revision to accommodate REDD+ issues and PFM legal requirements.

3 The political economy of deforestation and forest degradation

3.1 General background

As discussed in Chapter 1, deforestation and forest degradation have a long history in Ethiopia, particularly in northern parts of the country (Pankhurst 1992). In the late 19th century, about 30% was said to be covered with forest whereas now, forest cover has significantly dwindled. The rate of deforestation is reported to be fast. For example, using observations, satellite image and map analyses, interviews, and literature studies, Dessie and Christianson (2008) estimated that the forest area of the Hawassa watershed in the south-central Rift Valley region declined from about 40% at the turn of the 19th century to less than 3% in the year 2000.

The process of deforestation and forest degradation operates within the framework of national political and economic policies and undertakings. Thus, this section looks at the political and economic policies, incentives and trends in deforestation and forest degradation at national level and gives an indication of the opportunities and constraints for national REDD+ implementation.

3.2 Overview of Ethiopia's political systems in the recent past

Ownership, access and management of forest resources are embedded in the property rights envisaged by the political system and the ideology it is based on. In its recent history, Ethiopia has experienced three major political systems/regimes with their own distinct ideologies and socioeconomic policies. These are the imperial regime (Pre-1974), the Derg (military) regime (1974–91) and the federal regime (post-1991). The imperial period was characterized by highly centralized monarchical rule in which the Emperor enjoyed absolute power with divine claim. Although the system was basically feudal in nature, 'modernization' of the country was initiated and maintained in many areas such as education, infrastructure, army and government administration. It also saw the beginning of capitalism and private ownership of land (including forestland). However, the country's production and technology sector suffered from turbulent agrarian relations. That, political oppression, lack of socioeconomic development, and the humanitarian crisis caused by severe drought and famine led to a popular uprising that overthrew the monarchical rule in 1974.

Soon after, however, a military junta commonly known as the Derg seized power. While remaining centralized in nature, the Derg period saw a radical change in the political system as socialism became the state ideology. Almost all means of production, including rural land, were nationalized and any form of private ownership of property was discouraged. The state became the sole planner and implementer of national development endeavors. The various, often rigid, political, economic and social policies that the Derg adopted created many opposition groups in different parts of the country and, ultimately, it was deposed by the Ethiopian People's Revolutionary Democratic Front (EPRDF) in May 1991.

The EPRDF-led government introduced many political and economic changes as well. Two of the most fundamental changes were the introduction of an ethnic/linguistic-based federal political system in which political power is divided/negotiated between the federal and regional states, and the liberalization of markets, including introduction of a market-oriented economic system. Accordingly, ethnicity became the primary means of political organization and new regional states were organized along ethnic/linguistic lines with many constitutional rights

including succession. In the economic realm, the former state-led economic policy was replaced by a market-oriented economic policy. With the liberalization of the economy, many state-owned enterprises, including huge state farms, were privatized and the private sector is expected to play a greater role in the national economy.

3.3 History of land tenure

Land tenure defines rights and obligations in relation to land and related resources. In Ethiopia, the tenure systems underwent significant changes in the different political periods. In fact, the changes significantly affected the process of deforestation and forest degradation by providing incentives and rights associated with forestlands.

In pre-1975, there were different, often complex, types of land tenure systems in different parts of the country. However, two major types of systems – *rist* and *gebbar* – prevailed in the northern and southern parts of the country, respectively.[30] There were also large tracts of land held by the Ethiopian Orthodox Church, known as *semon* land (church land). Private ownership of land was introduced and expanded, particularly during the post World War II period when land grants were made to different groups including the nobility, notables and local chiefs (*balabat*). The privatization of land brought large tracts of natural forest, mainly in the southern parts of the country, under individuals' control with a right to sale, mortgage and exchange (Hoben 1973; Rahmato 1984). This facilitated the conversion of forestland to farmland and timber production from private forests.

Following its ascent to power, the Derg introduced one of the most radical changes in tenure laws: all rural land was nationalized and any form of private ownership of land was abolished. With this, the old agrarian relationship, in which the landlord extracted surplus from the peasantry, was abolished. However, the State emerged as the sole controller of rural land in the name of the public, and farmers were given only use rights. Big forest reserve areas were also under the control and management of the state (Rahmato 1984).

No fundamental change has been introduced in the land tenure system since the Derg period. Rural land remains under state control and farmers only have use rights, though some modifications have been made in defining the extent of the use and transfer rights. Regional states have also been given the power to have their own laws and legislations on land administration. The state ownership of rural land and the legal power of the State to dispossess farmers of their farmland was strongly criticized for creating a sense of tenure insecurity, which, in turn, discouraged farmers from investing their labor and money to maintain soil productivity. Partly as a response to the criticism and to enhance farmers' willingness to invest on their farmlands, the government introduced a land registration and certification program. Although there are different opinions on the motivations behind the program and its economic impact, there is some tangible evidence that it has had a positive impact on farmers' willingness to invest in land, including by planting trees. (Holden 2008; Deininger et al. 2009)

3.4 National development policies and implications

National and sectoral development strategies often affect the process of deforestation and forest degradation by providing incentives or disincentives. The impacts of such policies and strategies can be both direct, through setting forest policies, legislation and use directives, and indirect, through social and economic policies and practices in other sectors that affect forest resources. Likewise, in Ethiopia, forests are affected by the broader national development policies and strategies that the State has adopted at different times. Although the ideological underpinnings of the three regimes vary significantly in nature, their national development policies and strategies have some commonality in that all were designed around the development of the agricultural sector (Rahmato 2009). This is understandable as the sector accounts, for example, for 46% of gross domestic product (GDP) and 85% of total employment in 2014.

30 Under the *Rist* system, land was communally held by descent groups and individuals' access was determined by their membership with the land holding group. Under the *gebbar* system, which was more widespread in the southern parts of the country, ownership was granted in a form of freehold tenure, and local people typically became tenants (*gebbar)* from whom landlords extracted surplus (Hoben 1973; Dessalegn 1984).

During the imperial period (1950–74), national economic development was sought primarily through 'modernizing' the agriculture sector using private capital. While the three Five Year Plans (1957–62, 1963–67 and 1968–73) designed to lead national development put major emphasis on infrastructure development in general, the agricultural sector was given significant attention, particularly in the last two plans. To encourage people interested in engaging in commercial farms, the State offered incentives such as easy access to land and tax holidays. In terms of an economic system, the imperial period followed a free market economy – though in a very infant stage – based on private ownership of property (Rahmato 2009).

The Derg, on the other hand, opted for socialism as a state ideology, and followed a socialist path of development. The state played a central role in planning and implementing development initiatives at all levels and the private sector was denied a role in any national development endeavors. The highly centralized state-led development policy, coupled with the political dictatorship, failed to mobilize the public and accomplish significant socioeconomic achievements during the Derg period.

The post-1991 period saw almost a radical change in national development approach. The government adopted a market economy in the national development policy and strategies, but retained significant involvement. Different development strategies and plans have been introduced since then to support the change. Some of the most important of these are discussed below.

3.4.1 The Agricultural Development Led Industrialization

The Agricultural Development Led Industrialization (ADLI) is a development strategy that was adopted by the government in 1994. Its main goal was to achieve fast and broad-based development particularly in the agricultural sector, and make the agriculture sector a springboard for the development of other sectors. ADLI has been a base for subsequent development programs and plans such as the Poverty Reduction Strategy Program, the PASDEP, the GTP and the newly adopted CRGE strategy. Through these programs and plans, the government claims to have achieved sustainable economic growth in the past two decades.

3.4.2 Growth and Transformation Plan (2010/11–2014/15)

The GTP is a national development plan that is currently being implemented. It is a continuation of the previous five year plan – the PASDEP – and geared toward achieving the Millennium Development Goals (MDGs) in the year 2015.

> "The GTP has the following major objectives:
> 1. Maintain at least an average real GDP growth rate of 11% and attain MDGs;
> 2. Expand and ensure the qualities of education and health services and achieve MDGs in the social sector;
> 3. Establish suitable conditions for sustainable nation building through the creation of a stable democratic and developmental state; and
> 4. Ensure the sustainability of growth by realizing all the above objectives within a stable macroeconomic framework."
>
> (FDRE 2010, 22)

The Plan strives to attain sustainable economic growth (between 11.2%–14.9% per year), while changing the structure of the national economy from predominantly agriculture-based to an industrial- and service-led economy. By doing so, it intends to make Ethiopia a middle-income country by the year 2025. Huge emphasis remains on the agriculture sector as the major source of economic growth, with a targeted annual growth rate of 8.1% set for the sector. Besides enhancing the productivity of subsistence farmers, the Plan emphasizes expansion of export oriented large-scale commercial agriculture. It also aims to expand the energy sector, particularly hydro, wind, geothermal and biofuel energy production.

The emphasis on the expansion of large-scale commercial farming and agro-industries is likely to have a significant effect on the forestry resources in the country. It is reported that in 2012–13 3.31 million ha of land – a large portion of it forestland – was identified and transferred to the federal land bank for potential transfer to investors. In the first 3 years of the planning period, a total of 473 thousand ha of land was reportedly transferred to investors (FDRE 2014).[31]

31 However, the government admitted that only 11% of the land transferred has been developed by the investors (FDRE 2014).

The Plan is criticized for having very ambitious targets considering the economy's resource base to implement it effectively (Ayenew 2013). In this regard, the results achieved so far show a mixture of success and failure. The government claims to have registered 8.5% economic growth in the year 2011, with 4.9% growth in the agriculture sector, 13.6% in industry and 11.1% in the service sector.

3.4.3 Climate Resilient Green Economy

Of the initiatives that Ethiopia has adopted recently, the CRGE strategy (FDRE 2011a) has the highest potential to affect the conservation of forest resources and the implementation of the REDD+ program in the country. The strategy is based on the general objectives set in the GTP and designed with a vision of achieving middle-income status by year 2025 by adopting a climate-resilient green economy.

Accordingly, it has three complimentary objectives of:
- fostering economic development and growth
- ensuring abatement and avoidance of future emissions, i.e. transition to a green economy
- improving resilience to climate change.

It has an ambitious plan to increase GDP per capita from USD 380 to USD 1000 (the lower threshold of middle income status), and reduce the contributing share of agriculture to GDP from more than 40% to less than 30%. It also plans to reduce the share of farming and herding jobs and increase the share of jobs in the services and industry sectors by the year 2025.To achieve these targets, the plan focuses on increasing agricultural productivity, strengthening the industrial base and fostering export growth (FDRE 2011a).

The development of a green economy, according to the CRGE strategy, is based on four major pillars:
- improving crop and livestock production practices to increase food yields, and thus food security and farmer income, while reducing emissions
- protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks
- expanding electric power generation from renewable sources of energy fivefold over the next 5 years to service the domestic market and neighboring countries
- leapfrogging to modern and energy-efficient technologies in transport, industry and buildings.

The forestry sector is given a vital role in developing a green economy. As such, the CRGE strategy aims to reverse the current deforestation and forest degradation trend by tackling the major drivers, and protect and increase the economic and ecosystem services that forests provide. This is to be achieved through:
- agricultural intensification
- introduction of efficient energy-use technologies
- increasing afforestation, re-forestation and forest management
- rehabilitation of degraded lands.

While the strategy follows a sectoral approach, four major initiatives have been selected for fast-track implementation: (1) REDD+, (2) exploiting the country's vast hydropower potential, (3) large-scale promotion of advanced rural cooking technologies and (4) efficiency improvements to the livestock value chain. By fast-tracking these initiatives, the government is "promoting growth immediately, capturing large abatement potentials, and attracting climate finance for their implementation" (FDRE 2011a, 3). Each of these initiatives has the potential to significantly impact on the country's forest resources.

The REDD+ initiative will also contribute to the estimated USD 150 billion expenditure over the next 20 years to implement the CRGE initiative. The government asserts that some expenses will be funded by exchanging GHG emissions reductions for REDD+ climate finance. However, besides the challenge of raising sufficient funds for CRGE investments, Bass et al. (2013) identified the following challenges facing Ethiopia's green growth agenda:
- limited government capacity to implement the agenda
- lack of data and limited knowledge on relevant variables to the strategy
- difficulty in balancing rapid and sustainable economic growth and protecting the environment
- lack of effective systems to track related environmental, social and economic problems, and systems for tackling them as integral components of the strategy

- limited implementation capacity to set up social and environmental safeguards, and to apply guidelines in assessing negative impacts and amplifying positive ones
- existing cumbersome government budget, expenditure and procurement systems
- weak research, innovation and action learning in support of green approaches
- limited capacity in monitoring, accounting and accountability mechanisms
- incentives favoring environment polluting practices and lack of well-designed and stable incentives for green practice.

In spite of the potential challenges, the strategy does show some promise. Unlike the previous government plans in which forestry issues are only mentioned – often in the context of soil and water conservation – the CRGE strategy highlights forestry as one of its pillars that will play a leading role in combating the adverse impacts of climate change and contributing to economic growth. This indicates the political commitment of the government to implement REDD+. The government also indicated its commitment by setting up necessary institutions including MoEF and under that, the REDD+ Secretariat. The CRGE strategy is also seen as politically and financially attractive at an international level as it can have a practical contribution to the global endeavor to combat climate change and set an exemplary model to other countries. Yet, it is too early to assess the effect of the initiative on the Ethiopian forestry sector.

3.4.4 Agricultural development policy

Enhancing the agricultural sector is at the center of the current development plans and strategies. For example, ADLI asserts that "labor intensive, non-mechanized agriculture should be implemented, alongside technologies such as irrigation, fertilizer and improved seeds, which improve yields but do not replace labor that would ultimately lead to household and national food security and stimulate industry through forward linkages such as increased supply of wage, foods and industrial inputs" (Lavers 2011, 5). On the other hand, agriculture is predominantly subsistent and rain-fed in nature with low levels of productivity. Its productivity is severely constrained by multiple factors including limited access to agricultural inputs, financial services, and technologies, and poor land management (Rahmato 2011).

Table 17. The dual path of agricultural development in Ethiopia.

Type	Goal	Means
Enhancing smallholder agriculture	Increase productivity Ensure household and national food security Ensure equitable growth (social equity) Provide inputs and raw-materials to other sectors	Introduce intensification Expand farmlands Enhance tenure security Facilitate agricultural input and product markets
Enhancing large-scale agriculture	Commercialize agriculture Enhance foreign trade (export) Create job opportunities Introduce new technologies and know-how Develop basic services and infrastructures Provide inputs and raw-materials to other sectors	Attract private investment Provide competitive incentives Create favorable legal and institutional frameworks

The current agricultural/rural development policy is geared in two different directions. As can be seen in Table 17, one of these is to improve the subsistence farming system by enhancing its productivity through provision of more effective and efficient extension services, improved technologies and practices, and conducive legal and institutional frameworks that would promote tenure security and investment on land. The second is to promote large-scale commercial agriculture using both domestic and foreign capital (Rahmato 2011).

In their current state, both approaches are affecting forest resources. Besides the strong emphasis on agricultural intensification, expansion of farmlands in "underutilized" areas is one of the strategies to enhance productivity. In addition, the rapidly growing rural population and lack of livelihood options in non-agricultural sectors has resulted in many people in rural areas turning to farming. This has significantly increased the amount of land converted into farmland annually. For instance,

FDRE (2010, 9) reports that farmland covered by major crops expanded from 9.8 million ha in 2004/5 to 11.25 million ha in 2007/8. A significant part of this expansion is believed to be at the expense of forest and marginal lands. The CRGE document also states that 1.5 million ha of forest and shrub cover are at risk due to agriculture expansion and biomass energy needs (FDRE 2011a).

Given that the northern regions of the country are already well saturated with agricultural extensification, most of the current conversion of land to farms is believed to be occurring in regions with a large part of the country's forest resources. Expansion of subsistence agriculture to forest areas is more prevalent in forest frontiers where farmers encroach due to increasing demand for farmland. As such, subsistence farmers are the major actors in this land-use change.

However, expansion of agriculture to forest and marginal lands by subsistent farmers is against the development objective of the country and often instigated by the severe land shortage in rural areas. Although there are variations among regions, a shortage of farmland and the problem of landlessness are issues across the country. The problem is more pronounced in highland areas where population density is high and land productivity is low due to over-cultivation and soil degradation (Belay and Manig 2004; Rahmato 2009). Thus, in spite of the government's intent to arrest such expansions and halt their impact on environmental degradation, individual farmers have little choice but to expand to such areas.

Another agricultural development strategy adopted by the government is known as the Voluntary Resettlement Programme (FDRE 2003). In fact, resettlement is an old approach to environmental and humanitarian crises in Ethiopia. For example, the Derg regime implemented a massive resettlement programme in the 1980s that was severely criticized for having underlying political motives, a heavy-handed approach and severe environmental impacts, as well as neglecting to take social and political factors into consideration (Rahmato 2003; Piguet and Pankhurst 2009). In contrast, the current resettlement program is a voluntarily scheme with the objective of attaining food security through improved access to productive land – people can opt to resettle from areas that are low in agricultural productivity to more productive and less populated areas. Accordingly, the government planned in 2003 to resettle 440,000 households with a total population of 2.2 million people (FDRE 2003). The western and southwestern parts of the country, where most of the high natural forests are located, are said to have a "considerable amount of land currently underutilized" that is suitable for both commercial and small-scale agriculture, and the resettlement program (FDRE 2003, 1). Although the program is believed to have significant potential benefits in addressing food insecurity, it is also likely to have negative impacts on forest resources, given the likelihood that forests will be cleared for farms and settlements. Official data indicated that between the years 2003–10, 231,311 households were resettled in the Amhara, SNNP, Oromia and Tigray regions (Pankhurst et al. 2013). However, the program is currently on hold for reasons not clear to the public.

A major development in relation to rural development strategy and subsistence agriculture is the attempt to boost farmers' tenure security over their holdings. Tenure insecurity was often cited as causing a major bottleneck for the development of the agricultural sector by discouraging farmers from investing their labor and capital, while creating opportunities for periodic redistribution (Rahmato 1999). To alleviate the problem, the government introduced a rural land registration and certification program in which farmers are provided a legal document that endorses their ownership of the plots they possess. Although, the certification does not prevent the government from expropriating land and related resources, it has significantly enhanced farmers' perception of tenure security and so boosted their confidence to invest in their farmlands. Empirical studies indicate that tree planting and woodlots on farms have increased due to the certification (Holden 2008; Deininger et al. 2009).

3.4.5 Investment policy

One of the major threats of the agricultural policy in fuelling deforestation comes from its call for expansion of large-scale agricultural investment. A market-oriented economy was pursued to attract foreign investment to the country. Accordingly, an investment proclamation was enacted in 1996 and later revised in 2002. Due to rapid changes in the investment area, it was again revised and enacted in

2012 (No. 769/2012). As stated in its preamble, the major objectives of the proclamation are to: accelerate the country's economic development through exploiting natural resources of the country; develop the domestic market; increase foreign exchange earnings by enhancing export and producing import-substituting products locally; and create job opportunities (FDRE 2012b).

As domestic capital is limited, special attention is given to attract foreign investment to the country. The major area where foreign investors are engaged is the agricultural sector. Accordingly, large numbers of foreign investors, mainly from the Middle East, Western Europe and South Asia, are provided large tracts of land in different regions of the country for commercial farming (Lavers 2011; Rahmato 2011; Keeley et al. 2014). Two interrelated factors – one internal and one external – work together in facilitating large-scale agricultural land grants to investors. The internal factor is the foreign investment policy the government has adopted, which provides very attractive incentives to foreign investors. By doing so, the government intends to promote foreign trade, increase foreign earnings, create job opportunities, introduce new technologies and know-how, and provide basic services and infrastructures in the investment areas (Moges 2010; Rahmato 2011). The second and external factor is the high global demand for land that can support large-scale commercial farming. This has become more pronounced since the soaring of global food prices in 2007. Ethiopia – with a stable political environment, and fertile land that is relatively cheap and accessible – is an attractive place for such investment[32] (Baumgartner et al. 2013). Rahmato (2011) argued that about 3.5 million ha of land was leased to investors until 2011, and that there is a plan to provide a similar amount of land in the next 5 years (2012–16). Keeley et al. (2014) made a more conservative estimate arguing that the actual land leased to investors is about 1.06 million ha. The government data indicates that about 2.2 million ha of land is allocated to 5284 investors in different regions (Keeley et al. 2014). The federal government is responsible for the management of large-scale land investments for blocks of land of over 5000 ha through Ministry of Agriculture MoA.[33] Most of the investments are made in the four forested regions of Benishangul-Gumuz, Gambela, Oromia and SNNP Regional States.

Table 18. Investment land under the federal land bank.

Regions	Area of land (ha)
Amhara	120,000 (not yet confirmed)
Afar	409,678
Benishangul-Gumuz	691,984
Gambela	829,199
Oromia	1,057,866
SNNPR	180,625
Total	3,589,678

Source: Rahmato (2011)

The policy and conditions of leasing land to foreign investors for large-scale commercial farming is labeled by some as an "open door" policy (Oakland Institute 2011; Rahmato 2011) as it is highly favorable to investors and does little to protect the environment and the rights of local people. In fact, the new investment proclamation provides a number of incentives to potential investors in different forms. The minimum capital requirement for a single investment project is USD 200,000 for foreign investors and USD 150,000 for joint Ethiopian-foreign investors (FDRE 2012b, Article 11, 1–2). Foreign investors are also allowed to repatriate the profit and other incomes acquired from their investment in convertible foreign currency (Article 26). The related Investment Regulation (No. 270/2012), issued by the Council of Ministers, provides more details of the privileges given to foreign investors. In the detailed income tax exemption section, the Regulation states that investors engaged in agricultural investment outside of Addis Ababa and the Special Zone of Oromia surrounding Addis Ababa are entitled to 3–5 years of income tax holiday. Ironically, the Regulation provides the highest tax exemption period – 8 and 9 years – to investors engaged in forest development

32 Besides the foreign investments, there have been corresponding increases of Ethiopian and joint-venture investments in recent years. However, while domestic investors account for the majority of cases, these investments are usually small in size and operations (Baumgartneret al. 2013, 28).

33 It is reported that the government is currently establishing a separate agency to deal with large-scale investment.

in Addis Ababa and the Special Zone of Oromia, and in other regions, respectively (FDRE 2012a).

To encourage potential investors to engage in the least developed and relatively low population density regions, any investor, including foreign ones, who establish a new investment venture in Gambela, Benishangul-Gumuz, Afar (except in the 15 km right and left of Awash river), the Guji and Borena zones of Oromia, and the southwestern zones and specific *woreda* of SNNP are given an income tax deduction of 30% for 3 years after the expiry of the income tax exemption period (Article 5). Investors are also allowed to import duty free capital goods and construction materials for new investment ventures and for expansion (FDRE 2012a).

However, as indicated in Chapter 1, the vast majority of the high forest resource is located in the four regions where an extra tax exemption incentive is given. Likewise, Afar, Somali and the southern Oromia zones of Borena and Guji are where the vast majority of the woodland forest is located. Moreover, investors who export or supply to an exporter at least 60% of their products or service input are entitled to have 2 more years of income tax exemption (FDRE 2012a). The high global demand for farmland coupled with such attractive incentives is expected to bring more investors eager to engage in large-scale farming in Ethiopia. Already, empirical studies report massive clearing of forestland for farming and social conflicts with local people (Moges 2010; Guillozet and Bliss 2011). Thus, the process is very likely to put more pressure on the remaining forest resources in the country, and put the REDD+ initiative in jeopardy.

Expansion of large-scale commercial farming is a result of the State's conscious development decision justified in many government policy papers. For example, the GTP document clearly states: "Large-scale farming will be undertaken by private investors in lowland areas where abundant extensive land exists will be expanded and given due attention, in the next five years [sic]. The necessary arrangements will be made to increase private investors' participation by identifying areas that are not inhabited but are suitable for agriculture" (FDRE 2010, 54).

The type of crops produced in the land allocated for large-scale farming varies significantly. Although there is no data available about the types and quantity of crops produced on commercial farms, the plan for the land in the federal Land Bank shows a strong inclination toward export crops and raw materials for domestic industries (see Figure 15) (Keely et al. 2014). The GTP also puts particular emphasis on the production of industrial crops such as cotton, sugar, rubber, palm oil and

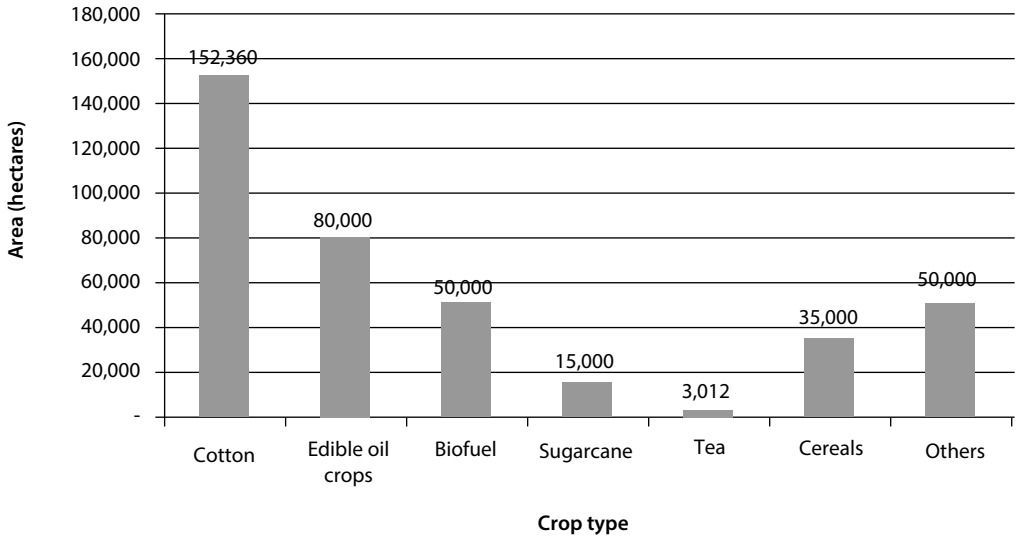

Figure 15. Federal land allocation by crop type.

Source: Keeley et al. (2014, 32)

other similar types of crops for export or use in domestic industries (FDRE 2010).

In terms of ownership, the majority of the large-scale commercial farming projects belong to private companies from India, China and the Gulf countries, often supported by their respective governments. While only two countries (Djibouti and Egypt) are investing directly in large-scale farming in Ethiopia (the Oakland Institute 2011), there is no evidence implicating any international financial institution in directly or indirectly providing incentives to engage in the ventures.

The actual and potential threat of deforestation and forest degradation caused by the expansion of large-scale commercial farming is partly related to the failure of the federal and regional governments to implement existing legal frameworks effectively. Although all investment projects are legally expected to conduct environmental impact assessments and be approved by the former EPA,[34] such requirements are often waived away (Tamrat 2010; Rahmato 2011). Thus, the process of environmental impact assessment in land deals for large-scale agricultural investment is "weak or non-existent" (Keely et al. 2014, 47). However, the government is so far insisting that the country has a vast amount of land suitable for agricultural investment and that the current expansion of the agricultural investment does not cause significant negative social and environmental impacts. In fact, it claims that possible negative consequences can be controlled through effective planning, monitoring and building the capacity of the regulating offices. Lack of technical, institutional and financial capacity of the concerned federal and regional government offices (particularly Ministry of Agriculture MoA and its regional counterpart bureaus) is often cited as the major barrier to ensuring compliance to the existing social and environmental requirements of the projects.

3.4.6 Resettlement policy

It has been the long-standing policy of successive Ethiopian governments to resettle people from degraded highlands to lowland areas considered fertile and underutilized. Each government has held that resettlement would help to solve food insecurity problems of the rural poor (Woube 2005). As a result, highland farmers have been moved into traditionally pastoral and agro-pastoral areas of Ethiopia (Lemenih et al. 2012). The current government envisaged resettling a total of seven million people starting from the year 2000. Between 2003 and 2005, some 180,000 households with a total of about one million people were resettled (Stellmacher and Eguavoen 2011). Although the policy appears to be pending in practice of recent (yet politically speaking it is active), the program has led to the clearing of a significant amount of Ethiopia's forests. In addition to the formal government-led resettlement programs, individual farmers descend from the highlands and spontaneously settle in the lowland areas, carving out farm plots with few restrictions.

3.4.7 Population growth, population policy and forest resources

High population growth, and the resulting pressure on natural resources, is seen as one of the main barriers to national development. For instance, in the PASDEP it is argued that "rapid population growth remains a major barrier to poverty reduction, and squarely addressing the population challenge is one of the eight central pillars of the PASDEP" (PASDEP 2006, 165). It is also seen as one of the underlying causes of deforestation and forest degradation through the increasing demand for farmland, fuelwood, grazing land and settlement land. The Ethiopian population has been increasing considerably since the turn of the 20th century. It doubled over 60 years from 11.8 million in 1900 to 23.6 million in 1960. It then doubled again in 28 years reaching 47.3 million in 1988 (Getachew 2008). The rate of growth has shown a steady increase in recent decades too (see Figure 16).

Currently, with an estimated population of 95,045,679 in 2014, and an annual growth rate of 2.58%, Ethiopia has the second largest population in Africa, next to Nigeria. The rate of population growth is attributed to the high fertility rate of 5.4% (6.0% in rural areas, 2.4% in urban areas) and the declining mortality rate.

Ethiopia has a population policy and strategy that aims to control the high population growth

34 There was some back and forth between institutions as to which was responsible for environmental impact assessments. Initially EPA was responsible but the task was later transferred to MoARD.

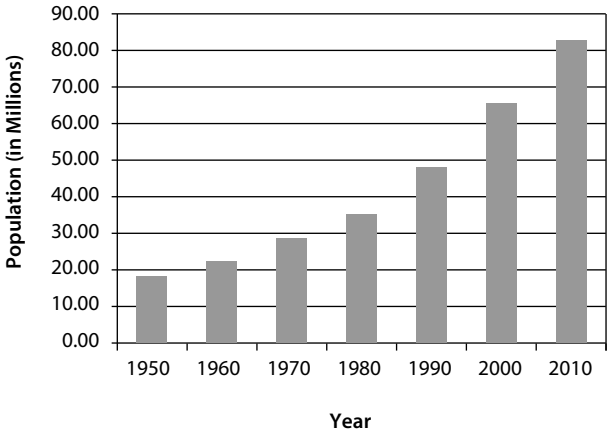

Figure 16. Ethiopian population growth in from 1950 to 2010.

Source: Getachew (2008)

and the resulting pressure on natural resources, including forests (Getachew 2008). The goal of the policy is to match the country's population growth rate with the capacity of its resources. The National Population Policy goals and targets, as in FDRE (2006, 170), include:

- Reduce the total fertility rate to about 4.0 by 2015.[35]
- Increase the prevalence of contraceptive use from the current rate of 15% to 60%.
- Reduce maternal, infant and child morbidity and mortality rates as well as promote the level of general welfare of the population.[36]
- Significantly increase female participation at all levels of the educational system.
- Ensure spatially balanced population distribution patterns with a view to maintaining environmental security and extending the scope of development activities.
- Mount an effective countrywide population information and education program on the issues related to family size.

The population policy and other socio-economic policies show that Ethiopia is using a two-pronged approach to address the high population growth. On the one hand, it intends to reduce the rate of population growth through education, women empowerment and improving family control services. On other hand, it aims to expand the economy and social services to provide economic opportunities and services to the increasing population. However, in spite of the efforts made in the past two decades, the success of the policy has been limited. The population is still increasing at a rate of 2.6% per annum and the rate of growth is even higher in rural areas where the majority of the population is almost entirely dependent on natural resources. This has significant implications for the implementation of REDD+, as an increasing proportion of the population will have limited alternative economic options.

3.4.8 Energy demand and forest resources

Energy demand is one of the major causes of deforestation in Ethiopia. As the modern energy sector is still in a very infant stage, the country heavily relies on traditional sources of energy such as fuelwood, charcoal, animal dung and crop residues. Currently, traditional sources of energy meet about 94% of the total energy demand; while electricity and imported oil products supply the remaining 8% (with 2% and 6%, respectively) (JICA 2012). Access to electric power is very limited in many parts of the country. Although 85.2% of the urban population is reported to have access to electricity as of 2011, only 4.8% of the rural population have access (CSA and ICF International 2012) and the majority of the rural population still depend on traditional energy sources, particularly fuelwood. Likewise, there is still high demand for charcoal in urban areas (Bekele and Girmay 2013).[37] As a result, there is an increasing imbalance between the demand and sustainable supply of fuelwood in the country (Table 19) and so a steadily increasing pressure on forest resources.

35 In 2014 this target had almost been achieved. According to the Ethiopian Central Statistical Agency, fertility has decreased to 2.2 and 4.5 children/women in urban and rural areas respectively. The national rate of fertility is reported to be 4.1 children/women (CSA 2014).

36 In the PASDEP the stated goal is to reduce the infant mortality rate from 77/1000 in 2004/05 to 45/1000 in 2009/10. Similarly, it aims to decrease maternal mortality rate from 871/100,000 in 2004/05 to 600/100,000 for the same period (FDRE 2006).

37 For example, a recent study by Bekele and Girmay (2013) shows that charcoal remains one of the major sources of household energy in urban areas, particularly for the poor, due to its relatively cheap price and accessibility. The freely accessible acacia-dominated dry-woodlands are the major resource source for charcoal making. These woodlands have been over-exploited for decades and are severely degraded (Bekele and Girmay 2013).

Table 19. Estimated fuelwood demand and supply.

Year	Demand (million m^3)	Sustainable supply (million m^3)	Deficiency (million m^3)
1997	52.9	11.7	41.2
2000	58.4	11.2	47.2
2005	68.5	10.4	58.1

Source: EFAP (1996)

A national energy policy was introduced in 1994 with the objectives, among others, to:

- Ensure a reliable supply of energy at the right time and at affordable prices.
- Ensure and encourage a gradual shift from traditional to modern energy sources.
- Increase energy utilization efficiency and reduce energy wastage.
- Ensure that the development and utilization of energy is benign to the environment.

The policy acknowledges population growth as the major driving force for household energy demand and puts high priority on the development of hydropower due to the rich water potential of the country. The GTP also planned to achieve the following goals in the energy sector by the end of 2014/15:

- Increase the present 2000 MW generating capacity to 8000–10,000 MW.
- Increase the number of customers who can access electricity from 2 million to 4 million by expanding access to new areas.
- Increase the existing 41% electricity power coverage to 75%.

Moreover, the power sector plan intends to increase modern power generation to reach 15,000 MW by the year 2020. As discussed above, the development of renewable energy is one of the four pillars of the CRGE strategy. The energy policy and the attention given to the sector in the development plans, including the CRGE strategy, can significantly contribute to the transition from traditional to modern sources of energy and alleviate the burden on forest resources to fulfill the energy demand of the country. However, the energy plan faces significant challenges including the huge financial investment required and accessing the rural population.

In sum, the processes of deforestation and forest degradation in Ethiopia are operating in a wider political and economic framework. Certain sectoral policies are putting pressure on the forest resources directly and indirectly, while others are providing incentives for forest and forest-resource conservation. Recent policy initiatives indicate the government's growing political commitment to develop a green economy in which forestry is one of the central sectors. The CRGE strategy is evidence of this commitment. Furthermore, the government has set up some of the necessary institutional frameworks for the implementation of REDD+ and formed initiatives to advance renewable energy sources, both of which should ultimately alleviate some pressure on forest resources. On the other hand, the high emphasis given to attracting foreign capital in the CRGE strategy may have negative implications for REDD+ and environmental protection.

4 The REDD+ policy environment

Since the composition of this chapter several months ago, the following events and process have taken place related to REDD+:

a. In September 2004 (New York Climate Summit) the Government of Ethiopia pledged an additional 15 million ha of land to be rehabilitated through afforestation/ reforestation/area closure.
b. A draft REDD+ Strategy is now developed and was presented at the Lima, Peru Conference of the Parties (COP20).
c. The Federal REDD+ Management Arrangement is now extended to four regions (where a technical working group and a steering committee are fully functional in one region and under establishment in three others). In addition Regional REDD+ Coordination units are being established in three regions.
d. Land-use and land cover change mapping has now been completed for the whole country and will be validated soon.
e. A consultation and participation plan is under preparation to guide future consultation with stakeholders.
f. The process of revising the 2007 forest law has been completed and the draft law will soon be sent to Parliament. The new law is expected to answer various issues related to REDD+ actions.

4.1 Broader climate change policy context

This chapter discusses the processes behind the formation of the REDD+ policy framework in Ethiopia. Because of the influence of international agreements and conventions on policymaking in Ethiopia, the first section presents some of these agreements and describes Ethiopia's engagement in them. The subsequent sections examine REDD+ related policy processes, particularly the R-PP development process and the actors involved. The first section discusses the following questions: which climate change policies of Ethiopia are relevant to REDD+; what was the role of NAMAs in shaping the REDD+ policy framework formulations; and what are the lessons learned for REDD+ policy?

4.1.1 Climate change policies of Ethiopia

Ethiopia has long recognized the country's vulnerability to climate change impacts and the urgency for a national adaptive response to climate change effects. As a responsible member of the global community, Ethiopia has been an active participant in international climate negotiations and initiated and implemented a number of climate-related national policies. It has ratified the UNFCCC (1994) and UNCCD (1997), and submitted its initial national communications to the UNFCCC (in 2001) and its related instrument, the Kyoto Protocol (in 2005). Since then, the country has introduced a number of policy instruments and institutional arrangements to address climate change either directly or indirectly.

Some of the most notable national policies directly related to climate change include: the National Adaptation Program of Action (NAPA) (2007); Energy Policy and the Bio-fuel Strategy (2007); NAMA (2010); Ethiopia's Programme of Adaptation to Climate Change (EPACC) (2011), which replaced the NAPA (2007); and the GTP (2010/11), which was complemented by its CRGE strategy (FDRE 2011a). Other national initiatives and sectoral programs now in place that also address climate change, albeit indirectly, include: Environmental Policy (1997), Biofuel Development and Utilization Strategy (2007), Rural Development Policy and Strategy (2001), Water Resources Management Policy (1999), Health Policy (1993), National Policy on Disaster Risk Management (2013), Food Security Strategy (2002), National Biodiversity Strategy and Action Plan (2005) and Pastoral Policy (2007).

In the early years of addressing climate change, the focus was on adaptation. The NAPA (2007) identified 20 projects that address the immediate climate change adaptation needs of the country. These projects broadly focus on human and institutional capacity building, improving natural resource management, enhancing irrigation agriculture and water harvesting, strengthening early warning systems and awareness raising. However, due to the lack of support from the Least Developed Country Fund or perhaps of interest from global partners, not a single NAPA project has been implemented.

The project-based and unfunded NAPA was later replaced by EPACC (FDRE 2011b), which is a program of action to build a climate resilient economy through support for adaptation at sectoral, regional and community levels. EPACC has identified 29 components and climate change risks reflecting specific objectives of each component, and the institutions responsible for countering and mitigating each of the identified risks. It identified adaptation strategies and priority options in the various socioeconomic sectors including improving: agricultural productivity and livelihood diversification, crop and livestock insurance mechanisms, grain storage, renewable energy, gender equality, accommodation of disabilities, climate change adaptation education, research and development, and institutional capacity. An initial program for the first 3-year phase of the EPACC (2011–14) was budgeted at USD 10 million and received significant support from the government of Japan through the United Nations Development Programme (UNDP), and further support directly from the UNDP and the European Union. The World Bank and others have been supporting this work through studies on the Economics of Adaptation to Climate Change in Ethiopia.

In the succeeding years, the focus shifted toward integrating both adaptation and mitigation activities. ANAMA was prepared in 2010, which outlined multi-sectoral projects aimed at reducing GHG emissions. For example, projects in the energy sector included increasing the use of renewable energy resources for household electricity consumption and road transport, and the use of an electric light rail transit project. Agricultural projects were directed toward increasing soil carbon retention through the use of compost, and implementation of agro-forestry practices for livelihood improvement and increased carbon sequestration. And forestry projects targeted reducing deforestation and forest degradation and increasing carbon sequestration through reforestation of degraded areas and sustainable management of existing forests.

Ethiopia was the first African country to join the Climate Neutral Network, an initiative of the UN Environment Programme (UNEP) that aimed to mobilize global support toward carbon free nations (Policy for Low Carbon 2009). It was in this line that the government initiated the CRGE (see Section 3.4.3) to help realize the country's ambitious 5-year development plan, GTP I (for the period 2010/11–2014/15). The GTP I (see Section 3.4.2) outlines the country's vision for a low-carbon development path while building a CRGE Strategy with the aim of reaching middle-income status before 2025 (FDRE 2011a). The Strategy identifies eight sectors that play key roles in sustainable development: forestry, soils, livestock, energy, buildings and cities, industry, transport and health. Owing to its huge potential to reduce emissions not only from the forestry sector but also from other sectors, REDD+ was selected as one of four initiatives for fast-track implementation (FDRE 2011a). The fact that these national climate change policies are multi-sectoral and have set targets indicate the government's strong commitment toward improving the country's resilience to the impacts of climate change and significantly reducing GHG emissions across sectors.

Ethiopia is an active player in the process of designing the international architecture for financing of climate adaptation. The costs of adaptation to climate change in the country were estimated at USD 258 million per annum for the period 2010–2050.However, the country received far less and remains significantly underfunded. Most climate change mitigation and adaptation projects in Ethiopia are financed by western countries (in a form of overseas development assistance) or multilateral financing institutions (such as the World Bank), either through direct support or through the implementing federal agencies (e.g. EPA or the Ministry of Agriculture [MoA]) with no donor coordination on finance management. For example, the World Bank finances the Sustainable Land Management (SLM) Project at MoA, which aims to reduce land degradation, increase land productivity and reduce climate vulnerability of farming communities. SLM implementation (with a budget of USD 29 million) was finalized in September 2013, and a 5-year follow-up project, SLM II (with a budget of USD 107 million), was launched in April 2014. Financial support to the national REDD+ program is being channeled through the World Bank's FCPF (as a trustee). In the same line, the government of Ethiopia has established a CRGE facility housed in the Ministry of Finance and Economic Development (MoFED) that will solicit climate finance from international sources and channel the available funds in the form of advance support to implementing federal entities. The UNDP has also offered its support in establishing a multi-donor trust fund within the Ministry, through which funds could be channeled.

4.1.2 Afforestation and reforestation Clean Development Mechanism projects in Ethiopia

Afforestation/reforestation projects aimed at rehabilitating degraded areas are found in Tigray, Amhara and Gambela Regional States (personal communication with regional REDD+ focal persons, 2014). Ethiopia has been active in reforestation and taken part in the UNEP Billion Tree Campaign, which had a global target of planting 7 billion trees by December 2009 (Ellis et al. 2009). Reforestation and afforestation projects in the country worth noting are the Humbo Ethiopia Assisted Natural Regeneration Project, the Sodo Community Managed Reforestation (Forest Regeneration) Project and the Abote Community-Managed Reforestation Project.

The Sodo Community Managed Agroforestry & Forestry Project is located in Sodo Zuria in SNNPR. It was initiated with the objective of enhancing carbon sequestration in bio-diverse native forests and contributing to poverty alleviation through the flow of benefits in the form of carbon credits and other non-monetary benefits. The project is validated under the Gold Standard Foundation, the Carbon Fix Standard and the Climate Community Biodiversity Standards. A total of 189,027 tCO_2 (35 years crediting period) is certified in accordance with the Gold Standard. A first round Certified Emission Reduction purchase agreement (1 ton CO_2 = USD 9) for a total of 50,000 tCO_2 was signed between the project proponent and a buyer (Forest Finance).

The Humbo Ethiopia Assisted Natural Regeneration Project in SNNPR was the first CDM project and was initiated by World Vision-Ethiopia. It is a practical project that has been operating in the country since 2006. The project uses an afforestation/reforestation approach on a site of 2728 ha that was severely degraded due to excessive fuelwood extraction and overgrazing. It provides multiple benefits including enhancing GHG removal by sinks, promoting native vegetation and biodiversity, reducing soil erosion, and provision of an income stream for communities. The project achieved Gold Level Validation under the Climate Community and Biodiversity standards in 2011, and in October 2012 became the first CDM project in Africa to sell Certified Emission Reductions. The 30-year project will sequester an estimated 880,295 tCO_2 with total revenue of USD 3,961,328 – the equivalent of USD 4.5/ton (Humbo AR-CDM PDD 2009).

The Abote Community-Managed Reforestation Project is a joint initiative by World Vision and the local community in Oromia. It aims to rehabilitate degraded land covering a total area of more than 8000 ha. The project, which started in 2010, has been validated but its certification is yet to be done. Other CDM projects on energy efficient stoves and landfill have also been initiated, as have CDM projects for waste management, forest management and premium coffee production in different parts of Ethiopia (see Table 20).

Table 20. CDM projects in Ethiopia.

Project name	Objective	Implementing organization	Status
Humbo Ethiopia Assisted Natural Regeneration Project	Afforestation, reforestation and multiple other benefits	World Vision - Ethiopia	Registered and certified under the Gold Standard. Generating carbon credits since 2009
Abote Community-Managed Reforestation Project	Afforestation, reforestation, carbon sequestration and environmental co-benefits	World Vision - Ethiopia	Validated
Energy Efficient Stoves Program at Ada Berga, Nono and Yaya Gulele	Reducing deforestation, carbon emissions and community health risks	World Vision - Ethiopia	Registered
Efficient Stoves Program of Activities	Reducing deforestation and carbon emissions from biomass	The Paradigm Project, Colorado	Registered and certified
Energy Efficient Stoves Programme of Activities	Reducing GHG emissions associated with firewood and contributing to economic sustainability of households	World Food Programme	Under development
Repi Land Fill Project	Solid waste management to reduce GHG emissions	Horn of Africa Regional Environment Centre and Network, Addis Ababa municipality and UNDP	Initiated

The EPA is Ethiopia's designated national authority for the Kyoto Protocol and is responsible for setting parameter values for the definition of forest in CDM projects. It also provides letters of acceptance to CDM implementing entities and gives technical advice on how to address the development strategy of the country.

4.1.3 Lessons for REDD+ policies

Lessons from previous climate change related policies (see Section 4.3.1) and their implementation have helped to formulate REDD+ policies in Ethiopia. In addressing agricultural productivity for example, the government recognized the critical role of watershed management and rehabilitation of degraded lands through afforestation/reforestation. Accordingly, MoA developed a watershed management strategy and guideline in 2005. The watershed strategy is considered a unilateral/voluntary NAMA in the context of cost-effective, sustainable development. The results from these land rehabilitation activities, particularly in the highly degraded highlands of northern Ethiopia, were encouraging.

In the subsequent years, the government took these lessons and began promoting land rehabilitation through community participation. These experiences helped the government to underpin the role of forest conservation in sustainable land management and in mitigating climate change impacts. This is well illustrated in the CRGE strategy where forestry is identified as the sector with the highest abatement potential and as one of the four pillars of the strategy, and the implementation of REDD+ (a type of conditional/supported NAMAs) is prioritized. Moreover, the CRGE strategy strongly argues that sustainable agricultural productivity can be achieved

through agricultural intensification (rather than agricultural extensification) and improved technologies, which will reduce pressure on remaining forestland.

A longstanding issue in relation to deforestation and forest degradation in Ethiopia was the lack of a dedicated federal institution responsible for planning, coordinating and implementing forestry activities. The government's establishment of MoEF in July 2013 was an important action in creating an enabling environment for REDD+. Similarly, despite success stories, most of the previous activities directed at climate change adaptation and mitigation were largely uncoordinated and unsustainable. As such, the government has put in place national management arrangements for coordination of cross-sectoral mitigation activities under the CRGE initiative. The central role of REDD+ in the CRGE strategy document will also help to address these policy pitfalls.

In addition, a few strategies were put in place in the NAMA process including carbon sequestration through massive reforestation programs, the use of improved stoves for rural households, PFM schemes, and livelihood diversification through NTFPs for forest-dependent communities. Overall, these schemes have been effective in the conservation and sustainable management of forests, particularly in the Oromia region. However, within the NAMA framework these strategies are not sustainable because of the lack of incentives to forest dependent communities to reduce GHG emissions from deforestation and forest degradation.

4.2 REDD+ policy actors, events and policy processes

This section describes the REDD+ policy process and the policy environment in Ethiopia that REDD+ evolved in. It further outlines the outstanding policy events related to REDD+ policy decisions and the major international and national actors who influenced REDD+ policy development. The section addresses the following questions: (1) how has REDD+ evolved in Ethiopia and (2) which actors shape the climate change policies and REDD+ policy processes.

4.2.1 REDD+ policy processes

REDD+ has evolved in Ethiopia under a policy framework that encourages land rehabilitation through reforestation/afforestation. This is reflected through the setting of national targets to increase forest cover, as in the PASDEP (FDRE 2006), and in the provision of tax incentives for farmers who plant trees on their land, as stipulated in the 2007 Forest Management, Development and Utilization Policy. The NAMA (2010) further outlines strategies for multi-sectoral projects that aim to reduce GHG emissions, mainly through the use of renewable energy resources. Under the NAMA, forestry projects are aimed at reducing deforestation and forest degradation and increasing carbon sequestration through reforestation of degraded areas and sustainable management of existing forests.

In recent years, REDD+ policy seems to have been embedded within the wider CRGE strategy (see Section 3.4.3), which works together with the GTP. As discussed in Section 3.4.2, the GTP reflects the government's ambition to lift the country to middle-income status by 2025 (FDRE 2011a). The CRGE strategy compliments the GTP in that it provides an ambitious cross-sectoral plan for achieving the transition, aiming to nearly triple GDP per capita by 2025 but without increasing current levels of GHG emissions. Importantly, REDD+ is one of the four major initiatives of the CRGE strategy selected for fast-track implementation (FDRE 2011a).

To this end, in late 2010, a CRGE Ministerial Steering Committee accountable to the Prime Minister's Office was established. The Committee is responsible for overseeing the development and realization of the CRGE strategy and for reviewing and approving all climate change mitigation initiatives (including REDD+), with the aim of achieving economic development with zero net emissions. In January 2011 the government established the CRGE Technical Committee, which is a multi-stakeholder group responsible for supervising (at a higher level) activities of emissions reduction across seven sectors. Under the CRGE Technical Committee, the multi-sectoral RTWG's main function is to review REDD+ policies, programs and projects to then inform decisions at the Technical Committee and REDD+ Secretariat level. The federal/national REDD+ Steering Committee was re-established and conducted its first meeting in March 2013.

The REDD+ Secretariat was housed in the Federal EPA during the R-PP development phase (2009–11). It was then moved to the Natural Resources Management Directorate of MoA in accordance with the agreement between the government of Ethiopia and development partners in the November 2012 mission for the R-PP assessment. In January 2013 the R-PP implementation was officially launched. Since then, the REDD+ Secretariat has been responsible for the overall implementation of the readiness process outlined in the R-PP. However, it has been argued that there is a lack of a dedicated federal-level forestry institution responsible for assessing, mapping and demarcating forest resources for REDD+ (FDRE 2011b). Recognizant of the institutional gap and the urgent need for establishing a dedicated forestry institution, not only for managing REDD+ implementation but also for managing the forest resources of the country, the FDRE parliament enacted a proclamation (Proclamation 650/2003) to establish the MoEF in July 2013. Since then, the REDD+ Secretariat has moved to the new ministry and is accountable to the State Minister for the Forest Sector.

Civil society organizations advocating environmental issues are few in number in Ethiopia and organizational strength to influence government policies is equally weak. Occasional publications that criticize the government's policy on the expansion of biofuel plantations were produced in 2012 by Forum for Environment, a local NGO advocating environmental issues. However, protest events in relation to REDD+ have never been reported.

4.2.2 REDD+ policy actors

A range of national and international actors has contributed in shaping climate change policy and the REDD+ policy process in Ethiopia. The Federal National Meteorological Agency was the focal institution for the UNFCCC and the lead agency in the UN Climate Talks until 2008 when the EPA replaced it. The Agency, in collaboration with relevant institutions, implemented a number of projects related to climate change including: a climate change country study program (1994–6); Climate Change Enabling Activities Project Phase I-Preparation of Initial National Communication of Ethiopia to the UNFCCC (1999–2001); Regional Climate, Water and Agriculture Project on Impacts and Adaptation of Agro-ecological Systems in Africa (2003–5); Climate Change Enabling Activities Project phase II-Technology Needs Assessment (2005–6); and the National Adaptation Plan of Action (NAPA) (2005–6).

In 2008, a prime ministerial declaration transferred the overall responsibility for the coordination of climate change initiatives to the EPA. Thus, as the focal institution for the UNFCCC, EPA is mandated by the government of Ethiopia to coordinate the country's response to climate change, including vulnerability and impact assessments, an inventory of adaptation and mitigation actions, and the coordination of Ethiopia's response measures at the national and international front. In July 2008, the EPA submitted a Readiness Plan Idea Note (R-PIN) to the World Bank successfully requesting that Ethiopia participate in the Forest Carbon Partnership Facility. EPA was also responsible for the preparation of the R-PP and formed the REDD+ Secretariat in late 2012. Following the transfer of the REDD+ Secretariat to MoA, the ministry was briefly involved in directing the REDD+ readiness process until the Secretariat moved to the newly established MoEF. Together with these governmental organizations, international actors including the World Bank and donor countries such as Norway and the United Kingdom (through its Department for International Development) became active in influencing the national REDD+ process.

As early as 2006, REDD+ was solely the engagement of two prominent NGOs (FARM Africa and SOS Sahel) in Ethiopia. These two civil society organizations are the most actively involved with REDD+ in Ethiopia due to their many years of experience in PFM in the Oromia region. In 2006, the Bale Mountains Eco-region REDD+ Project was initiated by FARM Africa and SOS Sahel and the Oromia Forest and Wildlife Enterprise, with financial support from Norway. The project area covers 260,000ha of forested land. It is the first REDD+ project in Ethiopia registered under the Voluntary Carbon Standard (VM0015) and is now ready for validation. As the REDD+ pioneers in the country, Farm Africa and SOS Sahel provided advisory services on the development of REDD+ during the R-PP development.

In 2008, through the collaborative effort of policy makers and stakeholders, Climate Change Forum-Ethiopia (CCF-E) was established with

the responsibility of coordinating actions, communicating information, convening policy dialogue and initiating public campaigns about climate change in the country. In this regard, CCF-E has led the development of a draft national climate change strategy. CCF-E, together with the Ethiopian Civil Society Network on Climate Change, has been actively engaged in the national REDD+ process and the international climate change negotiations. Another NGO, Forum for Environment, has also been a platform for environmental communication and advocacy. In recent years, the Green Growth Institute has been providing advice on pursuing sustainable economic growth in regard to the CRGE initiative in general and the REDD+ strategy in particular. Currently, MoEF is co-chairing (with MoFED) the ministerial committee that serves as a platform for discussing and coordinating the progress of the sectoral emission reduction targets set in the CRGE strategy. MoEF is also responsible for technical reviews of research proposals on climate change mitigation from different sectors for funding from the CRGE Facility.

4.3 Consultation processes and multi-stakeholder forums

This section provides an analysis of the process of consultation and multi-stakeholder participation during the development and implementation of the R-PP, the stakeholder consultation plan and the national management arrangements put in place for managing the readiness process. Analysis of the consultation process provides insight into the approach taken, the level, frequency and timing of consultation, and the issues discussed. The diversity of stakeholders that participated in the process indicates the inclusiveness of the consultation process and the effort made to accommodate the views of all stakeholders. This section addresses the following questions: how consultative and participatory was the R-PP development process, and what management arrangements are in place.

4.3.1 R-PP consultation process

Ethiopia is a REDD+ participant country in the World Bank's FCPF. The development of the country's R-PP began in April 2010, under the leadership of the Federal EPA. A large group of experts drawn from a range of governmental institutions and local and international NGOs were responsible for planning and conducting the consultation process. Regional, *woreda* and local level consultation workshops employed globally-accepted consultation and participation methods and tools including: visioning; time/trend line analysis; brainstorming; problem tree analysis; solution analysis; priority ranking; strength, weakness and recommendation; rights responsibilities and revenues; and poster presentations with post-its and fishbowl debate.

The consultations included workshops, face-to-face meetings, questionnaire surveys and media broadcasts (radio and TV). These forums were either focused on information sharing (largely multi-stakeholder workshops), consultation (with regional stakeholders or REDD+ practitioners) or decision-making (either multi-stakeholder regional- or national-level workshops). Multi-stakeholder forums that largely consisted of governmental institutions, NGOs, community-based organizations (CBOs), media, donors and academia, were conducted at national and regional level. *Woreda*-level consultations involved government stakeholders and a few NGOs. Community-level consultations involved mainly local communities, local community organizations and religious organizations. Face-to-face meetings were also held on a range of issues with a total of 15 individuals working in government institutions, local and international NGOs, academia and donors. These meetings aimed to bring together knowledgeable and experienced individuals and discuss outstanding issues raised during the stakeholder consultations. Consultations were also held with two NGOs (FARM Africa and SOS Sahel) engaged in REDD+ pilot development. More than 80 relevant experts within Ethiopia and internationally were also consulted on the form, function and other aspects of R-PP through a questionnaire.

By December 2010, a total of 24 consultation workshops had been conducted across the country. The consultations included two national-level workshops, seven regional-level workshops, one zonal workshop, seven workshops at *woreda* level and seven community consultations with forest dependent peoples in seven regional states. Issues covered during the national-level consultation include: exploration of direct and underlying drivers of deforestation and lessons from existing

degradation and deforestation strategies; testing and showcasing participatory methods; and strengths, weaknesses, opportunities and threats (SWOT) analysis of capacities for and awareness of the REDD+ strategy development phase. Regional- and *woreda*-level consultations covered similar issues including mapping and engaging forestry stakeholders, showcasing consultation methods, and demonstrating the REDD+ strategy option development process. The second round of consultation workshops at both levels focused on raising awareness of REDD+ and the latest international processes, and informing stakeholders of the process steps for REDD+ readiness, the purpose of the R-PP and where the R-PP fits into the process. Additional agenda items included regional REDD+ management arrangements, particularly the composition and responsibility of the REDD+ Steering Committee at regional level and that of the RTWG at regional and *woreda* level (see Figure 17). Consultations at local community-level addressed uses of forests, identification of the causes and effects of deforestation, and the possible solutions recommended (FDRE 2011c).

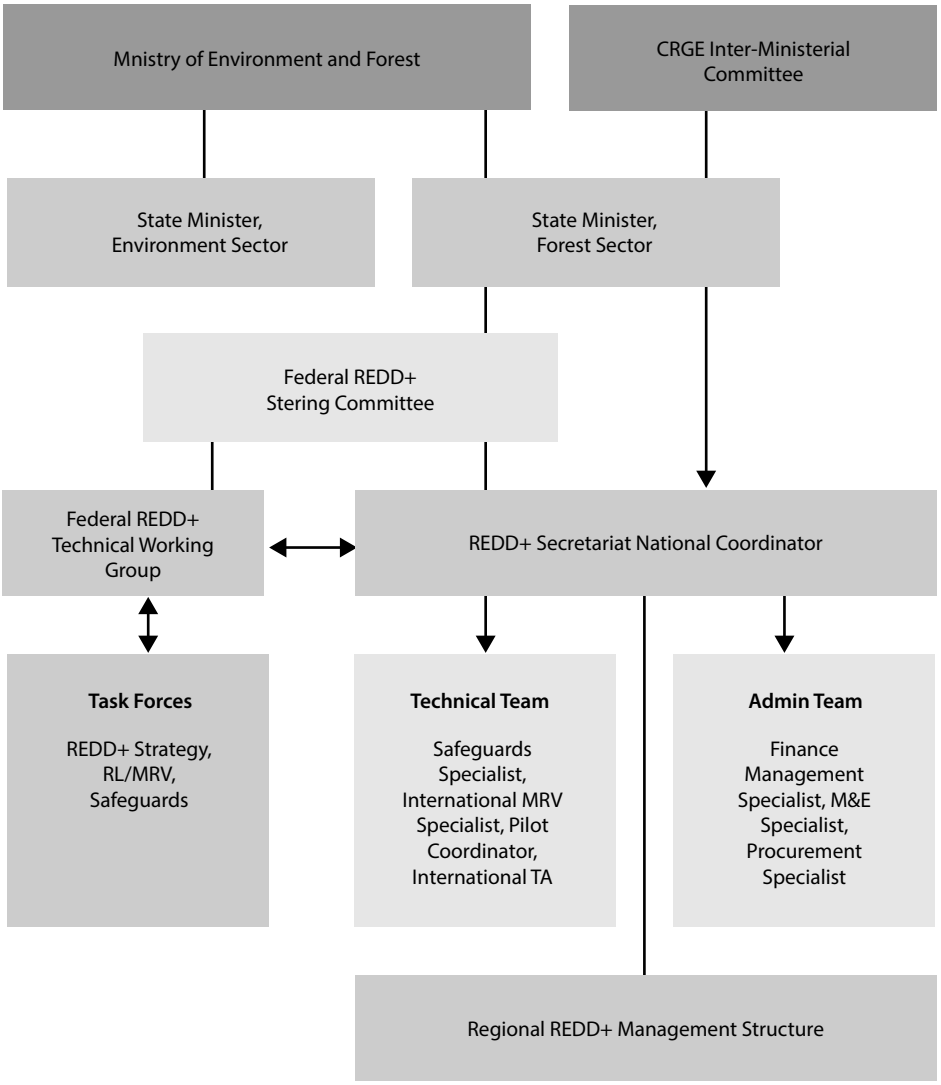

Figure 17. Federal REDD+ Management Arrangement.
Note: M&E = monitoring and evaluation; RL = reference level.

Source: REDD+ Secretariat (2014, 9).

Table 21. Timeline of the development of the R-PP in Ethiopia.

Date	Event	Main decision/results	Participants
30 July 2008	Submission of R-PIN to the FCPF	Ethiopia selected as a REDD+ country participant.	-
24 August 2009	R-PIN accepted and Ethiopia signed a grant agreement of USD 200,000 with the World Bank	R-PP development phase started.	-
2 September 2009	Ethiopia signed an additional USD 316,238 grant agreement with the International Bank for Reconstruction and Development.	-	-
April 2010	R-PP started	-	-
29 and 30 April 2010	First national consultation workshop	Awareness raised on R-PP; REDD+ process testing; participatory methods showcased; basic SWOT analysis completed on capacities for and awareness of REDD+ strategy development phase.	A total of 60 participants representing all key government ministries, development partners, and nongovernment institutions involved in forestry in Ethiopia
May 2010	Discussions with REDD+ pilot practitioners	Lessons (from these pilots) relevant to REDD+ discussed	Farm Africa, SOS Sahel and NTFP-PFM Southwest Ethiopia Project
17 and 18 June 2010	Second national consultation workshop	Action plan to broaden participation in developing the R-PP designed.	Key forestry stakeholders from all relevant government and non-government organizations
July – August 2010	Regional-level multi-stakeholder workshops in four regions (Amhara, Oromia, SNNPR and Tigray)	Awareness raised on the form and function of R-PP; underlying drivers of deforestation discussed with local stakeholders.	Multi-stakeholder group representing key local stakeholders
July – August 2010	*Woreda* and community-level consultation with forest dependent people in four regions (Amhara, Oromia, SNNPR and Tigray)	Awareness raised on REDD+ and the form and function of R-PP; analysis completed of underlying drivers of deforestation and degradation from the perspective of forest dependent people; potential strategy options identified.	Forest dependent people
15 September – 15 November 2010	Regional-level multi-stakeholder consultations (second round)	Consultation mechanism and institutions for stakeholder participation identified; regional RTWG.	-
October 2010	Submission of draft R-PP to the FCPF	Draft R-PP submitted to the FCPF.	-
March 2011	Draft R-PP presented	Comments received from the FCPF Participants' Committee.	Multi-stakeholder group representing key local stakeholders
25 May 2011	Re-submission of R-PP to the FCPF	R-PP approved by the FCPF.	-
October 2012	The FCPF approved a readiness preparation grant of 3.5 million USD	-	-
January 2013	REDD+ Readiness implementation phase officially launched	-	-

4.3.2 The National Management Arrangement

The Federal REDD+ Management Arrangement proposed in the R-PP was later modified. This management arrangement will remain operational during the readiness phase and individual management units will have a role as per their terms of reference. The Federal REDD+ Management Arrangement is presented in Figure 17. The REDD+ Secretariat is responsible for the day-to-day activities of the readiness phase and is accountable to the State Minister for the Forest Sector under MoEF. The REDD+ Steering Committee provides overall direction, oversees activities and approves the annual work plan and budget of the REDD+ Readiness process. A technical working group provides technical support while three task forces follow up on the development of the national REDD+ strategy, Social Environmental Strategic Assessment (SESA)/ Environmental Social Management Framework (ESMF) and monitoring, reporting and verification (MRV) systems development. Regional REDD+ management units and an appropriate link to the national REDD+ Secretariat is yet to be established. REDD+ focal persons were identified in 7 of the 9 regions by regional bureaus (largely in the Bureau of Agriculture) in 2012. These focal persons are members of the RTWG and have been involved in almost all national-level REDD+ workshops. In November 2013, a 15-day training of trainers on the basics of REDD+ was organized for these focal persons. They are also expected to take part in awareness training at local level. However, there are no terms of reference for these focal persons and they remain liaison officers between the REDD+ Secretariat and the regional states. Discussion is underway with regional stakeholders on the possible regional REDD+ management units, the role of different stakeholders and stakeholders' role vis-a-vis the national REDD+ Secretariat.

4.4 Future REDD+ policy options and processes

The following section, explores key elements of the REDD+ proposal including: the scope of REDD+, MRV systems, REDD+ financing, benefit-sharing schemes, and institutional, legal and policy options.

4.4.1 REDD+ activities

The scope of REDD+ in Ethiopia includes activities aimed at reducing emissions from deforestation and forest degradation, and enhancing forest conservation, sustainable forest management, and carbon stocks. Leveraging off earlier activities of afforestation and reforestation in different parts of Ethiopia, the '+' aspect of REDD+ will be given special attention in future activities. Afforestation and reforestation activities that will be included in the REDD+ mechanism (as carbon stock enhancement) will provide incentives to regenerate forests in previously deforested areas. In this regard, large areas of northern Ethiopia where local community bylaws have set closures are potential pilot areas. REDD+ pilots are generally designed to feed into both PFM programs and protected area programs that are developing PFM buffer zones (FDRE 2011c). REDD+ initiatives of particular interest are those in the south and southwest of Ethiopia (See Table 22). These initiatives are at different scales and financed by different sources (Table 22).

Table 22. REDD+ initiatives in Ethiopia.

REDD+ initiative	Location	Scale	Size (ha)	Status	Proponent
Bale Mountains Eco-Region REDD+ Project	Oromia	Project level	500,000	Under validation	FARM Africa and SOS Sahel
Kaffa/Sheka Biosphere Reserve	SNNPR	Project level	>100,000	Initiated	Ethio-wetlands and Natural Resources Association
Yayu REDD+ Project	Oromia	Project level	190,000	Initiated	Ethiopia Coffee Forest Forum
Oromia REDD+ Pilot Program	Oromia	Jurisdictional	2,030,000	Design phase	Oromia Forest & Wild life Enterprise (a national pilot)

Under the national REDD+ program, progress is being made in identifying REDD+ pilot sites in the different regions. There is a general agreement between the Ethiopian government and the financiers that priority will be given to landscape-level programs, rather than small-scale project level pilots (FDRE 2013).

Ethiopia is at an early stage of developing its national REDD+ strategy. In addition to the REDD+ Strategy Task Force (responsible for overseeing and supporting the process), a core group working under the auspices of the Task Force was established recently (29 May 2014) with the aim of expediting the development of a draft strategy. It is planned that the draft will inform the second GTP of Ethiopia, which will be launched in February 2016. A concept note on the main features of the strategy identified capacity building, biodiversity conservation and poverty alleviation as important co-benefits. As identified in the R-PP, these co-benefits include improving the livelihood of forest dependent communities through income diversification. Improved household income from NTFP sales has already been demonstrated in PFM sites in Ethiopia (R-PP 2011), and both the Bale REDD+ and Oromia Jurisdictional REDD+ Programs have also identified NTFPs as providing these co-benefits.

4.4.2 Financing

REDD+ financing assumes different modes in Ethiopia. The BERSMP was initiated by FARM Africa and SOS Sahel using EUR 6 million in financial support from Norway, the Netherlands and Irish Aid. REDD+ as a sustainable incentive mechanism was one of the project's six deliverables. As such, a portion of the financial support was used to initiate the Project Design Document. An additional EUR 2 million was provided by Norway to finalize the design and implementation phase of the project.

The Oromia Region REDD+ Pilot Program received USD 3million (out of USD 10million national REDD+ readiness support from Norway and the United Kingdom) for the design phase but additional funding for the implementation phase will be needed. The government of Norway has pledged to support the program as well as the purchasing of verified emission reductions resulting from program activities. Another REDD+ financing mode is that proposed by the government of Norway. Under this, Norway provides performance-based financial support for the development and implementation of Ethiopia's REDD+ strategy. Ethiopia and Norway signed a REDD+ Partnership Agreement to this effect on 16 August 2013. The agreement identifies a set of deliverables/indicators for the three phases (Preparatory Phase, 2013–14; Transformation Phase, 2015–16; and Payments for verified emissions, 2017–20) that must be met, as a precondition to any financial support from Norway. Financial support in the first phase is based on achievements of proxies.

In the future it is expected that additional sources of funding will be made available from the CRGE initiative, of which REDD+ is a key part. In this regard, the government of Norway has pledged to finance building the technical capacity of the CRGE Facility at MoFED to manage REDD+ funds. In a recent meeting (23 June 2014) between a high-level Norwegian mission and Ethiopia's MoEF, Norway pledged to provide USD 60 million, of which USD 10millionis for the national REDD+ program as part of the REDD+ Partnership Agreement. The remaining USD 50million will be used for the Oromia REDD+ pilot, part of which is being used as upfront finance and the rest of which will be used as emission reductions payments.

4.4.3 Monitoring, verification and reporting

The establishment of a national reference scenario for REDD+ is at an early stage in Ethiopia. A preliminary baseline assessment and a 20-year projection of potential emission reduction levels were carried out as part of the development of the CRGE strategy. However, reliable data on forest cover and forest-cover change is lacking, and a detailed assessment and forest inventory is still needed for REDD+ implementation.

Current plans for establishing reference levels and reference emissions levels will involve a nested approach, using both subnational and national baseline data (FDRE 2011b), and will consider the historical averages of emissions in the country for the period 1990–2010 and beyond. There is a general consensus, based on remote sensing techniques coupled with ground verification, that only Tier 2 methods will provide activity data of

sufficient quality. Tier 2 methods employ the use of remote-sensing spatial data combined with ground truthing. Unlike Tier 1, Tier 2 includes country-specific data. However, it may still include coarse resolution activity data and emission factors. Ethiopia is aiming for Tier 2 emission quantification by 2015. It is generally agreed that the development of the reference level will call on international guidance (UNFCCC) and improved data sources to develop the national forest reference level for Ethiopia.

In February 2013 MoA and FAO launched the Support to National Forest Resources Assessment of Ethiopia project. Accordingly, the National Forest Inventory (with a methodology that was designed to be REDD+ compliant) was launched in February 2014. This project will complement on-going efforts in developing a national framework for MRV for REDD+. Thus, REDD+ will introduce a systematic approach for measuring and monitoring these aspects. There has been limited institutional and manpower capacity in carrying out a periodic national forest inventory in Ethiopia. Since the comprehensive forest inventory carried out some 10 years ago by the WBISPP, none of the national forest cover data reported (e.g. FAO's [2010] Global Forest Resource Assessment) has been based on solid field data. In this regard, a roadmap for MRV was produced with the technical support of Wageningen University in September 2013. The MRV Roadmap identified both data and capacity gaps that should be addressed for a functional REDD+ MRV system. Accordingly, a need for capacity building was identified in a number of areas: remote sensing for image interpretation and change analysis; sector-specific data infrastructure; centralized carbon data management; national spatial data infrastructure; and use of a clearinghouse for data access. Moreover, a national forest definition needs to be decided (as at the time of writing, this was being finalized), a system for data acquisition at regular time intervals should be developed and forest inventory methods need to be standardized.

Given the multitude of stakeholders involved in the planning and implementation of REDD+ at subnational and national scales, the Roadmap recommends appropriate institutional arrangements. Accordingly, a REDD+ MRV system must also be designed to accommodate these multiple stakeholders. The document advised that coordination of monitoring activities is essential for such a multi-stakeholder process to be successful. At the national level, a coordination mechanism should exist to provide a link between policy and practice at different scales. Additionally, MRV-related activities and arrangements should be linked to existing relevant structures including higher education institutions and ongoing monitoring activities at the local level. Once finalized, the REDD+ Secretariat will coordinate the implementation of the MRV Roadmap with support from the RTWG, and a number of potential national and international partners (during the implementation phase). The institutional gaps identified (e.g. a forest inventory directorate) will be addressed by the existing structure (e.g. a forest inventory directorate) in the newly established MoEF.

4.4.4 Benefit sharing

One of the objectives of the Environmental Policy of Ethiopia (FDRE 1997) is, "To ensure that park, forest and wildlife conservation and management programmes which conserve biological diversity on behalf of the country allow for a major part of any economic benefits deriving therefrom to be channeled to local communities affected by such programmes" (FDRE 1997, 11). There is also a law – Proclamation No. 542/2007 – that supports benefit-sharing mechanisms in connection to forest management (FDRE 2007). However, for implementation, the said Policy and Proclamation require the preparation and approval of subsidiary public documents, such as standards or guidelines.

Currently, there is no cost- and benefit-sharing mechanism in place for the national REDD+ program. However, the institutional arrangement for managing the REDD+ fund and associated benefit sharing scheme will be studied along with the legal and institutional arrangement and will be ready by the end of the readiness phase. In this line, the R-PP proposes the need for mapping the legal entities (with legal user rights) that manage the forested areas in the REDD+ SESA/ESMF study. The data on legal entities will then be used to develop the REDD+ benefit-sharing indicators. These will then be analyzed to reveal the extent of benefit sharing.

The benefits of REDD+ activities for forest-dependent communities are typically monetary

gains and capacity building (i.e. training to undertake forest inventories). The latter incentive is designed to strengthen communities' sense of ownership over the MRV process and to mitigate any local suspicion about the purpose of the inventories. Previous research has also shown that community-based forest inventories cost less than professional surveys, and produce similar levels of accuracy (Angelsen et al. 2009).

Apart from these, the most successful incentive to date in encouraging local communities to engage in sustainable forest management is PFM, particularly in the Oromia and SNNPR regions. It is often discussed in national REDD+ forums that the incentive mechanism used in PFM could be a starting point for a broader REDD+ benefit-sharing mechanism. Another important proposal is the mechanism used in the Bale Mountains Eco-region REDD+ Project. Under this mechanism, it is proposed that an independent trust fund, governed by a board, will be established under a government entity. The board would be responsible for reviewing implementation and making decisions on disbursements resulting from realized emission reduction payments. Third-party financial managers would manage the financial accounts of the trust fund. The proposal further identifies the REDD+ beneficiaries (households and communities of the project area and reference zone, cooperatives, associations/unions), the costs associated with the project activity, tax deductions and the broad annual distributional schemes of the benefits for all beneficiaries. On the basis of such a scheme, a 60/40 benefit-sharing scheme has been proposed for the Bale Mountains Eco-region REDD+ Project. Local communities will take the majority with the remaining partitioned among other government entities. A preliminary discussion on a benefit-sharing scheme between the regional government bureau and a project developer in the SNNPR (REDD+ Focal Person) was initiated a few years ago.

4.4.5 Proposed participation mechanisms

The R-PP recommends that stakeholder mapping should be made in the future. Accordingly, additional stakeholders will be identified to increase stakeholder participation in the decision-making process. In this line, a comprehensive stakeholder mapping exercise will be carried out to learn from the experiences of previous participatory practices (e.g. PFM) and decide on the inclusion of new stakeholders. Consultations at various levels will address a spectrum of participation that ensures awareness creation through provision of information, and shared decision making and action. Similar tools to those used in the R-PP development will be used to facilitate stakeholder analysis and consultation.

One notable future participation plan is strengthening community-based organizations. Marginalized stakeholders will be identified through stakeholder mapping and analysis. To ensure their effective participation in multi-stakeholder forums, trainings will then be provided on, for example, presentation skills, negotiating and debating skills, and the methods and processes used in multi-stakeholder meetings. Another plan involves linking consultation outcomes with high-level decision and policy making through training. Trainings provide an appropriate forum to inform more powerful stakeholders of the rationale for participatory approaches and how to use them. This is often effectively achieved through hands-on practice of the tools, including using role-play exercises in which more powerful and less powerful stakeholder roles are played. Most importantly, a REDD+ communication strategy is currently being designed and likely to be completed in the next few months. The strategy will identify the goals, vision and appropriate communication options for the national REDD+ strategy.

4.4.6 Policies and institutions

Legal and institutional arrangements for the implementation of the national REDD+ program are currently the focus of several studies. These will provide insights on the legal reforms required and institutional arrangements necessary for REDD+ implementation. Largely, there is no plan for creating new institutions as part of the management arrangement of REDD+ in Ethiopia. The general agreement is that proposed management arrangements can be integrated into current institutional structures. However, the R-PP identified the need to establish regional REDD+ management units for reaching local-level stakeholders and effective implementation of REDD+.

The MRV Roadmap proposed a framework outlining management links between actors to support the implementation of key activities related to the development of REDD+ MRV. In line with this, a national MRV/forest monitoring coordination mechanism should exist to provide a link between policy and practice at different scales. Additionally, MRV-related activities and arrangements should be linked to existing relevant structures, including higher education institutions and ongoing monitoring activities.

The Federal Government of Ethiopia has established the CRGE Facility within MoFED. The Facility is responsible for managing finances for CRGE initiatives, which will include channeling funds toward REDD+. It is also planned that it will manage the selling of expected project-generated carbon credits. MoEF is the leading governmental institute in REDD+ discourses in Ethiopia currently. MoA, identified as a major sector contributing to the deforestation, is also a prominent actor in the national REDD+ discourse. However, one group of stakeholders who need to be engaged in REDD+ implementation but have been less involved so far is the forest-dependent communities. Overall, the development of a national REDD+ strategy calls for a concerted effort among the major sectors, particularly agriculture, energy and forestry.

Nonetheless, apart from the inter-ministerial CRGE steering committee that looks into the cross-sectoral mitigation efforts and evaluates the progress, there are few forums that bring important actors on board for a coordinated effort. Strong coordination among MoA, MoEF and the Ministry of Energy, Water and Mines is crucial for the realization of REDD+ in the country. It is clear that a lot needs to be done in the future for cross-sectoral coordination both at the planning and implementation stages of REDD+. Cross-sectoral and cross-institutional coordination to ensure more coherent and efficient forestry approaches with clarification of roles and responsibilities have been suggested in the R-PP.

Ethiopia's forest law (FDRE 2007) is currently under review and the strategy instrument for implementing the revised policy is being finalized. Legal issues related to REDD+ were discussed during the review process and issues pertaining to forest and carbon tenure are expected to be addressed in the final document. Strengthening user rights seems to be a key issue for forest-dependent people that if addressed would motivate them to protect forest resources. Also of particular interest in the forest law revision, is the legal base of benefit-sharing mechanisms for local communities in REDD+ activities.

4.4.7 Policy learning

Lessons from REDD+ pilots and PFM initiatives are currently not harnessed in an effective way. One major activity identified in the R-PP (FDRE 2011c), in this regard, is the documentation of best practice and lessons from previous projects around the country. This involves designing and implementing a study of all the various forestry and land-use activities developed and implemented in Ethiopia that contribute to emissions reductions including sustainable land management activities (e.g. SLMP, Productive Safety Net Program, etc.), PFM initiatives, assisted natural regeneration projects (e.g. Humbo Ethiopia Assisted Natural Regeneration Project), pastoralist activities (e.g. Pastoral Community Development Program) and biomass energy initiatives (e.g. national cooking stove programs). This will increase understanding of the value and application of approaches and technologies across the landscape of climate and resilience interventions.

As well as a study to capture learning from previous initiatives, another proposed activity is the development of a REDD+ learning network (FDRE 2011c). This will serve as a coordinated voice that ensures lessons from REDD+ pilots and PFM initiatives are analyzed and shared, and contribute to practice on-the-ground through the development of best practice guidelines and manuals. The network will also act as a policy support group to try to influence policy to be more supportive of REDD+ pilots.

The lack of integration of past success and failures into the policy environment has been identified as one of the gaps that need to be addressed in the readiness process (R-PP 2011). For example, the regulatory approach to protected area management has not been effective in reducing deforestation and degradation, and has often had negative social consequences. With a few exceptions, these approaches are suffering from continuous human encroachment and other forms of severe

disturbances.[38] It was suggested that a dual strategy should be used for protected areas, with buffer zones and core protection areas. The buffer zones would be created in areas where forest-dependent people are established, and would be the focus of PFM programs to support formalized local control, sustainable forest management and benefit sharing between government and communities (FDRE 2011c).

Another lesson that has failed to have an impact on policy is related to area closures for rehabilitation of degraded lands. Area closures have been widely implemented in the country, particularly in the northern highlands. However, they are often created in food-for-work or food-for-payment schemes, while the rights to use the planted trees remain unclear to local people (Derero et al. 2010). This has led to failures in several area enclosure initiatives in south and central parts of the country (Betru et al. 2005). Despite these failures, proponents (mainly government agencies) of area closure strongly argue for continued support to consolidate and scale up area closure systems. Their argument is well supported by the observation that previously deforested areas under area closure, have, with enrichment planting, reforested. Moreover, cut-and-carry systems for grass and lopping tree branches for fodder have made it possible to restrict and often altogether stop free-range grazing. The animals are better fed and their droppings are used for making compost and fertilizer. In this way, forest cover, agricultural production and animal husbandry improved, thus also improving the economic situation of the farmers.

In summary, the future plans for REDD+ implementation appear promising. However, there remain challenges for the success of REDD+. One major challenge in terms of financing is how to ensure the sustainability of funding of REDD+ initiatives in the country. On the other hand, that REDD+ is an integral part of the CRGE strategy may provide an opportunity to tap more financial resources. In relation to MRV, a major challenge is the lack of data and human and infrastructure capacity, as well as that the institutional arrangements for MRV coordination remain unsolved. Despite these, gaps in data and capacity, the available expertise identified in different institutions may serve as a starting point. Furthermore, the issues of forest and carbon tenure and managing community expectations in relation to benefits should be addressed as these provide the basis to determine communities' carbon rights. Lessons from previous and current initiatives such as PFM projects may provide a starting point, particularly in regard to benefit-sharing mechanisms. With regard to policy and institutions, the issue of tenure and effective horizontal coordination in addressing deforestation and forest degradation remains a big challenge. Given the strong political commitment of the government of Ethiopia, there is a possibility that revisions in the on-going forest law review will address these challenges.

38 Lemenih M and Woldemariam T. 2010. Review of forest, woodland and bushland resources in Ethiopia up to 2008. Unpublished manuscript. Received April 2010.

5 Implications for the 3Es

This chapter draws on findings in preceding chapters to make an overall evaluation of the context of Ethiopia for REDD+ implementation with respect to the 3Es. The first section examines national policies and strategies favoring and impeding the forestry sector, and the implications for REDD+ policy development and implementation. It then presents potential policy options to address deforestation and forest degradation (REDD+ implementation) in Ethiopia. The second section provides a detailed evaluation of the relevant aspects of REDD+ employing the 3Es analytical framework. The 3Es refer to the following:

- **Effectiveness:** To what extent will the implementation of REDD+ polices and strategies reduce carbon emissions from deforestation and forest degradation in Ethiopia? Can REDD+ contribute to national efforts to reduce deforestation and forest degradation?
- **Efficiency:** Can REDD+ be implemented with the least cost possible (lowest cost per ton of carbon for reduction in emissions from deforestation and forest degradation)?
- **Equity:** To what extent will the implementation of REDD+ address issues of equitability in the distribution of costs and sharing of benefits among stakeholders from its actions?

5.1 National policies, the 3Es and policy options

5.1.1 National policies and programs exacerbating deforestation and forest degradation

From the analysis in Chapter 1 on national policies and programs exacerbating the deforestation and degradation process in Ethiopia, five major direct drivers and four underlying causes can be identified most of which are closely associated with the political-economy of the country and chronic problems rooted to the country's economic and demographic status. The major direct drivers include: (1) forest clearance for smallholder agriculture; (2) land-use conversion for large-scale commercial agriculture and development investments; (3) illegal wood extraction (firewood charcoal and lumber); (4) government-backed human settlement programs in forest frontiers; and (5) forest fires.

The indirect drivers/underlying causes include: (1) poverty and heavy dependence on exploitation of natural resources; (2) rapid population growth; (3) unstable and inefficient tenure and property right arrangements; and (4) limited institutional capacity to manage forests. Though these direct and indirect drivers are identified as causes of deforestation and degradation in Ethiopia, their level of impact varies among the four forested regions of Oromia, SNNPR, Gambela and Benishangul-Gumuz (FAO 2010) implying the need to address the drivers in accordance to their relative importance in each region for REDD+ implementation.

Many of the national policies and programs aggravating deforestation and forest degradation in Ethiopia are also likely to have a negative impact on the potential of REDD+ (see Table 23). Analyses of these policies and programs reveal that those targeted at promoting economic development have the largest counterproductive implications for REDD+ safeguards and forest development efforts. As discussed in Chapters 2 and 3, the problem appears to emerge from differing government interests caught at cross-roads between political and economic exigencies to attain rapid economic growth on the one hand, and achieve a greener and more sustainable economy while meeting international environmental safeguarding obligations of the country on the

Table 23. National policies and programs aggravating deforestation in Ethiopia and their likely detrimental impact on the 3Es of REDD+.

National policies, strategies, programs and institutions	Negative impact on the potential of REDD+				Actors and agents
	Effectiveness	Efficiency	Equity	Level of impact[a]	
Agricultural development policies and strategies	X	X		5	MoA, smallholder farmers, GTP agency
Large-scale private and state investment policies	X			4	Investment agency, private investors
Human resettlement programs[b]	X		X	4	Federal government
Infrastructure and road network development policies	X			3	Federal government
Forest governance systems		X	X	3	MoEF, local government
Land and forest tenure and property right arrangements	X		X	4	Federal government
Forest law enforcement capacity and structures	X	X		4	MoEF, local government
Forest products extraction and fuelwood collection	X			4	MoEF, local government
Forest fires and charcoal making control systems	X		X	4	MoEF, local government
Stakeholder participation and benefit-sharing policies		X	X	5	Federal government, MoEF, local government

[a]Level of impact: 5 = very high, 4= high, 3= medium, 2= low, 1= very low.

[b]At present resettlement programs appear on hold but the policy remains active.

other hand. As a result, current agricultural development and investment policies contradict REDD+ objectives (that are also articulated in the CRGE strategy and the country's forest policy) to reduce deforestation and degradation. For instance, studies by Bongers and Tennigkeit (2010), Abiyu et al. (2010) and Rahmato (2011) show that the lowland forests and woodlands of Ethiopia are under clear threat by foreign capital and national investors racing for land to produce export commodities, largely by clearing forest. Unless properly addressed, the impact of these policies and actions will thus compromise the effectiveness and efficiency of REDD+ actions.

A primary challenge for REDD+ will thus be developing policies and strategies that can ensure effective and efficient deforestation reduction while achieving equitable benefits for forest dependent communities and forest guardians. The quest for a win-win scenario requires balancing the national development actions with deforestation reduction initiatives and REDD+ objectives.

Another national policy that has played a significant role in recent deforestation and forest degradation is the government-backed resettlement of farmers. Farmers were encouraged to move from degraded highlands to the less populated pastoral and agro-pastoral lowlands that contain some of the remnant forests of the country (Lemenih et al. 2012). In the process, large areas of communal forests in Oromia and SNNP were cleared and degraded (Stellmacher and Eguavon 2011). The problem was exacerbated by illegal resettlement of farmers from other areas and establishment of individual enclosure by locals themselves (Bekele and Kassa 2014). The implications of this policy on REDD+ are multiple. It significantly reduces the forest cover and thus the effectiveness of REDD+, and it creates conflict between existing communities with forest conservation interests and

new comers who tend to exploit forest resources, thus undermining REDD+ efficiency.

As the modern energy sector is still in its early stages, existing forest resources are also under constant pressure from illegal extraction and collection of forest products to meet domestic energy demands. Forest fire and charcoal making play a significant role in the degradation process particularly in the pastoral and agro-pastoral lowlands of the Afar, Oromia, SNNP, Benishangul-Gumuz and Gambela regions. The impact of forest fires and illegal charcoal making is thought to be even greater due to the lack of a strong forest protection institution and limited livelihood diversification options. These activities will undermine the effectiveness of REDD+, at least in the short term.

Beyond specific policies and activities, the lack of an efficient and stable institutional setting and tenure system (property-rights regimes) over forest resources will pose a major challenge to the development of efficient and equitable REDD+ in Ethiopia. Lack of institutional capacity with state-of-the-art competences in MRV, lack of updated regional and national forest data, and poor law enforcement and monitoring capacity could also undermine effective implementation.

5.1.2 National policies for reducing deforestation and forest degradation

Recognizant of the multifaceted pressures on forests, and the need for sustainable economic development and resource management, the current government of Ethiopia is increasingly engaging in the development and implementation of policies and strategies to reduce deforestation and GHG emissions from deforestation and other sources. As presented in Table 24, the national CRGE strategy is one of those policies, and is expected to play an important role in promoting national forest development and driving REDD+ implementation. The Strategy stipulates that key to achieving a green economy is: "protecting and re-establishing forests for their economic and ecosystem services including carbon stocks" (FDRE 2011a, 24) and it prioritizes REDD+ as a key strategy to achieving this.

The government has also shown its commitment to reduce deforestation and forest degradation by establishing its first MoEF in 2013 and institutionalizing the REDD+ Secretariat under MoEF. If successfully implemented and maintained, these initiatives could pave the way for reduction of carbon emissions from deforestation and, as such, greater REDD+ effectiveness and efficiency.

Table 24. Policies and programsfor reducing deforestation or increasing sustainable development in Ethiopia and their likely positive impact on the 3Es of REDD+.

National policies, strategies, programs and institutions	Effectiveness	Efficiency	Equity	Level of contribution[a]
The CRGE strategy	✓	✓		4
The national forest policy	✓		✓	3
The national forest proclamation	✓		✓	3
Establishment of MoEF	✓		✓	4
NAMAs	✓	✓		4
The national energy policy	✓	✓		3
The PASDEP	✓		✓	3
The national population policy	✓			2
The Grand Renaissance Dam	✓	✓		2
International agreements	✓			3

[a] Level of impact: 5 = very high, 4 = high, 3 = medium, 2 = low, 1 = very low.

Similarly, the government's issuance of its first forest policy in 2007 was another milestone representing the commitment to change the current scenario of forest depletion. Not only was it the first forest policy, it also contained a set of incentives encouraging private investors to engage in forest production and development, including issuance of lease-free land and tax exemption until the trees mature for harvest. Strengthening the policy, the 2007 forest proclamation, which was developed alongside the forest policy, explicitly declares and formalizes the importance of local communities' participation in the development and conservation of forests, and sharing of benefits from such development. These policy instruments can significantly enhance REDD+ equity and perhaps effectiveness too.

Another encouraging move by the government was the launching of several multi-sectoral NAMAs including: afforestation and reforestation programs; watershed management practices; and millennium tree planting programs along with the CDM and PFM projects. The government's dedication to promote these programs and readiness to embrace REDD+ as an innovative approach to financing forest management activities will undoubtedly have a positive impact on REDD+ effectiveness and efficiency.

In the same line, the national energy policy (1994), biofuels strategy (2007), Environmental policy (1997) and CRGE strategy, all envisage reversing the current impact of domestic energy demand on deforestation and forest degradation through expansion of renewable energy sources and adoption of energy-efficient modern technologies. Furthermore, fully cognizant of the complex challenges of the rapid population growth on the country's development endeavor and on the sustainable use of its natural resources, both the PASDEP (FDRE 2006) and the population policy and strategy are working to control and harmonize the rate of population growth with the actual capacity of the country for sustainable development and efficient utilization of its natural resources (Getachew 2008).

If these policy initiatives and programs are successfully implemented and further strengthened by the necessary legal framework and institutional structures, Ethiopia could achieve meaningful reductions in carbon emissions through adopting the REDD+ scheme. What is more, Ethiopia's active role in the global climate negotiations and ratification of a number of climate-related international policies including those of the UNFCCC, UNCBD and UNCCD, will be an important asset for REDD+ implementation in the country. However, achieving sustainability with the development and implementation of efficient, effective and equitable REDD+ in Ethiopia requires overcoming the current challenges from sectors and actors behind deforestation and forest degradation through adopting the potential policy options and actions summarized in Section 5.13.

5.1.3 Potential policy options and actions for successful REDD+ implementation

The first important task for the government and REDD+ is to halt deforestation from smallholder agricultural expansion and large-scale commercial investments in forest frontiers. In practice, this requires the government to introduce a number of policy amendments and enforceable regulations, and to strengthen its monitoring systems. Given the pivotal role placed on commercialization of smallholder farming and promotion of large-scale agricultural and other commercial investments in the country's development plan (FDRE 2010), the government needs to focus on enhancing the productivity of smallholder agriculture through intensification of the current farming practices, improving the management and rehabilitation of agricultural landscapes through watershed management, and NAMAs through reforestation programs and diversification of smallholders' livelihoods.

Another important approach to ensure REDD+ effectiveness is to make forest development and environmental safeguarding a national agenda that is addressed across all major economic sectors and ministries. This entails instituting relevant forestry programs, creating implementation structures and monitoring systems in major economic sectors, and raising the awareness of pertinent decision makers and actors of the importance of sustainability and forest development. At a lower level, achieving forest development activities also entails offsetting the opportunity costs of forest development engagement by local communities, administrations and other stakeholders. This requires formulating and implementing comprehensive and equitable benefit-cost sharing mechanisms, and developing

meaningful incentives for local communities to engage in REDD+ and other forestry activities. Adoption of stronger formal/informal regulations and effecting bodies for contextual or complete prohibition of forest fires and charcoal makings could also help enhance REDD+ effectiveness.

Enhancing the law enforcement capacity and autonomy of the forestry sector and setting up monitoring systems to inspect the implementations of the policies and programs is essential. Establishing digital databases of forestry information is also crucial. However, these actions will only be helpful if the current gaps in institutional capacity and technical competencies are addressed. A conceivable approach for REDD+ in this regard is to work with national higher education institutions to provide trainings on REDD+-related topics.

5.2 Assessment of major aspects of REDD+ and the impact on the 3Es

5.2.1 Implications of the broader governance and institutional context in Ethiopia for the 3Es

Assessment of the broader institutional context in Ethiopia suggests the emergence of an enabling political environment and institutional platform conducive for prospective implementation of REDD+. Nevertheless, the practical implementation and success of the REDD+ strategy could also be compromised by a series of challenges attributed to the weak forest governance system, ineffective legal frameworks, inadequate institutional capacity and insufficient participation of stakeholders.

Evidently, the weak forest governance and law enforcement systems that are a result of the lack of stable, adequately-financed and empowered forestry institutions at national, regional and local level, can drag down the effectiveness, efficiency and equability of REDD+. These challenges have been largely attributed to the lack of priority given to the sector, as is evident from the many policy instruments enshrined to safeguard the environment but accompanied by inadequate funding and weak implementation structures. However, this does seem to be changing in recent years. In terms of efficiency and equity, the limitation of the current forest tenure arrangements to provide rational rights and meaningful incentives to stakeholders and local communities to undertake forest development activities could undermine REDD+ actions (USAID 2008).

The lack of clear and pragmatic regulations and institutional capacity at lower administration levels to correctly interpret policies, enforce laws and monitor forestry programs with some level of accountability and transparency is yet another critical problem that challenges the effectiveness and equity of REDD+. The forest governance problem is also driven by the lack of an adequate degree of decentralization and delegation to authorities, especially to local-level administrations. This will likely increase the transaction costs of REDD+ and undermine the equitable distribution of benefits. Thus future REDD+ policy development will need to improve the forest governance system and enforcement of forest laws. Achieving this goal requires establishing new institutions and/or enhancing the capacity of existing ones at federal, regional and local levels through provisioning of adequate financing, functional delegation of authority at lower levels, and providing skilled manpower and essential facilities and technologies.

In terms of efficiency, REDD+ policies and strategies need to be developed in line with the core national policies and programs directed at alleviating poverty and reducing deforestation (including the CRGE strategy, forest policy and proclamation, and the PASDEP). Such a move will help to create greater synergy with the government efforts and secure improved efficiency in emissions reductions from deforestation and forest degradation. In terms of geographic focus, REDD+ should target: high-forest and biodiversity areas in south and southwest Ethiopia (i.e. Oromia, SNNP, Gambela and Benishangul-Gumuz); extensive area enclosures and long-conserved sacred forest of the Ethiopian Orthodox church in the northern highlands of Amhara and Tigray; and lowland woodlands of agro-pastoral and pastoral communities in the south that are long-conserved by strong bylaws and indigenous institutions. Improving efficiency in REDD+ could also be achieved by maintaining consistency in regulatory roles of ministries whose responsibilities are associated with REDD+ implementation.

In terms of equity, REDD+ policies should aim to realize meaningful participation and representation of stakeholders – particularly forest-dependent communities – in the forest development decision-making process, including REDD+ implementation. Inclusion of representatives of stakeholder groups in the local governing councils of REDD+ (should they be established) would represent an important step toward ensuring greater participation. However, encouraging participation also requires empowering local communities and pledging economic and social justice to them from REDD+ engagement.

At present, none of the national policies and legal frameworks as articulated makes clear reference on how to share benefits or costs among stakeholders in forest development and REDD+ implementation. Developing more specific action plans and simplified procedures fully anchored by solid government support is imperative to attain equity in REDD+. As long as these aspects are neglected, breaches of regulations and undermining of the rule of law will continue posing clear danger to the 3Es of REDD+. Lessons in facilitating participation and taking an equitable approach could be obtained from the valuable experiences of the PFM and CDM projects.

5.2.2 Implications of tenure and property rights conditions for the 3Es

The issue of land tenure and property rights over natural resources including forests has long been at the epicenter of the political dome in Ethiopia. This is because land tenure and property rights are entrenched in the political and governance blueprints of most of the governments in the last century. During the past half a century alone, land tenure and ownership rights over forests in Ethiopia have been characterized by a high degree of uncertainty. Notably, forest tenure and property-rights regimes have changed from excessive and unfair individual holdings during the feudal period (1940–74) to extreme state control during the military Derg period (1974–1991). The current forest tenure system identifies state and private ownership as the only legal property-rights regimes, thereby pressing the extensive communal and customarily managed forests under private ownership. Yet the proposed forest law under revision has hinted the possibility of community forests, including those under PFM, standing as a third separate property-rights regime.

Regardless of government policy changes over the years, none of the forest tenure and property-rights regimes, including the current forest tenure system, were efficient and equitable in providing economic and social justice to the public and forest-dependent communities. Currently, nearly all natural forests and dry woodlands are under state control as a state property, alienating communities from the forests they have been using for centuries. As a result, today, frequent conflicts between state ownership and local communities' demands for use rights over forest resources are common in many forested regions. This has lead to open access situations, even in those areas with strong state presence.

Similarly, the current forest tenure and property-rights regimes do not recognize the de facto customary rights of communities and indigenous (informal institutions), including the church forests of northern Ethiopia, rain forests of southwest Ethiopia (including the Sheka, Kaffa and Bench Magi zones of SNNPR), Yayu forest of southwest Oromia, and woodlands in the Borana plateau, Gambela and Benishangul-Gumuz. However, these forests were able to survive the flood of massive deforestation and destruction during the past century due to the strong customary rules and governance systems deeply rooted in widely accepted social-values. The consequences of successive governments' failure to set up efficient and equitable forest tenure and property-rights regimes was witnessed during the political vacuum of the 1991 government change that resulted in widespread forest destruction throughout the country. Some areas lost up to 71% of their forest cover (Bekele 2003; Dessie and Christenson 2008).

There also exists a high degree of overlap and ambiguity between legal state entitlements and local community claims that requires legal clarification and regularization, as indicated in Chapter 2. The increased involvement of local farmers in deforestation and illegally establishing farm plots inside state-owned forests shows the failure of regulatory approaches. In a country where land is constitutionally state property, and private forest development is relatively low due to the small landholding per capita, the current lack of more stable tenure arrangements will put a tangible challenge to ensure effective, efficient and equitable REDD+ in Ethiopia.

The first step forward to guarantee effectiveness, efficiency and equity in REDD+ actions in the context of tenure and property rights is therefore the regularization and explicit legal definition of forest tenure and property rights entitlements. This needs to be accompanied by grassroots settlement of conflicts over ownership disputes among claimants. Without 'forest guardians/ owners' legally recognized, ownership titles and defined property rights put in place, effective reduction in deforestation and forest degradation, equitable benefit sharing and distribution of co-benefits will be difficult to achieve within a REDD+ framework. This entails the government to introduce a number of institutional and legal reforms to consider use rights of stakeholders and communities, including regulations to provide compensation should expropriation of entitlements become inevitable for pursuing state economic development programs.

A key issue equally important to introducing institutional and legal reforms on forest property rights is the determination of carbon rights of communities and other stakeholders including government administration at various levels. A starting point for REDD+ and indeed for the government to establish an equitable blueprint on 'who owns carbon and how much?' can be obtained from the credible lessons of the PFM projects as discussed in previous sections. Nevertheless any REDD+ effort to establish operational guidelines and benefit-sharing policies needs to engage stakeholders and represent their interests. In terms of efficiency, the legal reforms and property rights clarification also need to be accompanied by building the capacity of the forest guardians and local communities to mange forests and implement REDD+ actions.

5.2.3 The implications of MRV capacity for the 3Es

Ethiopia is one of the most impoverished countries in terms of capacity to monitor its forest resources. Though preliminary baseline assessments and a 20-year projection of national emission reduction potential were carried out during the preparation of the CRGE strategy, these assessments were not based on solid and accurate field data. As indicated in Chapters 1 and 4, none of the national forest cover data reported by both national and international organizations was based on country-wide periodic field assessments apart from the comprehensive forest inventory attempt carried out some 10 years ago by the WBISPP.

However, as of 2013 MoEF and FAO are jointly conducting national-level forest resource assessments for the country. In addition, current plans by the R-PP to establish national reference levels and reference emission levels employing international approaches (from the UNFCCC) may help to improve the information gap. REDD+ initiatives can thus partner with MoEF and FAO in the ongoing national forest inventory and/or through conducting their own detailed assessments of relevant forest data in REDD+ target regions and forest areas. In both cases, the data will serve as a basis for REDD+ to develop a national framework for MRV of REDD+ actions. Another important task to developing an MRV framework is to establish a national working definition and characterization of forests, including standard forest inventory methods, in the context of REDD+ in Ethiopia.

In terms of improving the gap in manpower capacity, REDD+ and MoEF need to work on filling the technical gaps as already identified in the R-PP. A plausible approach for doing so could be to work with existing national and international institutions that have accumulated knowledge and experience in an MRV process – including higher education centers. The establishment of sector-specific data infrastructures, data management systems and data access facilities are indispensible for effective REDD+ actions. In terms of efficiency, emphasis needs to be given to local-level MRV capacity development and establishment of monitoring systems. This is because the latest remote sensing and GIS technologies may not detect certain levels of deforestation. An important experience to consider in creating local MRV capacity is that of Brazil's Google Initiative for the Surui tribes. The initiative provided simple technical procedures to monitor local deforestation levels, with the collected data linked to the national MRV system.

5.2.4 Implications of REDD+ financing and cost–benefit policy options for the 3Es

The national R-PP indicates that Ethiopia is planning to establish an independent financial management body – a trust board– for managing

REDD+ financing. However, REDD+ may also need to have alternative financing models that are flexible yet in line with the government's financial and monetary policies and public credit systems. This will allow appropriate legal procedures and controlling systems to be put in place to minimize misappropriation and misuse of funds by ensuring transparency and accountability. In terms of sustaining REDD+ financing, creating a separate REDD+ fund-soliciting unit within the proposed REDD+ finance managing body or REDD+ Secretariat that also coordinates similar efforts at lower levels, could be rewarding. The unit will work in partnership with national and international organizations and relevant ministries including higher education and research institutions to develop grant-winning REDD+ projects.

Regarding benefit sharing, the country's Forest Proclamation No. 542/2007, Article 10, subarticle 3, clearly stipulates the government's unwavering support to the benefit sharing of communities in forest management and development activities. However, the proclamation lacks both implementation guidelines and laws to enforce its ideals. As a result, the national R-PP process is set to develop clear and operational benefit-sharing mechanisms. Despite the plan indicated in the R-PP, the only established experience in the country of benefit-sharing from forest development and management hitherto are that of the models developed by NGO-led PFM projects in Oromia and SNNP regions, and the new proposal by the Bale Mountains Eco-region REDD+ pilot project.

The development of prudent cost–benefit sharing policies and operational guidelines is thus a critical pre-requisite for equitable REDD+. Given, the inevitable reliance of REDD+ effectiveness, efficiency and equity on the financing and benefit-cost sharing mechanism employed, an important first step is to work with government to pass and approve subsidiary provisions and legal frameworks on legal entitlements and benefit-sharing rights of stakeholders over carbon and REDD+ incentives. Once these legal frameworks are approved, the second step is to develop an operational guideline for REDD+ benefit-cost sharing that is both comprehensive and responsive to the forest property-rights regimes, level of involvement in the forest management and standard criteria of REDD+.

5.2.5 Implications of participation and coordination for the 3Es of REDD+

Recent policy documents and legal frameworks related to the management of forests and other natural resources in Ethiopia appear to recognize the importance of participation of local communities in decision-making processes. However, in practice facilitating meaningful public participation in forestry and natural resources management has not been a priority of the Ethiopian government or the forestry sector. In essence, channels of public participation in forestry decision making are either nonexistent or impractical. Similarly, the role and involvement of civil society in forestry decision making is limited largely due to the lack of government readiness and commitment to involve these entities in the decision-making process. As a result, reasonable participation of stakeholders in forest management has been limited to a few NGO-led PFM projects as discussed in Chapter 2. Poor horizontal and vertical coordination has been an impediment not only to efforts to combat deforestation and forest degradation but also to the implementation of the country's development programs at large. Efforts to reduce deforestation and promote reforestation thus far have shown limited success, in part because they are poorly coordinated horizontally (among different ministries and agencies) as well as vertically (across the executive branches and levels of each ministry or sector) as discussed in Chapter 1 of this study. It appears that every ministry operates in its own way, pursuing a largely centralized and top-down approach. This lack of effective coordination will not only undermine the synergy among sectors in combating deforestation but could also significantly compromise the effectiveness and efficiency of REDD+. Furthermore, it could also hinder national efforts to halt deforestation and achieve the country's ambitious plan for fast and sustainable development.

Hence, prospective REDD+ policies should aim to improve the participation of stakeholders, including civil society organizations, from the early stages of decision-making in REDD+ actions. Enhancing participation and stakeholder engagement in the REDD+ process requires creating dynamic and locally adoptable channels of interaction (e.g. consultation groups, websites,

etc). In view of this, REDD+ needs to carry out comprehensive stakeholder mapping and identification of efficient participation channels as suggested by the R-PP. Conducting a series of consultations at various levels will also help achieve greater participation and information sharing among stakeholders, as was pointed out in Chapter 4.

An important strategy for REDD+ in terms of improving horizontal coordination is to establish strong institutional partnerships between responsible ministries/institutions and stakeholders at the federal, regional and local level, including intergovernmental coordination among different regions or zones. In practice, achieving efficient horizontal coordination entails decentralizing the process of coordination at different levels while maintaining cohesive standards for monitoring REDD+ actions and results at higher regional and federal levels. While the presence of strong and effective regional forestry institutions is an asset to REDD+, creating a strong and centralized federal forestry institution (MoEF) that works jointly with the regional and global institutions is also essential to achieving greater REDD+ efficiency. Evidently, regional states with a relatively stronger forestry institution (e.g. Oromia and Amhara) have been able to achieve better success in combating deforestation than the nation as a whole, which appears to have suffered from lack of a strong and dedicated national forestry institution. Equally important is improving the vertical integration and concurrence of actions by the different executive bodies within relevant ministries in combating deforestation, managing finance and implementing REDD+ actions. A conceivable approach for improving vertical coordination is improving management efficiency, aligning REDD+ policies to local realities, and improving transparency and accountability among REDD+ implementing agencies at various levels of the organizational hierarchy.

5.2.6 Implications of other issues relevant to REDD+ on the 3Es

A long-standing issue that needs to be addressed if REDD+ is to remain equitable and effective is the argument over customary rights of traditional communities and indigenous informal institutions in forest management and use rights, especially in pastoral and agro-pastoral lowlands and the ancient church forests in northern Ethiopia. REDD+ recognizes the rights to forest resources, including customary claims by forest-dependent communities (César and Ekbom (2013). However, Ethiopia is not party to any of the international conventions protecting local community rights (e.g. the International Labour Organization Convention No. 169 and the UN Declaration on the Rights of Indigenous Peoples). As a result, the long-contested customary rights of local communities in the management and use of forest and other natural resources are neglected or replaced by the formal state institutions and control. Even the ideals of protecting the rights of local communities articulated in the national forest policy and proclamations have not been implemented in full, with partial exception of PFM areas.

Hence, a REDD+ strategy that addresses equity issues in customary rights of local communities and local institutions is of high priority. The northern church forests that contain an estimated 5% of the country's forest are also not legalized. Recognizing the fundamentality of the issue for REDD+ implementation, the national R-PP has identified the need to recognize and address community rights. To that effect, REDD+ is expected to introduce a number of institutional and legal reforms to ensure the legal recognition of customary rights and their enforcement. Another important aspect for REDD+ policy development is aligning its main strategies and actions for co-benefits with improving the livelihoods of forest-dependent communities, diversifying rural livelihoods to help alleviate poverty, and promoting alternative energy sources, biodiversity conservation and rehabilitation of degraded landscapes. Putting in place strategic interventions to enhance these co-benefits (as identified in the R-PP) can bolster the effectiveness of REDD+ especially in most of the Ethiopian forest contexts.

5.2.7 General outlook and prospective REDD+ policy outcomes

In general, Ethiopia's current policy initiatives, strategies and practical undertakings demonstrate the government's political commitment and growing support for reducing deforestation and developing the forestry sector. In light of the emphasis given to reducing deforestation and forest degradation in the country's ambitious plan to build a climate resilient green economy,

the emergence of REDD+ will likely heighten the government's interest in embracing the new financial opportunities that forest protection and development may generate. Overall, the context of Ethiopia for implementing REDD+ and reducing deforestation and forest degradation is promising in many aspects. However, a lot needs to be done for the REDD+ scheme to be effective, efficient and equitable in the country, especially in the areas of: harmonizing economic development policies with environmental management policies; clarifying legal frameworks on forest tenure and property rights; participation of stakeholders including local communities; benefit-sharing mechanisms and determination of rights over carbon; strengthening institutional structures and capacities in law enforcement; enhancing national capacity in key competence areas as identified in the RPP document; and improving both cross-sectoral and vertical coordination among ministries and agencies in addressing deforestation and forest degradation.

6 Conclusions and recommendations

In the broader political and institutional context, the government of Ethiopia appears to be more committed today than ever before to addressing the challenges of climate change and dealing with the problems of deforestation and forest degradation. Evidently, the country has prioritized combating deforestation and reducing carbon emissions as one of its strategies to build a climate-resilient green economy. One of the mechanisms the government has planned to reduce emissions from deforestation and forest degradation is adopting and institutionalizing REDD+ as a potentially attractive and stable form of financing sustainable forest management. To this end, some policy instruments are already being initiated including the establishment of a new ministry for the environment and forests after many years of absence. The establishment of the REDD+ Secretariat is also a step in the right direction. Revising the forest law to respond to the new demands of climate change and particularly to REDD+ activities is also in progress. Although, there are a number of positive measures being adopted by the government, the effective application of REDD+ activities still need more policy and institutional initiatives. The following recommendations are made to that effect:

1. **Protect and develop the forest resource**
   Achieving lasting reduction in national carbon emissions and halting deforestation and forest degradation through schemes like REDD+, entails overcoming several policy and legal impediments and surmounting accumulated problems from long-term institutional deficits. Thus, a range of policy reforms and targeted actions by the Ethiopian government are critical to achieving REDD+ goals, which are also knotted with global safeguard requirements, as indicated below.
   - Prevent or control allocation of forested lands for large-scale agricultural investments and monitor the effective enforcement of existing environmental impact assessment regulations. Centralize the activities of environmental impact assessment works and reinforce the unit with skilled manpower and better incentives.
   - Reduce deforestation and forest degradation from smallholder agricultural expansion via the introduction of agricultural intensification assisted by improved technologies and irrigation systems where viable (subsidizing of critical inputs for poor farmers should be considered).
   - Develop broader regional land-use plans that take into account the future of forest development and forest-based livelihoods in view of sustainable economic development.
   - Develop sector-specific data infrastructures, carbon data management systems and spatial data infrastructure.
   - Scale up the practice of PFM with sufficient decision-making autonomy and economic incentives to the forest custodians organized under forest CBOs.
   - Encourage private forest developers by providing incentives such as land grants, interest free loans, and technical, marketing and administrative support.
   - Develop a forest extension package in which technologies for forest/woodlot establishment, tending, harvesting and processing are incorporated.

2. **Establish more secure forest tenure rights and fair governance**
   - Ensure that forest-dependent communities, women and the poor are particularly supported in forest entitlement, and participate in decision making related to the REDD+ process and other forest-related activities that could affect their livelihood.

- Provide certification of ownership or use rights to CBOs and individual forest farmers (woodlot owners).
- Specific provisions should be in place to guarantee user right entitlements and proper compensation in the case of expropriation of forest/tree property from forest CBOs and individuals.
- Enhance the participation of civil society organizations in the national forestry agenda and REDD+ process through more interactive procedures and improved channels, such as involving civil society organizations, higher education institutions and other stakeholders, in planning national forest development program.

3. **Augment forest economic return to communities and individuals**
   - Design a system of benefits where CBOs are rewarded (at communal or household level but preferably at household level) for their contribution to protect/manage forest resources.[39]
   - Work together with communities to develop a mechanism where wealth generated from forests is fairly distributed among forest users' group members, and elite capture is minimized, if not totally avoided.
   - Assist community and individual tree growers to add value to their primary products, and find markets for their products.
   - Establish a tax incentive system for community and individual tree growers in which taxes due to the government are reinvested in community and individual tree planting and management efforts.

4. **Create more efficient and effective forestry institutions**
   - Reach regions and districts, as soon as possible, with the organizational structure of MoEF, which is currently limited to the federal level.
   - Expand the REDD+ structure at regional and district levels to support the implementation of REDD+ actions, and provide employees with the necessary knowledge and skill about its objectives.
   - Improve institutional, financial and manpower capacity of the forestry sector at all levels.
   - Allow reasonable autonomy and decision-making power to lower levels of forestry organizations that are yet to be established.
   - Periodically orient all levels of government officials with national and international climate change issues and REDD+ goals.
   - Establish a firewood, charcoal, gum and resin regulatory agency to look after the production, transportation, marketing and consumption of such items.

5. **Cross-sectoral and sectoral integration and coordination**
   - Create cross-sectoral and sectoral integration and horizontal coordination between and among line ministries and agencies involved in the development of forest, energy, agriculture, mining, etc.
   - Synchronize the issuance of agricultural investment licenses in a way that is transparent and environment and community friendly.
   - Establish mechanisms to mainstream and maintain consistency in regulatory roles of line ministries involved in REDD+ including feedback systems to higher government levels.
   - Work persistently to establish the necessary awareness among government agencies and local administrators that forest development is an alternative economic sector to "reserve land for agricultural expansion."

6. **Responsive policy and legal frameworks for REDD+**
   - Formulate and enforce relevant policy instruments and implementation guidelines to align conflicting policies and actions, in particular those that are promoting extensive large-scale commercial agriculture with national forest development initiatives and REDD+ objectives.

39 A large part of the high forests is coming under PFM arrangement. It is also the intention of the government to bring most forests in the country under PFM. Forest user groups are being organized in many places and are assuming management responsibilities. Nevertheless, the economic return so far is not attractive enough to keep communities interested in continuing with their current effort. Therefore, the communities need to receive a significant proportion of the benefits that may come from their efforts.

- Make sure that the national policies and legal frameworks accommodate, as much as it is practical, global climate change and REDD+ conventions and agreements.
- Define and formulate clear and implementable provisions governing the distribution of financial and other benefits from carbon gain among stakeholders.
- Recognize and legalize, as much as it is practical, long-standing community customary rights over forests together with internal/informal community institutions.

7. **Research, education and forest extension services**
   - Re-orient research and education approaches to address problems relevant and timely to climate change in general and REDD+ in particular.
   - Improve national competence in fields identified by the R-PP including forest inventory and MRV techniques by reorganizing forestry research and forestry curricula.

The above recommendations cover a wide range of issues that need to be addressed by the government. Consistent with Brockhaus and Angelsen (2012), the current assessment also indicates that if REDD+ is to succeed, transformational change that entails broader policy reform well outside the forest sector is essential.

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This report is part of the Global Comparative Study on REDD+ initiated by the Center for International Forestry Research (CIFOR) in 2009. It reviews the drivers of deforestation and forest degradation, and the context in which REDD+ is being implemented in Ethiopia.

Specifically, the paper identifies and analyzes several direct drivers of deforestation and forest degradation in Ethiopia including: forest clearance for both subsistence and large-scale agriculture; illegal and unsustainable extraction of wood mainly for charcoal and firewood; overgrazing; and recurrent forest fires. It also reviews underlying drivers including: rapid population increase and the associated growing demand for land and energy; extensive legal and institutional gaps including lack of stable and equitable forest tenure; lack of stakeholder participation in forest management and benefit-sharing schemes; and weak law enforcement. These drivers and the dominant actors behind them – ranging from small-scale subsistence farmers to national and global investors – are discussed in the context of the political economy, including the policy and institutional framework of the country. The implications of the overall forest condition to the objectives and requirements of REDD+ are evaluated, and key issues that need to be addressed for efficient, effective and equitable implementation of REDD+ are discussed. These key issues include: reconciling the apparently contradictory policies and programs, particularly those that negatively affect the forestry sector; improving the forest tenure and governance system; augmenting economic return from forests to communities and individuals; creating more efficient and effective forest institutions at all levels; and enhancing sectoral and regional coordination among implementing agencies.

Guided by its development agenda, Ethiopia is evermore operating to address the issues of climate change as a global partner through its Climate-Resilient Green Economy plan. To this effect, the government has adopted various institutional and program initiatives and there seems to be encouraging political commitment to realize the objectives of REDD+. However, the shortfalls identified in this report call for a firm and immediate policy direction and practical measures as critical for Ethiopia and the global REDD+ effort. What makes global governance more imperative at this point in time is that national REDD+ activities are maintained mainly by the global incentive system.

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