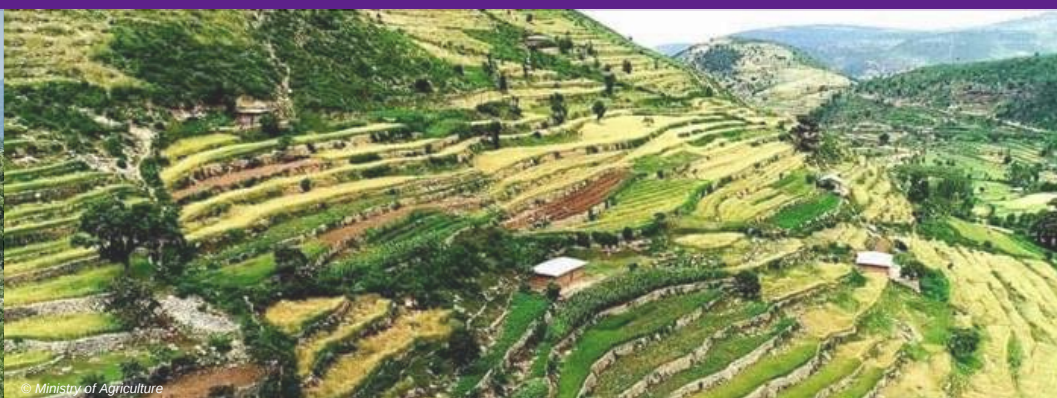


Sectoral public policies & pressures on
biodiversity

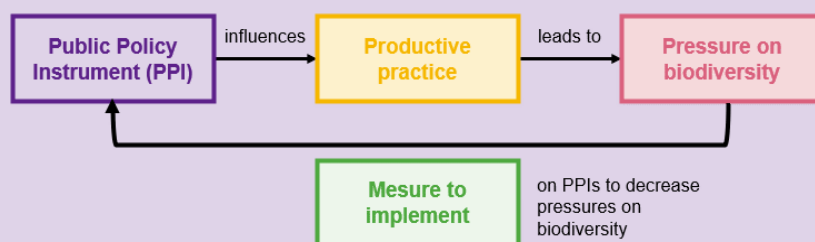
Sector(s): Agriculture (cereals, coffee), Pastoralism, Fuelwood

2024



This analysis was produced by Altai Consulting as part BIODEV2030 Phase 2 project, financed by AFD, coordinated by Expertise France and implemented by IUCN and WWF in 15 countries (Benin, Cameroon, Republic of Congo, Ethiopia, Fiji, Gabon, Guinea, Guyana, Kenya, Madagascar, Mozambique, Senegal, Tunisia, Uganda and Vietnam). This analysis intends to feed the multi-stakeholder dialogue supported by BIODEV2030, to ultimately encourage the adoption of productive practices that are less harmful to biodiversity.

It highlights the linkages between the pressures on biodiversity that are caused by the sectoral production practices and the main sectoral, economic and trade public policy instruments (PPIs) shaping these practices. These instruments can be of several kinds: regulatory, economic and financial, informational, etc. They have been categorized according to the extent to which they take biodiversity into account: ● blind to biodiversity; ● taking biodiversity into account. Several priority measures to be implemented have been identified and are presented below: **reform** (repurpose, strengthening or abolition) of an existing instrument; **enforcement** of an existing instrument; **introduction** of a new instrument.



The main harmful productive practices, the PPIs shaping these practices and associated gaps, as well as the priority measures that could be implemented were identified through a literature review and interviews with experts. We used the DPSIR framework (Driver – *here the harmful practices*; Pressure; State; Impact; Response – *here, priority measures that could be implemented*). Detailed data on the consequences for biodiversity (State) and for Humans (Impact) are available in the [diagnoses](#) carried out in phase 1 of the BIODEV2030 project. The classification of pressures on biodiversity is based on the IPBES categorization.

ambition for biodiversity

BIODEV
2030In partnership
with

FUNDING



COORDINATION



IMPLEMENTATION

Country analysis prepared by



Country context: National biodiversity targets & progress of biodiversity mainstreaming in public policies

Ethiopia is recognised as one of the world's richest centres of genetic resources in terms of crop diversity, due to its cultural, socio-economic and geographical diversity that enabled the country to become one of the pioneers of plant domesticationⁱ. It is also home to numerous endemic species thriving in a wide range of ecosystems, from Afromontane eco-regions to desert areas. Nevertheless, the country is facing severe land degradation and droughts, exacerbated by climate change. Ethiopia has designated 13% of its land as protected areas, and pledged to increase it to 30%, including Other Effective Area-based Conservation Measures (OECMs). **However, areas with intensive small-scale farming overlap with key biodiversity areas and natural forestsⁱⁱ, highlighting the need to integrate biodiversity considerations into sectoral policies.**

The country launched in 2011 its **Climate Resilient Green Economy (CRGE) Strategy for 2025**, based on four pillars: agriculture (crop and livestock), forestry, renewable energy and infrastructuresⁱⁱⁱ. In line with Africa's Agenda 2063, the Sustainable Development Goals as well as its updated Nationally Determined Contribution (NDC) (2021-2030), **Ethiopia's Ten-Year Development Plan (2021-2030) prioritizes agriculture as the leading sector and sets several sustainability targets**, including promoting natural fertilisers, reducing livestock numbers, and lowering soil pollution^{iv}. Environment and climate change are incorporated into the plan as one of the five cross-cutting issues and include developing the forest sector. **In addition, to halt and reverse land degradation, the Green Legacy Initiative (GLI) was launched in 2019 to plant 40 billion tree seedling over the period of four years.** Lastly, Ethiopia's National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020 is currently under revision, with the ambition to fulfil the Kunming-Montreal Global Framework through sectoral approach where its 19 targets are being assigned to different national ministries with available resources.



Cereals

Sector context

Crop production accounts for 65% of agricultural GDP^v and cereals represent over 50% of the total production^{vi}. Teff, wheat, maize, sorghum, and barley are the primary staple crops. **Small-scale farming accounts for 90% of the agricultural output^{vii}.** Much of the crop production growth since the 2000s has resulted from expanding the area under cultivation^{viii}. **Under the former development strategy** (Growth and Transformation Plan 2010-2019), **previous governments adopted conducive policies for large-scale investments by foreign and local private actors, leading to massive land conversion.** Despite Ethiopia's potential, low yields remain an issue, and the country is still a net importer of food commodities (including wheat and rice)^{ix}. The agricultural sector faces several constraints, such as periodic drought, loss of soil fertility, low levels of input use, weak institutional support, inadequate agricultural research and extension services, pest, and limited market development.

Under the Ten-Year development plan 2021-2030, the government prioritizes production expansion (wheat, soybeans, rice) and modernization (inputs, irrigation, mechanization, agro-processing, extension services). These policies are aligned with the Comprehensive African Agriculture Development Programme (CAADP) whose primary objective is fulfilling food security needs. On the other hand, big flagship programs implemented by the Ministry of Agriculture's, such as the Productive Safety Net Programme (PSNP)¹ and the Agricultural Growth Project (AGP), recently started inclusion of biodiversity issues, mainly through their climate-smart agriculture and natural resource management components.

⚠ Pressure: Land-use change

Harmful practice Conversion of forests and wetlands into monoculture farmland

PPIs linked to this practice & associated challenges

Biodiversity
mainstreaming

¹ With a budget of \$5M/year, it aims at reducing extreme poverty in rural areas and enhancing resilience to shocks (especially droughts) through public works projects and cash or food support to food insecure communities (more information on [Climate-Smart PSNP](#)).

► **Land tenure system – Inadequate.** Under the Constitution, land is a common property of the Nations, Nationalities, and Peoples of Ethiopia and shall not be subject to sale or to other means of exchange. Farmers are granted land use rights and land can be leased to private actors. However, **customary land rights are poorly recognized in practice. This lack of formal recognition often pushes farmers to convert forested areas into agricultural land to secure their use rights and avoid potential land disputes.** Without clear legal backing for customary rights, farmers see agricultural conversion as a way to claim ownership and stabilize their land tenure^x. Improving land tenure security, particularly by recognizing and formalizing customary rights, could provide a powerful incentive for farmers to invest in sustainable land management and forest conservation.

► **Land-use planning – Inadequate.** Except in urban centres which have master plans and zoning, land use in rural areas is unplanned and uncontrolled in most regions. High potential arable lands have been converted to urban settlements, and important wetland and forest ecosystems have been turned into farmland and settlements. **Federal and regional land proclamations often offer little direction on land use, and the regions which made efforts to implement land use planning faced a lot of challenges for their implementation, including absence of national guiding policy and regulatory framework^{xi}.** A participatory and integrated land use planning would therefore be needed, guided by a national policy and implemented at regional and local (*woreda*) levels. This policy should harmonize agricultural, forest and conservation policies, namely protected areas, and avoid land conversions in ecologically sensitive zones, such as riparian zones and other high value conservation areas.

► **Promotion of cluster farming – Blind to biodiversity.** Cluster farming is an agricultural strategy in which groups of neighbouring farmers farm as one on a land that is adjacent, thus facilitating the use of inputs and mechanization to improve their productivity and ultimately their bargaining power for access to different services. It has been recently promoted as part of the Agricultural Commercialization Cluster (ACC) framework. Cluster farming is a key strategy to increase smallholder farmer's productivity and solve land fragmentation issues but does not aim specifically at promoting sustainable farming. **These clusters should be supported in the implementation of sustainable agricultural practices through tailored extension services and financial incentives.**

► **Green Legacy Initiative (GLI) – To improve.** This mass tree planting programme was introduced in 2019 to restore degraded lands and improve food security by planting fruit-bearing trees. However, contenders underline the political dimension of the initiative, which is overseen by the Prime Minister through an ad-hoc inter-ministerial committee. Despite the involvement of the Ministry of Agriculture, Ethiopian Forest Development and regional forest authorities, **massive plantation efforts face challenges due to the lack of foresters with technical expertise on the ground.** As a result, the initiative lacks earmarked resources and coordination mechanisms to ensure monitoring and maintenance of seedlings overtime, especially at regional and local levels^{xii}. Since some cereals (maize, sorghum) are traditionally grown in agroforestry systems, strengthening the agroforestry component of the initiative would help support these systems, diversify farmers' incomes, and engage farmers in caring for tree seedlings through result-based financial incentives. Moreover, under the Sustainable Land Management Programme (2008-2018), local associations received financial incentives for post-planting management, but there are no provisions for such incentives under the GLI.

⚠ Pressure: Pollution

Harmful practice **Inappropriate use of agrochemical inputs** (use of highly hazardous pesticides, of wrong products and dosage, of poor quality and counterfeit products, and inappropriate disposal of waste)

PPIs linked to this practice & associated challenges

Biodiversity
mainstreaming

► **VAT exemption on agricultural inputs – Blind to biodiversity.** Under the *Directive 1006/2024* amending the *VAT Proclamation No.285/2002*, **agricultural inputs are exempted from VAT.** A default reduced rate could be established, with a zero rate exclusively for bio inputs. Tax revenues could be reinvested to finance research on bio inputs, production and distribution infrastructures, communication and capacity building on the use of bio inputs.

► **Fertiliser subsidy – Blind to biodiversity.** In response to the spike in fertiliser costs following the war in Ukraine, the government provided over \$200k in fertiliser subsidies for the 2023/24 crop season^{xiii}. **There is currently no support scheme for organic fertilisers.** Subsidies on inorganic

fertilisers should be complemented with capacity building on good fertiliser use practices (product choice, dosage, measures to mitigate run-off, soil analysis, etc.). Introducing subsidies on organic fertilisers, associated with capacity building on other practices that improve soil fertility (reduced tillage, mulching, etc.), could also be a beneficial measure.

► **Pesticide regulation – Lack of enforcement.** According to the Pesticide Registration and Control Proclamation No. 674/2010, no pesticide shall be registered without first undergoing efficacy, safety, and quality testing under field or laboratory conditions, and receiving approval from the Ministry of Agriculture. **However, the enforcement of the decree is hindered by the lack of technical, material resources and inspection capacity within law enforcement institutions.** Farmers still use widely the older generation of pesticides, which are more often hazardous, due to the lack of monitoring and training^{xiv}. The functionality of the Pesticide Advisory Board is also questioned. Weaknesses in pesticide inspection and control have led to the importation or smuggling of counterfeit pesticides, as well as the use of highly hazardous, banned, restricted, or unregistered pesticides^{xv}. Guidelines on pesticide use should be prepared in different local languages and collaboration between Ministries of Agriculture, Trade and Customs could be institutionalized to effectively control the circulation of products.

Moreover, **the regulation does not apply to all types of biopesticides and integrated pest management (IPM) methods. Many regulatory gaps exist on biopesticides** (production, licensing, prevention of invasive species risks, etc.). A new directive on biopesticides is in development to streamline the registration process for biopesticides^{xvi}. An IPM coalition has also been established, comprising government organisations, NGOs and educational institutions.

► **Extension services – Inadequate.** Ethiopia has a dense extension system, thanks to Farmer Training Centres (FTC). However, **extension advisory officers often give higher priority to short-term food security and productivity, what is also due to their limited capacity on environment and natural resource management.** The sixth pillar of the *Agricultural Extension Strategy 2017-2030* is the support to sustainable agricultural practices^{xvii}. Implementation measures could include specific training programmes for extension officers, support to participatory extension services recognizing traditional knowledge and strengthening of agroecological research.

Other harmful practices **Accidental fire outbreaks** caused by farming activities; **Cultivation of steep slopes** resulting in erosion; **Increasing use of improved seeds** resulting in a loss in genetic diversity; **Inefficient irrigation techniques**

ECONOMIC POLICY

Degree of biodiversity
mainstreaming

In line with its Ten-Year Development Plan, Ethiopia published in 2020 the Homegrown Economic Reform Agenda. To ease pressure on the federal budget and foreign currency reserves, the government prioritizes import substitution, with a focus on achieving self-sufficiency in cereal production through support to agricultural investment and linkage to commodity markets. The government is gradually shifting away from the largely state-led development pursued in recent decades towards private sector-led liberalization, and hence supports large-scale agro-industrial investments which drive massive land conversions.

► **Income tax exemptions and duty-free importation of capital goods for businesses – Blind to biodiversity.** Private investors which expand their operations in various priority sectors, including agriculture, benefit from fiscal incentives (*Directive No. 941/2023* under the *Investment Incentives Regulations No. 517/2022*).

TRADE POLICY

Degree of biodiversity
mainstreaming

Ethiopia is net importer of cereals. Its policy often includes imposing tariffs on cereal imports. This has been done to protecting domestic agriculture and reduce dependency on foreign cereals. However, when domestic production falls short, such as during droughts or crises, the government may need to lower or remove tariffs to stabilize domestic prices.

► **VAT exemption on cereals imports – Blind to biodiversity.** *Directive 1006/2024*, which amends the *VAT Proclamation No.285/2002*, introduced a VAT exemption on cereal imports, to stabilize food prices in the domestic market. No specific environmental standard is set including GMO and invasive species monitoring. A careful balance could be achieved

between domestic production of essential staple crops to ensure food security and imports from high-productivity countries, which could help alleviate pressure on local ecosystems.

Suggested priority measures to implement to align public policies (sectoral, economic and commercial) and biodiversity conservation

The suggested measures presented below were drawn up based on a literature review and interviews with experts. They summarize the suggested measures presented in the previous paragraphs on PPIs, in response to their current content and the gaps identified in terms of biodiversity mainstreaming.

Pressure on biodiversity	Suggested priority measures	Type of policy	Type of PPI	Type of measure
Land-use change	Develop a national guiding policy and regulatory framework promoting participatory and integrated land use planning as well as sustainable land management.	Economic	Regulatory	Introduce
	Revise the land tenure policy to secure farmers' land use rights.	Economic	Regulatory	Repurpose
	Ensure synergies between hunger, poverty, nutrition and biodiversity conservation targets in policies and programs, acknowledging biodiversity as a key factor of resilience and adaptation.	Sectoral	Cross-cutting	Strengthen
	Prohibit the development of large-scale agricultural projects in key biodiversity areas and other ecologically sensitive zones (e.g. riparian zones) and condition fiscal incentives to mandatory Environmental and Social Impact Assessments and other safeguard mechanisms.	Sectoral-Economic	Regulatory-Economic	Repurpose
	Support agricultural clusters in the implementation of sustainable agricultural practices with adequate extension services, financial incentives and access to financing.	Sectoral	Economic-Other	Introduce
	Build on the Green Legacy Initiative to provide tree seedlings for agroforestry in cereals production, through adequate varieties, incentives and monitoring.	Sectoral	Other-Economic	Repurpose-Strengthen
Pollution	Restore a default reduced VAT rate on agricultural inputs imports, with a zero rate exclusively for bio inputs, and reinvest tax revenues in the development of a domestic value chain for bio inputs.	Economic-Trade	Economic	Repurpose
	Redirect part of the subsidies for inorganic fertilisers towards organic fertilisers and training in good fertiliser use practices and alternative techniques to improve soil fertility.	Sectoral	Economic	Repurpose
	Strengthen capacities for the enforcement of regulations related to the use of pesticides.	Sectoral	Regulatory	Enforcement
	Develop a streamlined regulatory framework for bio inputs, notably pesticides.	Sectoral	Regulatory	Introduce
	Develop training programs on sustainable agricultural practices for extension officers and support participatory extension services based on indigenous knowledge.	Sectoral	Other	Strengthen
	Support research on agroecological techniques adapted to the Ethiopian context.	Sectoral	Other	Strengthen
	Evaluate fiscal incentives for cereal imports that lack environmental conditionalities to prevent market distortions which could deter local farmers from adopting improved agricultural practices.	Trade	Economic	Repurpose

Coffee

Sector context

Ethiopia is the world's fifth coffee producer^{xviii}, with a production averaging 470,000 tonnes per year^{xix}. The Arabica coffee plant originates from Ethiopia, where coffee production has been a deep-rooted tradition for centuries. Coffee is a key export crop (around 45% of commodity export earnings in 2022^{2, xx}), although the domestic market is important (around 40% of the production^{xxi}). **Most coffee producers are smallholders with less than 1 ha of land, and diverse sources of income** (coffee represents 40% on average)^{xxii}. Smallholders produce coffee under three types of coffee production systems: garden (50% of total production); semi-forest (35%); forest (5%)³. **Large monoculture plantations account for 10% of total production^{xxiii}.** Between 2011-2022, coffee cultivation area increased by 60%, whereas production grew only by 45%, indicating an 8% **decline in yield^{xxiv}**. Major contributing factors are ageing plantations, new plantations that have not reached maturity yet, lack of pruning, minimal use of chemical fertilisers and pesticides, irregularities in production depending on market conditions, and increased prevalence of pests and diseases linked to climate change.

Under the Ministry of Agriculture, the Ethiopian Coffee and Tea Authority (ECTA) serves as the leading organization overseeing the coffee sector, while the Ethiopian Commodity Exchange (ECX) plays a crucial role in facilitating coffee trade⁴. In the last decades, policy support has been focusing on production increase and marketing. **In its Comprehensive Ethiopian Coffee Strategy (2019-2033), ECTA outlines its primary goal of increasing export revenues by up to sixfold and increasing farmer incomes, thanks to better yields and processing practices.** The country's coffee is currently predominantly marketed as low-quality, unwashed Arabica, resulting in some of the lowest prices globally^{xxv}, although it has made some progress in specialty coffee. It faces several other challenges: lack of resources (inputs, financing, equipment), market access issues that are increasing with the incoming EU Deforestation Regulation (EUDR), land degradation and climate change.

Pressure: Land-use change

Harmful practice **Conversion of natural forests to coffee plantations** (including tree felling to increase sunlight exposure for coffee plants)

PPIs linked to this practice & associated challenges

Degree of
biodiversity
mainstreaming

► **Zoning for coffee production – Absence.** To avoid coffee expansion into forests, zoning is a key instrument to plan agricultural activities. But there is currently no land use plan in all regions (see cereals section). Public installation programmes for farmers should identify degraded forests and abandoned coffee plantations. The Ethiopian government has initiated a national plan to locate coffee farms, which could cost \$38M according to some estimates^{xxvi}. The associated database could lay the basis for a comprehensive zoning strategy to rationalize production.



► **Agroforestry definition – Inadequate.** The 2018 *Forest Development, Conservation, and Utilization Proclamation* characterizes agroforestry as the combination of crops or fodder with trees. **It does not clearly provide for perennial plantations such as coffee and does not give any criteria to define shade-grown coffee and grade agroforestry systems** (simple, moderately complex, complex). Criteria should be set to define a threshold for tree removal and a minimum rate of cover or a minimum number of trees per hectare, to avoid conversion of forest and semi-forest coffee plantations to garden plantations. Shade trees play a key role in biological diversity but also in resilience to climate change, as well as soil fertility and erosion prevention. These criteria are not included yet in the EUDR (see below).



► **Authorized production practices – Absence.** There is no federal regulation regarding coffee production. **Section 8 of the 2017 Coffee Marketing and Quality Control Proclamation provides**



² It used to provide 60-70% of annual export values in the past (Tessema *et al.*, 2022).

³ Semi-forest designates a forest where farmers thin the upper canopy and slash the undergrowth, in contrast to wild coffee harvested in forests. Over time, coffee farms often tend to evolve in direction of greater intensification (forest → semi-forest → garden)

⁴ ECTA was re-established in 2016 and ECW was reformed in 2017 to improve coffee sector's management, in line with the growing demands of the global market

for the obligations of coffee producers but does not include any reference to farming. It primarily aims to enhance coffee quality control and promote the production of specialty coffee, which can command higher prices in international markets. However, it does require processing industries to obtain a clearance certificate for environmental pollution mitigation. The government regulates the coffee grading system through ECX, which classifies coffee according to its visual and taste qualities, which are not directly linked neither to productive nor to environmental practices. Essential production standards could be integrated into Section 8 of the Proclamation, while private standards could serve to enhance the overall production framework (see below).

► **Voluntary Sustainability Standards/Certification – Inadequate.** In the absence of federal laws on production standards, sustainability standards are mainly governed by private certifications such as Rainforest Alliance and Fairtrade. **A first limitation is that many smallholders cannot afford the cost of certification**, even though 95% of them practice uncertified organic farming^{xxvii}. This is primarily due to traditional farming techniques and limited access to agrochemicals. The State could provide awareness campaigns and financial incentives to strengthen cooperatives and encourage group certification. Moreover, these certifications include requirements for environmentally friendly agricultural practices, such as minimized use of agrochemicals, maintenance of soil fertility and water resources, no use of GMOs, etc., but **they originally did not include deforestation prevention**. With the projected entry into force of the EUDR (see below), certifications are increasingly aligning with deforestation-free requirements. **The lack of harmonized traceability system will be a considerable hurdle.** The government could collaborate with private stakeholders to develop a national traceability framework, tracing geographic origin through regional labels associated with specific practices, that could differentiate the product on the market. This "area-based" labelling could facilitate the inclusion of farmers who are not part of cooperatives. It would be beneficial to hold discussions on integrating such options into the EUDR.

► **Distribution of seeds and seedlings – To repurpose.** Many coffee plantations suffer from aging trees, resulting in low productivity. The *Section 7 of the 2018 Forest Development, Conservation, and Utilization Proclamation* includes provisions for government support to seed and seedling production and distribution to boost yields. **However, such distribution should be conditioned to measures preventing spatial expansion**, for instance distribution targeting only old plantations and degraded forests. Additionally, research and extension services on alternative tree rejuvenation techniques could offer valuable solutions.

► **Coffee Training Centre (CTC) and other extension services – Blind to biodiversity / Inadequate.** CTC was inaugurated in 2021 thanks to donors and private sector funding. This state-of-the-art training centre focuses on post-harvest processing (cupping, grading, roasting, marketing, etc.) to increase added value. Yet, **adequate extension services and training on production techniques are still lacking**. Key priorities include yield improvement, soil fertility stabilization (including balanced use of organic and inorganic fertilisers), and adaptation to climate change, which might push farmers to more suitable areas in higher altitude, through varietal improvement and adapted technical itineraries. Training should be linked with research, access to financing and marketing.

► **Research on varieties adapted to climate change – To strengthen.** The Jimma Agricultural Research Centre (JARC) and the Ethiopian Institute of Agricultural Research (EIAR) are Ethiopia's key federal agricultural research institutions, renowned for developing improved coffee varieties. **In recent decades, the centre's focus has been on enhancing pest resistance and improving yields.** However, it is vital to allocate more resources towards researching climate resilience, such as drought tolerance, higher altitude adaptability, and resistance to emerging pests, while fully utilizing the genetic diversity of Ethiopian wild coffee varieties. In 2021, World Coffee Research signed a memorandum of understanding with JARC and EIAR on this topic^{xxviii}.

Other harmful practices Monoculture (still limited but increasing); **Inappropriate use of agrochemical inputs** (still limited but increasing)

ECONOMIC POLICY

Degree of biodiversity
mainstreaming

A key policy objective is fostering inclusive job creation and further reducing socio-economic inequalities. Given that nearly 80% of the population resides in rural areas, coffee's role in providing economic opportunities is particularly significant in these communities.

TRADE POLICY

Degree of biodiversity
mainstreaming

Ethiopia's main trading partners for coffee are the EU (>30%), Saudi Arabia (14%), Japan (10%) and the US (9%)^{xxix}. As coffee represents a crucial sector for foreign currency generation and contributes to reducing the trade deficit, state regulation in Ethiopia has primarily concentrated on enhancing quality and facilitating trade to optimize foreign exchange earnings.

- ▶ **Coffee Marketing and Quality Control Proclamation – To strengthen.** The 2017 law aims to enhance coffee quality control and promote the production of specialty coffee, which can command higher prices in international markets. **The document lacks provisions addressing environmental concerns during the production stage; however, it does require processing industries to obtain a clearance certificate for environmental pollution mitigation.** 
- ▶ **EU Deforestation Regulation (EUDR) – Lack of enforcement.** Announced in 2021, the EUDR was due to come into force on 30 December 2024 (**however, in early October, the EU Commission proposed an additional 12 months of phasing-in time to ensure the proper implementation of the new regulations, pending approval from other European institutions^{xxx}**). It will ban imports into the EU of agricultural products that have caused deforestation. Seven commodities are targeted: soy, beef, palm oil, rubber, cocoa, coffee and wood. They must be traceable (geolocation of plots), zero deforestation (not from deforested land after 31/12/2020) and legal. Given the fragmentation of the value chain in Ethiopia, traceability is a major issue. With the EU accounting for 30% of Ethiopia's exports and providing a lucrative market, the EUDR represents a strong challenge for the sector. **The Ethiopian Government recently submitted an action plan to the EU to address EUDR compliance for the coffee sector, along with a request for pushing back the EUDR implementation start date.** 
- ▶ **Export Coffee Contact Administration Directive – Blind to biodiversity.** The directive was issued in 2020 to set a minimum selling price for exported coffee. However, its main objective was to tackle under invoicing (used as a strategy to earn foreign currencies to pay for imports in other sectors), rather than effectively ensure a minimum revenue to coffee farmers. **Yet, raising farmer income could help reduce their need to expand areas under production.** 

Suggested priority measures to implement to align public policies (sectoral, economic and commercial) and biodiversity conservation

The suggested measures presented below have been drawn up based on a literature review and interviews with experts. They summarize the suggested measures presented in the previous paragraphs on PPis, in response to their current content and the gaps identified in terms of biodiversity mainstreaming.

Pressure on biodiversity	Suggested priority measures	Type of policy	Type of PPI	Type of measure
Land-use change	Develop a comprehensive zoning strategy for coffee cultivation that accounts for climate change challenges and key biodiversity areas, while optimizing production through shared infrastructure and efficient land use.	Sectoral	Regulatory	Introduce-Enforce
	Develop a standard for agroforestry in coffee production, defining science-based criteria qualifying shade grown coffee (threshold for tree removal, minimum rate of cover/number of trees per hectare), to avoid excessive undergrowth clearing and conversion of forest and semi-forest coffee plantations into garden plantations; develop this standard in partnership with processors and exporters to ensure appropriate marketing and improved valuation on markets.	Sectoral	Regulatory	Strengthen
	Establish a framework to promote traceability and certification by defining national standards harmonizing key voluntary sustainability standards, providing financial incentives for group	Sectoral	Informational-Regulatory	Strengthen

certification and collaboration with the private sector to establish a traceability system; critical standards could be embedded in the obligation of coffee producers, as stated in the 2017 <i>Coffee Marketing and Quality Control Proclamation</i> .			
Promote research, production and distribution of improved, climate-resilient seeds and seedlings.	Sectoral	Other	Strengthen
Develop adequate extension services and training offers on sustainable farming techniques.	Sectoral	Other	Strengthen
Ensure a minimum revenue to coffee farmers through the introduction of a minimum selling price for coffee.	Trade	Economic	Enforcement



Pastoralism

Sector context

Pastoralism provides livelihoods for 12 million Ethiopians, mostly in the lowlands, arid and semi-arid land which represent 60% of the country^{xxxi}. Pastoralism is an extensive, itinerant system in which livestock (cattle, camels, goats, sheep) are mobile and feed on natural pastures⁵. **The livestock sector accounts for 20% of the country's GDP^{xxxii}. Pastoralism accounts for 90% of Ethiopia's revenue generated from livestock export^{xxxiii}.** Pastoral livestock farming is family-based, geared towards the production of meat and live animals. It plays a central role in the cultural identity of several ethnic groups, serving as a marker of social status and an exchange currency. It also contributes to ecosystem management, by regulating plant species, distributing seeds, fertilising the soil with animals' excrements, etc. Moreover, livestock and wildlife share the same key corridors for seasonal movement.

However, the expansion of agriculture, urbanisation and fenced areas are increasingly limiting the extent of pastoral land, leading to overgrazing, desertification and conflicts over access to water resources and grazing lands. Recurring droughts and conflicts are major challenges, compounded by the invasion of thorny bushes depleting further grazing lands (*prosopis*). **In the past decades, previous policies have been characterized by restrictions on pastoralists movements (leading to agro-pastoralism development and farmland expansion), absence of participatory development plans, weak implementation capability and weak protection mechanisms^{xxxiv}, resulting in high vulnerability of pastoral areas and emergency interventions.** To harmonize policies under the Constitution and effectively improve pastoralists' livelihoods, **Ethiopia's Ministry of Peace endorsed its Pastoral Development Policy and Strategy in 2020.** It aims to improve natural resources management and productivity, develop alternative livelihoods and promote voluntary settlement.

⚠ Pressure: Land-use change / Overexploitation of natural resources

Harmful practice **Overgrazing** (due to the increasing sedentarisation of livestock and overstocking)

PPIs linked to this practice & associated challenges

Degree of
biodiversity
mainstreaming

► **Land tenure system – Lack of enforcement/Inadequate.** The 1995 *Constitution* provides for the right to free land for grazing and cultivation for pastoralists, as well as the right not to be displaced from their lands (*section 89*). **However, implementing acts are lacking to effectively protect the status of communal grazing lands**, which are not covered in the registration programs^{xxxv} and can be considered as idle non cultivated land by the government and given away for large agricultural projects, and turned into private holdings under the 2005 *Rural Land Administration and Use Proclamation (section 5(3))*. The insecurity of land tenure rights among pastoral communities contributes to the fragmentation of grazing areas and the disruption of transhumance corridors and rotational grazing patterns. The absence of clearly defined land use rights also does not encourage sustainable land management practices. **Land administration in Ethiopia is primarily managed at the regional level, with limited federal guidelines addressing the specific needs of pastoralists.**

► **Land use planning – Inadequate.** Integrated land use planning is an essential tool to ensure land use efficiency, avoid fragmentation and plan infrastructures. **Under decentralization, each region shall enact rural land administration and land use law but only few of them have done so.** To address the needs of urban centers, the *Pastoral Development Policy and Strategy* also promotes livestock production and agricultural development near urban areas. However, this approach conflicts with the traditional pastoralist system, which relies on access to large, open grazing lands. By concentrating livestock production near urban centers, the policy risks encroachment on pastoral lands and limiting mobility, a key element of sustainable pastoralism. **GIZ is currently supporting participatory and integrated land use planning in three regions of Ethiopia^{xxxvi}.** Pastoral planning should rely on carrying capacity assessments.

⁵ The other livestock farming systems in Ethiopia are agropastoralism (rotating livestock and crops) and ranching (fenced grazing areas with fodder).

► **Grazing management plans – Absence.** Grazing is unrestricted in many areas, with few occurrences of fodder harvesting systems (“cut-and-carry”), rotational grazing and exclosure areas (to restore degraded pasture areas). Sustainable land management (SLM) in Ethiopia has primarily been project- and community-based since the 1980s, driven by various multi-donor initiatives aimed at transitioning from food assistance to enhancing livelihoods. Grazing management experimentations have been conducted in Northern Ethiopia for instance^{xxxvii,xxxviii}. Despite these efforts, **the integration of SLM into Ethiopia’s policy framework reveals several shortcomings, such as limited participation from local communities, inadequate recognition of indigenous knowledge and customary institutions, a weak institutional structure at the local administration level, and insecure land tenure^{xxxix}.** The participative development of regional and local plans is crucial, ensuring that both local knowledge and climate change adaptation measures are fully integrated. The Borana transboundary rangeland offers a compelling model for governance.

► **Support to voluntary re-settlement – Blind to biodiversity / Conflict between policies.** Most previous policies, including the current *Pastoral Development Policy and Strategy*, were based on “villagization”, to improve pastoralists’ living conditions by providing infrastructures. **It has been criticized as a way of clearing land for investment purposes, with no proper reallocation of land and compensation^{xl}.** Sedentarization is likely to fail to build communities’ resilience and ecosystems conservation in the dry land regions, without large investments in alternative livelihoods, water storage, and fodder production technologies. Moreover, it denies pastoralists’ right as a people to conserve and promote their lifestyle, culture and history, which is anchored in the *Constitution*. It also contradicts the 2015-2020 *Ethiopia Livestock Master Plan*, which recommends to “promote herd mobility as a strategy to utilise temporal and spatial variability in the availability of forage”. However, communities already sedentarized should be supported through research and extension services on water storage and fodder production, aiming at building their resilience to shocks.

► **Restocking/destocking programs – Conflict between policies.** These programs are essential for managing herd sizes and addressing resource scarcity. Ethiopia’s Ten-Year Development Plan sets a goal to reduce the number of dairy cows by 20% while increasing the proportion of improved breeds^{xli}. **Destocking is mostly used as an emergency measure during long droughts, instead of a planned intervention anchored in a long-term strategy.** Moreover, **Ethiopia lacks an updated livestock master plan**, with the last one covering the period 2015-2020. It should provide guidelines on carrying capacities assessments in different locations. High livestock densities could furthermore undermine reforestation goals unless designated exclosure areas are established, further restricting grazing space. Restocking programs by local authorities and humanitarian partners should be more effectively coordinated and could shift towards supporting alternative livelihoods based on water and grazing availability.

► **Index-based livestock insurance (IBLI) – To scale up.** Pilot trials have been successfully led in Ethiopia to protect the livestock assets of pastoralists during severe droughts and disease outbreaks^{xlii}. Such insurances, also referred to as a parametric insurance, trigger a pre-agreed payout when a specified event or threshold occurs (on rainfall, temperature, etc.), rather than compensating for an actual loss. **The development of insurance products needs to be supported by adequate policies.** Such risk-sharing insurance schemes could support the transition to better husbandry practices.

► **Incentives for fodder production – Absence.** Ethiopia is experiencing a feed shortage due to rangeland degradation and extensive encroachment of invasive species. However, **Ethiopia has no policy roadmap for fodder production.** Fodder production needs to be supported through a wide range of incentives, including research and subsidies for improved forage seeds and seedlings, and research and capacity building on production techniques.

► **Certification – Absence.** Live animals and livestock products (such as meat, dairy, and skins) exported from Ethiopia’s pastoral communities meet organic certification standards. However, **Ethiopia currently lacks a certification scheme for livestock products, and the draft pastoral development policy and strategy does not address this gap.** Introducing such certification could allow pastoralists to benefit from price premiums, enhancing their market opportunities.

Other harmful practices Spread of invasive species due to livestock movements (ex. Prosopis)

ECONOMIC POLICY

Degree of biodiversity
mainstreaming

Ethiopia's pastoralist communities have faced numerous conflicts and food crises, such as the conflict along the Oromia-Somali border. Inclusive development in pastoral areas, through improved income, remains a key government policy objective. The government has promoted settlement programs aimed at increasing access to education, healthcare, and infrastructure. Additionally, it supports industrialisation of livestock production to bolster the economy. However, many of these policies fall short of aligning with the traditional pastoralist lifestyle, and tailored approaches that respect pastoralists' needs and way of life are still lacking.

► Financial incentives to ranching feedlots development – To align with pastoralism needs.



In 2019, the Ethiopian government introduced duty-free imports of feed production machinery to stimulate both feed production and the dairy and poultry sectors. By 2022, further incentives were implemented, including the removal of import duties and VAT on animal feed products^{xliii}. These policy measures were aimed at improving local feed availability and reducing production costs for livestock and poultry farming. **Support to zero-grazing livestock system could help decrease pressure on ecosystems.** Diversifying sources for fodder production would also improve pastoralists' resilience to droughts.

TRADE POLICY

Degree of biodiversity
mainstreaming

Though largely informal, pastoralism is Ethiopia's main source of livestock for export, especially due to the proximity of pastoral communities to border regions (Djibouti, Kenya, Somalia, and the Sudan). However, current trade policies fail to accommodate the nature of cross-border pastoralist trade. This misalignment encourages informal trade channels, which bypass official revenue streams, reducing the potential income for the government^{xliiv}. Adapting livestock trade policies could improve revenue collection, which could then be reinvested in the development of pastoral areas, enhancing extension services and research that cater to pastoralists' specific needs.

Suggested priority measures to implement to align public policies (sectoral, economic and commercial) and biodiversity conservation

The suggested measures presented below have been drawn up based on a literature review and interviews with experts. They summarize the suggested measures presented in the previous paragraphs on PPIs, in response to their current content and the gaps identified in terms of biodiversity mainstreaming.

Pressure on biodiversity	Suggested priority measures	Type of policy	Type of PPI	Type of measure
Land-use change / Overexploitation of natural resources	In line with the Constitution, acknowledge in policies and regulations the cultural significance of pastoralism and its traditional knowledge, highlighting its crucial role in rangeland management, provided that herd mobility and sustainable stocking rates are maintained.	Sectoral	Cross-cutting	Enforcement
	Implement rural land administration and land use acts at federal and regional levels to effectively secure pastoralists' use rights on communal grazing lands, in line with the Constitution.	Economic	Regulatory	Introduce-Strengthen
	In all pastoral regions, develop participatory land-use planning that integrates ecosystem carrying capacities and rotational grazing, ensuring open access to vast grazing lands and corridors for transhumance.	Economic-Sectoral	Regulatory	Introduce-Strengthen
	Define the roles and responsibilities of both local administrations and customary institutions in the regulatory framework, to foster collaborative grazing management plans and ensuring effective	Sectoral	Regulatory	Introduce-Strengthen

monitoring and enforcement, as well as conflict resolution, drawing on lessons learned from previous experiments.			
Support already sedentarised communities through adequate research and extension services on water storage, fodder production, improved breeds and husbandry techniques (e.g. fattening), aiming at building their resilience to shocks.	Sectoral	Other	Strengthen
Update the Livestock Master Plan to ensure better consistency between restocking and destocking initiatives and ultimately align stocking rates with ecosystems' carrying capacities.	Sectoral	Regulatory- Informational	Strengthen
Engage private actors and individuals in fodder production for both ranching and pastoralism through economic incentives (subsidies, tax breaks, public procurement), along with additional support (infrastructures, research and extension services) to reduce pressure on natural ecosystems and increase resilience to droughts.	Sectoral	Economic-Other	Repurpose
Design economic incentives to controlled grazing (e.g. payments for tree planting in exclosure areas).	Sectoral	Economic	Introduce



Wood energy

Sector context

After decades of tree cover loss due to deforestation, Ethiopia successfully managed to reverse the trend thanks to massive governmental reforestation programs since the 1990s, such as the flagship Green Legacy Initiative launched in 2019. Despite this net gain in tree cover (from 17.2% in 2019 to 23.6% in 2023^{xlv}), Ethiopia is still losing humid primary forest at an alarming rate^{xlvi}, mainly due to agricultural land expansion and fuelwood collection^{xlvii}. Wood resources in Ethiopia include natural high forest, woodlands, bushlands, plantation forests and on-farm trees, and play a pivotal role in the water cycle and limiting soil erosion. **Over 90% of household energy supply depends on fuelwood**, especially for cooking and lighting, as over 55% of the population does not have access to electricity^{xlviii}. **For many rural communities, firewood harvesting and charcoal production are also an essential source of income^{xlix}**. In 2016, fuelwood accounted for **4,5% of the GDP^l** and **Ethiopia is one of the largest charcoal-producing countries in Africa^{li}**. Firewood remains the cheapest and most accessible energy source in many rural areas, whereas urban centres drive the demand for charcoal, which is more compact. To prevent unsustainable harvesting in natural forests, plantations of exotic species such as eucalyptus have been developed, especially in peri-urban areas and private farmlands, but they remain insufficient to cater for the demand^{lii}. Despite the numerous reforestation programs, forest policy enforcement has been hampered by institutional instability⁶, competition with agricultural development (prioritized under the Agricultural Development Led Industrialization) and multiple resettlement programs that were carried out in forested woodlands. More recently, the emergence of carbon finance, including the REDD+ protocol, has fuelled conservation projects⁷. The **Ten-year National Forest sector Development Programme** (2018) identifies numerous options for sustainable fuelwood production. **The main forest law was also revised in 2018 to integrate provisions related to carbon and eco-system services**, recognizing them as forest products and thus laying a legal basis for **Payments for Ecosystem Services (PES)**, as benefit-sharing mechanisms, though its implementation and enforcement has not yet materialized.

⚠ Pressure: Overexploitation of natural resources

Harmful practice **Poor forest management practices** (non-selective logging in natural forests; targeting of slow-growing indigenous trees such as acacia and juniperus; lack of replanting)

PPIs linked to this practice & associated challenges

► **Land tenure – Lack of enforcement.** Ethiopia's land tenure system results in most natural forests being under state ownership, the rest being under private tenure. It creates significant **insecurity on land use rights for local communities** (as discussed in earlier sections), further exacerbated by the 2007 *Forest Development, Conservation, and Utilization Proclamation (Forest Proclamation)*, which **had no provisions for community involvement in managing state forests** (although it laid a framework for the recognition of Participatory Forest Management (PFM) in private forests⁸). Consequently, state forest land could be reallocated, particularly for agricultural projects, leaving local populations with little incentive to invest in forest restoration efforts^{liii}. **The 2018 revised version of the Forest Proclamation recognises community ownership and includes new provisions related to community participation.** This creates a basis for locals to gain more economic benefits from forest resources and conservation, through forest product trade, carbon credits and PES. Nevertheless, specific regulations are needed to implement adequate benefit-sharing mechanisms. To ensure a cohesive policy framework, the land reform should also integrate provisions outlined in the *Forest Law*, particularly the statuses that pertain to forest conservation and community use rights.

► **Prohibition of fuelwood collection in preserved forests – Lack of enforcement.** The 2007 *Forest law* only considered two forest types: "protected forests", which were not accessible for use by communities, and "productive forests", used for economic exploitation. It also articulated provisions for the establishment of fast-growing tree species plantations at the peripheries of

Degree of
biodiversity
mainstreaming



⁶ Currently, the forest sector activities are distributed among the Forest development, Environment Authority, Ministry of Agriculture, Ethiopian Biodiversity Conservation Institute, Culture and Tourism, and others, including different actors at regional level.

⁷ Ethiopia signed a \$40M agreement with the World Bank's BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) in 2023

⁸ PFM was introduced in the 1990s by development partners and NGOs (GIZ, JICCA, FarmAfrica, etc.)

protected forests that communities could use for firewood. Nevertheless, **due to the lack of clear boundary demarcation, capacities for enforcement and alternative livelihoods, this law was not enforced^{lv}**. The 2018 revision recognized community and association ownership of forests, changed the “protected forests” status to “preserved forests”, and introduced a “protected forests” status, allowing community use under a management plan (see below), while increasing penalties for boundary violations. However, there are still no provisions on forest boundaries demarcation. The recent *Regulation No 544/2024* plans to elaborate clear forest boundaries through stakeholders’ negotiations, mapping in a database and physical signs. Sufficient financial and technical resources should be allocated to these operations.

Collection of fuelwood under forest management plans in productive and protected forests – Lack of enforcement. Under the 2018 *Forest Proclamation*, communities can use resources from productive and preserved forests in accordance with a forest management plan approved by the administration and based on a detailed study of the forest resources. This plan covers all aspects of development, conservation and utilization. Community bylaws shall be developed to implement the plan. All licenses issued for the trade of forest products should comply with the management plan. **Yet, the forest administration is lacking financial and technical resources to effectively implement these provisions and forest products are often accessed free of charge.** Forestry training has been focused on protection issues, and modules on support to livelihoods should be developed. Collaboration with NGOs and CSOs is essential to ensure community engagement and technically support the elaboration of plans and bylaws. Elaborating national or regional guidelines could be useful for better efficiency (templates, practical recommendations on targets and management measures to implement depending on local context).



► **Ban on logging of endangered indigenous trees – Lack of enforcement.** The 2018 *Forest Proclamation* forbids to cut endangered endemic naturally grown trees. But charcoal producers especially favour some hardwood indigenous species such as acacia, terminalia and combretum^{lv}. **They mostly use trees sourced illegally from open-access state and community woodlands, as the forest administration lacks resources to effectively monitor logging.**



► **Prohibition of charcoal production – Lack of enforcement.** Charcoal production is illegal in Ethiopia, except in regions invaded by invasive alien species such as *prosopis* which may be used for charcoal production. **As in many sub-Saharan African countries, charcoal is produced, transported and sold informally and with authorities turning a blind eye^{lvi}**. Although the 2018 *Forest law* does not mention charcoal, the recent *Regulation No 544/2024* provides for the role of communities in charcoal commercialization and for income redistribution. But it does not include any provision on production. Consultations should be held to evaluate whether the ban on charcoal should remain in place and assess the feasibility of its enforcement. Should a decision be made to legalize and recognize charcoal as a transitional fuel, it would be essential to establish a regulatory framework for its production (authorized practices, roles and responsibilities of stakeholders, monitoring and control).



► **Economic incentives for private forests developers – To support.** The 2018 *Forest Proclamation* includes several incentives for private forest developers (lease-free land, land use rights security, tax holidays). **They are mainly meant to attract investments for large commercial plantations.** To harmonize policy interventions, communication on these incentives could be made during national reforestation campaigns to encourage smallholders and communities (see below). These incentives could also target specific species which are preferred for fuelwood and highly productive (acacia, eucalyptus in suitable areas), as well as specific locations (buffer zones around preserved forests, marginal farmland, bare forest land, peri urban areas⁹), alongside technical support on good silvicultural practices to smallholders and communities.



► **Reforestation programs through free seedlings supply – Lack of enforcement.** Ethiopia has developed governmental reforestation and afforestation programs since the 1990s, including the GLI which was launched in 2020 and includes annual plantation campaigns. **Previous efforts have been hampered by financial constraints and inadequate maintenance as well as premature pruning by locals^{lvii}**. GLI’s innovative approach merges environmental sustainability with economic benefits by offering households free seedlings of multi-purpose trees, such as fuelwood and fruit-bearing varieties, which enhance food security. The initiative aligns with Ethiopia’s strong ambitions for carbon credit generation, which aims to finance the expansion and maintenance of tree cover across the country. To cater for fuelwood needs, more acacias could be planted. Follow up and maintenance of seedlings through community participation could also be improved in certain areas.



⁹ An energy plantation scheme was initiated in 1981 in peri urban areas resulting in the development of eucalyptus plantations for fuelwood.

Harmful practice Use of inefficient charcoal production techniques (traditional kilns) and cooking methods (open fire and traditional cookstoves and ovens)

PPIs linked to this practice & associated challenges

Degree of biodiversity mainstreaming

► **Regulatory framework on charcoal production techniques – Absence.** Traditional charcoal making (earth-mound and earth-pit) has a conversion rate of about 10%^{lviii}. **But as charcoal production is deemed illegal in the country, no incentives can be implemented to promote more efficient charcoal production technologies.**



► **Improved cookstoves distribution – Lack of enforcement.** Numerous strategies and programmes on clean cooking have been developed in the past years, with the support of international partners¹⁰. **However, these initiatives lacked consistency and M&E framework to learn lessons^{lix}.** Policies' recent evolutions seem to lay high ambitions in electric cooking, in line with government's rural electrification strategy (see below), but unless adequate incentives are implemented, electricity rarely provides an economically competitive substitute for fuelwood and is mainly used for lighting and small appliances, rather than cooking. A comprehensive roadmap and investment plan would help guide effective developments in the sector. Carbon finance could be leveraged to finance improved cookstoves distribution.



► **Support to other energy sources – To diversify.** **The government's strategy is focused on electrification and large-scale renewable energy development**, including hydroelectric power (*Ten-Year Development Plan*, recently validated *National Sustainable Energy Development Strategy 2024-2030* developed by the Ministry of Water and Energy, which does not include forestry). However, **electricity remains costly for many, and rural electrification and distribution of electric cooking appliances is a lengthy process.** Transition fuels like domestic natural gas could play a key role in bridging the energy gap, offering a more affordable alternative during the shift to renewable sources.



Other harmful practices Accidental forest fires caused by charcoal production.

ECONOMIC POLICY

Degree of biodiversity mainstreaming

Ethiopia's development plans prioritize the role of forests in climate change mitigation and adaptation rather than viewing forestry as purely a productive sector. National reforestation campaigns are also framed as opportunities for job creation. The country aims to tap into carbon credits and other payments for ecosystem services (PES) schemes to finance forest conservation, create employment, and reduce dependence on imports while generating foreign currency. Additionally, fuelwood collection, which is often a secondary livelihood activity for vulnerable rural communities, could become more prominent if agricultural policies push households toward alternative income sources, especially as agriculture and livestock breeding face growing unpredictability.

TRADE POLICY

Degree of biodiversity mainstreaming

To protect national forest resources, regulations on fuelwood collection primarily focus on meeting local needs rather than promoting commercial use. Since transportation costs can make up a significant portion of the total expense, fuelwood is typically transported over shorter distances for local market needs.

► **Ban on exports to other countries – Lack of enforcement.** Ethiopia is reported to export illegal charcoal to Sudan, Djibouti, Somaliland and to countries in the Middle East^{lx}.



► **Regulation of inter-regional wood product circulation – Lack of enforcement.** Some regions have taxes on wood product movements, but it is not harmonized at national level. Officers tend to focus on the tax collection rather than on the conformity of wood products documents such as licenses authorizing logging, trade and certificates of origin tracing that no invasive alien species are imported.



¹⁰ 2016-2023 Ethiopia Clean Cooking Energy Program, 2016-2020 National Improved Cookstoves Program, 2013 Biomass Energy Strategy, etc.

Suggested priority measures to implement to align public policies (sectoral, economic and commercial) and biodiversity conservation

The suggested measures presented below have been drawn up based on a literature review and interviews with experts. They summarize the suggested measures presented in the previous paragraphs on PPIs, in response to their current content and the gaps identified in terms of biodiversity mainstreaming.

Pressure on biodiversity	Suggested priority measures	Type of policy	Type of PPI	Type of measure
Overexploitation of natural resources	Align communities' tenure rights in Land laws with provisions on community ownership introduced in the 2018 Forest proclamation.	Economic	Regulatory	Repurpose
	Enhance law enforcement capabilities to reduce the availability of unsustainable, illegal fuelwood on the market.	Sectoral	Regulatory	Enforce
	Allocate financial and technical resources to elaborate clear forest boundaries.	Sectoral	Informational	Enforce
	Develop national or regional guidelines for forest management plans and bylaws to assist local stakeholders, including communities and NGOs, in their creation; and provide training for foresters on supporting sustainable livelihoods outlined in these plans.	Sectoral	Informational-Other	Enforce
	Develop a comprehensive regulation on charcoal, including production (wood harvesting and calcination), transport and marketing, which provides for different incentives to sustainable production.	Sectoral	Regulatory	Introduce
	Adapt existing economic incentives to private forest developers (lease-free land, land use rights security, tax holidays, carbon finance) to promote small-scale plantation development by smallholders and communities as well and build momentum with the GLI.	Sectoral	Economic	Repurpose-Strengthen
	Increase the proportion of fuelwood-suitable and fast-growing trees planted under the GLI, particularly acacias, especially near urban centres.	Sectoral	Economic	Strengthen
	Draw lessons from previous improved cookstoves distribution programs to better target public interventions and assess the potential of carbon finance for such programs.	Sectoral	Economic	Strengthen-Enforce
	Design demand-side policies to reduce demand for fuelwood and support demand for other energy sources, notably domestic natural gas as a transition fuel and other biofuels.	Energy	Economic	Introduce

Abbreviations

ACC	Agricultural Growth Project	IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
AFD	French Development Agency	IPM	Integrated Pest Management
AGP	Agricultural Growth Project	IUCN	International Union for Conservation of Nature
CAADP	Comprehensive African Agriculture Development Programme	JARC	Jimma Agricultural Research Centre
CRGE	Climate Resilient Green Economy	NBSAP	National Biodiversity Strategy and Action Plans
CTC	Coffee Training Center	NDC	Nationally Determined Contribution
ECTA	Ethiopian Coffee and Tea Authority	OECM	Other Effective Area-based Conservation Measure
ECX	Ethiopian Commodity Exchange	PES	Payments for Ecosystem Services
EIAR	Ethiopian Institute of Agricultural Research	PFM	Participatory Forest Management
EUDR	EU Deforestation Regulation	PPI	Public Policy Instrument
FTC	Farmer Training Center	PSNP	Productive Safety Net Programme
GLI	Green Legacy Initiative	SLM	Sustainable Land Management
GMO	Genetically Modified Organism	WWF	World Wide Fund for Nature
IBLI	Index-Based Livestock Insurance		

ⁱ Ethiopia Biodiversity – National Clearing House Mechanism, consulted on 17/09/2024 ([link](#))

ⁱⁱ Tesema, M., Asefa, A., Delelegn, Y., 2022, National biodiversity threat assessment: Ranking major threats impacting Ethiopia's biodiversity. BIODDEV2030, p. 106 ([link](#))

ⁱⁱⁱ Federal Democratic Republic of Ethiopia, 2011, Climate Resilient Green Economy (CRGE) Strategy, p. 11 ([link](#))

^{iv} Ethiopia 2030: The Pathway to Prosperity Ten Years Perspective Development Plan (2021 – 2030), p. 39-41 ([link](#))

^v International Trade Administration, 18/01/2024, Ethiopia - Country Commercial Guide – Agricultural sectors, consulted on 10/09/2024 ([link](#))

^{vi} Tadesse, B., Tilahun, Y., Bekele, T., Mekonen, G., 2021, Assessment of challenges of crop production and marketing in Bench-Sheko, Kaffa, Sheka, and West-Omo zones of southwest Ethiopia, p. 1 ([link](#))

^{vii} *Ibid.*, p. 1

^{viii} IFPRI, 2012, Crop Production in Ethiopia: Regional Patterns and Trends. Summary of ESSP II Working Paper 16, "Crop Production in Ethiopia: Regional Patterns and Trends"

^{ix} International Trade Administration, 18/01/2024, *op. cit.*

^x Ababu, T., 2024, Analysis of Land Use Change from Forest to Agriculture and its Determinants: the Case of East Shewa, Oromia, Ethiopia ([link](#))

^{xi} Gebeyehu, Z.H. et al., 2017, Ethiopia's move to a national integrated land use policy and land use plan, p. 1 ([link](#))

^{xii} IIED, 2022, Mass tree planting: Prospects for a green legacy in Ethiopia, p. ([link](#))

^{xiii} AfricaFertiliser, IFDC, 2023, Ethiopia Market Comments ([link](#))

^{xiv} *Ibid.*, p. 4

^{xv} Teshome, A., Terefe, G., Getaw, H., Koomen, I., Pesticide Lifecycle in Ethiopia: challenges, opportunities and leverage points, p. 3-4 ([link](#))

^{xvi} Agroberichten Buitenland, 13/05/2024, Unlocking the potential of biological control in Ethiopian agriculture, consulted on 20/09/2024 ([link](#))

^{xvii} Ethiopian Agricultural Transformation Agency, 2017, Agricultural Extension Strategy of Ethiopia 2017-2030, p. 29-31 ([link](#))

^{xviii} AGRA, 06/09/2024, Market Structure a Major Challenge for Ethiopian Coffee Sector, consulted on 09/09/2024 ([link](#))

^{xix} Ethiopian Coffee and Tea Authority Comprehensive, 2019, Ethiopian Coffee Strategy 2019-2033 – Executive Summary ([link](#))

^{xx} International Trade Administration, 18/01/2024, *op. cit.*

^{xxi} USDA Foreign Agricultural Service, 2022, Ethiopia: Coffee Annual, p. 2 ([link](#))

^{xxii} Solidaridad Network, 2024, Coffee producer country profile: Ethiopia, p. 3 ([link](#))

^{xxiii} Solidaridad Network, 2024, *op. cit.*, p. 10

^{xxiv} International Growth Center, 10/09/2024, Adapting Ethiopia's coffee sector to climate change through value addition, consulted on 27/09/2024 ([link](#))

^{xxv} Ethiopian Coffee and Tea Authority Comprehensive, 2019, Ethiopian Coffee Strategy 2019-2033 – Executive Summary

^{xxvi} The Africa Report, 08/05/2024, Ethiopia: Coffee exporters face EU deforestation law, Red Sea crisis, consulted on 27/09/2024 ([link](#))

^{xxvii} International Growth Center, 10/09/2024, *op. cit.*

^{xxviii} World Coffee Research – Focus Country: Ethiopia, consulted on 09/10/2024 ([link](#))

^{xxix} *Ibid.*, p. 5 ([link](#))

^{xxx} European Commission, 02/10/2024, Commission strengthens support for EU Deforestation Regulation implementation and proposes extra 12 months of phasing-in time, responding to calls by global partners ([link](#))

- xxxi Tofu, D.A., Fana, C., Dilbato, T. et al., 2023, Pastoralists' and agro-pastoralists' livelihood resilience to climate change-induced risks in the Borana zone, south Ethiopia: Using resilience index measurement approach ([link](#))
- xxxii *Ibid.*
- xxxiii Ministry of Peace, 2018, Final draft – Pastoral development policy and strategy, p. 9 ([link](#))
- xxxiv *Ibid.*, p. 9
- xxxv IGAD, 2021, Securing Land Rights of Pastoralists, p. 3 ([link](#))
- xxxvi GIZ, Integrated Land Use Planning in Ethiopia: A cross-sectoral approach to sustainable land use ([link](#))
- xxxvii Gebremedhin B, Pender J, Tesfay G., 2004, Collective action for grazing land management in crop–livestock mixed systems in the highlands of northern Ethiopia. *Agric Syst.* 82(3):273–90 ([link](#))
- xxxviii African Wildlife Foundation, 2015, Grazing Pressure Reduction Strategy in the Simien Mountains National Park ([link](#))
- xxxix Debie, E., 2024, Effectiveness of sustainable land management initiatives in the highlands of Ethiopia. *Reg Environ Change* 24, 106 ([link](#))
- xl IGAD, EU, 2020, Legal, Policy and Institutional Frameworks on Pastoral Areas and Cross-Border Transhumance in IGAD Region, p. 49 ([link](#))
- xli Ethiopia 2030: The Pathway to Prosperity Ten Years Perspective Development Plan (2021 – 2030), p. 40
- xlii Taye, M., Banerjee, R., Wandera, B. and Mude, A. 2018. Creating resilience through Index Based Livestock Insurance (IBLI): Insights from Ethiopia. Poster. January 2018. Nairobi, Kenya: ILRI. ([link](#))
- xliii International Trade Administration, 10/01/2024, Ethiopia Country Commercial Guide ([link](#))
- xliv IGAD, EU, 2020, *op. cit.*, p. 51
- xlv Ethiopian Forestry Development, 2024, National Forest Cover Report
- xlvi Global Forest Watch, consulted on 01/10/2024 ([link](#))
- xlvii MEFCC, 2017, National Forest Sector Development Program – Situational analysis, p. 63 ([link](#))
- xlviii Solomon, T., Hyunshik, M., 2024, Trends of forest cover and prospects of Great Ethiopian Renaissance Dam (GERD) to Ethiopia and the downstream countries, p. 1 ([link](#))
- lix Bahru, T., Kidane, B. & Tolessa, A., 2021, Prioritization and selection of high fuelwood producing plant species at Boset District, Central Ethiopia: an ethnobotanical approach. *J Ethnobiology Ethnomedicine* 17, 51 ([link](#))
- ^I MEFCC, 2017, *op. cit.*, p. 46
- ^{II} Tassie, K., et al., 2021, Socioeconomic and Environmental Impacts of Charcoal Production Activities of Rural Households in Mecha District, Ethiopia. *Advances in Agriculture* ([link](#))
- ^{III} *Ibid.*, p. 34
- ^{IIII} CIFOR, 2018, Annual report – Outcome story: Ethiopia's new forest law values both conservation and communities ([link](#))
- ^{IV} MEFCC, 2017, Ethiopia Forest Sector Review – Focus on commercial forestry and industrialization, p. 72 ([link](#))
- ^V Rawat, Y.S., Tekleyohannes, A.T., 2021, Sustainable forest management and forest products industry development in Ethiopia, p. 208 ([link](#))
- ^{VI} UNDP, 2019, Sustainability of biogas and solid biomass value chains in Ethiopia, p. 29 ([link](#))
- ^{VII} Ecohubmap, 07/2024, Deforestation in Ethiopia, consulted on 02/10/2024 ([link](#))
- ^{VIII} Rawat, Y.S., Tekleyohannes, A.T., 2021, *op. cit.*
- ^{IX} SNV Ethiopia, 2018, Review of Policies and Strategies Related to the Clean Cooking Sector in Ethiopia. Strengthening the Enabling Environment for Clean Cooking Project ([link](#))
- ^{IX} UNDP, 2019, *op. cit.*, p. 184