Côte d'Ivoire
Sustainability-Linked Financing (SLF) Framework

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EXECUTIVE SUMMARY

Côte d'Ivoire is transforming its economy to drive sustained and resilient economic growth while becoming a leader of sustainable finance innovation in the continent with the issuance of the first sovereign sustainability-linked transaction in Africa. As the largest economy in the West African Economic and Monetary Union (WAEMU), it has delivered strong economic results—real GDP growth averaged 7 % annually between 2012 and 2023.[1] Building on this momentum, the country aims to achieve middle-income status by 2030, double GDP per capita, and reduce poverty to 20 %. Central to this vision is a transition to a more inclusive, resilient, and sustainable growth model.

Côte d'Ivoire is financing its sustainable development transition by developing its access to the international sustainable finance market. In 2021, the Ministry of Finance elaborated its inaugural Sustainable Finance Framework, which was updated in 2023 and reviewed by Sustainalytics. Through this Framework, the Republic of Côte d'Ivoire mobilized around USD 2.4 billion in Environmental, Social and Governance (ESG)-labelled bonds and loans to fund eligible public budget expenditures. Building on this, the government is now introducing its Sustainability-Linked Financing (SLF) Framework to further diversify financing instruments for its sustainable development agenda, shifting away from Use of Proceeds-based instruments to Performance-Linked instruments.

The energy and forestry sectors are critical pillars to Côte d'Ivoire's sustainable development strategy and to ensure the country's resiliency to economic and climate shocks. Despite contributing only 0.1 % of global emissions, Côte d'Ivoire has made ambitious commitments to reduce greenhouse gas (GHG) emissions and to preserve its natural capital as part of its Nationally Determined Contributions (NDC). The energy and forestry sectors are the largest contributors to GHG emissions, contributing 22 % and 70 % of total CO_2 equivalent emissions[2]. At the same time, both sectors are critical to the country's economy, contributing significantly to its exports and foreign exchange earnings.

To ensure resilience in its energy sector, Côte d'Ivoire plans to diversify its electricity mix by increasing non-conventional renewable energy generation. Although current GHG emissions are low due to reliance on hydropower and domestic natural gas, rising demand, limited natural gas reserves, and climate-induced hydropower risks could increase the reliance on costly, carbon-intensive heavy fuel oils (HFO) in the medium to long term.[3] Expanding non-conventional renewables—particularly solar, wind, and biomass—offers a sustainable, climate-resilient pathway to meet demand, enhance long-

[1] Moody's (2024): Rating action. https://www.dgf.gouv.ci/images/app/contenu/99/moodys-mars-2024.pdf
[2] Côte d'Ivoire (2022): Nationally Determined Contributions (NDC). https://sie.environnement.gouv.ci/sieapp2/generalite/uploaded_doc/CDN%20CIV%202022_ENG.pdf
[3] World Bank (2023): Côte d'Ivoire Country Climate and Development Report. https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1

term energy security, and strengthen Côte d'Ivoire's position as a regional electricity exporter. In addition, this transition will support the Country's efforts to further reduce GHG emissions and achieve universal access through on-grid and off-grid solutions.

To put forestry on a sustainable development path, Côte d'Ivoire targets to reduce deforestation and increase reforestation and afforestation. Agricultural expansion has driven extensive deforestation, with Côte d'Ivoire losing over 80 % of its forest cover since the 1960s.[4] Deforestation exacerbates climate vulnerability, disrupts rainfall patterns, and threatens cocoa production, with half of current cocoa-growing areas expected to become unsuitable by 2050.[5] Therefore, reducing deforestation and increasing reforestation and afforestation are critical to preserving natural capital and sustaining Côte d'Ivoire's role as an agricultural powerhouse. Moreover, complying with EU deforestation-linked import regulation will be crucial to prevent export losses of up to USD 2 billion by 2050.[6] These efforts will also ensure food security, particularly for Côte d'Ivoire's rural population, and protect biodiversity.

This SLF Framework describes Côte d'Ivoire's sustainable strategic priorities and sets out goals for two Key Performance Indicators (KPIs) across the energy and forestry sectors:

- **KPI 1:** Share of renewable energy, excluding hydropower, in total installed electricity capacity (on-grid and off-grid).
- **KPI 2.1:** Total hectares of gross forest cover increase due to reforestation and afforestation, representing forest land cover due to natural or anthropogenic regrowth, and excluding plantations.
- **KPI 2.2:** Total hectares of gross forest cover loss, excluding plantations.

For KPI 2, two sub-KPIs have been chosen to avoid the potential netting out of both targets, as the loss of one hectare of existing forest cannot be offset by one hectare of planted or naturally regrown forest. Overall, the selected indicators are designed to be comparable with international standards and peer countries and can be verified by an independent third party.

The associated Sustainability Performance Targets (SPT) are aligned with Côte d'Ivoire's political commitments and aim to make additional strides toward sustainable development. For the energy sector, the target is to increase the share of renewable energy, excluding hydropower, in total installed electricity capacity from 1 % in 2023 to at least 11 % by 2030. For the forestry sector, the target is to i) control

[4] World Bank (2023): Côte d'Ivoire Country Climate and Development Report. https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1

[5] World Bank (2023): Côte d'Ivoire Country Climate and Development Report. https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1

[6] Côte d'Ivoire Country Climate and Development Report. https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1

deforestation so that forest cover losses do not exceed 300,000 hectares between 2025 and 2030, and ii) convert 1 million hectares of land into forest cover between 2021 and 2030. All goals are aligned with Côte d'Ivoire's NDCs and sector-specific strategies. The ambition of these targets has been assessed with the support of the World Bank's Feasibility and Ambitiousness Assessment (FAB) methodology.[7]

Côte d'Ivoire seeks to enhance the credibility and impact of its SLF Framework by adopting an incentive-compatible financing structure that links the cost of capital to the achievement of its sustainability goals. The framework incorporates a two-way pricing mechanism, featuring a coupon step-up if targets are not met and a step-down if the country exceeds its ambitious SPTs. This innovative approach aligns Côte d'Ivoire's financing strategy with its sustainable development objectives, while creating strong incentives for overperformance and reinforcing investor confidence in the country's long-term sustainability commitment.

Robust reporting and verification mechanisms underpin this framework, ensuring transparency, accuracy, and credibility. Côte d'Ivoire will publish annual progress reports on each KPI and corresponding SPT, issued by the Ministry of Finance and Budget, publicly for bonds, and shared with lenders for loans. Data collection and metric calculation will be coordinated with relevant ministries, accompanied by updates on actions taken and progress made. For KPI 2 and SPTs 2.1 and 2.2, a new MRV system is being developed by the Ministry of Water and Forestry and Bureau National d'Études Techniques et de Développement (BNETD), leveraging remote sensing and nationwide geospatial monitoring. Côte d'Ivoire will also adopt best practices from the International Capital Markets Association (ICMA) and the Loan Syndications and Trade Association (LSTA) to ensure verification standards align with leading Sustainability-linked bonds (SLB) and loans (SLL) market norms.

[7] https://blogs.worldbank.org/en/psd/ambitious-yet-feasible-setting-fab-targets-sustainable-financing-instruments

VISION FOR SUSTAINABLE DEVELOPMENT

Côte d'Ivoire is on an ambitious path to transform its economy, aiming to sustain robust growth while advancing the Sustainable Development Goals (SDGs). As the largest economy in the West African Economic and Monetary Union (WAEMU), the country has achieved remarkable progress, with real GDP growth averaging 7 % annually between 2012 and 2023.[8] Building on this momentum, Côte d'Ivoire is committed to attaining middle-income status by 2030, doubling GDP per capita, and reducing poverty to 20 %. To achieve this goal, Côte d'Ivoire is shifting its economy toward a more inclusive, resilient, and sustainable growth model. As an agrarian powerhouse and leading exporter of cocoa, cashews, and rubber, Côte d'Ivoire has long relied on its natural resources and large labor force. However, this model has constrained productivity and is under increasing pressure from vulnerability to external shocks and climate change. Therefore, Côte d'Ivoire sees its efforts towards preserving its natural capital and a more climate-resilient economic model as a prerequisite to sustain robust growth, achieve middle-income status, and enhance the well-being of its people by meeting the SDGs.

Developing a Sustainable Finance Market

Côte d'Ivoire is dedicated to fostering sustainable finance both nationally and regionally. In 2023, the Ministry of Finance updated its Sustainable Financing Framework (SFF) to support public budget expenditures for eligible Environmental, Social, and Governance (ESG) projects,[9] adhering to international standards and best practices such as the International Capital Markets Association (ICMA) Sustainable Bond Principles and the Loan Market Association Green and Social Loan Principles. The country has issued $2.4 billion in sovereign bonds and loans under this ESG framework, receiving robust support from investors and financial institutions committed to the nation's and continent's sustainable development. Côte d'Ivoire stands as one of the leading issuers in the region, contributing to the cumulative total of $7.6 billion in sovereign sustainable labeled bonds and loans issued across Africa as of December 2024. [10]

Gearing the Energy and Forestry Sectors Toward Sustainability

Côte d'Ivoire is transforming its key economic sectors to reduce its vulnerability to natural resource depletion and climate change. Côte d'Ivoire ranks 134th among 181 countries in climate vulnerability.[11] Without additional adaptation measures, climate change could cause annual GDP losses of up to 13 % by 2050 due to rising average temperatures, increased weather variability, and more frequent extreme weather events.[12] Furthermore, the future of key economic sectors, such as the energy, agriculture

[8] https://www.dgf.gouv.ci/images/app/contenu/99/moodys-mars-2024.pdf
[9] https://www.dgf.gouv.ci/documents/finance-verte/document-cadre-ESG-09-2023-vE.pdf
[10] Data extracted from Bloomberg on January 25, 2024.
[11] https://gain.nd.edu/our-work/country-index/rankings/
[12] https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1

and forestry, is threatened by rapidly depleting natural resources. To secure long-term growth and sustainability, Côte d'Ivoire has thus embarked on an ambitious reform agenda anchored on climate action.

The energy sector is a key part of this transformation, pivoting toward more renewable energy generation to diversify the energy mix, safeguard the country's electricity security, and strengthen its role as a regional net exporter. Côte d'Ivoire currently benefits from a relatively low-emission energy mix, dominated by natural gas and hydropower, which supports domestic electricity needs and regional exports. However, with rapidly increasing energy demand and hydropower supply increasingly vulnerable to climate change, Côte d'Ivoire faces the risk of increasing its reliance on costly and carbon-intensive heavy fuel oils (HFOs).[13] Non-conventional renewable energy offers a climate-resilient and sustainable solution to meet Côte d'Ivoire's growing electricity demand while avoiding HFO dependency. Solar, wind, and biomass hold particular promise, enhancing the resilience of the energy mix and supporting universal electricity access through on- and off-grid solutions. Collectively, these sources also help the country accelerate its efforts to further decarbonize the electricity sector.

Forestry represents the other centerpiece, and through it, the country's shift toward sustainable agricultural production and better resource management. Agricultural expansion has driven extensive deforestation, with Côte d'Ivoire losing over 80 % of its forest cover since the 1960s.[14] Deforestation, in return, exacerbates climate vulnerability, disrupts rainfall patterns, and threatens cocoa production, with half of current cocoa-growing areas expected to become unsuitable by 2050.[15] Thus, sustainable forest management and reforestation in combination with zero-deforestation agricultural practices are critical to preserving natural capital, sustaining long-term growth, and maintaining access to key export markets. Moreover, complying with EU deforestation-linked import regulation will be crucial to prevent export losses of up to USD 2 billion by 2050.[16] Finally, these efforts will also ensure food security, particularly for Côte d'Ivoire's rural population, and protect biodiversity.

[13] https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1
[14] https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1
[15] https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1
[16] https://openknowledge.worldbank.org/entities/publication/a88651eb-86ce-49e3-b860-c4dc881498c1

RATIONALE FOR SUSTAINABILITY-LINKED FINANCE

The publication of the Sustainability-linked Financing (SLF) Framework, alongside the ESG Framework for use-of-proceeds bonds and loans, will allow Côte d'Ivoire to further diversify its investor base. By introducing new securities aligned with international sustainability standards and best practices, the country strengthens its appeal to investors committed to sustainable development. With the issuance of sovereign SLF instruments, the Government of Côte d'Ivoire aims to harness the ambition of its decarbonization commitments under the Paris Agreement and associate the quality and cost of its financing sources with its environmental performance.

Unlike instruments issued under the existing ESG Framework, which are tied to specific projects, sustainability-linked bonds and loans issued under the SLF Framework are designed to support Côte d'Ivoire's broader systemic sustainability commitments. These commitments – aimed at fostering low-carbon and climate-resilient development – will have far-reaching economic and environmental impacts, significantly larger than their direct budget allocations. Like bonds and loans issued under the ESG Framework, SLF instruments will mobilize both public and private investments. However, they will be particularly effective in driving financing for key national priorities, such as decarbonizing electricity generation and increasing forest cover. Achieving the performance targets set in this framework will require not only government budget allocations but substantial local and international private investments in renewable energy generation, forest management, and reforestation activities.

By linking financing gains to Côte d'Ivoire's performance on ambitious sustainability commitments, these instruments create a strong incentive for the government to implement transformative policy actions with lasting economic and social benefits. This alignment between government objectives and the interests of responsible investors strengthens the country's commitment to a sustainable transition while attracting capital to support its low-carbon and climate-resilient development goals.

SUSTAINABLE DEVELOPMENT COMMITMENTS

Like the ESG Framework, the SLF Framework is rooted in Côte d'Ivoire's international and national commitments toward climate action and sustainable development. These commitments serve as the foundation for selecting the Key Performance Indicators (KPI) and provide guidance for calibrating the Sustainability Performance Targets (SPT) of the SLF Framework.

Nationally Determined Contributions (NDC)

Côte d'Ivoire's vision for a sustainable future underpins its commitment to global climate action, concretized by the ratification of the Paris Agreement, alongside 195 other countries, and the development of its first Nationally Determined Contribution (NDC) in 2015. While contributing only 0.1 % of global emissions, Côte d'Ivoire has made ambitious commitments to reduce GHG emissions and to preserve its natural capital. In its first NDC, Côte d'Ivoire has committed to reduce its greenhouse gas (GHG) emissions by 28.25 % – a reduction of 10 million tons of CO2 equivalent by 2030 compared to the business as usual or the reference scenario.

In 2022, Côte d'Ivoire raised its climate ambitions with the release of its second NDC. The updated NDC outlines 27 unconditional measures aimed at reducing GHG emissions by 30.41 % — equivalent to 37 million tons of CO_2— by 2030. Additionally, the plan includes eleven conditional measures that, if supported by international funding, could achieve a 98.95 % reduction. To ensure transparency and accountability, the updated NDC incorporates a robust monitoring and evaluation framework, enabling effective tracking of progress toward these climate goals.

The forestry and energy sectors are pivotal to Côte d'Ivoire's NDC, as they are the largest contributors to GHG emissions. As of 2012, the two sectors contribute 21.6% and 69.5% of total CO_2 equivalent emissions, respectively. In forestry, the country aims to cut emissions by at least 34.65 %, reducing levels from 58 million tons of CO_2 equivalent in 2012 to 44.81 million tons by 2030. This will be achieved through afforestation, reforestation, and reduced deforestation. If supported with international financing, Côte d'Ivoire's conditional measures could further accelerate these efforts, transforming the forestry sector from a significant emitter to a carbon sink. In the energy sector, Côte d'Ivoire targets a 28.55 % reduction, lowering emissions from the 2030 baseline 39.91 million to the unconditional target of 28.51 million tons of CO_2 equivalent, by expanding renewable energy, improving energy efficiency, and transforming the transport sector.

Other International Commitments

Côte d'Ivoire has long demonstrated its commitment to the global fight against climate change. Already in 1994, Côte d'Ivoire had ratified the United Nations Framework Convention on Climate Change (UNFCCC), laying the foundation for its environmental stewardship. This was followed by the Kyoto protocol in 2007 and the

Paris Agreement in 2015, signaling its dedication to aligning national efforts with global climate goals. In addition, the country became a member of the Climate and Clean Air Coalition (2013), further enhancing its role in global climate action. Most recently, Côte d'Ivoire signed the Global Methane Pledge, reinforcing its resolve to combat one of the most potent greenhouse gases.[17] Through this initiative, Côte d'Ivoire joins an international coalition dedicated to reducing global methane emissions by at least 30 % from 2020 levels by 2030.

To signal its commitment to forest conservation, Côte d'Ivoire joined the Reducing Greenhouse Gas Emissions from Deforestation and Forest Degradation (REDD+) Program in 2011. REDD+ is a UN initiative – implemented in partnership with the World Bank – that provides financial incentives to countries like Côte d'Ivoire for reducing deforestation, enhancing forest carbon stocks, and promoting sustainable forest management. Under the REDD+ Program, Côte d'Ivoire has committed to reducing deforestation by 80 % in protected forests and replenishing five million hectares of degraded land by 2030.

Finally, the governments of Côte d'Ivoire and Ghana, along with 34 leading cocoa and chocolate companies, committed in 2017 to working together through the Cocoa and Forests Initiative (CFI) to contain commodities' drive deforestation and restore forest areas in West Africa, in line with the 2015 Paris Climate Agreement. Building on the lessons learned and good practices from other commodities and sectors, such as the Consumer Goods Forum, the CFI has developed a concrete, time-bound, joint action plan that spells out the critical actions to end deforestation, with a focus on (a) forest protection and restoration; (b) sustainable cocoa production and farmers' livelihoods; and (c) community engagement and social inclusion. The CFI's progress in Côte d'Ivoire includes, among other things, commitments from private sector partners to stop any new conversion of forest lands for cocoa production and increase the traceability of cocoa sourcing to enable the enforcement of agreements such as the 'Elimination of Cocoa Production and Sourcing from

National Targets

Beyond its international commitments, Côte d'Ivoire has considered climate change issues in several national policies, including its National Development Plan (NDP) 2021-2025. The NDP is Côte d'Ivoire's key strategy document that guides its public investments and reform agenda. The NDP 2021-2025 emphasizes industrialization, economic diversification, and value chain development to reduce reliance on raw commodity exports. Green growth initiatives, including sustainable agriculture and renewable energy, are central to addressing climate challenges while enhancing economic resilience.

[17] https://www.ccacoalition.org/news/nigeria-and-cote-divoire-join-global-methane-alliance-critical-move-fighting-global-warming

Those objectives have been translated into sector-specific strategies and targets:

- **Electricity:** As per its Energy Masterplan 2022-2040, Côte d'Ivoire plans to raise its renewable energy capacity to 45% by 2030, with hydropower remaining central and solar and biomass energy taking on an increasingly significant role.[18]

- **Forestry:** Under its National Strategy for the Preservation, Rehabilitation, and Extension of Forests (SPREF), Côte d'Ivoire aims to increase forest cover from 3.4 million hectares in 2015 (11% of the land area) to 20% of the land area by 2030.

Institutional Framework

Climate commitments and ambitions of Côte d'Ivoire are supported by a strong institutional arrangement. Reflecting the cross-cutting nature of climate change, multiple institutions engage in climate change matters in Côte d'Ivoire. For instance, while the direct responsibility for Côte d'Ivoire's NDC lies with the Ministry of the Environment, Sustainable Development, and Ecological Transition, many other institutions are involved in its governance and implementation, including the Prime Minister's Office, the Ministry of Finance and Budget, the Ministry of Economy, Planning and Development and sectoral ministries. To strengthen coordination, the Government has set up the National Climate Change Program under the Ministry of Environment and Sustainable Development (2014) and the Directorate for Climate Change (2016), which serve as operational bodies to coordinate action on climate change across the various ministries and government agencies.

A climate change law is currently being prepared in Côte d'Ivoire, marking a significant step toward solidifying the country's climate commitments and insulating them from changes in political leadership. Once enacted, this law will establish a robust framework to ensure that climate policies remain steadfast and that relevant institutions can operate effectively within their mandates. The law will be implemented by two new recently established agencies: the Bureau of the Carbon Market and the National Climate Change Commission.[19]

Côte d'Ivoire's institutions responsible for its climate agenda work in close cooperation with the relevant sector agencies to implement their commitments:

- **For the electricity sector, the Ministry of Mining, Petroleum, and Energy (MMPE) represents the main counterpart, but other public and private stakeholders are also involved.** While the MMPE sets policy and oversees the sector, Côte d'Ivoire ENERGIES (CI-ENERGIES), the state-owned asset holding company, manages assets and leads investments. Private entities play a significant

[18] Plan Directeur Production et Transport d'énergie électrique de la Côte d'Ivoire pour la période 2022-2040

[19] The Carbon Market Bureau has been established by Presidential Decree on August 1st, 2024, and the Climate Change Commission has been created by Presidential Decree on June 26th, 2024. Both agencies will include different ministries with policies and projects impacting the country's actions against climate change and the ability of the country to access financing opportunities offered by carbon markets.

role, with the Compagnie Ivoirienne d'Électricité (CIE) operating and maintaining the national transmission and distribution network under a concession contract, and Independent Power Producers (IPPs) contributing to power generation, particularly thermal and hydro. Regulatory oversight is provided by the Autorité Nationale de Regulation du Secteur d'Électricité (ANARE-CI), ensuring efficient and fair sector operations.

- **For forestry, the Ministry of Water and Forests is responsible for the country's forest cover rehabilitation agenda, in close cooperation with the Société de Développement des Forêts (SODEFOR) for the managing, harvesting, protecting the gazetted forests**; **the Ministry of Environment, Sustainable Development and Ecological Transition manages all national parks and reserves through the Office Ivoirien des Parcs et Réserves (OIPR).** The Ministry of Water and Forests is responsible for the policy development and implementation related to forestry, wildlife, and water resources. It is also the key agent for managing forests in rural areas. SODEFOR acts as the implementing agency, mandated to oversee and manage Côte d'Ivoire's gazetted forests, while the Ministry of Environment, Sustainable Development and Ecological Transition, and its office OIPR, is responsible for the management and protection of the country's national parks and reserves. Both agencies rely to some extent on partnerships with the private sector to implement their conservation, reforestation, and sustainable forest management tasks.

Finally, Côte d'Ivoire has already formed an ESG Committee to support its SFF Framework, which will also coordinate any investments under the SLF framework. Led by the Ministry of Finance and Budget's Debt Management Office, it includes representatives from various ministries such as Economy, Planning and Development, Environment, Health, Education, Energy, Hydraulics, and Solidarity and Fight against Poverty.

SUSTAINABILITY-LINKED FINANCING (SLF) FRAMEWORK

Alignment with International Standards and Principles

Sustainability-linked bonds (SLB) and loans (SLL) are financial instruments for which the financial or structural characteristics vary depending on whether the issuer achieves previously defined sustainability objectives. In this sense, the issuer of an SLB or SLL explicitly commits to improve, within a set period, certain sustainability outcomes that are relevant, fundamental, and material. Unlike green, social, or sustainable bonds or loans, which require that the funds raised be used for specific eligible projects defined in the ESG financing framework, the funds mobilized through an SLL or SLB will not necessarily be directly allocated to finance green, social, or sustainable projects.

This SLF Framework outlines the key elements of the Sovereign Sustainability-Linked Bond and Loan Program of the Government of Côte d'Ivoire. This Framework is prepared by the Ministry of Finance and Budget, in coordination with the Ministry of Water and Forests, the Ministry of Mines, Petroleum and Energy, and the Ministry of Economy, Planning and Development, with technical assistance and expertise from the World Bank. It is designed to reinforce and raise the profile of the country's commitments to the climate change agenda and the education of its citizens. This Framework also aims to provide investors with enhanced transparency and accountability regarding the country's environmental and social goals.

This SLF Framework is aligned with the 2024 Sustainability-Linked Bond Principles (SLBP), as administered by the International Capital Markets Association (ICMA), and the 2023 Sustainability-Linked Loan Principles (SLLP), as administered by the Loan Syndications and Trade Association (LSTA).[20] The SLBP and SLLP are voluntary process guidelines that outline best practices for financial instruments to incorporate forward-looking ESG outcomes and promote integrity in the development of the sustainability-linked bond and loan market.

This Framework is aligned with the five components of the SLBP and SLLP:

1. Selection and Definition of Key Performance Indicators (KPI)
2. Calibration of Sustainability Performance Targets (SPT)
3. Bond Characteristics
4. Reporting
5. Verification

[20] https://www.icmagroup.org/assets/documents/Sustainable-finance/2024-updates/Sustainability-Linked-Bond-Principles-June-2024.pdf; https://www.lsta.org/content/sustainability-linked-loan-principles-sllp/

The following sections illustrate the alignment of this SLF Framework with the five components of the SLBP and SLLP, providing a context for the structure of indicators, targets, and monitoring and reporting systems.

Selection and Definition of KPI

Key Performance Indicators have been developed through a consultative process led by the Ministry of Finance and Budget and coordinated by the ESG Committee. These indicators will inform the sustainability-linked bonds and loans issued in reference to this framework until its eventual revision. The indicators are consistent with the sustainability priorities established in the Sustainable Finance Framework of Côte d'Ivoire, the National Development Plan, and aligned with policies and national strategies that are core to the country's sustainable development. The selected indicators prioritize core policy commitments and are based on data collected and measured by governmental entities following best practices and official processes. These indicators are designed to be comparable with international standards and peer countries and can be verified by an independent third party.

KPI 1 - Energy: Share of Renewable Energy, excluding Hydropower, in total Installed Electricity Capacity (On-grid and off-grid)

Definition:

For this KPI, the share of non-hydro renewable installed electricity capacity in the total installed capacity is calculated as follows:

$$\frac{Renewable\ Installed\ Capacity - Renewable\ Hydro\ Installed\ Capacity}{Total\ Installed\ Capacity} * 100\%$$

Installed energy capacity refers to the electrical power of all the infrastructure in the production fleet (thermal, hydroelectric, solar, etc.) that can be produced at full operating capacity, including on-grid and off-grid capacity, and represents the sum of the maximum (nameplate) capacity of each power plant. Installed capacity is officially recognized when the unit is verified (see the Reporting Section below for more details for different types of units) to start providing electricity. Units that are decommissioned are taken out of the installed capacity calculation, but capacity from installations that are temporarily offline for regular maintenance is still counted toward the installed capacity calculation.

The installed hydropower capacity is excluded from KPI calculations due to its environmental impact and Côte d'Ivoire's need to diversify its energy mix for greater resilience. While hydropower has been a key source of large-scale clean energy, its expansion has contributed to deforestation, soil degradation, water pollution, and biodiversity loss.[21] Additionally, climate change poses risks increasing uncertainty of

[21] https://www.afdb.org/sites/default/files/documents/environmental-and-social-assessments/cote_ivoire-projet_de_barrage_hydroelectrique_de_singrobo-resume_eies_10_2017.pdf

hydrogeological patters, despite preliminary assessments currently indicate a possible an increase in rainfall and generation capacity.[22] For example, in 2020 and 2021, a prolonged lack of rain has led to power cuts and electricity rationing, highlighting the country's vulnerability to changes in climatic conditions. Lastly, Côte d'Ivoire's total hydropower potential—estimated at 2,500 MW (12,000 GWh) for large-scale and 78 MW (300 GWh) for small-scale—falls well short of the forecasted electricity demand of 29,500 GWh by 2040, underscoring the need for alternative renewable energy investments.[23]

KPI Materiality:

Côte d'Ivoire possesses one of the cleanest electricity sectors in Sub-Saharan Africa and seeks to reinforce its long-term sustainability by increasing the share of non-hydro renewable energy. Scaling up non-hydro renewables will enhance system resilience, reduce emissions, and improve the long-term financial stability of the electricity sector. Electricity generation is predominantly reliant on natural gas and hydropower (figure 1), resulting in a CO_2 emission intensity that remains low relative to global and regional benchmarks (figure 2). However, demand is growing fast, while climate change poses risks to hydropower reliability.[24] To safeguard energy security and mitigate reliance on expensive and carbon-intensive heavy fuel oils (HFOs), the country is accelerating investments in non-hydro renewable energy, particularly solar and biomass. The gas shortages experienced in 2021–2022 underscored the urgency of diversifying the energy mix, as emergency HFO-based generation placed considerable financial strain on the sector.

[22] World Bank Group. 2023. Côte d'Ivoire Country Climate and Development Report. © Washington, DC: World Bank. http://hdl.handle.net/10986/40560; https://www.riskweathertech.com/wp-content/uploads/2022/04/S-2-1-Riffard-etal.pdf

[23] https://www.cinergies.ci/notre-engagement-dans-la-transition-energetique-mix-energetique-energies-renouvelables-perspectives/#:~:text=Le%20potentiel%20hydro%C3%A9lectrique%20de%20la,300%20GWh%20en%20petite%20hydraulique; World Bank Group. 2023. Côte d'Ivoire Country Climate and Development Report. © Washington, DC: World Bank. http://hdl.handle.net/10986/40560

[24] An initial climate vulnerability assessment of Côte d'Ivoire's hydropower assets was undertaken in 2021, showing a relatively low vulnerability. However, uncertainty remains, which Côte d'Ivoire has decided to address by diversifying its energy mix and increasing the share of non-hydro renewable energy. For more details, see the World Bank Group. 2023. Côte d'Ivoire Country Climate and Development Report. © Washington, DC: World Bank. http://hdl.handle.net/10986/40560

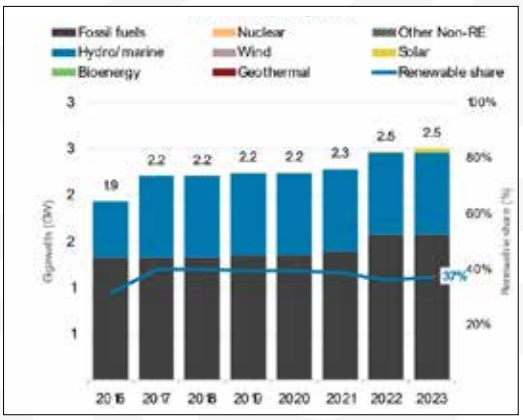


Figure 1. Installed Capacity
Source: IRENA

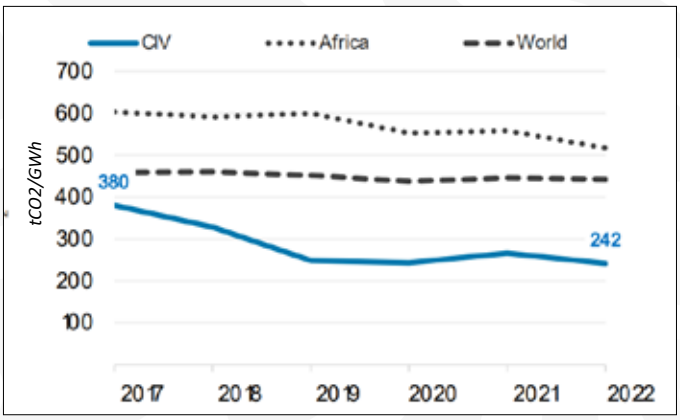


Figure 2. CO2 Emissions
Source: IRENA

Côte d'Ivoire's policy framework supports this transition towards renewable energy sources through the combination of sectoral objectives on installed capacity and policy incentives on investments and technology imports. The 2022–2040 Masterplan and the Nationally Determined Contribution (NDC) target a 45 % renewable energy share by 2030, with a tremendous acceleration in the supply from non-hydro sources, mainly solar, whose contribution is expected to increase from the current 1% to at least 11 %. The Renewable Energy Law (2014) and subsequent policy revisions encourage private investment through tax incentives, streamlined project permitting, and power purchase agreements. The investment code and public-private partnership (PPP) law have further reduced barriers, while a 2024 ministerial decree exempts solar equipment from duty taxes, further lowering installation costs. Additionally, the government is revising its action plan for off-grid electrification and implementing texts for self-generation, hence promoting decentralized solar systems.

Despite progress, challenges remain in attracting sufficient private-sector investment for renewable energy generation, requiring decisive policy implementation and ambitious government action. Competitive tenders for solar projects, mandated every two years by the Renewable Energy Law (2014), have not been consistently conducted, making it difficult to plan future investments. The bankability of solar projects must improve, including better land acquisition and infrastructure development. Expanding renewable capacity also requires significant investments in grid modernization, including transmission, distribution, and storage solutions. While the grid can integrate up to 1,110 MWac of intermittent generation by 2030 with minimal upgrades, further flexibility will be needed as deployment scales up. Investments in automation, telecontrol systems, and smart meters will enhance network efficiency. Additionally, deeper integration into the West African Power Pool (WAPP) would provide independent power producers (IPPs) with multiple off-take opportunities. Enabling third-party grid access would reduce development costs, increase revenue potential, and deliver lower-cost, cleaner electricity across the region. Furthermore, providing net-metering and a tariff framework for sale of excess electricity from self-generation systems could promote more private investment in decentralized renewable energy.

The government, with support from development finance institutions (DFIs) such as the World Bank, IFC, AfDB, AFD, EU, and KfW, is addressing these challenges by channeling development finance towards renewable generation and energy transmission investments and by creating an enabling environment for private investment in renewables. There is a pipeline of more than 1,000 MW of solar and biomass projects, some directly financed by DFIs and some directly signed with private developers. The IFC-supported Scaling Solar project is the first solar competitive tender and more will follow. Grid expansion efforts include new transmission lines and substation upgrades, as well as installation of battery storage, with concessional financing from international partners.

KPI 2: Forestry: Increase Forest Cover over the national territory

Definition:

This KPI translates the commitment from the National Strategy for the Preservation, Rehabilitation and Extension of forests (SNPREF, 2018) and is operationalized through two different sub-KPIs that, when considered together, will measure the success of Côte d'Ivoire in controlling and reducing deforestation, as well as increasing forestry recuperation through planting and natural re-growth:

KPI 2.1: Total hectares of gross forest cover increase due to reforestation and afforestation, representing forest land cover due to natural or anthropogenic regrowth, and excluding plantations.

KPI 2.2: Total hectares of gross forest cover loss, excluding plantations.

Two sub-KPIs are necessary to avoid the potential netting out of both targets, as the loss of one hectare of existing forest cannot be offset by one hectare of planted or naturally regrown forest. This is due to the asymmetry between both targets regarding the amount of carbon sequestered, the value of ecosystem services, and the uncertainty of the planted or naturally regrown forests to survive. At the same time, successful forestry-related policies will benefit both targets.

KPI Materiality:

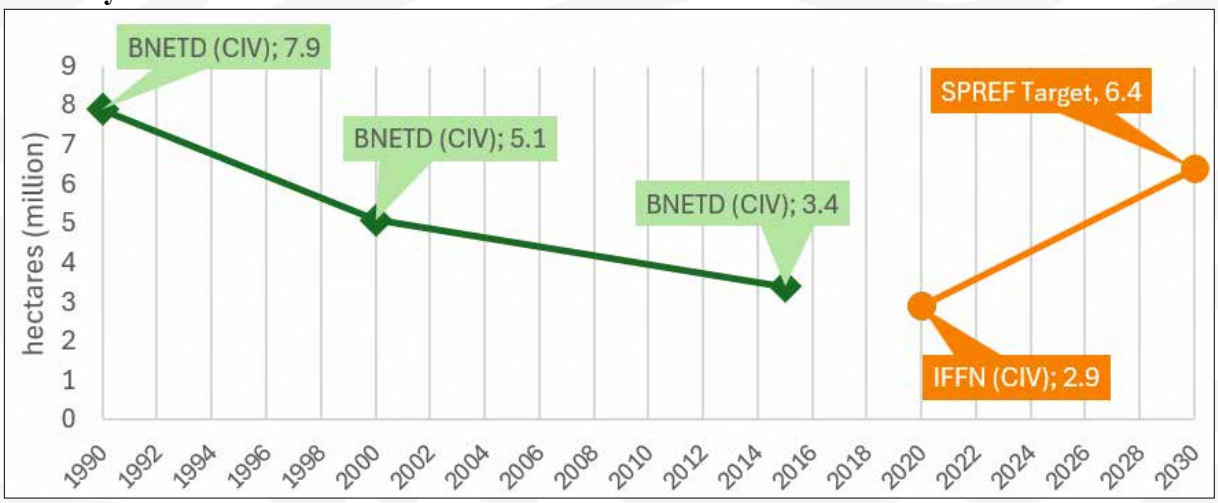
Côte d'Ivoire is tackling the dual challenge of economic growth and environmental preservation by combating deforestation and promoting reforestation, afforestation, and natural regeneration. Since the 1960s, agricultural expansion—primarily cocoa, but also cashew and rubber—has fueled economic growth but reduced forest cover by over 80%, from 16.5 million hectares in 1960 to less than 3 million in 2020 (figure 3).[25] Without decisive policy intervention, the country might lose its remaining forests by 2034, jeopardizing biodiversity, carbon sequestration capacity, climate resilience, and agricultural productivity. To address this, Côte d'Ivoire has committed to reversing its

[25] World Bank Group elaborations with government released observations and forest cover maps (BNETD).

loss in tree cover, introducing an improved policy framework, better forest management, and large-scale reforestation efforts.

A strong policy framework has been established to implement Côte d'Ivoire's commitment. The National Policy for the Preservation, Rehabilitation, and Extension of Forests (PPREF) and its strategy (SPREF) outline a path to expand forest cover from 11% to 20% by 2030, focusing on forest governance, protection of remaining forests, and the restoration of degraded areas. The legal framework has been strengthened with the revision of the Forest Code in 2014 and 2019, introducing stricter conservation rules, promoting agroforestry, and expanding public-private partnerships for sustainable management.

Figure 3: Historical assessments of forest cover and the SPREF target of 20% forest cover by 2030.



Source: BNETD, SPREF

Notes: BNETD = National Office for Technical Studies and Development, IFFN=National Forest and Wildlife Inventory. The "(CIV)" refers to the national definition of forest cover.

Large-scale re- and afforestation initiatives are being implemented. The government has launched various re- and afforestation initiatives to increase its forest areas. For example, under the Program "One day, X million trees", Côte d'Ivoire has planted 1.2 million trees in 2019, nearly 6.4 million trees in 2020, and more than 28 million trees in 2021.

Despite progress in re- and afforestation, deforestation persists, driven by unsustainable agriculture practices, land tenure issues, and illegal logging. Agriculture continues to drive deforestation, with smallholder farmers relying on forest land for cultivation. In response, the government introduced a zero-deforestation agriculture policy (2015) and initiatives like the Cocoa and Forests Initiative (2017) and the National Sustainable Cocoa Strategy (2022), which aim to curb forest loss while supporting economic growth. These programs have improved cocoa traceability, promoted agroforestry, and aligned production with sustainability standards. However,

insufficient funding for implementing agencies and socio-economic challenges have impeded implementation and slowed progress. Land tenure issues also remain a barrier, with less than 4 % of land holding formal titles.[26] The government's Rural Land Agency (AFOR) and Decree No. 2023–238 aim to increase land certification and clarify land-use rights. Additionally, while formal logging has decreased, unsustainable fuelwood and charcoal demand still threaten forests. Côte d'Ivoire has joined the Forest Law Enforcement, Governance and Trade (FLEGT) program to combat illegal logging and promote sustainable practices.[27]

To monitor the development of its forest resources, Côte d'Ivoire is developing its MRV system in coordination with development partners and international agencies. Under the UN's REDD+ program (2011), the country is, among others, strengthening its monitoring and surveillance capabilities, establishing a forest surveillance system, emissions reduction monitoring mechanisms, and safeguards instruments. With support from the World Bank through the Forest Carbon Partnership Facility preparation grant (FCPF-Readiness Fund), the French Development Agency (Agence Française de Développement, AFD), and several United Nations (UN) agencies, the country established a strong national REDD+ system to strengthen its institutional framework. The system entails the creation of a National REDD+ Commission and the development of a National REDD+ Strategy, a National Forest Surveillance System, multiple safeguards instruments, a safeguards information system, a reference emission level, a measurement, reporting, and verification (MRV) system for emissions reduction, and a REDD+ registry and certification manual.

Calibration of Sustainability Performance Targets

Energy

SPT 1.1 – Increase the share of renewable energy, excluding hydropower, in total installed electricity capacity from 1% in 2023 to at least 11% by 2030.

SPT 1.2 – Outperformance of policy commitments with increasing share of non-hydropower renewable energy installed capacity from 1% in 2023 to above 13% by 2030.

Currently, non-hydro renewable electricity accounts for just 1% of Côte d'Ivoire's energy mix, with 37.5MW on-grid capacity and 9MW off-grid installed over a total electricity capacity of 2,501.5MW as of 2023[28]. To further decarbonize electricity generation and increase climate resilience, Côte d'Ivoire is committed to increasing the share of electricity generated by non-conventional renewable energy sources and is planning significant public and private investments in solar and biomass energy

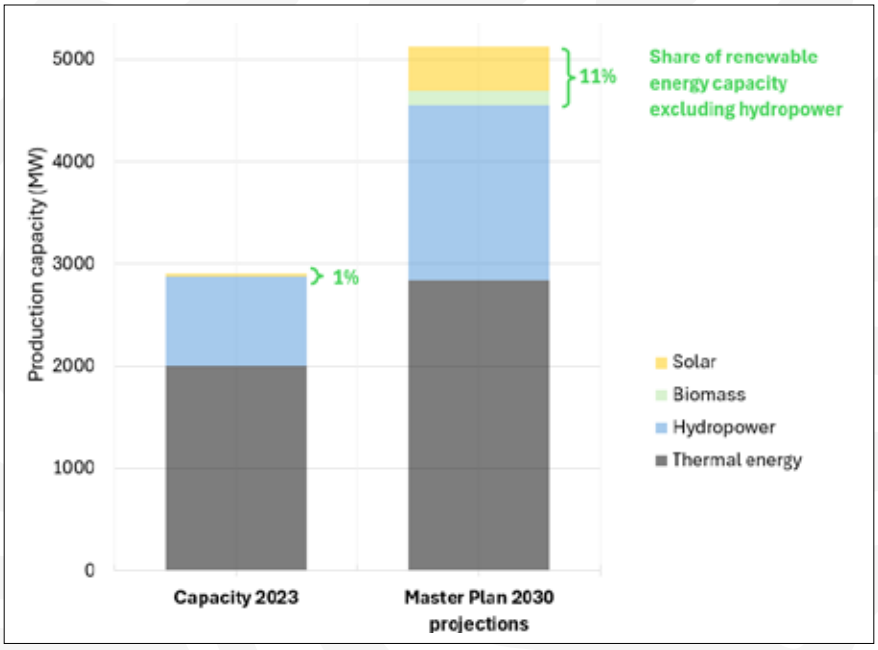
[26] World Bank Group. 2023. Côte d'Ivoire Country Climate and Development Report. © Washington, DC: World Bank. http://hdl.handle.net/10986/40560

[27] https://flegtvpafacility.org/flegt/

[28] Data source: IRENA (2024), Renewable Energy Statistics 2024, International Renewable Energy Agency (IRENA), Abu Dhabi. Maximum net generating installed capacity.

generation. To reach this ambitious objective, according to the Electricity Master Plan 2022-2040 (Plan Directeur Production et Transport d'énergie électrique 2022-2040), non-hydro renewables are projected to grow to 574 MW by 2030, alongside increases in hydropower to 1,708 MW and thermal energy to 2,845 MW, raising the non-hydro renewable share to 11% (Figure 4). Furthermore, Côte d'Ivoire will aim to increase the installed capacity of solar and biomass[29] energy above this target, identifying an outperformance objective of 13% over total electricity capacity installed.

Figure 4: Installed capacity in 2023 and the projected capacity by 2030 according to the Master Plan 2022-2040.



Source: WB Analysis

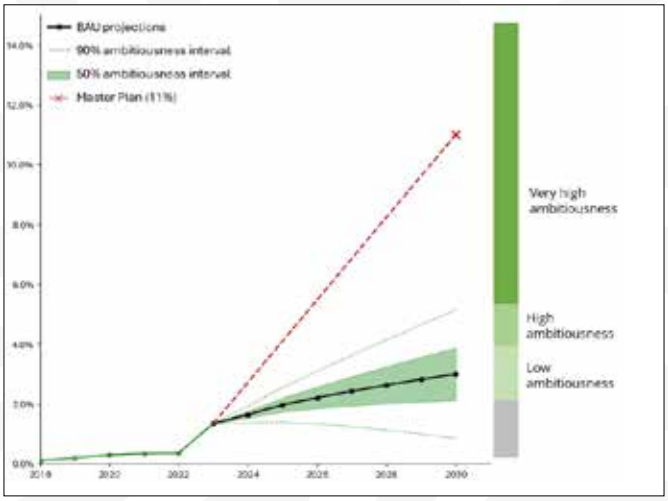
With the support of the World Bank's *Feasibility and Ambitiousness Assessment (FAB)* methodology,[30] Côte d'Ivoire has assessed the ambition of these targets and their feasibility, both in absolute terms and relative to a wide selection of peer countries, similar in terms of levels of economic development and degree of penetration of non-conventional renewable energies. The analysis aims to support the assessment of the level of ambition of the stated targets, but also their feasibility.

The ambitiousness analysis is based on comparing the stated goals in SPT 1.1 and SPT 1.2 against the projection of a "business as usual" scenario for the KPI, assuming current policies and macroeconomic conditions prevail over the next few years. This scenario is built on a model that projects Côte d'Ivoire's dynamics into the near future by relying on common trends among its peer countries.

[29] The biomass projects currently under construction or investigation are powered by agricultural residues. The Biovea power plant will generate 46 MW of installed capacity using palm residues from local agroforestry systems, sourced within a 60 kilometers radius around the plant, limiting CO^2 impact.
[30] https://blogs.worldbank.org/en/psd/ambitious-yet-feasible-setting-fab-targets-sustainable-financing-instruments

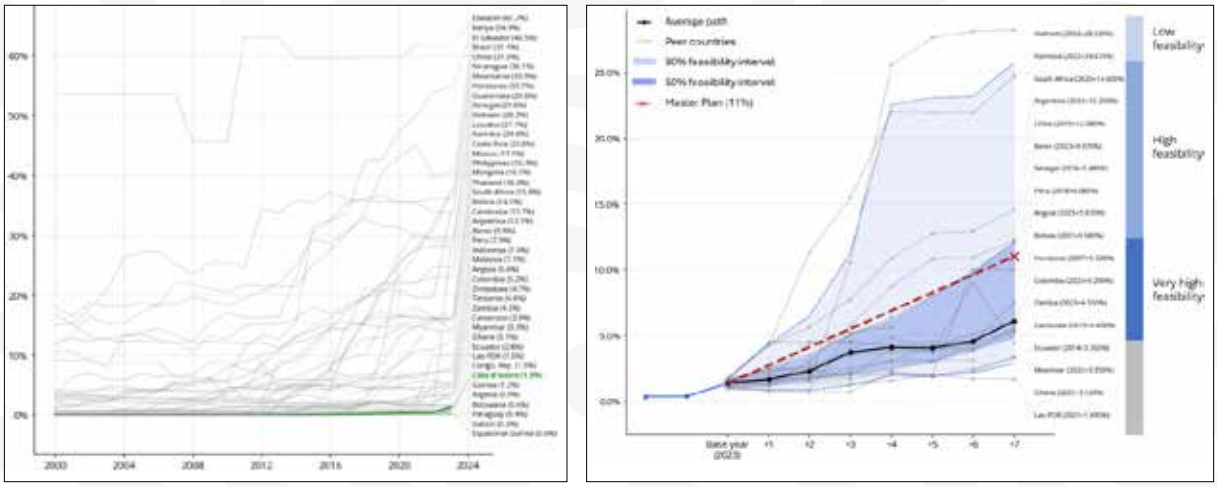
Levels of ambition are then defined using statistical confidence intervals that take into account inevitable uncertainty related to future projections expected BAU. In the case of SPT 1, the Master Plan goal to 2030 is projected significantly above the estimated BAU level and hence considered "Very Highly Ambitious".

Figure 5: Business-as-usual scenario and ambitiousness analysis of increasing the share of non-hydro renewable electricity capacity



Source: Data from Renewable Energy Statistics 2024, International Renewable Energy Agency (IRENA), and Ministry of Mining, Petroleum, and Energy (MMPE). World Bank calculations.

Figure 6: Historical data for Côte d'Ivoire and its peer countries (left) and feasibility analysis of increasing the share of non-hydro renewable electricity capacity (right)



Source: Data from Renewable Energy Statistics 2024, International Renewable Energy Agency (IRENA), and Ministry of Mining, Petroleum, and Energy (MMPE). World Bank calculations.

The assessment benchmarks Côte d'Ivoire against a broad peer group, including countries in Sub-Saharan Africa, Latin America & the Caribbean, and East Asia & the Pacific classified as lower-middle or upper-middle income economies (excluding small island developing states). Within this context, Côte d'Ivoire's share of non-hydro renewable energy is notably low (Figure 6 - left). However, when compared with a selection of those countries that have been in the recent past at similar levels of renewable energy penetration, the stated goal seems both very highly feasible very and highly ambitious.

Forestry

The government of Côte d'Ivoire has set national goals to reverse the ongoing trend of forest cover loss by reducing deforestation while putting efforts into reforestation and natural regeneration of the forest cover. In the First Revised NDC (2022), a goal to convert 3 million hectares of land into forest cover has been set, and corresponds to the SPT 2.1, considering replanting and reforestation already occurred by 2024. In the same document, the government also committed unconditionally to reducing the deforestation rate by 70% in 2030, compared to 2015 levels, to which the calibration of the SPT 2.2 has been aligned. Together, these goals contribute to the implementation of the Forest Preservation, Rehabilitation, and Extension Strategy (SPREF, 2018), which targets to reach a forest cover of 20% by 2030, equivalent to 6.4 million hectares.

Strengthening Côte d'Ivoire's data environment for tracking forest cover changes is instrumental for achieving this nationwide goal. Central to this effort is the use of an improved monitoring system, which is complicated by the simultaneous use of two forest definitions: the national standard (labeled as "CIV") and the Food and Agriculture Organization definition (labeled as "FAO"). To facilitate international comparisons, which are critical for the SLL, the Ministry of Forestry and Water opted for the FAO definition. The most recent forest cover map based on this definition was produced in 2020 by the Bureau National d'Études Techniques et de Développement (BNETD). However, no historical data on an annual frequency exists, which is essential for finding comparable peers and setting SPTs. With the support of World Bank analysis, this framework uses two internationally recognized datasets as proxies: the Tropical Moist Forests (TMF) dataset from the European Commission's Joint Research Centre (JRC) and the Global Forest Watch (GFW) platform developed by the World Resources Institute (WRI).

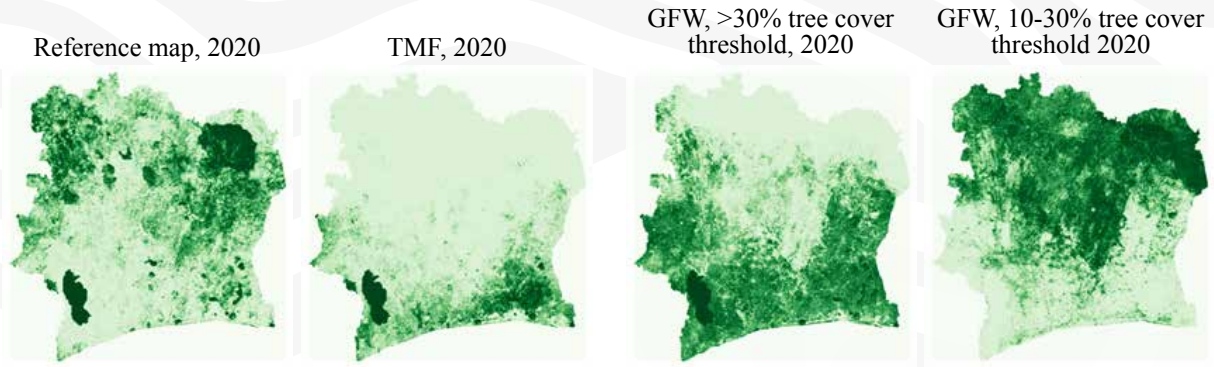
The analysis for this Framework combines three forest cover maps derived from the TMF and GFW data to capture the Ivorian forest dynamics in a statistically robust manner and to model forest cover changes across different regions with greater precision (Figure 7).[31] For instance, the GFW 10-30% tree cover map is particularly

[31] This method combines three overlapping deforestation forecasts based on TMF, GFW >30% TC, GFW 10-30% TC, by weighting them based on their relevance to a reference land cover map (BNETD 2020) while avoiding double counting. Overlaps between forecasts are quantified, and relevance is assessed by how much each forecast aligns with the reference. Weights are then adjusted to ensure that exclusive and shared areas contribute appropriately, resulting in a corrected, aggregated deforestation projection.

effective at capturing northern savanna forests, where cashew cultivation is prevalent. Meanwhile, the TMF map provides a detailed view of southern tropical forests, where cocoa and rubber are extensively grown. Figure 8 shows the resulting differences in annual losses each year[32]

Figure 7: Comparing BNETD land cover map (2000 reference map) with public forest cover datasets from Tropical Moist Forest (TMF) and Global Forest Watch (GFW)

The three maps capture different features of the reference map (left). The TMF map provides a detailed view of the southern tropical forests, where cocoa and rubber are grown extensively. GFW with at least 30% tree cover extends this coverage towards the north and overlaps with the reference map. The GFW map with 10-30% tree cover map is effective at capturing northern savanna forests, where cashew cultivation is prevalent.



Source: BNETD Land Cover Map 2020.

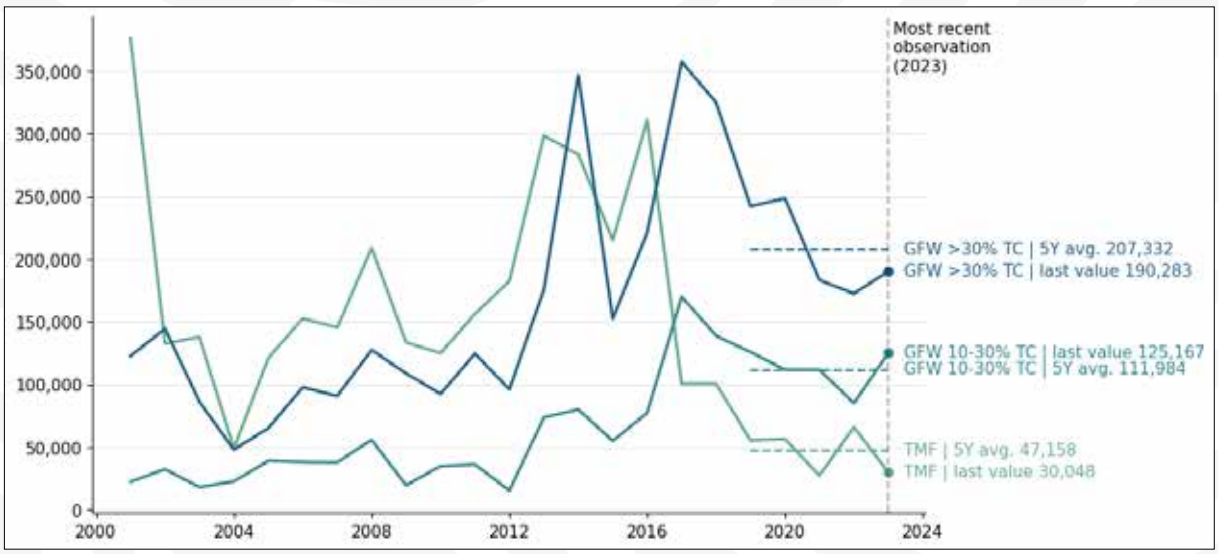
Source: EC JRC

Source: Hansen/UMD/Google/USGS/NASA, accessed through Global Forest Watch

[32] For technical details, we refer to Wang, de Smit, Frisari (forthcoming) "Combining Spatial Data and Empirical Modelling to Anchor Côte d'Ivoire's Sustainability-linked Deforestation Targets" World Bank Policy Research Working Papers. Washington D.C.

Figure 8: Historical annual tree cover loss (Global Forest Watch) and deforestation (Tropical Moist Forests) datasets between 2001 and 2023

Vertical axis in hectares. These three time series will be combined using a weighted average to proxy the historical deforestation series that best aligns with the 2020 BNETD reference map (see Figure 7)



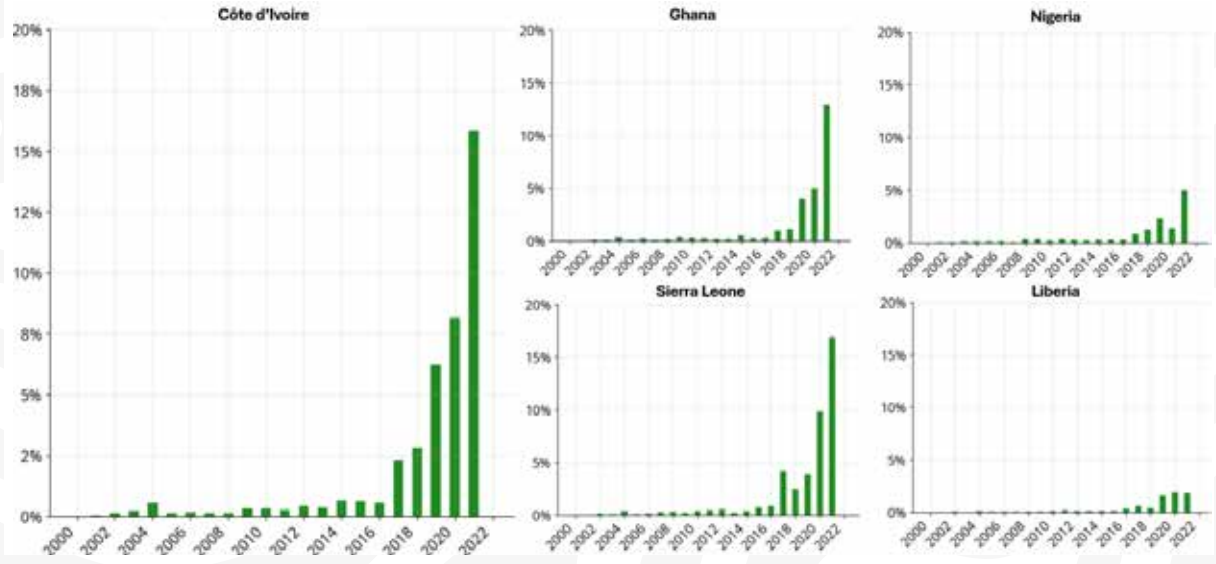
Source: Hansen/UMD/Google/USGS/NASA, accessed through Global Forest Watch; EC JRC

SPT 2.1: Fostering reforestation – Convert 1 million hectares of land area into forest cover between 2021 and 2030

Attaining the SPT 2.1 target is estimated to require a total increase of new forest cover of one million hectares between 2021 and 2030, combining reforestation efforts and natural regeneration, taking into account a baseline of achieved tree plantations of 210,645 ha from 2021 to 2024. Reforestation and forest regeneration efforts have already been implemented by the government of Côte d'Ivoire in the last few years, with forest cover inverting the long-term declining trends. A cross comparison of Côte d'Ivoire reforestation efforts against countries in the West African region shows significant progress, with forest cover growth at much faster rates than in other countries, proving the ambition of the target (Figure 9). This indicates that attaining the SPT 2.1 could be possible technically, notwithstanding the challenge of maintaining the same level of reforestation and afforestation achieved since 2019, despite financing pressure during the post-COVID-19 recovery and the high-interest-rate environment since 2022. The Ministry of Forestry has already identified active reforestation projects that cover 338,500 hectares and further projects under investigation that would cover an additional 315,000 hectares. This is significant progress towards meeting the SPT 2.1, but nevertheless leaves the Government of Côte d'Ivoire with the challenge of continuing reforestation efforts and securing financing for these activities at the very high rates seen in the recent past.

Figure 9: Reforestation, afforestation, and natural regeneration in tropical moist forest areas according to TMF for Côte d'Ivoire and its regional peers

Values are relative to the countries' undisturbed tropical moist forest extent in 2000. Note that these figures illustrate the recent trends but follow the TMF definition of forests, which differ from the national and FAO definition. For instance, the Ivorian figures (left) exclude northern areas of savanna forests (see Figure 7).



Data source: EC JRC. World Bank calculations.

To achieve the SPT 2.1, Côte d'Ivoire must increase its forest cover by an estimated average of 100,000 hectares annually. This ambitious goal is directly aligned with the national objectives outlined in the SPREF framework, emphasizing sustainable land use and ecosystem restoration. The strategy involves a combination of reforestation and natural regeneration initiatives with a 1:2 ratio. Actions have already begun to reverse long-standing trends of forest decline, demonstrating significant progress compared to other West African nations. This acceleration in forest cover growth underscores the feasibility of meeting the SPT 2.1 target, as evidenced by comparative data (Figure 9).

SPT 2.2: Controlling Deforestation – Forest cover losses cannot exceed 300,000 hectares between 2025 and 2030

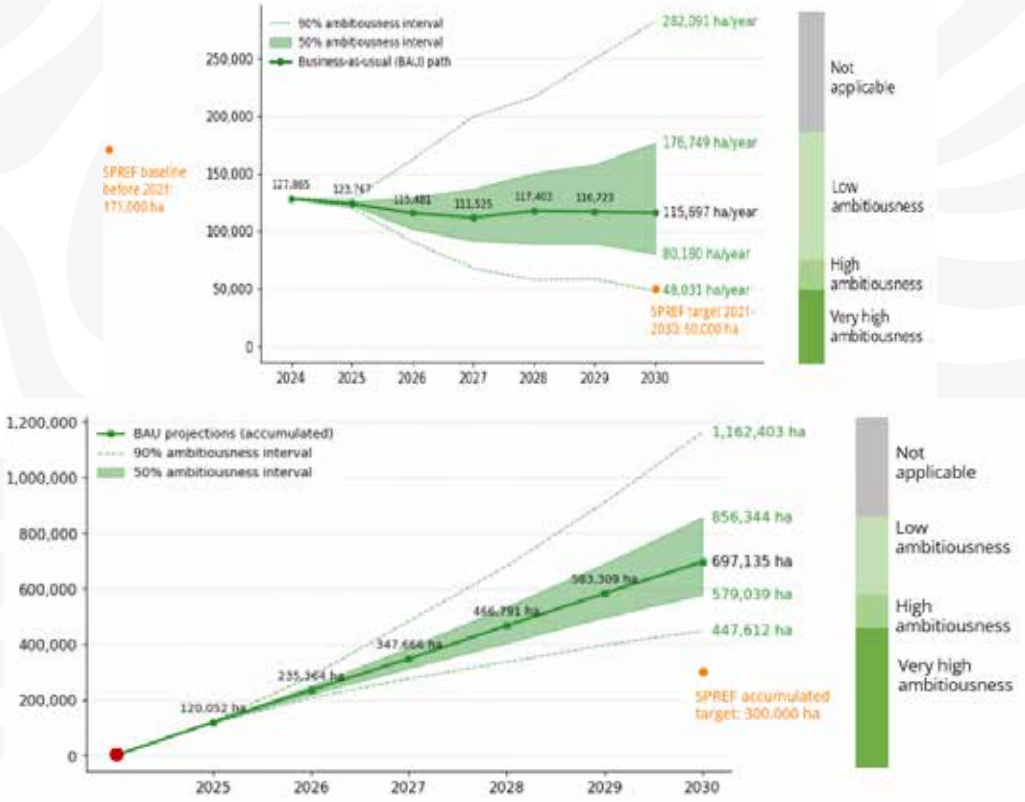
The deforestation target is derived from the commitment in the national strategy (SPREF) to reduce the annual deforested area from 171,000ha to 50,000ha by 2030. In this framework, this corresponds to a cumulative maximum deforested area of 300,00ha by 2030, using 2024 as the baseline year(SPT 2.2). As for SPT 1, the ambition of the deforestation commitment has been assessed with the support of the World Bank's Relative Evaluation and Benchmarking (REACH) methodology, which models deforestation trends against macroeconomic drivers[33] to project future deforestation

[33] Macroeconomic drivers considered in modelling the SPT 2.2 include population growth and terms of trades as economic variables, and deforestation trends and prices of agricultural commodities connected to the expansion of the agriculture frontier.

rates under current policies and macroeconomic conditions. The resultingbusiness-as-usual (BAU) path in Figure 10 below – estimates annaul deforestation at approximately 115,000 hectares per year by 2030, a level already significantly lower than deforestation rates typically observed between 2000 and 2015. This BAU scenario has then been plotted against the deforestation targets set in the SPREF for 2030 and estimated at 50,000 ha per annum.

Figure 10: Ambitiousness analysis for deforestation reduction targets in annual numbers (top) and cumulative numbers (bottom)

Vertical axes in hectares. See Figure A1 (Annex) for the three components of this projection.



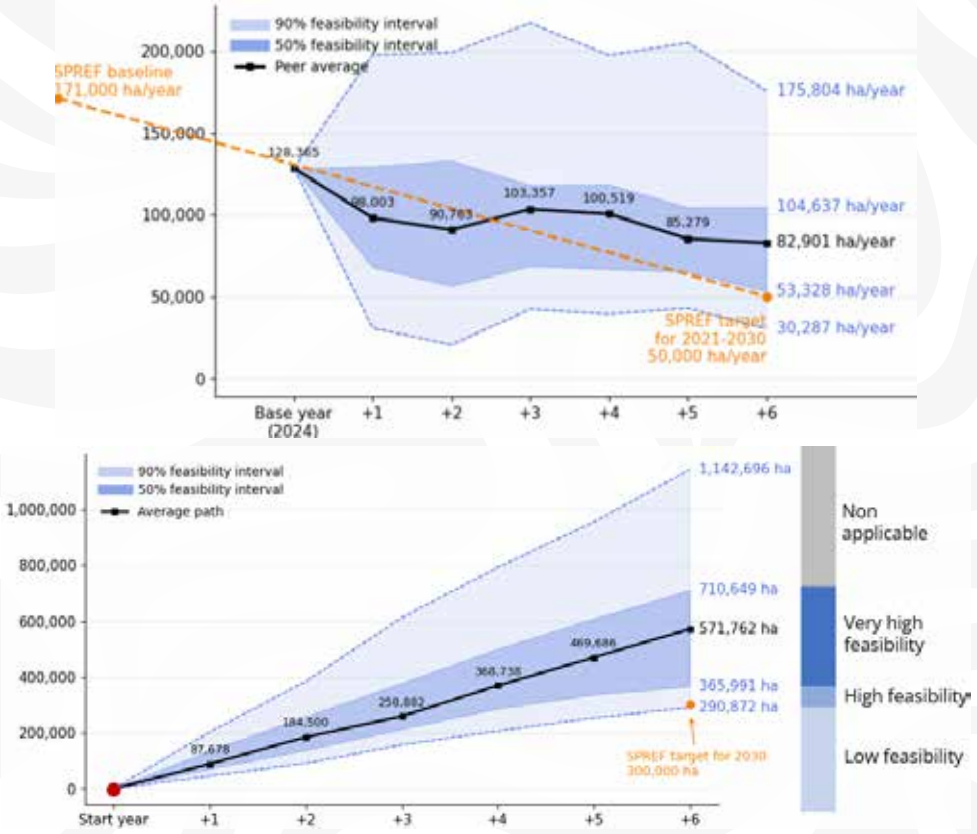
The ambition of this target has been calibrated by plotting confidence intervals around the BAU path of annual deforestation rates, so as to ensure that the objective requires policies and government actions and would not have occurred under the BAU scenario. Finally, the estimated path of annual deforestation ranges (Figure 10, upper panel) has been converted into a cumulative deforested area from the baseline in 2024 (set to zero) to the 2030 performance date, resulting in estimated cumulative deforestation areas aligned with the SPREF of 300,000 ha, and hence considered very highly ambitious (Figure 10, lower panel).

To assess the feasibility of the SPREF target, the recent Ivorian deforestation trends were compared with historical deforestation trajectories of relevant peers. After identifying countries that experienced a similar deforestation rate as Côte d'Ivoire experienced in 2024 (the base year), the methodology follows their peer trajectories

for six years. Figure 11 shows that peers have experienced a gradual decrease in forest loss. Translating the average peer trend to the Ivorian case, a reduction to about 82,000 ha by 2030 can be expected. Looking at the 50% and 90% feasibility intervals, which stem from the dispersion between peer country trajectories, the SPREF target of 50,000 ha annual deforestation by 2030 can be considered as highly feasible (Figure 11, upper panel). This also holds for the accumulated version (Figure 11, lower panel), where the implied SPREF target of 300,000 ha is located in the high feasibility area.

Figure 11: Feasibility analysis for deforestation reduction targets in annual numbers (top) and cumulative numbers (bottom)

Vertical axes in hectares. See Figure A2 (Annex) for the three components of this projection.



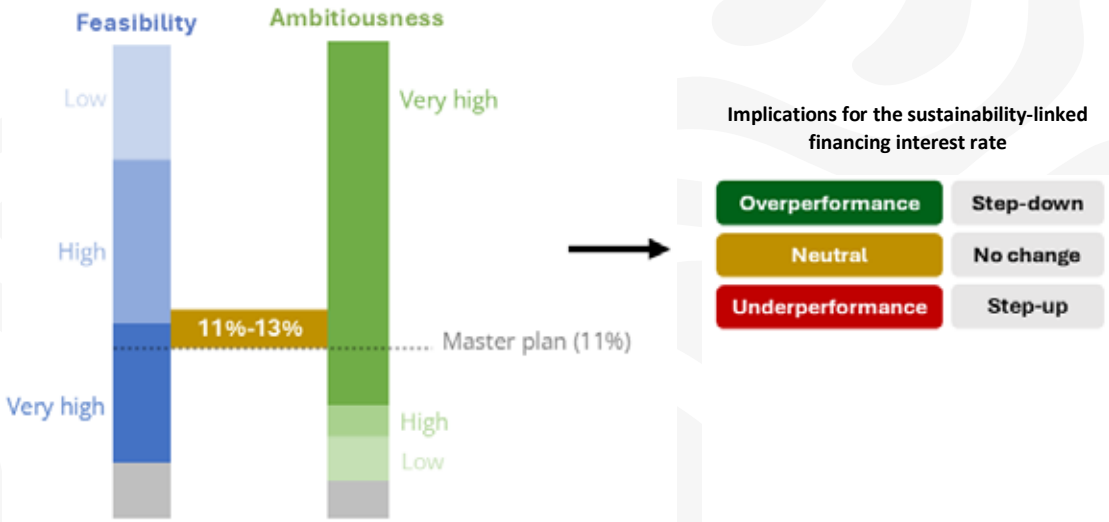
Source: WB analysis

Financing Instrument Characteristics

The financial conditions of the instruments issued in reference to this Sustainability-linked Framework will be contingent on aligning the environmental performance and tangible results achieved by the country with the financing cost it bears. In particular, the interest rate paid by the sustainability-linked loans and/or bonds after the target date of 2030 will be increased in case the country misses its environmental objectives (*interest step-up*) and, conversely, reduced if the objectives are met (*interest step-down*). The magnitude of the variation will be the same for each SPT and will be set at the instruments' issuance and based on prevailing market conditions and investors' appetite.

For the renewable energy KP1, an interest step-up will occur if in 2030 Côte d'Ivoire misses the ambitious decarbonization target (SPT 1.1) for the share of non-conventional renewable energy over the total installed electricity capacity, while an interest step-down will result if the government over-performs the stated target by a further margin (SPT 1.2), as per Figure 12.

Figure 12: Joint assessment of the Feasibility and Ambitiousness (FAB) analysis of SPT 1 and its implications for the sustainability-linked financing interest rate.



Source: WB analysis

Figure 13: Implications for the sustainability-linked financing interest rate relating to Forestry KPIs

SPT 2.1: Fostering reforestation SPT 2.2: Reducing deforestation

Source: WB analysis

For the Forestry SPT2, an interest step-down will occur if Côte d'Ivoire succeeds to control deforestation below the target cumulative deforested area by 2030 (SPT 2.2) to incentivize the country to continue its ambitious commitments to contrast

commodity-driven expansion at the cost of forests and enforce tighter controls on illegal logging. Conversely, an interest step-up will occur if the country fails to meet the reforestation and natural regeneration goals set by 2030 (SPT 2.1), contributing to the recovery of national forests crucial for Côte d'Ivoire sustainable development and for the country's vital role in supplying carbon sinks to fight against climate change.

Figure 14: Summary table of the implications for the sustainability-linked financing interest rate

KPI	Objective	Outcome in 2030	Achievement	SLF interest rate change
Renewable Energy (KPI 1)	Increase the share of renewable energy, excluding hydropower, in total installed electricity capacity from 1% in 2023	<11%	Underperformance	Step-up
		between 11 and 13%	Neutral	No change
		> 13%	Overperformance	Step-down
Fostering reforestation (KPI 2.1)	Convert 1 million hectares of land area into forest cover between 2021 and 2030	Below 1m hectares land area converted into forest cover	Objective not achieved	Step-up
		Above 1m hectares land area converted into forest cover	Objective achieved	No change
Reducing deforestation (KPI 2.2)	Forest cover losses cannot exceed 300,000 hectares between 2025 and 2030	Above 300,000ha	Objective not achieved	No change
		Below 300,000ha	Objective achieved	Step-down

Reporting

Côte d'Ivoire will report annually on the progress of each KPI toward the achievement of each SPT. Annual reports will be made public by the Ministry of Finance and Budget in case of bond issuance, otherwise made available to lenders for the loans. The report will include the measurements for the KPIs, as well as any information enabling investors to monitor the level of ambition of the SPTs, such as updates to national and international commitments, sector policies and guidance, and updates on the SLF governance and implementation plans.

The Ministry of Finance and Budget will liaise with the relevant line ministries and agencies for the collection of data and computation of the metrics for each KPI, as well as with an explanation of the activities implemented and progress made towards the goals. More in detail:

For SPT 1.1 and SPT 1.2, the Ministry of Mining, Petroleum, and Energy (MMPE) will monitor the number of on-grid and off-grid renewable energy installations that are completed and declared as "installed" at the end of each year and report this additional capacity on the overall electricity generation capacity of the national system. Installed capacity is officially recognized when the unit is verified (see below for different types of units) to start providing electricity. Units that are decommissioned are taken out of the

installed capacity calculation, but capacity from installations that are temporarily offline for regular maintenance is still counted toward the installed capacity calculation.

- **On-grid units:** Each new supplier connection is marked by an official ceremony, presided over by the MMPE, with the participation of CI-Energies (the public utility and off-taker of independent power producers). The MMPE and CI-Energies will inform CIE, the private concessionaire and operator of the network, once the power plant or power generation unit starts to produce electricity, so they can plan to inject the electricity into the network, and this official letter will be used for verification.

- **Public off-grid units:** Units that are off-grid but are publicly financed will be evaluated by the public entity that commissions the unit to ensure it meets operational standards and that it can produce electricity. The entity documents its evaluation findings in an official report, the **"*Procès-Verbal de Réception de l'Installation*"** (Installation Acceptance Report). This official report will be used for verification of the installed capacity.

- **Private off-grid units (for self-generation):** The private sector entity installs its own energy supply system following regulatory requirements. Once the installation is complete, the company submits a **"Conformity Certificate"** to the MMPE, confirming compliance with current energy regulations and providing technical specifications of the system. CI-Energies and the regulator ANARE verify the installation's compliance with regulations, with the support of the MMPE. Upon successful verification, the MMPE issues an official letter confirming the conformity of the installed capacity, and this letter will be used for verification.

For SPT 2.1 (reforestation target) and 2.2 (deforestation target), the Ministry of Forestry and Water will coordinate the implementation of the MRV system in close collaboration with BNETD. Although the Ministry and BNETD already collect forestry data, the necessary tools for regular, nationwide geospatial monitoring are not yet in place, underlining the importance of external support to build capacity. The monitoring system will follow the land cover nomenclature of IFFN (see Annex Table A1).

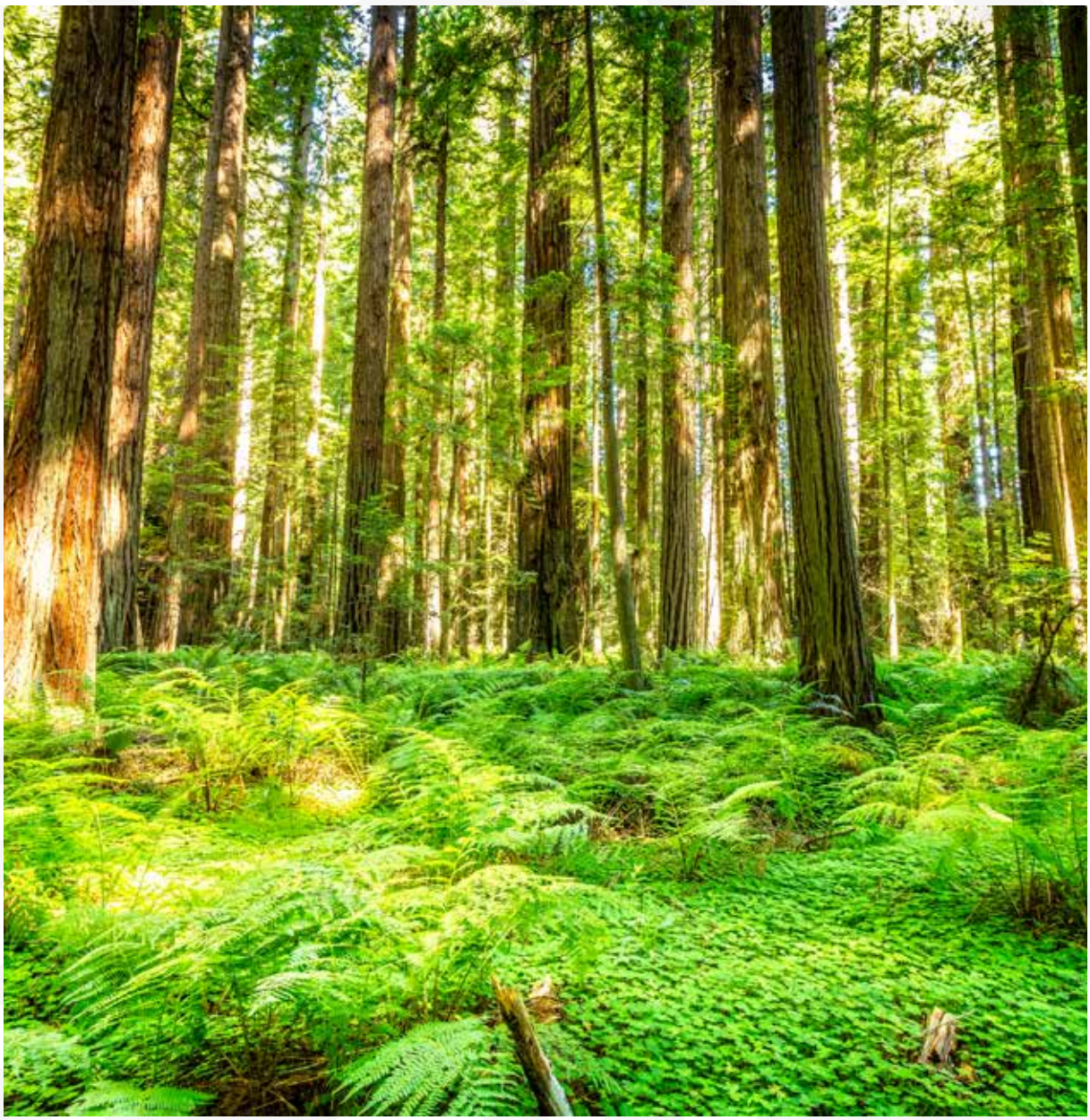
A transparent, well-documented process will be the cornerstone of this MRV system, which is currently being developed by BNETD with support from development partners. The system will rely on remote sensing data from international space agencies to produce annual maps that monitor changes in the nation's forest areas. The reliance on geospatial data allows for objective, replicable, and cost-effective monitoring, reducing the reporting time lag to around 6 months.

Once the system is fully operational, it will provide annual updates on forest cover, including a crucial comparison of the numbers in 2030 with the baseline from 2024 to assess whether the SPTs have been met. BNETD will act as the calculation agent for the SLL. An external verification agent will be appointed to audit and verify the results.

The World Bank is exploring options for capacity-building assistance in the context of the SLL, with potential support from the United Nations Development Program (UNDP) and other international agencies and donors. Beyond its immediate application for the SLL, this MRV system can serve as a foundation for broader national reporting needs, providing Côte d'Ivoire with a consistent, transparent mechanism for monitoring forest cover changes and informing policy decisions.

Verification

Credible, independent, and timely external verification is critical to this framework. To provide investors with even more timely verification and in alignment with best practices in the SLB and SLL market, Côte d'Ivoire will adopt best market standards in data verification frequency and transparency to the SSLB/ SSLL, using the principles of ICMA and the LSTA as guidance**.**



SECOND PARTY OPINION

Côte d'Ivoire's MFB has obtained a Second Party Opinion (SPO) provided by Sustainalytics, an internationally recognized firm with environmental and social expertise, on the sustainability benefits of Côte d'Ivoire's SLF, as well as alignment with the SLBPs and SLLPs.

After a thorough assessment of the Framework and exchanges with the different line ministries, Sustainalytics has indicated in its final report, dated May 13th, 2025, that Côte d'Ivoire's Sustainability-Linked Framework is aligned with the Sustainability-Linked Bond Principles 2024 and Sustainability-Linked Loan Principles 2025.

The SPO is publicly disclosed on Côte d'Ivoire's Direction Générale des Financements website.[34]

[34] www.dgf.gouv.ci

AMENDMENT TO THIS FRAMEWORK

The MFB may review this Framework from time to time and update it as necessary, including to align it with any updated versions of the relevant principles, with the aim of adhering to best practices in the market. The MFB will also review this Framework in case of material changes in the perimeter, methodology, and KPIs, and/or the SPT's calibration. Such a review may result in this Framework being updated and amended. The updates, if not minor in nature, will be subject to the prior approval of Sustainalytics or any such other qualified provider of Second Party Opinion. Any future updated version of this Framework will either keep or improve the current levels of transparency and reporting disclosures, including the corresponding review by an external verifier. The updated Framework, if any, will be published on Côte d'Ivoire's Direction Générale des Financements website and will replace this Framework. Notwithstanding the foregoing, no revisions to this Framework will affect the terms and conditions of any sustainability-linked bond or loan issued prior to such revision.

ANNEX

Figure A1

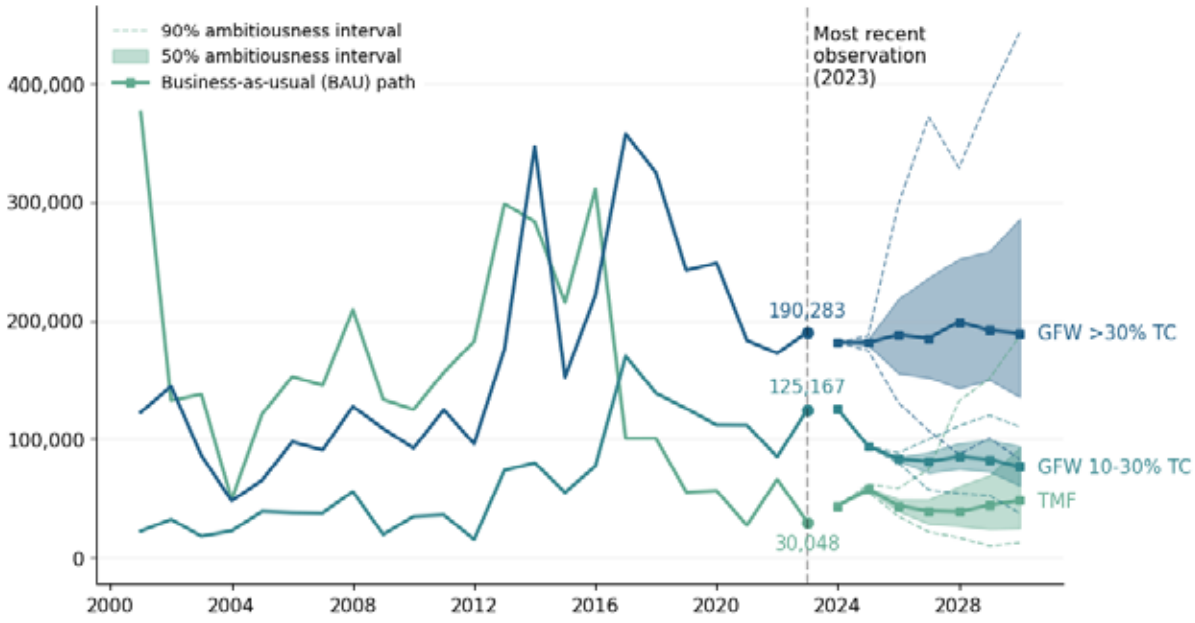


Figure A2

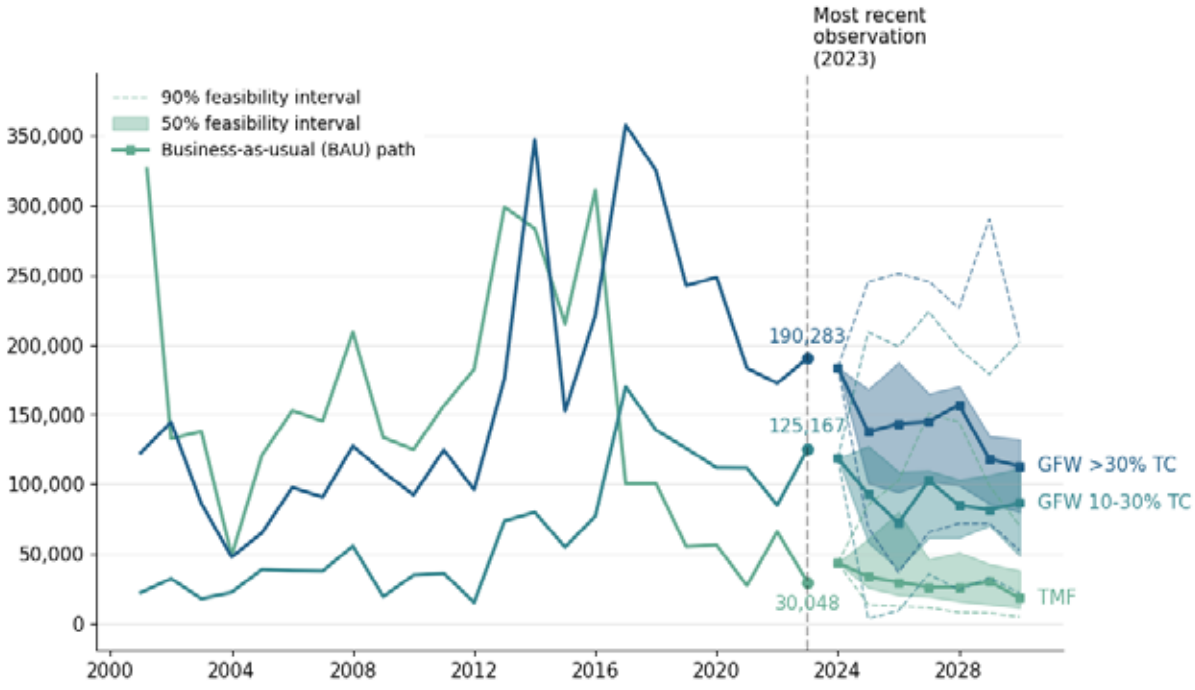


Table A1

Adopted from "Inventaire forestier et faunique national - Rapport final de l'inventaire forestier - Livrable n° 54 Janvier 2019 - Juin 2021 (June 4, 2021)

Code GIEC	Catégorie GIEC	Code SST	Classes SST	Description Classes SST
1	Terres forestières	11	Forêt dense	Formations naturelles de type primaire, peuplement **fermé** avec des arbres et arbustes de hauteurs entre 5 et 50m ; les cimes des arbres sont relativement jointives ; l'ensemble du couvert demeure dense (recouvrement supérieur à 70%)
		12	Forêt claire	Formations naturelles, peuplement **ouvert** dans le domaine soudanien (nord); Couvert: 30% à 70%; Hauteur: 8 à 15m
		13	Forêt galerie	Formation forestière (couverture supérieure à 30%) établie le long des cours d'eau (fleuve, retenue d'eau, rivière), où la présence d'eau est temporaire ou quasi-permanente.
		14	Forêt secondaire/ Forêt dégradée	Formation forestière sous influence de la dégradation et recrûs forestiers en régénération, couverture > 30%; structure constituée de stades successifs de développement de végétation instable; Structure/composition des espèces différentes / forêts primaires
		15	Mangrove	Formation monotone bordant le littoral maritime et lagunaire, adaptée à l'immersion temporaire, dans des plages vaseuses couvertes de fougères
		16	Plantations forestières/ reboisement	Parcelles plantées de bois ou régénération du milieu ; hauteur des arbres supérieure à 5m et couverture supérieure à 30%
		17	Forêt sur sol hydromorphe	Formation forestière (couverture supérieure à 30%) établie sur des sols hydromorphes (vallée, estuaire, bas-fonds, marécages), proches des cours d'eau (fleuve, retenue d'eau, rivière), où la présence d'eau est quasi-permanente
2	Terres cultivées	21	Café-Cacao	Cultures de cacao et/ou de café.
		22	Hévéa	Plantations hévéa de 30m de haut ; on distinguera les vieilles plantations des jeunes
		23	Palmeraie - Cocoteraie	Plantations d'espèces de palmiers :
		24	Anacarde	Plantation d'anacardier
		25	Plantations fruitières	Cultures d'arbres fruitiers (manguier, avocatier, oranger) et de bananier
		26	Aménagements agricoles/ Autres cultures/ Vergers	Zones d'autres terres de cultures y compris les cultures de bas-fonds et les jeunes jachères (riz, igname, maïs, manioc, ananeraie, canne à sucre, coton etc.). NB : parcellaires identifiables sur images satellitaires par leur forme géométrique
		27	Aménagements agricoles sur sol hydromorphe	Zones de cultures dans des bas-fonds ou zones inondables
3	Terres graminéennes	31	Savane arborée	Savane sur sol drainé avec une strate d'arbres (5-20m de haut ; couvert de 10 à 30%); une strate arbustive (2-5 m de haut; couvert inférieur à 50%); une strate herbacée dense, continue d'au moins 80 cm de hauteur
		32	Formations arbustives/ Fourrés	Formation arbustive hauteur < 5m, disséminée sur strate herbacée continue avec : - strate arbustive recouvrement > 50% ; - strate herbacée recouvrement de 10 à 100% ; - strate arborée recouvrement < 10%. Cette classe regroupe également les fourrés (formations fermées, denses,couvert > 80%, formées uniquement d'arbustes de hauteur < 5 m
		33	Formations herbacées	Formations herbacées de hauteur < 2,5m ou rases sur les terres fermes ; La végétation ligneuse absente ou quelques rares arbustes, arbrisseaux et sous-arbrisseaux
4	Terres humides	41	Plan d'eau	Ensembles des zones de dépression contenant de l'eau sous forme de retenue
		42	Cours et voies d'eau	Réseau hydrographique linéaire
		43	Zones marécageuses	Terres humides constituées de marais et de marécages, sol recouvert, en permanence ou par intermittence, d'eau stagnante peu profonde, et couverte de végétations. Des formations hydrophiles s'y développent isolés ou sous forme de tapis herbeux
5	Etablissement humain	51	Habitats humains/ Activités économiques industrielles	Zones résultant d'activités humaines, autres qu'agricoles, urbanisation (habitations, activités industrielles, exploitations minières, carrières, orpaillages, défrichements, etc.)
		52	Infrastructures	Voies de transport et réseau routier, électrique, ferroviaire
6	Autres terres	61	Affleurements rocheux	Rochers découverts, dômes granitiques recouverts souvent de végétation herbacée +/- discontinue ; inf. à 60 cm de haut
		62	Sol nu	Terrain dépourvu de couvert végétal, ne constituant pas une aire de culture

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