TRAFFIC

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AN OVERVIEW OF THE TIMBER TRACEABILITY SYSTEMS IN THE CONGO BASIN COUNTRIES

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TRAFFIC REPORT

On the cover:
Logs at FSC certified logging company, East Region, Cameroon

ACKNOWLEDGEMENTS

DISCLAIMER

ACRONYMS AND ABBREVIATIONS

AEAFFB	Agence d'Exécution des Activités de la Filière Forêt-Bois (Forestry and Timber Industry Execution Agency)
ATIBT	Association Technique Internationale des Bois Tropicaux – (International Tropical Timber Technical Association)
CAF	Central Africa
CAR	Central African Republic
CBFP	The Congo Basin Forest Partnership
COMIFAC	Commission des Forêts d'Afrique Centrale (Central Africa Forest Commission)
CSO	Civil Society Organisation
DRC	Democratic Republic of the Congo
EIA	Environmental Investigation Agency
EU	European Union
EUTR	European Union Timber Regulation
FAO	Food and Agriculture Organization of the United Nations
FREMIS	Forest Resource Management Information System
FSC	Forest Stewardship Council
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPS	Global Positioning System
KFW	Kreditanstalt für Wiederaufbau (German Financial Cooperation)
LAS	Legality Assurance System
MINFOF	Ministry of Forestry and Wildlife
NGO	Non-governmental Organisation
NICFI	Norway's International Climate and Forest Initiative
NORAD	Norwegian Agency for Development Cooperation
PCPCB	Programme de Contrôle de Production et de Commercialisation du Bois (Timber Production and Marketing Control Programme)
POS	Point-of-Sale
QR CODE	Quick Response code
RETTA	Reducing Trade Threats to Africa's Wild Species and Ecosystems project
SIGEF	Système d'Information de Gestion Forestière - DRC (Computerised Forest Management Information System)
SIGIF	Computerised Forest Information Management System - Cameroon
SIGIF 2	Second generation Computerised Forest Information Management System - Cameroon
SIVL	Système Informatisé de Vérification de la Légalité - Congo (Computerised legality verification system)
SNT	Système National de Traçabilité - Congo (National Traceability System)
STMINEF	Système publique informatisé de traçabilité du bois – Gabon (Computerised Public Timber Traceability System)
TFS	Tanzania Forestry Service Agency
TNRF	Tanzania Natural Resources Forum
TP	Transit Permit
TRABOIS	Timber Traceability and Legality Management Platform
VPA-FLEGT	Voluntary Partnership Agreement on Forest Law Enforcement, Governance and Trade in Timber and Related Products

CONTENTS

EXECUTIVE SUMMARY

The Congo Basin Forest extends across a vast area providing both ecosystem services and secondary benefits to the people and economies of the Central Africa subregion. Despite these benefits, the Congo Basin countries with large rainforest areas – Cameroon, the Republic of the Congo, Gabon, the Central African Republic, the Democratic Republic of the Congo, and Equatorial Guinea – have been steadily losing their forest due to pressure on forest resources and land conversion into other uses. Over the last two decades, the Congo Basin has lost more than 5.6% of its forest cover. The forest deterioration is aggravated by over-exploitation due to endemic corruption, weak accountability, and illegal logging. In 2013, five Congo Basin countries and Côte d'Ivoire agreed to the sustainable and legal development of the wood industry in the region, committing to implement measures to improve timber tracking, transparency, and forest governance. In support of this commitment, TRAFFIC has carried out this assessment of the timber traceability systems in the six Congo Basin countries to identify lessons, strengths, weaknesses, and gaps, and recommend improvements to

the systems to ensure sustainable and legal timber trade.

More than 50 online publications, reports, websites, and news articles were consulted. The secondary information was supplemented through direct and mailed-in interviews with informants from government institutions and agencies, development partners, NGOs, CSOs and community leaders. Finally, a sub-regional workshop was organised to complement, verify, and consolidate the information gathered and presented in a preliminary review document.

In all the Congo Basin countries, the law provides guidelines on traceability along the entire supply chain from the forest to export for both industrial and artisanal/communal/community logging. The governments implement timber legality control, revenue collection, traceability, and other functions through comprehensive timber and forest information management systems. The information management and traceability systems are all mandatory but are at different stages of development and deployment across these countries.

Kika, East Region, Cameroon

In Cameroon, the government developed the first Computerised Forest Information Management System (SIGIF) in 1998 to facilitate the management of forest exploitation permits, but without including the then parallel and paper-based timber traceability system. However, since November 2020, the government is deploying a mandatory traceability system embedded in the second generation Computerised Forest Information Management System (SIGIF 2).

They have been developing SIGIF 2 since 2011 under the framework of the Voluntary Partnership Agreement on Forest Law Enforcement, Governance and Trade in Timber and Related Products (VPA-FLEGT) signed with the EU in 2010. The government aims to manage all transactions through the system to ensure that all timber is legally exploited and reported. The system is currently operational but not fully deployed due to challenges to equip all the traceability checkpoints, seamlessly integrate all the modules of the exhaustive information management system, ensure regular access to electricity and the internet, and build users capacities, among others.

In Gabon, some NGOs and private sector organisations have developed a few voluntary timber traceability systems that collect and publish data, are mobile-enabled, and run on the internet. The government has, however, not officially recognised these systems because they exclude government servers, are not aligned to any government guidelines or regulations for legality control, cannot assure accurate revenue collection and secure records on their open online access. In 2011, the Gabonese government created the Forestry and Timber Industry Execution Agency (AEAFFB) to, amongst other missions, better implement activities in the timber sector and on forest product traceability. Unlike most other Congo Basin countries, whose timber information management and traceability systems are developed with the primary aim of implementing the VPA-FLEGT plans, the AEAFFB set up a project to develop a computerised public timber traceability system (STMINEF) to overcome the challenges and meet their objectives for the forestry and timber industry under the Emerging Gabon vision. The AEAFFB

launched the project in 2020 and, given the strong political will and government-ownership, they have completed developing and pilot-testing the system by September 2021. The three major challenges they still needed to overcome for the system to fully go operational throughout the country in 2022 are to acquire and install all the equipment, train actors and stakeholders, and overcome hesitancy and resistance from timber operators against additional costs without perceived improved efficiencies.

In the Democratic Republic of the Congo, the government has initiated many developments of a computerised timber traceability system since they began VPA-FLEGT negotiations with the EU in 2010. Between 2013 and 2015, this culminated in the development of a state-owned forest monitoring and traceability system, known as the computerised forest management information system (SIGEF) and a Timber Traceability and Legality Management Platform (TRABOIS). Although these systems are mandatory, they are at an impasse due to incomplete coverage of the physical trade chain, absence of procedural documents due to incomplete timber and wood export regulations, and the resistance of the private sector to bear the direct cost of implementing the system. Furthermore, the VPA-FLEGT negotiations are also stalled with no effective plan or system in place, and insufficient human capacity to control and monitor forest resources.

In Equatorial Guinea, the government has adopted timber tracking as one of the strategic mechanisms to ensure that the national forestry resources are rationally exploited to provide sustainable tax revenues and socioeconomic development opportunities while preventing the degradation of the resources. They have adopted a chain of custody approach from forest inventory through to the port of export or the furniture sales point. However, tracking is entirely paper based with a monthly reporting standard and entry into an isolated central database. The system is plagued by many challenges rendering it ineffective in controlling and monitoring timber trade from harvests to point of final consumption within the country or for export. Given the challenges, timber sector officials in Equatorial Guinea have identified a

computerised timber tracking system that will generate more viable information and make controls more efficient, as a pertinent output to pursue.

In the Republic of the Congo, the government, following the signing of the VPA-FLEGT with the EU in 2010, has been developing a computerised legality verification system (SIVL), to combat illegal logging, identified as one of the key problems impacting its forestry sector. The SIVL aims to verify the legality, and traceability, and control revenue collection to ensure that the country's supply of timber into the international market, particularly the European markets, are from verified legal sources. The Forest Traceability and Legality Unit officials claim that all 17 modules of the SIVL, including all nine traceability modules, are fully developed and installed in the Datacentres of the Ministry of Finance and Budget in both Brazzaville and Pointe-Noire, as evidenced by a restricted website with access only to the landing page. However, the system is not yet operational, and other stakeholders are sceptical if the system will ever be fully operational.

In the Central African Republic, the government is also working to ensure that the country's supply of timber into the international market, particularly the European markets, are from verified sources, in line with their negotiations under the VPA-FLEGT. The government has conceived a dedicated Legality Assurance System which includes traceability components for tracking timber flow from forest to transit and export, compliance and computerisation for real time access and control. However, the LAS is still to be developed and deployed. The authorities hope that an effective traceability system should help reduce the risks for illegal timber trade and improve law enforcement capacity to control and monitor the trade.

The review has identified certain challenges and difficulties that the Congo Basin countries need to overcome to have adequate timber traceability systems. The first challenge is to frame the system such that it covers the legality requirements along the supply chain and compliance in the target markets. It also needs government ownership and support as well as both awareness building and buy-in

from other implementing stakeholders such as forest communities and logging companies to smoothly develop and deploy the system. Also, evidence of the added value over the additional operational costs of implementing a new system may well be needed. Furthermore, the development of the traceability systems based on the comprehensive VPA-FLEGT model requires huge costs that are more challenging to be fully covered in block by the highly solicited government budgets. Therefore, countries recourse to donor funding whose requirements generally further complicate the decision and implementation processes.

From our reference review of a system that has worked, the timber tracker system implemented in Tanzania by the Tanzania Forest Service Agency (TFS) provides lessons on how these challenges were efficiently overcome that may be appropriate for timber control and tracking in the Congo Basin region.

The key lessons from the TFS approach that are pertinent to the challenges faced by the Congo Basin countries are:

- To use a stepwise development approach and break down the project into smaller and affordable sub-projects,
- Use cost-effective, practical, and scalable technologies,
- Ensure chain of custody tracking by enabling access to inspection reports from other checkpoints, which was an important need for Tanzania,
- Ensure real-time data access at the headquarters to enhance control, encourage diligence and build a much-needed quality database,
- Frequently upgrade to user friendly devices that minimise human errors through pre-customised selection options,
- Use multi-media enabled devises to enhance control and records of consignments,
- Adopt a pragmatic approach to ensure political buy-in and institutional ownership without which it is practically impossible to effectively digitalise and implement an appropriate traceability system.
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The timber tracker system in Tanzania

provides lessons that may be appropriate for timber control and tracking in the Congo Basin region.

In conclusion, the Congo Basin countries are making different types of efforts to develop traceability systems to improve timber trade control and monitoring. The challenges faced by these countries in the process can be met by lessons from their processes and from other systems that have been successfully implemented. The lessons point to the best practice system that Cameroon and the Republic of the Congo should have to complement the traceability work that is ongoing in both countries as part of the LAS system within the VPA-FLEGT framework. The stepwise approach that the TFS used in developing and implementing the timber tracker system in Tanzania – in record time and essentially with national resources after the initial donor support – stands out as a relevant model for the Congo Basin countries to exploit in order to improve their timber information and tracking systems.

RESUMÉ

La forêt du bassin du Congo s'étend sur une vaste zone et fournit à la fois des services écosystémiques et des avantages secondaires aux populations et aux économies de la sous-région d'Afrique centrale. Malgré ces avantages, les pays du bassin du Congo présentant de vastes zones de forêts pluviales – le Cameroun, la République du Congo, le Gabon, la République centrafricaine, la République Démocratique du Congo et la Guinée équatoriale – ont vu leurs forêts disparaître progressivement en raison de la pression exercée sur les ressources forestières et de la conversion des terres à d'autres usages. Au cours des deux dernières décennies, le bassin du Congo a perdu plus de 5,6 % de sa couverture forestière. La détérioration des forêts est aggravée par la surexploitation due à une corruption endémique, à une faible responsabilisation et à l'exploitation illégale des forêts. En 2013, cinq pays du Bassin du Congo et la Côte d'Ivoire se sont mis d'accord sur le développement durable et légal de l'industrie du bois dans la région, s'engageant à mettre en œuvre des mesures pour améliorer le suivi du bois, la transparence et la gouvernance forestière. En soutien à cet engagement, TRAFFIC a réalisé cette évaluation des systèmes de traçabilité du bois dans les six pays du Bassin du Congo afin d'identifier les leçons, les forces, les faiblesses et les lacunes, et de recommander des améliorations aux systèmes pour assurer un commerce du bois durable et légal.

Plus de cinquante publications en ligne, rapports, sites web et articles de presse ont été consultés. Les informations secondaires ont été complétées par des entretiens directs et par correspondance avec des informateurs des institutions et agences gouvernementales, des partenaires de développement, des ONG, des OSC et des dirigeants communautaires. Enfin, un atelier sous-régional a été organisé pour compléter, vérifier et consolider les informations recueillies et présentées dans un document d'examen préliminaire.

Dans tous les pays du Bassin du Congo, la loi fournit des directives sur la traçabilité tout au long de la chaîne d'approvisionnement, de la forêt à l'exportation, tant pour l'exploitation industrielle que pour l'exploitation artisanale/communale/communautaire. Les gouvernements mettent en œuvre le contrôle de la légalité du bois, la collecte des recettes, la traçabilité et d'autres fonctions par le biais de systèmes complexes de gestion de l'information sur le bois et les forêts. Les systèmes de gestion de l'information et de traçabilité sont tous obligatoires mais se trouvent à différents stades de développement et de déploiement dans ces pays.

Au Cameroun, le gouvernement a développé le premier système informatisé de gestion de l'information forestière (SIGIF) en 1998 pour faciliter la gestion des permis d'exploitation forestière, mais sans inclure le système de traçabilité du bois, alors parallèle et sur papier. Toutefois, depuis novembre 2020, le gouvernement déploie un système de traçabilité obligatoire intégré dans le système informatisé de gestion de l'information forestière de deuxième génération (SIGIF 2). Ils développent SIGIF 2 depuis 2011 dans le cadre de l'Accord de partenariat volontaire sur l'application des réglementations forestières, la gouvernance et les échanges commerciaux des bois et produits connexes (APV-FLEGT) signé avec l'UE en 2010. Le gouvernement vise à gérer toutes les transactions par le biais du système afin de s'assurer que tout le bois est exploité et déclaré légalement. Le système est actuellement opérationnel, mais il n'est pas entièrement déployé en raison des difficultés rencontrées pour équiper tous les points de contrôle de la traçabilité, intégrer de manière transparente tous les modules du système exhaustif de gestion de l'information, assurer un accès régulier à l'électricité et à l'internet, et renforcer les capacités des utilisateurs, entre autres.

Au Gabon, certaines ONG et organisations du secteur privé ont développé quelques systèmes volontaires de traçabilité du bois qui collectent et publient des données, sont mobiles et fonctionnent sur Internet. Le gouvernement n'a cependant pas reconnu officiellement ces systèmes car ils excluent les serveurs gouvernementaux, ne sont pas alignés sur les directives ou réglementations gouvernementales en matière de contrôle de légalité, ne peuvent pas garantir une collecte précise des revenus et des enregistrements sécurisés sur leur accès en ligne ouvert. En 2011, le gouvernement gabonais a créé l'Agence d'Exécution des Activités de la Filière Forêt-Bois (AEAFFB) pour, entre autres, mieux mettre en œuvre les activités dans le secteur du bois et sur la traçabilité des produits forestiers. Contrairement à la plupart des autres pays du Bassin du Congo, dont les systèmes de gestion de l'information et de traçabilité du bois sont développés dans le but premier de mettre en œuvre les plans APV-FLEGT, l'AEAFFB a mis en place un projet de développement d'un système public informatisé de traçabilité du bois (STMINEF) afin de surmonter les défis et d'atteindre leurs objectifs pour la forêt et l'industrie du bois dans le cadre de la vision Gabon Emergent. L'AEAFFB a lancé le projet en 2020 et, compte tenu de la forte volonté politique et de la réelle appropriation par le gouvernement, ils ont achevé le développement et le test pilote du système en septembre 2021. Les trois principaux défis qu'ils devrait encore surmonter pour que le système soit pleinement opérationnel dans tout le pays en 2022 sont d'acquérir et d'installer tous les équipements, de former les acteurs et les parties prenantes, et de surmonter l'hésitation et la résistance des opérateurs de bois contre les coûts supplémentaires sans gains d'efficacité perçus.

En République Démocratique du Congo, le gouvernement a initié de nombreux développements d'un système informatisé de traçabilité du bois depuis le début des négociations de l'APV-FLEGT avec l'UE en 2010. Cela a abouti au développement, entre 2013 et 2015, d'un système de suivi et de traçabilité des forêts domaniales, connu sous le nom de système d'information de gestion forestière (SIGEF) et d'une plateforme de gestion de la traçabilité et de la légalité du bois (TRABOIS). Bien que ces systèmes soient obligatoires, ils sont dans l'impasse en raison d'une couverture incomplète de la chaîne commerciale physique, de l'absence de documents de procédure due à une réglementation incomplète en matière d'exportation de bois et de bois d'œuvre, et de la résistance du secteur privé à supporter le coût direct de la mise en œuvre du système. En outre, les négociations de l'APV-FLEGT sont également dans l'impasse en l'absence de plan et de système efficaces et de capacités humaines suffisantes pour contrôler et surveiller les ressources forestières.

Le gouvernement de la Guinée équatoriale a adopté la traçabilité du bois comme l'un des mécanismes stratégiques pour garantir que les ressources forestières nationales sont exploitées de manière rationnelle afin de fournir des recettes fiscales durables et des opportunités de développement socio-économique tout en prévenant la dégradation des ressources. Ils ont adopté une approche de la chaîne de contrôle depuis l'inventaire forestier jusqu'au port d'exportation ou au point de vente du mobilier. Cependant, le suivi se fait entièrement sur papier avec une norme de rapport mensuel et une saisie dans une base de données centrale isolée. Le système est confronté à de nombreux problèmes qui le rendent inefficace pour contrôler et surveiller le commerce du bois, de la récolte au point de consommation finale dans le pays ou à l'exportation. Compte tenu de ces difficultés, les responsables du secteur privé de la Guinée équatoriale ont identifié un système informatisé de suivi du bois qui générera des informations plus viables et rendra les contrôles plus efficaces, comme un résultat pertinent à poursuivre.

En République du Congo, le gouvernement, suite à la signature de l'APV-FLEGT avec l'UE en 2010, a développé un système informatisé de vérification de la légalité (SIVL), afin de lutter contre l'exploitation illégale des forêts, identifiée comme l'un des principaux problèmes affectant son secteur forestier. Le SIVL vise à vérifier la légalité et la traçabilité, et à contrôler la collecte des recettes afin de garantir que l'approvisionnement en bois du pays sur le marché international, en particulier sur les marchés européens, provient de sources légales vérifiées. Les responsables de la Cellule de la Traçabilité et de la Légalité Forestières affirment que les 17 modules du SIVL, y compris les neuf modules de traçabilité, sont entièrement développés et installés dans les Datacentres du Ministère des Finances et du Budget à Brazzaville et à Pointe-Noire, comme le prouverait un site web restreint dont l'accès est limité à la page d'accueil. Cependant, le système n'est pas encore opérationnel, et d'autres parties prenantes doutent que le système soit un jour pleinement opérationnel.

En République centrafricaine, le gouvernement s'efforce également de s'assurer que l'approvisionnement en bois du pays sur le marché international, en particulier sur les marchés européens, provient de sources vérifiées, conformément aux négociations menées dans le cadre de l'APV-FLEGT. Le gouvernement a conçu un système d'assurance de la légalité (LAS) dédié qui comprend des éléments de traçabilité pour suivre le flux de bois de la forêt au transit et à l'exportation, la conformité et l'informatisation pour un accès et un contrôle en temps réel. Toutefois, le LAS doit encore être développé et déployé. Les autorités espèrent qu'un système de traçabilité efficace contribuera à réduire les risques de commerce illégal de bois et à améliorer la capacité des services répressifs à contrôler et surveiller ce commerce.

L'étude a identifié certains défis et difficultés que les pays du Bassin du Congo doivent surmonter pour disposer de systèmes de traçabilité du bois adéquats. Le premier défi consiste à encadrer le système de manière qu'il couvre les exigences de légalité tout au long de la chaîne d'approvisionnement et de conformité sur les marchés cibles. Il faut également que le gouvernement s'approprie le système et le soutienne pour qu'il puisse être développé et déployé sans heurts, et que les autres parties prenantes, telles que les communautés forestières et les sociétés d'exploitation forestière, soient sensibilisées et adhèrent au système, car elles pourraient avoir besoin de preuves de la valeur ajoutée par rapport aux coûts opérationnels supplémentaires de la mise en œuvre d'un nouveau système. En outre, le développement des systèmes de traçabilité basés sur le modèle global APV-FLEGT nécessite des coûts énormes qu'il est plus difficile de couvrir entièrement en bloc par les budgets gouvernementaux très sollicités. Ils ont recours au financement des bailleurs de fonds dont les exigences compliquent généralement davantage les processus de décision et de mise en œuvre.

Le système de traçabilité du bois en Tanzanie fournit des leçons qui peuvent être appropriées pour le contrôle et la traçabilité du bois dans la région du Bassin du Congo.

A partir de notre examen en référence d'un système qui a fonctionné, le système de traçabilité du bois mis en œuvre en Tanzanie par l'Agence du service forestier de Tanzanie (TFS) fournit des leçons sur la façon dont ces défis ont été efficacement surmontés qui peuvent être appropriées pour le contrôle et la traçabilité du bois dans la région du Bassin du Congo.

Les principales leçons de l'approche TFS qui sont pertinentes pour les défis auxquels sont confrontés les pays du Bassin du Congo sont les suivantes :

- Utiliser une approche de développement par étapes et décomposer le projet en sous-projets plus petits et abordables,
- Utiliser des technologies rentables, pratiques et évolutives,
- Assurer le suivi de la chaîne de contrôle en permettant l'accès aux rapports d'inspection d'autres points de contrôle, ce qui était un besoin important pour la Tanzanie,
- Assurer l'accès aux données en temps réel au siège pour renforcer le contrôle, encourager la diligence et créer une base de données de qualité indispensable,
- Passer fréquemment à des appareils conviviaux qui minimisent les erreurs humaines grâce à des options de sélection pré-personnalisées,
- Utiliser des appareils multimédias pour améliorer le contrôle et l'enregistrement des envois,
- Adopter une approche pragmatique pour assurer l'adhésion politique et l'appropriation institutionnelle sans lesquelles il est pratiquement impossible de numériser et de mettre en œuvre efficacement un système de traçabilité approprié.

En conclusion, les pays du Bassin du Congo font des efforts différents pour développer des systèmes de traçabilité afin d'améliorer le contrôle et le suivi du commerce du bois. Les défis auxquels ces pays sont confrontés dans ce processus peuvent être relevés grâce aux leçons tirées de leurs processus et d'autres systèmes qui ont été mis en œuvre avec succès. Ces leçons indiquent le système de meilleures pratiques que le Cameroun et la République du Congo devraient avoir

pour compléter le travail de traçabilité qui est en cours dans les deux pays au sein du système LAS dans le cadre du VPA-FLEGT. L'approche progressive utilisée par le TFS pour développer et mettre en œuvre le système de traçabilité du bois en Tanzanie, en un temps record et essentiellement avec des ressources nationales après le soutien initial des bailleurs de fonds, est un modèle pertinent que les pays du bassin du Congo peuvent exploiter pour améliorer leurs systèmes d'information et de traçabilité du bois.

Logging in Cameroon

Logging vehicle, East Region, Cameroon

BACKGROUND

LOSS OF FOREST RESOURCES FROM LOGGING AND OTHER LAND USES

The forest ecosystem of the Congo Basin extends across a vast area of Central Africa (CAF), covering at least 260 million hectares which represents approximately one-fifth of the world's remaining closed-canopy tropical forest. The ecosystem is critical for biodiversity, conservation, the livelihood of the people living within and adjacent to the forest areas and for revenue generation for the government[1]. The ecosystem harbours a wide variety of animals, including gorillas, chimpanzees, elephants, okapi, leopards, hippopotami, and lions, with a high potential for ecotourism in the countries[2]. The forest provides other important ecosystem services to humanity, including notably, carbon storage and contribution to rainfall conducive for rainfed agriculture practiced in the sub-

region. The Congo Basin forests also provide many secondary benefits to the economies and livelihoods of the Congo Basin countries, direct and indirect employment, income and gross domestic production, taxation and public revenue (de Wasseige et al. Eds. 2015, Butler, 2020a).

Despite the benefits of the forest ecosystem, the Congo Basin countries with large rainforest areas – Cameroon, the Republic of the Congo, Gabon, the Central African Republic, the Democratic Republic of the Congo, and Equatorial Guinea (Butler, 2020b) – have been steadily losing their forests due to illegal and indiscriminate logging, mining, small-scale subsistence agriculture, clearing for charcoal and fuelwood, and urban expansion (Butler,

**5.6%
forest loss**
in the Congo Basin in the last two decades

2020a). The Food and Agriculture Organization of the United Nations (FAO) estimated that the Congo Basin forest area had lost around 700 000 hectares of natural forest per year between 2000-2010[3]. The Global Forest Watch in 2020 estimated a 3.5% primary forest loss across different forest types ranging from tropical dry

forests to tropical rainforests due to pressure on forest resources and land conversion into other uses in the six countries from 2002 to 2019 (Table 1). This is equivalent to about 362 000 hectares of primary forests lost per year over 17 years.

TABLE 1
Forest loss in the Congo Basin region per country
Source: Global Forest Watch, 2020

COUNTRY	PRIMARY FOREST EXTENT 2020 (HECTARES)	PRIMARY FOREST EXTENT SHARE OF LANDMASS	PRIMARY FOREST LOSS 2002-2019	TREE COVER EXTENT 2020 (HECTARES)	TREE COVER CHANGE 2002-2019
Cameroon	16 674 023	35%	-3.3%	25 510 913	4.2%
CAR	5 687 213	9%	-2.2%	21 226 104	1.7%
DRC	99 751 970	44%	-4.6%	187 951 784	7.1%
Equatorial Guinea	2 187 363	78%	-2.6%	2 538 272	4.3%
Gabon	22 430 106	87%	-1.1%	24 408 798	1.7%
Congo	20 829 481	61%	-1.5%	26 041 450	2.9%
TOTAL	**167 560 156**	**42%**	**-3.5%**	**287 677 321**	**5.6%**

ILLEGAL LOGGING AND DEFORESTATION

Butler (2020a) suggests that deforestation in the Congo Basin rainforest is due to rising conversion for agriculture and increased logging pressures. In another report he further suggests that industrial logging is the most significant threat causing forest degradation (Butler, 2020b). In some countries, such as Cameroon, collusion, corruption and illegal logging are destroying livelihoods and degrading forests. Studies show that the

influence of foreign companies in the region and corruption contribute significantly to deforestation[4]. Marie-Ange Kalenga (2019) reports that countries with potential natural resources are often experiencing endemic corruption and weak accountability. In the Congo Basin countries, corruption is a contributing driver of illegal logging. Below is the corruption index by Transparency International in 2020.

TABLE 2
Corruption index for the Congo Basin region countries by 2020
Source: Transparency International, CPI 2020[6]

CONGO BASIN COUNTRIES	CORRUPTION PERCEPTION INDEX CPI (2020)	
	CPI SCORE/100[5]	CPI RANK
Cameroon	25	149
DRC	18	170
Central African Republic	26	146
Gabon	30	129
Equatorial Guinea	16	174
Congo	19	165

Authorities and businesses in importing countries with robust timber regulations such as the European Union Timber Regulation (EUTR) and the USA's Lacey Act are compelling exporting countries to provide more reliable official and well-compiled information on wood and timber products that they control and/or commercialise (FAO/CIFOR, 2018). Failure to comply poses a great risk of revenue loss from the timber trade with these partners. The ability to control and monitor timber trade, including through electronic traceability systems, can increase revenue collection, monitor capacity and transparency, improve law enforcement efforts, and reduce chances for corruption (Luijken and Martini, 2014; Grant et al., 2021). Electronic systems have the advantage of limiting or minimising human interference to circumvent and undermine the laws.

TRACKING LOGGING OPERATIONS TO REDUCE ILLEGAL LOGGING

In 2013, government representatives from Africa's main timber-producing countries, relevant private sector representatives from the wood processing industries, and civil society organisations (CSOs) agreed to jointly combat the illegal timber trade in the Congo Basin. Six African countries, including Gabon, Cameroon, the Republic of the Congo, Côte d'Ivoire, the Central African Republic (CAR), and the Democratic Republic of the Congo (DRC), adopted the agreement which called for their commitment towards the sustainable and legal development of the wood industry in the region, termed the Brazzaville Declaration[7]. The declaration aims to implement measures that improve timber tracking, transparency, and forest governance.

FAO defines traceability as the ability to discern, identify and follow the movement of a product through all stages of production, processing and distribution (FAO, 2017). The traceability system helps to improve transparency and identify challenges and areas that need the pressure of law enforcement efforts and focus. Many countries have some form of traceability mechanisms to understand how much is being harvested, transported, and exported to regional and international markets to capture revenue and identify illegality along the trade chain.

Timber tracking also referred to as timber traceability, is one way to improve the control and monitoring of trade in logs and timber products from harvest, processing, and transportation to the sale of the timber. Government operated traceability systems in the timber sector are generally designed to enhance revenue collection, promote transparency and enhance good governance and accountability for log production and transport, in addition to controlling illegal logging and trade and reducing the opportunities for corruption (Grant et al., 2021).

Various countries worldwide have made efforts to develop or pilot traceability systems owned by their governments to ensure control and monitoring of their forest operations[8]. This includes Brazil, Ghana, Indonesia, Liberia, Romania, Viet Nam, and Tanzania. Some of the Congo Basin countries are reported to have piloted or advanced the development of traceability systems as well, including Cameroon and the Central African Republic. The government-owned operating systems in most cases, are referred to as mandatory traceability systems. Grant, et al., (2021) explain mandatory systems as systems that map supply chains and track material flows through them, but with the additional element of being used by governments to enforce laws (increase compliance and reduce illegality) and/or collect revenue. They are usually developed by or for the governments in producer countries. Voluntary traceability systems are operated by private businesses whose users are often located toward the end of supply chains and in consumer countries. These are, in most cases, developed to ensure the quality of products, minimise operating costs and maximise profits, and in recent years to prevent the intermingling of illegal timber in their supply chains to meet the legal requirements of the markets.

With this understanding and in support of the commitment of the countries in the Congo Basin countries to improve controls and monitoring of the timber trade, TRAFFIC, under the joint venture of the Reducing Trade Threats to Africa's Wild Species and Ecosystems (ReTTA) project and the NORAD Norway's International Climate and Forest Initiative (NICFI) funded project, Leveraging legality along China's timber supply to reduce deforestation, has conducted an assessment to identify traceability mechanisms in place or those that have been piloted in the past five years, for the six Congo Basin countries. The aim is to identify lessons learned, strengths and weaknesses, identify gaps and provide recommendations to improve traceability systems of the timber trade within the Congo Basin countries for sustainable and legal trade.

The Brazzaville Declaration aims at improving timber tracking, transparency, and forest governance

Members of the Baka Pygmy tribe, Cameroon forests, Kika, Cameroon

OBJECTIVES OF THE ASSESSMENT

This assessment was conducted to provide an understanding of the current situation of traceability systems being used for tracking timber in the Congo Basin countries, to collect lessons and understand what systems were successful and which failed. The assessment looked at successful timber traceability systems employed in regions outside of the Congo Basin to review and guide the key issues, challenges and achievements to consider when developing and piloting a traceability system.

This assessment recommends the most appropriate traceability tool and system, and approaches that can be piloted and adopted to improve controls and monitoring of timber trade to enhance the capacity of the governments (and relevant stakeholders) to ensure sustainable and legal trade.

The findings of this assessment will be used to inform TRAFFIC's future activities and advocate to the government partners and other relevant stakeholders who have an interest in supporting the development of traceability systems to improve timber trade controls and monitoring in the Congo Basin countries for sustainable and legal trade.

METHODOLOGY

This assessment has used three methods to ensure adequate information was obtained concerning the traceability systems in the Congo Basin countries (Figure 1). The three **approaches involved a literature review, key informant consultations, and an information consolidation workshop.**
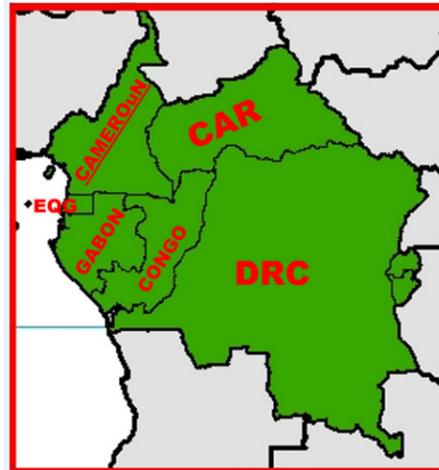
THE LITERATURE REVIEWS

This method involved a review of online resources such as publications, reports, websites and news articles. More than 50 resources have been used in the literature review. The bibliography of the resources is attached as Annex I.

KEY INFORMANT CONSULTATIONS

The second method involved interviews with some key informants from the relevant sectors, particularly forestry agencies. Since the assessment is focussed on timber traceability, government officers from relevant institutions and agencies were consulted. On occasions, stakeholders from development partners, NGOs and CSOs, and general communities were consulted where they have relevant information to assist in this assessment. A list of guiding questions for the consultations

is attached as Annex II (both English and French versions), and a list of stakeholders consulted is provided as Annex III.

INFORMATION CONSOLIDATION WORKSHOP

A preliminary analysis following the literature review and key informant interviews warranted the search for additional information to have a more comprehensive and useful review. To consolidate the information, TRAFFIC organised a regional timber traceability review workshop of representatives from the six countries, during which the preliminary results of the review was shared. The country representatives presented the latest updates of the timber traceability systems in their respective countries and complemented the structured information required through a country matrix developed by the authors. The structure of the information matrix is given in Annex IV. The list of participants at the workshop is given in Annex V.

TIMBER TRACEABILITY SYSTEMS IN THE CONGO BASIN COUNTRIES

In all the Congo Basin countries, the law provides some guidelines on traceability for both industrial and artisanal/communal/community forest loggers beginning with markings and recording of all trees that are felled, on timber and logs in the forest yards and being transported along the supply chain.

They are all imbedded in the government operated timber and forest information

management systems, which beside the traceability functions of timber production and flow along the supply chains, also ensure legality control and revenue collection among other functions. The traceability systems are at different stages of development and deployment across these countries.

CAMEROON

In Cameroon, the development of traceability systems to improve the management of forestry resources has a long history. In 1998, the then Ministry of Environment and Forestry (MINEF) developed the first Computerised Forest Information Management System (SIGIF) in Cameroon to facilitate forest exploitation permits. The SIGIF was an MS Access-based database developed with technical and financial support from the Canadian government and operated in a local network within the SIGIF Unit. It did not include timber traceability functions,

which were paper-based in the control posts (Dongmo, pers. Comm. To C.M. Mbun, 16 September 2021). In 2011, the Ministry of Forests and Wildlife started the development of the second generation of the Computerised Forest Information Management System (SIGIF 2) as part of the Timber Traceability Project under the framework of the Voluntary Partnership Agreement on Forest Law Enforcement, Governance and Trade in Timber and Related Products (VPA-FLEGT) signed with the European Union in 2010. The project aimed to develop a fully computerised timber traceability system that will ensure that timber is legally exploited within the FLEGT Action


Logging, Cameroon

Plan (Cheteu, 2011). The system went through several phases of piloting and testing until the Ministry deployed the current version in November 2020 and launched it on 1 April 2021.

The SIGIF 2 was developed with financial and technical support from the German Financial Cooperation (KfW), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the European Union.

Due to its development under the Timber Traceability Project, SIGIF 2 is often referred to as Cameroon's Timber Traceability System. SIGIF 2's traceability module is supposed to enable real-time tracking of timber flow from the forests to export ports along 19 traceability checkpoints out of 560 control posts in Cameroon. The 19 traceability checkpoints have been selected to cover the main timber routes from the main harvest areas to the exit ports in Douala and Kribi. According to Order N° 00135/MINFOF/CAB of 22/10/2020 these are established as the mandatory and exclusive checkpoints for monitoring and controlling timber and wood products in Cameroon within framework of the VPA-FLEGT. The order also designates five out of the 19 checkpoints as the mandatory and exclusive transit checkpoints for CEMAC countries. The traceability system is currently being piloted along checkpoints already equipped to digitally verify the different documents and control the truck loads using POS devices based on tamper-proof barcodes. The tamper-proof barcodes are issued by the forestry administration but printed by logging companies logged into to SIGIF 2 and linked to the centralised tracking database accessible at the checkpoints. The tracking system uses the chain of custody approach from forest to processing and export (Figures 2 and 3)
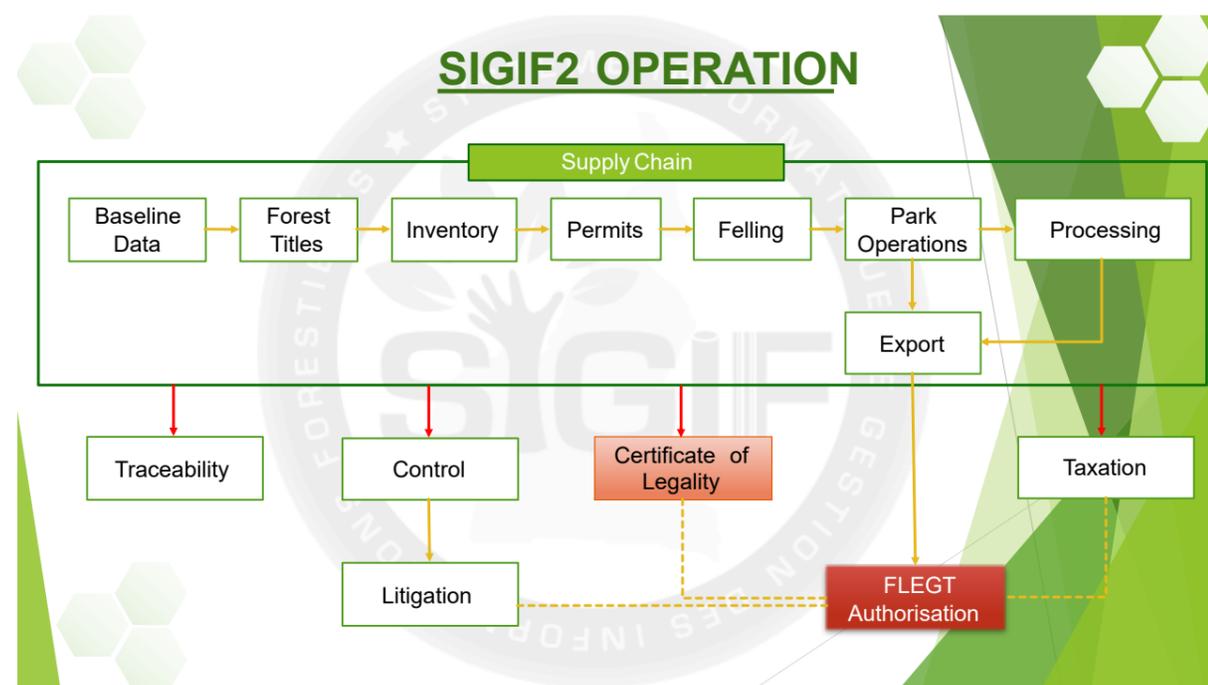
However, SIGIF 2 has 17 other modules beyond traceability including legality and tax modules. The current pilot phase is focussed on the digitisation of procedures, enhanced tax revenue collection and tracking. It is also implementing the module opened to logging companies and communities for the legality, resource inventory, forest permits; and monitoring of their exploitation which also facilitates the traceability and control by the Ministry.

The SIGIF 2 operates on three integrated platforms, namely web-enabled, desktop-based and mobile.

The government intends to treat all timber exploitation and trade transactions through SIGIF. In 2021, 164 annual timber exploitation permits, and annual operating certificates have been issued in the system, 4,702 consignment notes have been submitted by operators, and 1,450,000 m^3 of timber have been registered in the system for a felling tax of 5,289,358,465 FCFA (USD9,150,590)[9]. From January to mid-February 2022, a quota of 2980 waybills have been granted to 12 companies which have issued 336 transit permits printed online in the system (Pool Technique – SIGIF 2 2022).

In a 2016 report, TRAFFIC identified many strengths and weaknesses in developing SIGIF 2, some of which persists, including the complexity and exorbitant cost of the complete system (Mahonghol et al. 2016).

The main challenges to the implementation of the system, in addition to the weaknesses cited above, are to provide the mobile kits for the 19 traceability checkpoints, get timber exploiters to adhere to and use the system, ensure permanent internet coverage and connectivity through a satellite backed system and provide electricity in areas currently not connected to the national grid, and train all stakeholders on how to use the system, together with an appropriate backup hosting to ensure continuity. The SIGIF 2 is currently hosted by Cameroon Telecommunications Company (CAMTEL), the government's telecommunications corporation.

336 transit permits
printed in SIGIF2 from January to mid-February 2022 by 12 companies

A Chinese ship loaded with uncut timber, Gabon

GABON

In Gabon, the Nature Plus and WWF supported communities to develop a traceability system to improve timber tracking for better monitoring of the timber that is produced from the community-owned forests. The development of the system passed through three main stages resulting in a password-secured mobile application, the Open Data Kit, ODK Collect® 2 including a form for collecting data and publishing data, the FormHub® 3 for publishing data.

However, the system was seen as having numerous high risks for legality by the government as the system did not incorporate government servers, it had no legal framework backup (no government guideline, regulation supporting any of the systems as an officially recognisable system by the government) and confidential information such as revenue records may not have been secured because the application was downloaded from publicly accessible platforms.

To overcome the limits of its central administration to implement activities in the timber sector and on forest product traceability in line with the Emerging Gabon vision, the Gabonese government created the Forestry and Timber Industry Execution Agency (AEAFFB). The Decree N°01400/PR/MEF of 6 December 2011 created AEAFFB with the main mission of contributing to the promotion of activities in the forestry and wood sector by providing technical support in the areas of inventory, management, approval, certification, traceability of forest products and economic, political and strategic monitoring.

Two of the AEAFFB's mandates focussing on timber traceability and the timber sector value chain are:

- Making available and updating a database on inventories, management, certification and traceability of forest products for all actors in the forestry-wood sector,
- Strengthening the institutional capacities of the forestry and customs services

Two of the AEAFFB's mandates
focus on timber traceability and the timber sector value chain

through a plan to integrate and train staff in the recognition, classification, traceability of forest products and monitoring of forest certification.

In collaboration with the Environmental Investigation Agency – USA (EIA/US) and Code4Nature, the Ministry of Waters, Forestry, Sea, Environment, in charge of Climate Plan, Sustainable Development Goals and Land Distribution Plan and its technical agency, the AEAFFB set up a project to develop a computerised public timber traceability system (STMINEF) with the objectives to:

- Combat illegality
- Improve the sector's contributions to the GDP through enhanced tax efficiency
- Track timber products from the forest through to export
- Generate forest sector statistics.

Launched in 2020, the system deviates from the VPA-FLEGT model adopted by the other Congo Basin countries. There is government ownership to develop the system made of nine technical modules and an innovative 10th module on transparency. The system has been quickly developed and there have already been two successful real time pilot tests. It operates on three platforms: desktop, online and mobile and shall be mandatory for all industrial timber exploiters throughout all the checkpoints.

The government intended to officially launch the system in 2022 while facing three main challenges, namely:

- Acquiring and installing all necessary equipment
- Training of all actors and stakeholders
- Overcoming hesitancy and resistance by timber operators to use the system, who argue that the equipment and cost to use the system might hinder rather than facilitate their activities.

The system seems to stand out from those in the other Congo Basin countries in terms of two similar approaches adopted in Tanzania that we discuss below. There is strong government ownership and an internally driven stepwise development approach to meet real timber tracking and legality issues

externally pulled by the FLEGT to respond to the European market. However, we cannot fully assess the system since it is still to be deployed and used throughout the national territory.

DEMOCRATIC REPUBLIC OF THE CONGO

The government began the VPA-FLEGT negotiations with the EU in 2010 and the government and other stakeholders have implemented activities related to timber traceability and forest governance. However, the initiatives have largely been unsuccessful in developing and implementing a state-owned forest monitoring and traceability system, known as the computerised forest management information system (SIGEF).

The development of the timber traceability system could be traced back to 2011 when the government commissioned SOFRECO Firm to collect relevant data and carry out a feasibility study for a timber traceability initiative in the country. Following the study and other engagements, the government, through the then Ministry of Environment, Nature Conservation and Tourism, created in December 2013, the Timber Production and Marketing Control Programme (PCPCB) to strengthen timber traceability and forestry governance.

The first phase of the initiative, which lasted from 2013 to 2015, was financed by the World Bank and implemented by the international verification company Société Générale de Surveillance (SGS). On behalf of the government, the SGS developed an independent chain of custody system offering tamper-proof barcodes, computerised checkpoints along the timber supply chain and a database tied to SIGEF.

In 2016, the government relaunched the PCPCB to ensure timber traceability and legality. PCPCB II was implemented, on behalf of the government, by another private operator, Africa Union Financial Services/RDC SARL (AUFS/RDC SARL), which developed and put in place the Timber Traceability and Legality Management Platform (TRABOIS)(Figure 4). The TRABOIS is operational in the Province of

Haut-Katanga where it was piloted since 2017 but has failed to work elsewhere because of resistance from private sector operators to adhere to the stringent conditions (mandatory purchase of barcodes at USD10 per code, payment of USD100 for the scanning of any truck over 3.5 tonnes gross vehicle weight), and absence of clear procedures.

TRABOIS Web Login Page at https://trabois.pcpcb.cd/

The computer system is available to all actors in the timber sector; each company must take appropriate measures to use it.
Every company holding an industrial permit is required to identify every log as soon as it is felled. The information is validated by the forestry administration. Consistency and physical checks are carried out by the service provider to verify the declared data.
Although the SIGEF is available since 2013 and mandatory, reports from the Timber Trade Portal and other sources indicate that the computer system roll-out is currently at an impasse due to incomplete coverage of the physical trade chain (it is active only in one province, and therefore cannot serve as an integrated traceability system across the entire chain), the indifference of the private sector, the absence of procedural documents (because of incomplete timber and wood export regulations) and planning
.
The VPA negotiations are currently stalled, with no effective countrywide state-owned monitoring systems and insufficient human capacity by government agencies to control and monitor forest resources, therefore increasing opportunities for illegal exploitation and trade.

EQUATORIAL GUINEA

In Equatorial Guinea, timber tracking is one of the strategic mechanisms that the government has adopted to ensure that the national forestry resources are used in a sustainable manner to rationally provide sustainable tax revenues and socioeconomic development opportunities while preventing the degradation of the forest resources.

The timber tracking system monitors the flow of timber along the entire chain through the following stages and processes:

- Forest management,
- Forest use,
- Primary transport,
- Primary processing,
- Secondary transport,
- Secondary processing, and
- Marketing.

Tracking starts at the forestry management phase, where all trees to be felled are inventoried and stamped with a code indicating the coordinates, the concession holder, and the species. As the product flows through the value chain, the codes are adjusted to include information required by the permitting and traceability systems to ensure legality of the products. The waybill, for instance, includes company name, wood type, felling site, destination, transport type, validation date, number of logs, volume in m³ signed by the Chief of Section and the Regional Delegate in charge of the forestry department. The timber is also tracked right up to the port of export or the furniture sales points. The tracking is still paper based, using a monthly reporting standard. However, the information collected from the inventory of all the furniture outlets is sent to an isolated database in the wood industries section for control.

In Equatorial Guinea, the forest sector has been facing challenges on effective control and monitoring of timber trade from harvest, transportation, processing and exportation for a long time, despite the defined traceability mechanism. The government has attempted to address these challenges, first in 2007 with a ban on the export of logs, in 2008 cancellation of all logging concessions, in 2017 regulation of the logging of certain species and most recently in September 2020 a presidential decree banning logging throughout the country, including by communal forestry.

These bans are always short-lived with several persisting compliance issues along the supply chain for forest products that need to be addressed.

According to Ministry officials, the main challenges are that management plans are done below standards due to poor forestry inventory. Furthermore, the forestry administration is not able to adequately control the timber exploitation at the different sites and along the value chain, due to the onerous nature of paper-based tracking and low human capacity (Preferred by Nature 2021).

The 2020 timber legality risk assessment by Nature Economy and People Connected (NEPCon) identified several issues in the supply chain such as the re-use of documents

Tracking is still paper-based, using a monthly reporting standard

Equatorial Guinea
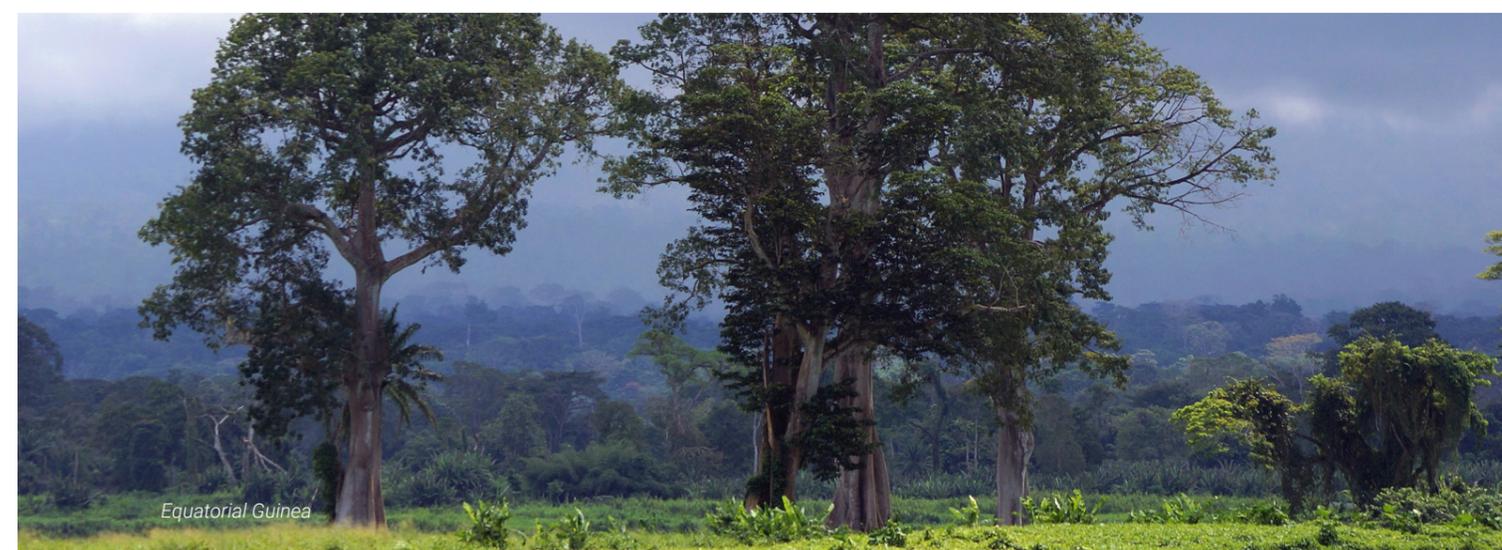
for transportation of timber, transport of wood without a transport guide in illegal logging zones, bribing of the controlling agents, inadequate information about the source, species or dealer on the documentation, transportation of products at night to take advantage of the absence of the controlling agents and under-declaration of products (Preferred by Nature 2021)[10]. The report concludes that these challenges have resulted from a lack of effective mechanisms on control and monitoring of timber trade from harvest to the point of final consumption within the country or for exportation, which implicitly suggests that the challenges could be addressed by an effective traceability system.

A computerised tracking system that will generate more viable information and make control more efficient was therefore identified as a pertinent output by the official who represented Equatorial Guinea in the review workshop (Masa Angono 2022).

REPUBLIC OF THE CONGO

The Republic of the Congo has 23.5 million m3 of forest resources which contributes to the 5.6% of GDP and the second natural resource,

after petroleum, contributing to the country's economy (Duhesme 2012; UNEP-WCMC 2020). Illegal logging is one of the key problems impacting the forestry sector in the country. In 2011 for instance, it was reported by Chatham house that 70% of timber entering the market was illegal. One of the possible drivers of illegality is the lack of legal requirements and verification.

The country has entered a VPA-FLEGT with the EU in 2010. The government is working towards ensuring the supply of timber into the international markets, particularly the European markets, are from verified legal sources[11]. To comply with the market need, the country has had to increase efforts in ensuring legality, control and monitoring of the trade in timber, hence a requirement for an effective traceability system.

The country formed a Forest Legality and Traceability Unit to verify the legality and traceability of timber and to issue certificates of legality and FLEGT Authorisations for all cargo destined for the EU. A computerised legality verification system (SIVL) for legality, traceability and control was developed and installed at the Datacentre of the Ministry of Finance and Budget and the Datacentre in

Pointe-Noire in 2018. The system has been fully developed and is made up of 17 modules including one legality module, one tax module and nine traceability modules (Figure 5). The Congolese government has decreed that it will deploy the computerised system in a progressive module-wise approach beginning

with the legality and taxation modules which were expected to be implemented throughout the country by the end of 2022.

This system focuses on attesting to the legality of logging companies and verifying that the products are legal.

TABLE 3
SIVL Modules - Source: (Ossebi 2022)

LIST OF MODULES		MODULE GROUP
0	Navigation principles	Homepage
1	Account management	
2	Legality	Legality
3	Barcode	Traceability
4	Pre-logging	
5	Logging	
6	Plantation	
7	Transportation	
8	Storage	
9	Processing	
10	Outlets	
11	Taxation	Taxation
12	FLEGT Licensing	FLEGT Licensing
13	Product history	Tools
14	Geographic Information System (GIS)	
15	Statistics	
16	Mobility	
17	System administration	

There was a parallel system, the National Traceability System (SNT) put in place to enable the Congolese forestry and customs administrations to determine the origin and track the movement of timber in the Congo. The Congo signed a funding agreement with the EU in 2009 to improve the system, notably to computerise it. However, the SNT is paper-based, and the computerisation is still ongoing. The SNT has been integrated into the traceability modules of the SIVL, but it is not yet operational. The National Coordinator of the SIVL affirms that the traceability modules have been fully developed but will be implemented after the government has fully deployed and mastered the Legality and Taxation Modules, focussed on compliance verification and tax revenue collection (Ossebi, pers. comm. to C.M. Mbun, 26 May 2022). He identifies the following actions they will need to take to implement the traceability modules:

- Select the checkpoints to cover the entire national territory
- Equip the selected check points (including appropriate POS devices, such as the MobiPrint timber tracker)
- Install the full SIVL including the traceability modules
- Train the personnel to use the SIVL and the traceability modules.

Other forest governance stakeholders in the Congo, however, criticise the system for the time and costs required to implement properly and are sceptical if the current system will ever be operational. The coordinator of the VPA-FLEGT Independent Observer Organisation in the Congo, encourages the Congolese Government to test and adopt apparently simpler solutions like the TFS Timber Tracker (Nkodia, *pers. comm. to C.M. Mbun*, 26 May 2022).

CENTRAL AFRICAN REPUBLIC

The forests of the Central African Republic are essential for the country's economic development. The forest sector is claimed to contribute 11% of the GDP and 13% of the export earnings to the country's economy. The country has a total land area of 623,000 km2 of which close to 23 million hectares, i.e. 37%, is composed of forested lands (FAO/CIFOR 2018).

With support from technical and financial partners such as the EU-CAR, efforts have been taken to strengthen forest legality and traceability focussing on the export market. They have conceived a Legality Assurance System (LAS) to implement the VPA-FLEGT which covers elements of traceability including timber flow tracking along the supply chain from forest to export (including transit through Cameroon), compliance with all the elements of traceability, and computerisation with a database for real time access. However, the LAS is still to be developed and deployed (Figure 6).

37%
of total land
(23 million ha) is forested lands in the Central African Republic

Conceptual structure of the Timber Traceability System in CAR
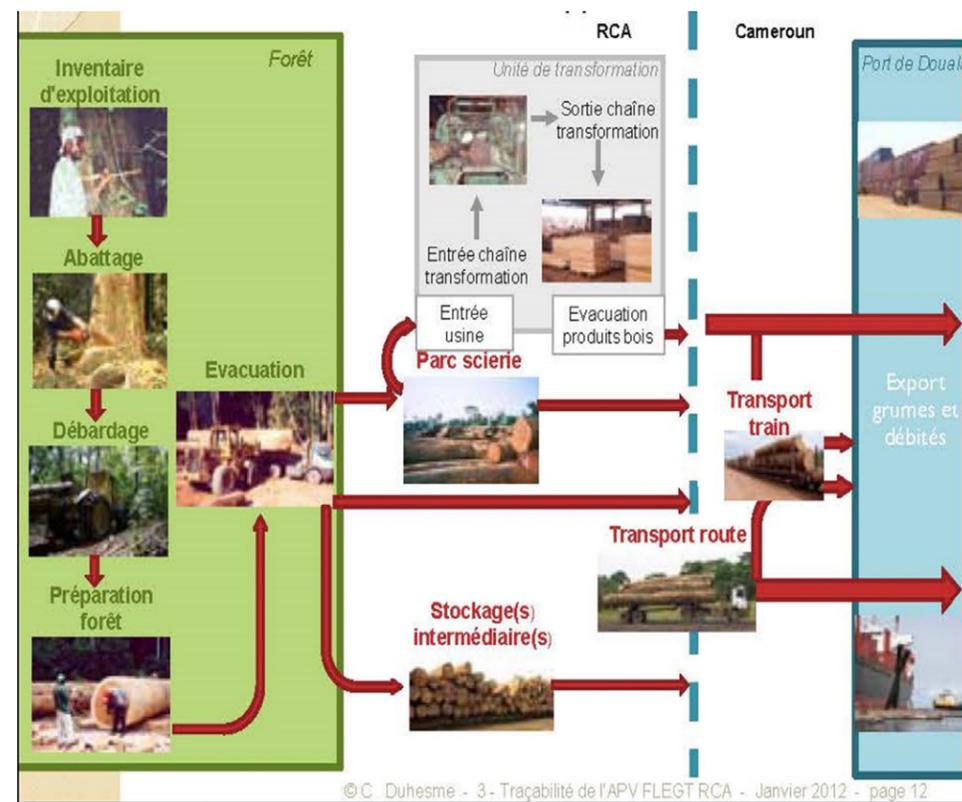
In the meantime, the company Bureau Veritas Central African Republic (BIVAC RCA) has, since 2005 inspected and traced timber products and collected customs revenues in the sector to meet the Government's requirement while a technical office of the Ministry in charge of forestry, the Forest Data Centre, is responsible among other activities, for uploading information online on timber legality and traceability under the VPA-FLEGT. An important challenge faced is how to seamlessly integrate all the existing data management systems by the different administrators and stakeholders into a centralised timber traceability and legality verification database (Figure 7).

FIGURE 7
Timber Traceability Information System in CAR
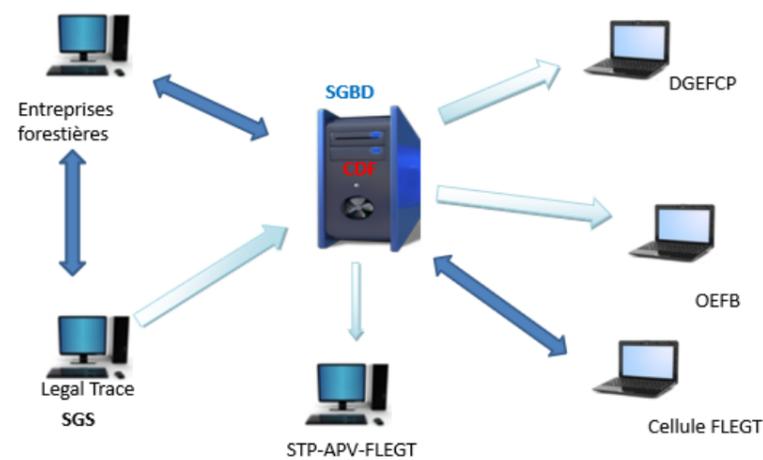
The forest sector is facing a lot of challenges, particularly illegal logging, and lacks effective control and monitoring mechanism for the timber trade. The forest resources in some areas of the country are reported to be exploited illegally and in fact, used to finance war as reported by Global Witness (2015). Logging companies claim to have paid millions of euros to armed groups to ensure that they can continue operating (Browne et al. 2022, Global Witness 2015). However, timber's commodity characteristics make it less attractive for rogue regimes and rebel armies to use it for conflict finance in situations where less bulky, more easily lootable, higher weight-to-value options exist (Rhodes et al. 2006). An effective traceability system could help reduce risks for illegal timber trade and improve law enforcement capacity to control and monitor the trade in regions without armed unrest.

TABLE 3
Summary of the traceability system information obtained during the assessment.

COUNTRY	IS ANY TRACEABILITY SYSTEM AVAILABLE?	STATUS OF THE SYSTEM	SYSTEM TYPE (MANDATORY OR VOLUNTARY)
Cameroon	SIGIF 2	Operational/	Mandatory
Gabon	STMINEF	Piloted	Mandatory
Democratic Republic of Congo	TRABOIS	Pilot (one province)	Mandatory
The Republic of Congo	SIVL	Developed	Mandatory
Equatorial Guinea	Paper-based	Paper-based	Mandatory
The Central African Republic	LAS	Concept (still to be developed)	Mandatory

The bark of Pterocarpus angolensis

Sawmill at a FSC certified company, East Region, Cameroon

CHALLENGES AND GAPS IN DEVELOPING TIMBER TRACEABILITY SYSTEMS IN THE CONGO BASIN REGION

Any traceability system must reflect legality requirements and market compliance requirements. These two conditions guided the government-operated timber traceability initiatives under the VPA-FLEGT framework in the Congo Basin countries: in-country legality to ensure that timber is legally harvested in source countries, and EU standards to ensure that imported timber from the Congo

Basin countries meet the market standards in the EU consumer countries. For example, during the stages of preparation of SIGIF 2 in Cameroon, it was reported that meeting the market requirements was key and among the main expectation of the final stage of the system, hence the scrutiny by the EU delegations and other EU country institutions such as GIZ.

Also, in Gabon, the system developed for the community forests lacked support from the legal framework of the country hence did not generate support from the government.

Government willingness is essential to get buy-in to the government-operated initiatives. Most of the pilots have been affected by a lack of support and ownership of the government.

The VPA-FLEGT based traceability models are part of a comprehensive timber information management model comprising many modules. For instance, Cameroon's SIGIF 2 has 18 modules and the Congo's SIVL has 17 modules. This makes it complex to develop an efficient system with all the modules seamlessly integrated, taking much time and requiring enormous human, financial and material resources to fully develop, test, debug, and deploy along the entire timber supply chain. Faced with scarce public resources and other priorities, the technical department promoting the timber traceability and information systems encounter difficulties mobilising adequate public resources. They therefore rely on donor funding which comes with an additional layer of negotiations and control that further complicates the decision and project implementation processes.

The system development must involve awareness and buy-in from relevant stakeholders who have an impact on the success of the systems. Private sector/community involvement is essential in the development of a traceability system – not only in terms of knowing what and how the government monitors the harvest and trade

under the national legislative framework – but in understanding their roles in providing relevant information and data, and how the system will affect the private sector and local communities. SIGIF 2 in Cameroon, for instance, was reported to have a specific module for the logging companies and communities for the legality, resource inventory, forest permits and monitoring of their exploitation. Greater clarity is needed on what is expected from the private sector, and the roles and responsibilities of the government in ensuring transparency, monitoring and enforcement efforts and actions. When the private sector stakeholders perceive the system as adding another layer of government control and reducing their capacity to manoeuvre without added benefits such as improved time and cost efficiency, they may resist and reject the system, as reported in Gabon.

In the face of all these challenges, it is useful to learn lessons and experiences about factors for success and what has worked from different countries within the basin and other countries within Africa such as the timber tracker in Tanzania.

The next section provides a review, of the timber tracker system successfully implemented in Tanzania by the Tanzania Forest Service Agency (TFS), to identify lessons on the approaches, processes and tools that could be adapted to improve the timber information systems and tracking models that the Congo Basin countries are developing and deploying.

18 for Cameroon and 17 for the Congo modules included in the VPA-FLEGT based traceability models

Cut timber

A manager of a sawmill, East Region, Cameroon.

REFERENCE REVIEW OF THE TIMBER TRACKER IN TANZANIA

TIMBER TRACKER: THE HANDHELD DEVICES USED TO TRACK TIMBER CONSIGNMENTS IN TANZANIA'S FORESTRY SECTOR

The use of technology in the development of traceability tools for various products is a growing trend in most countries, which is rendering the use of manual and paper-based systems obsolete (Figure 8). Digitilised traceability systems improve data management, enhance legal resource utilisation and facilitate transparent transactions and possibly also help to reduce incidences of corruption along trade chains.

However, the use of technology in the development of traceability systems is a time-consuming process. It takes time to develop, pilot, and apply a system since the system should be embedded with the current governance systems of the government; to monitor and regularly enhance the system to deal with software bugs, improve efficiency, catch up with evolving technology, address challenges and possibly increase the scope and depth of the system as objectives get revised.

The use of technology in traceability systems for tracking forest products is not new. Various private- or public-operated systems have been piloted and put in place in various countries worldwide. Tanzania, through the Tanzania Forestry Services Agency (TFS), like other government forestry agencies across Africa, has a role to improve management of forestry resources, specifically to improve controls and monitoring of production, processing, transportation and exportation of their resources. To achieve this goal, Tanzania has been investigating and piloting different approaches to track forest products.

In 2016, TFS as the main government custodian of forestry resources in the country, in collaboration with TRAFFIC, piloted the use of handheld devices to track forest products in the transportation part of the supply chain.

Through a series of pilot phases and the

support of numerous stakeholders (Regional Forestry Programme of WWF, Ministry of Foreign Affairs of Finland through its support to TRAFFIC via Tanzania Natural Resources Forum (TNRF), financial support from Arcadia through TRAFFIC's ReTTA project) TFS piloted and adopted a timber traceability system (commonly known as the timber tracker or log tracking system) for the whole country.

The Timber tracker, so named due to its initial focus in tracking timber before incorporating other forest products, is an electronic system developed and installed on handheld devices, commonly known as Point-of-Sale (POS) devices, operating as a mobile App (Figure 9). The timber tracker system has two major components: the web portal and the mobile App (Log tracking application). These are incorporated in the Forestry Resource and Management Information System (FREMIS), a system developed by TFS to improve their forestry resources management.

Tracking starts at the transport stage when the trader has been provided with a harvest permit from the District Forest Officer, harvested the permitted trees and is ready to transport the consignment out of the forests to the destination.

To transport the consignment, the trader will require a transit permit (TP) that the district conservator issues at the respective TFS

district offices. The transit permit is issued through the TFS FREMIS, which provides the information to the timber tracker devices (a POS) at the checkpoints allocated along the supply routes.

At the District TFS office, the trader is provided with a printout version of the TP to be provided to the relevant checkpoint staff during a compliance check. However, the checkpoint staff does not necessarily rely on the printout provided by the trader to access information about the consignment and the TP. The checkpoint staff only requires the printout for scanning the QR code[12] to verify the TP, signing and writing a verification code after inspection as proof that the consignment was checked.

After scanning the QR code, the checkpoint staff inspects the consignment to ensure the cargo is the same as that recorded on the TP and what is displayed on the device. This way, it is easy to identify undeclared products, overloading, falsified documents, etc.

After the inspection, the officer takes pictures of the truck and the cargo from different sides using the device and endorse clearance through the device to get the code which is filled on the printed TP. The truck is then allowed to proceed with the journey to the next checkpoint or the destination if it has already gone through the last checkpoint.

TFS piloted and adopted a timber traceability system for the whole country

FIGURE 8
A log book used to collect information about consignments at the checkpoints

FIGURE 9
A timber tracker (Point of Sale device)
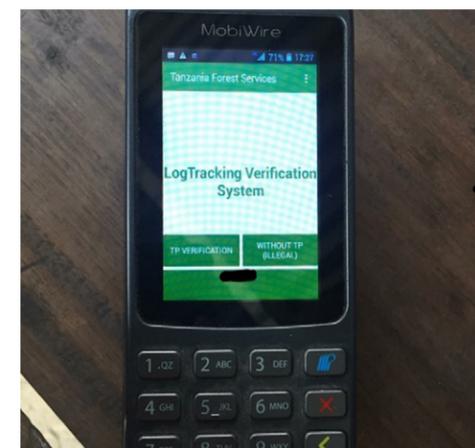
The trader must go through each designated checkpoint allocated as provided in the TP. The required checkpoints are selected by the District conservator when issuing the TP, and the choice directs the route the trader must take to reach the destination.

If the trader or transporter bypasses any of the checkpoints, it will be immediately identified since the inspection reports are directly accessed at the headquarters and transparently accessed by all officers along the respective route.

THE TFS TIMBER TRACKER, A NATIONWIDE TIMBER TRACEABILITY SUCCESS STORY

The timber tracker stands as a champion system within the Africa continent; it is one of the most successful and accepted traceability systems in the forestry sector. The system was piloted from 2016 to 2018 and adopted by the government for countrywide use at the end of 2019. Even within the first year of implementation, the system has shown promising success and continues to be used by the government as the primary means of controlling and monitoring timber exploitation in Tanzania.

The following chart summarises the timber tracking process in Tanzania through the timber tracker system.

Illustrational presentation of the tracking process

1. Trader is registered and apply for harvest permit. When granted, a trader goes to harvest under supervision of the District Forest Officer

2. A trader will need to obtain a transit pass as a permit to transport the consignment to the intended destination

   Transit pass is provided by the TFS District conservator through the web-portal part of the system that operated under the FREMIS

   A trader is provided with a printout to show at the checkpoints

3. A trader starts the journey and will pass through checkpoint gates pre-assigned according to the destination

   Checkpoint staff inspect the consignments using the Timber tracker for compliance check

   TFS staff can see details of the trader from the system (log tracking app installed on the POS devices), if all is in order sign-off the consignment to continue on the journey

4. Consignment arrives at the destination (Port for export, timber stores, market or processing centres).

   However, if you want to move processed products as well a TP will be required and likely pass to relevant checkpoint depend on the new destination

LESSONS FROM TANZANIA FOR DEVELOPING AN EFFECTIVE GOVERNMENT-OWNED TIMBER TRACEABILITY SYSTEM

The following section discusses some features of the Tanzanian system, their advantages and lessons for developing an effective government-owned timber traceability system.

STEPWISE DEVELOPMENT APPROACH

The TFS developed the timber tracker system through a series of small steps to solve specific problems and take advantage of opportunities from evolving technologies. The first step was to introduce a desktop-based timber tracker system, implemented in Tanzania by the TFS. The system went through a series of modifications and adaptions at each stage of its development. Depending on the interested government and sophistication of their own systems and integration prospects, some of the step wise approach can be aggregated, or even skipped altogether.

COST-EFFECTIVE AND PRACTICAL TECHNOLOGIES

The TFS adopted a practical approach that started small using cost-effective technologies to solve the most basic problems to gradually taking on more features with more cost-effective technologies. From the desktop and solar panel to the MobiPrints, the cost of equipping a traceability checkpoint dropped almost seven-fold while the functions and ease of use greatly improved.

ACCESSING INSPECTION REPORTS FROM OTHER CHECKPOINTS

This option enabled the checkpoint staff to access the inspection report from previous checkpoints that helped identify a trader or transporter that has skipped or bypassed a checkpoint. The information is sent through the internet. The checkpoint report is seen throughout the chain and at the headquarters, increasing transparency along the supply chain. This automatically ensures the traders or transporters has to pass through each designated checkpoint for inspection.

REAL-TIME DATA ACCESS AT THE HEADQUARTERS

The fact that the data is accessed immediately at the headquarter makes the checkpoint staff careful and efficient especially as the system records the time taken for each inspection thus reducing chances for prolonged discussions and negotiation. A crucial benefit is that the headquarter can easily get reports of how many trucks have gone through the checkpoints, products, volumes, inspection reports (cleared, fined, or compounded, etc.), dates and time for each inspection that can be checked for discrepancies, alerts and suspicious timber movements while getting quality data and records to produce trends, charts, values, etc. that help with policy and development analyses.

NO TYPING INFORMATION INTO THE DEVICES, A TOUCH SCREEN AND SELECTING OPTIONS SAVE TIME AND REDUCE HUMAN ERRORS

To improve time efficiency and reduce human errors during a compliance check, the system already contains the key information so the inspector at the checkpoint does not need to type in additional information but rather choose from options provided through a touch screen. The only incident that would require typing in information on the devices is when a trader or transporter is found with some irregularity (such as undeclared products or overloaded with products unpaid for). This reduces entry error in government statistics. This also increases efficiency for traders or transporters thus encouraging them to comply with the requirements.

PHOTOGRAPHS OF THE CONSIGNMENTS ACCOMPANYING THE DATA

Taking pictures of the consignment at each checkpoint is helpful as the data manager or anyone doing analyses can easily detect if the consignment was offloaded or repacked along the chain during transport by referring

CONCLUSION ON THE TFS TIMBER TRACKER

The development and deployment of the TFS timber tracker system provide lessons on the approaches, processes and models used to overcome challenges similar to

back to the images. Hence, any suspicious activity can be detected, and the exact location can be pinpointed. Also, pictures are records of evidence of the consignment which can be easily retrieved if they are needed for legal proceedings.

POLITICAL BUY-IN AND INSTITUTIONAL OWNERSHIP

Digitalising the traceability system is challenging not only because it takes time, but because it also requires material and human resources as well as energy to overcome resistance to change the status quo due to vested interest, corruption and inertia from habit. That is why, while keeping the bigger picture in focus, the project managers used a stepwise approach by breaking the process into small steps whose cost and quick results kept the political leadership committed. They also focussed on solutions directly relevant to the needs of top management and decision makers, such as real-time access to data at the central unit. All these helped to ensure political buy-in needed to support the process and institutional ownership for relevance and sustainability, especially in the face of other competing government priorities.

those the Congo Basin countries are facing in developing timber information, control and monitoring systems. The TFS system followed a pragmatic stepwise approach going through

a series of modifications and adaptions at each stage of its development. Government willingness is essential to get buy-in to support and own the initiative. The key considerations that could ensure success in other systems are pertinence to solving simple but practical

problems such as data efficiency, ensuring political buy-in through immediate concrete outputs, such as a simplified tracking system that works, essential easy to use and cost-effective technologies such as solar panels and multifunction customisable POS devices.

CONCLUSION

The Congo Basin countries are facing increased deforestation rates and illegal logging. This assessment has provided an overview of the situation in the Congo Basin region concerning efforts by governments and other relevant stakeholders within the region on the development of traceability systems to improve timber trade controls and monitoring. The desk study and literature searches could only provide some information such as type, development level and stakeholders of the traceability systems in use by the countries in the region. A focussed workshop among selected stakeholders from the governments, private sector, certification schemes, academia, and other NGOs provided additional information about the attempts of developing traceability systems in the region and the challenges faced by the stakeholders. The reviews and assessments of the traceability systems in the region could still be complemented as the project could not access all the relevant information needed such as chain of custody details. Despite the challenges, this report attempts to provide descriptions, lessons learned and examples, that can be used as references, on efforts to improve timber trade monitoring using traceability systems. The report also provides information on the strengths, weaknesses, and gaps from other systems that have been successfully implemented, and what may be the best practice system that Cameroon and the Republic of the Congo should have to complement the work that is ongoing as part of the LAS system within the VPA-FLEGT framework.

The report further provides features from the timber tracker system that is implemented in Tanzania, which shows the tool the Government of Tanzania undertook to resolve similar challenges. This provides an example of useful features and rationale of developing an electronic traceability system which has the potential for improving transparency and efficiency on controlling and monitoring the timber trade, to combat illegal timber trade, increase revenue and support sustainability.

The timber tracker system that the TFS is implementing in Tanzania was developed using an incremental stepwise approach which enabled strong government ownership throughout the process and avoided overwhelming the public treasury with huge resource demands without the milestone results to show for from previous budgets. The system went through a series of modifications and adaptions at each stage of its development. The system is fully operational over the national territory in record-time (three years) using cost-effective tools that are fully adapted to the needs of the country, such as the low-cost Mobi-print POS devices for the mobile platform. With most Congo Basin countries still developing or pilot-testing their systems after more than 10 years with exorbitant budgets, the TFS approach stands out as a relevant model to exploit. The case of Gabon supports the effectiveness of an internally driven stepwise approach but could not be used as a reference for other Congo Basin countries because it has not yet been fully deployed in Gabon.

Logs at FSC certified logging company, East Region, Cameroon

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[5] The CPI scores how a country's public sector is perceived to be corrupt on a scale of 0 to 100, where zero is highly corrupt and 100 is very clean. Based on the scores, the assessed countries are ranked with the least corrupt ranked first and most corrupt ranked last, 179 for 2020 since there were two countries with the same score at the bottom of the scale.

[6] https://www.transparency.org/en/cpi/2020/index/nzl

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[9] For this CFAF/USD conversion, we have used the interbank exchange rate on oanda.com for Friday 31 December 2021 which was at 0.002.

[10] NEPCon changed its brand name to Preferred by Nature as of 1st October 2020.

[11] https://apvflegtcongo.com/

[12] Quick Response code (QR code) is matrix barcode machine readable optical label that contains information about an item to which it is attached.

[13] Mongabay is a nonprofit environmental science and conservation news platform

[14] www.traffic.org

[15] Traceability — a system to track a product from production to consumption

[16] www.traffic.org

[17] Traçabilité - système permettant de suivre un produit de la production à la consomm

IMAGE CREDITS

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ANNEX I:
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ANNEX II(a):
GUIDING QUESTIONS FOR CONSULTATIONS (ENGLISH VERSION)

Guiding questions to explore the experience of timbre tracking approaches in the Congo Basin countries

Background

TRAFFIC[14] is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development with a mission of ensuring trade in wild plants and animals is not a threat to the conservation of nature.

TRAFFIC is currently compiling and analysing the timber trade traceability[15] approaches used by the Congo Basin countries, to collect lessons, identify gaps and challenges, and provide recommendations on the best approaches. This assignment is co-supported by NORAD and the Reducing Trade Threats to Africa's wild species and ecosystems (ReTTA) project funded by Arcadia—a charitable fund of Lisbet Rausing and Peter Baldwin.

TRAFFIC will prepare a short report that will be shared and validated with the government agencies in the respective countries. The report will not be published but used to inform future interventions and support.

Consent

Your participation in this assessment is voluntary and all information you provided will be used only for this assessment. Please indicate whether you would like or not be treated as an anonymous contribution.

Treat my contribution anonymous (*Please tick in the box*): Yes, treat me anonymous ☐ No need ☐

Question

Part I: *Personal particulars:*

Name (Optional) ....

Country: .... Office: ....

Title: .... Duration you have worked with the institution: ....

Are your job responsibilities related to forestry management or conservation? Yes /No

Part II: Timber traceability

Is there any timber trade traceability system currently implemented in your country?

Yes ☐   **No** ☐

 If Yes,
1. What timber trade traceability systems are currently in place? (Please elaborate covering products, supply chain, locations, institutions, etc.)
2. Could you briefly explain how the system operates?
 (Important hints: What documents are required to allow the trade? Are they recorded in the traceability

system? Are they validated by an authorised person? If so who and from what agency? What form are they recorded (number, photo, etc.?)

Is there any material written about the system? (Yes / No) ☐

Can you share? ☐ (Yes / No)

3. Is the system manually operated, digitally or a mix?
4. Where are the servers located if the system is a digital system?
5. For how long have you (your country/agency) been using the current system?
6. Can you tell us the strength of the system?
7. Are there any challenges or gaps with the current system that is being used for timber trade traceability?
8. Who introduced the system?
9. Do you have any suggestions for the improvement of the system? Can you elaborate, please?

If No,

1. Were there any pilots of the timber trade traceability system before?
2. How many systems were piloted before?
3. Can you elaborate or share information on any of these pilots?
4. Who introduced the systems?
5. What were the challenges with the piloted system?
6. Was there political support to establish or pilot those systems?
7. Are there any plans or initiatives to introduce a timber traceability system in your country?
a. If yes,
   i. when will it be initiated or piloted?
   ii. Where will it be implemented or piloted
   iii. and by whom?

ANNEX II(b):
GUIDING QUESTIONS FOR CONSULTATIONS (FRENCH VERSION)

Questions indicatives pour explorer l'expérience des initiatives de suivi/traçabilité des bois dans les pays du Bassin du Congo

Contexte

TRAFFIC[16] est la principale organisation non gouvernementale travaillant au niveau mondial sur le commerce des espèces animales et végétales sauvages dans le contexte de la conservation de la biodiversité et du développement durable, avec une mission de veiller à ce que ce commerce ne constitue pas une menace pour la conservation de la nature.

TRAFFIC est en train de compiler et d'analyser les approches de traçabilité[17] du commerce du bois, utilisées par les pays du Bassin du Congo, afin de recueillir les leçons apprises, d'identifier les lacunes et les défis, et de fournir des recommandations sur les meilleures approches. Ce travail est co-financé par l'Agence Norvégienne de Développement (NORAD) et le projet ReTTA (*Reducing Trade Threats to Africa's wild species and ecosystems* entendez 'Réduire les menaces commerciales pesant sur les espèces sauvages et les écosystèmes d'Afrique') financé par Arcadia, un fonds caritatif de Lisbet Rausing et Peter Baldwin.

TRAFFIC préparera un bref rapport qui sera partagé et validé avec les agences gouvernementales dans les pays respectifs. Le rapport ne sera pas publié mais sera utilisé pour informer les interventions futures et soutenir les activités de l'organisation.

Consentement

Votre participation à cette évaluation est volontaire et toutes les informations que vous allez fournir seront utilisées uniquement pour cette les besoins de cette évaluation. Veuillez indiquer si vous souhaitez ou non que votre contribution soit traitée de manière anonyme.

Traiter ma contribution de manière anonym (*Veuillez cocher la case correspondante*):
Oui, traitez-moi anonymement ☐ Pas besoin ☐

Questions

Partie I : Informations personnelles

Noms (facultatif) :...

Pays :.. Agence :...

Titre :.. Durée de votre travail avec l'institution : ....

Les responsabilités de votre poste sont-elles liées à la gestion ou à la conservation des forêts ?

Oui /Non

Partie II : Traçabilité du bois
Existe-t-il un système de traçabilité du commerce du bois actuellement mis en œuvre dans votre pays

Oui ☐ **Non** ☐

Si c'est Oui,
1. Quels systèmes de traçabilité du commerce du bois sont actuellement en place ? (Veuillez donner des précisions sur les produits, la chaîne d'approvisionnement, les lieux, les institutions, etc.)
2. Pouvez-vous expliquer brièvement le fonctionnement du système ? (Considérations importantes : Quels documents sont nécessaires pour autoriser la transaction ? Sont-ils enregistrés dans le système de traçabilité ? Sont-ils validés par une personne autorisée ? Si oui, qui et de quelle instance ? Sous quelle forme sont-ils enregistrés (numéro, photo, etc.) ?

3. Existe-t-il des documents écrits sur le système?(Oui/Non)\\\\\\\\\\
   Pouvez-vous partager ? (Oui / Non) ☐

4. Le système est-il opérationnel manuellement, numériquement ou mixte ?
5. Où sont logés les serveurs si le système est numérique ?
6. Depuis combien de temps utilisez-vous (votre pays/agence) le système actuel ?
7. Pouvez-vous nous dire quelle est la fiabilité du système ?
8. Y a-t-il des défis ou des lacunes dans le système actuel utilisé pour la traçabilité du commerce du bois ?
9. Qui a introduit le système ?
10. Avez-vous des suggestions pour l'amélioration de ce système ? Pouvez-vous développer davantage ?

Si c'est Non,

1. Y a-t-il déjà eu des système pilotes de traçabilité du commerce du bois avant ?
2. Combien de systèmes ont été testés auparavant ?
3. Pouvez-vous élaborer davantage ou partager des informations sur l'un de ces systèmes pilotes ?
4. Qui a introduit ces systèmes ?
5. Quelles ont été les difficultés rencontrées avec les systèmes testés ?
6. Y a-t-il eu un soutien politique pour établir ou tester ces systèmes ?
7. Existe-t-il des plans ou des initiatives visant à introduire un système de traçabilité du bois dans votre pays ?
a. Si oui
   i. Quand sera-t-il initié ou testé ?
   ii. Où sera-t-il mis en œuvre ou testé ?
   iii. Et par qui ?

ANNEX III:
LIST OF STAKEHOLDERS CONSULTED DURING THE ASSESSMENT

Title	Agency/ Organisation	Government or NGO institution	Country
Director of Forest	MINFOF	Government	Cameroon
Head of the Division for Co-operation and Programming (DCP)	MINFOF	Government	Cameroon
Head of the National Brigade of Control and Anti-Poaching Operations	MINFOF	Government	Cameroon
Cooperation Unit Head	MINFOF	Government	Cameroon
Programming and Projects Unit (CPP) Head	MINFOF	Government	Cameroon
Head of Standards Service	MINFOF	Government	Cameroon
Service Head within SIGIF	MINFOF	Government	Cameroon
Officer in the CPP	MINFOF	Government	Cameroon
Controller N° 2	MINFOF	Government	Cameroon
Focal Point for TRAFFIC	MINFOF	Government	Cameroon
Officer in the DCP	MINFOF	Government	Cameroon
SIGIF2 Unit Head	MINFOF	Government	Cameroon
Officer in the SIGIF2 Unit	MINFOF	Government	Cameroon
Sub-Director of Forest Inventory and Management	MINFOF	Government	Cameroon
FGMC Interventions Coordinator	UK-FCDO Programme	PTF	Cameroon
Environmental and Natural Resources Focal Person	Agricultural and Environment Team, EU Delegation	TFP	Cameroon
Senior Project Officer	Forêts et Développement Rural (FODER)	NGO	Cameroon
Forestry Governance Expert	COMIFAC	Intergovernmental Institution	Congo Basin
Executive Secretary	COMIFAC	Intergovernmental Institution	Congo Basin
ICT Manager	TFS	Government	Tanzania
National Coordinator, Forest Legality and Traceability Unit	MEF	Government	Congo
Director General	ACFAP	Government	Congo
Director for Cooperation and IGAs	ACFAP	Government	Congo
National Coordinator	USFS National Office	TFP	Congo
Director General	AEAFFB	Government	Gabon
Congo Basin Coordinator	EIA-US	NGO	Gabon
President	Pan African Forest Certification	Mixed network	Gabon
Technical Advisor	OGF	NGO	DRC
VPA-FLEGT Permanent Technical Secretary	MEFCP	Government	CAR
Chief of Service	MAG-Boma	Government	Equatorial Guinea

ANNEX IV:
INFORMATION MATRIX STRUCTURE (ENGLISH VERSION)

Background:

TRAFFIC is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development with a mission of ensuring trade in wild plants and animals is not a threat to the conservation of nature.

TRAFFIC is currently compiling and analysing the timber trade traceability approaches used by the Congo Basin countries, to collect lessons, identify gaps and challenges, and provide recommendations on the best approaches.

This assignment is co-supported by NORAD and the Reducing Trade Threats to Africa's wild species and ecosystems (ReTTA) project funded by Arcadia—a charitable fund of Lisbet Rausing and Peter Baldwin.

Definitions of terms:

Traceability

FAO defines traceability as the ability to discern, identify and follow the movement of a product through all stages of production, processing and distribution.

It is simply referred as an ability to track a product (timber products in this case, e.g. logs, sawn timber, plywood, veneers, mouldings, etc.) from harvest to the market/destination.

Mandatory versus Voluntary traceability systems

(According to https://www.worldwildlife.org/pages/tnrc-topic-brief-traceability-systems-potential-tools-to-deter-illegality-and-corruption-in-the-timber-and-fish-sectors)

Mandatory traceability systems are legally required by governments, and may or may not apply to all timber products along the entire supply chain.

Voluntary traceability systems are operated by private businesses whose users are often located toward the end of supply chains in consumer countries, and most cases optional not obligatory.

Country *(select options)*	
Is there any traceability system available or being piloted? *(Select option)*	
Give the name of the system if it has an official name	
Category (Mandatory or Voluntary) *(Select option)*	
What is its operation status? *(Select option)*	
When was it implemented? *(Fill in details)*	
System type *(Manual, Digital or a Mix)*	
What devices are used in the system? *(Mobile phones, Point of Sale device, Desktop computers, Laptops, GPS etc)*	
How many checkpoints exist in total in the country?	
How many offices or checkpoints use the system?	
What are the hosting arrangements for the system? *(By Government or private firm)*	
Who are the main custodians of the system? *(Agencies, Institutions, Community, Private Sector, NGO's), Can you briefly describe their roles?*	
What type of data is captured through the system?	
What segment of the supply chain is covered by the system? *(harvest (e.g., stump to log pond or forest license boundary), transportation (e.g., forest boundary to first point of processing), processing (e.g., sawmill to export or further processing), import (e.g., Customs to sawmill), export (e.g., processing to customs, stump to customs), consumption)*	
What are the advantages and value from using the system?	
What are the challenges so far on implementation of the system?	
Suggestions to improve the system	
Other additional information *(e.g., Who introduced the system, who supported its development, any deployment and implementation partners…?)*	
Supporting documents and links to online resources	

Traceability system matrix form

Background

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Mandatory versus Voluntary traceability systems (According to https://www.worldwildlife.org/pages/tnrc-topic-brief-traceability-systems-potential-tools-to-deter-illegality-and-corruption-in-the-timber-and-fish-sectors)

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Voluntary traceability systems are operated by private businesses whose users are often located toward the end of supply chains in consumer countries, and most cases optional not obligatory.

Country *(select options)*	Is there any traceability system available or being piloted? *(Select option)*	Give the name of the system if it has an official name	Category (Mandatory or Voluntary) *(select option)*	What is it's operation status? *(select option)*	When was it implemented? *(Fill in details)*	System type (Manual, Digital or a Mix)	What devices are used in the system? (Mobile phones, Point of Sale device, Desktop computers, Laptops, GPS etc)	How many checkpoints exist in total in the country?	How many offices or checkpoints use the system?	What are the hosting arrangements for the system? (Agencies, Institutions, Community, Private Sector, NGO's), Can you briefly describe their roles?	Who are the main custodian of the system through the system?	What type of data is captured by the system? (harvest (e.g. stump to log pond or forest license boundary), transportation (e.g. forest boundary to first point of processing, processing (e.g. sawmill to export or further processing), import (e.g. Customs to sawmill), export (e.g. processing to customs, stump to customs), consumption)	What segment of the supply chain is covered by the system?	What are the advantages and value from using the system?	What are the challenges so far on implementation of the system?	Suggestions to improve the system	Other additional information (Who introduced the system, who supported its development, any deployment and implementation partners…?)	Supporting documents and links to online resources

ANNEX V:
LIST OF CAF TIMBER TRACKER WORKSHOP PARTICIPANTS

N°	Sex	Function	Organisation	Locality
1	M	Executive Secretary (SE)	COMIFAC	Yaounde, Cameroon
2	M	Programme Office Director	TRAFFIC	Yaounde, Cameroon
3	M	Secretaire Technique Permanent	APV-FLEGT, MEF-CP	Bangui, CAR
4	M	Programme Support Officer – Timber Trade	TRAFFIC	Yaounde, Cameroon
5	F	Chargé de Projet	FODER	Yaounde, Cameroon
6	M	Technical Advisor	OGF	Kinshasa, DRC
7	M	Congo Basin Coordinator	EIA/US	Yaounde, Cameroon
8	M	Forest and Environmental Governance Expert	COMIFAC	Yaounde, Cameroon
9	M	Forest Exploitation Service Head	MAEFE	Boma, Equatorial Guinea
	M	Research Officer	TRAFFIC	Yaounde, Cameroon
11	M	Mechanic – Driver	TRAFFIC	Yaounde, Cameroon
12	M	SD Forest Inventory and Management	MINFOF	Yaounde, Cameroon
13	M	Coordinator	CELT, IGEF, MEF	Brazzaville, Congo
14	F	Admin and Project Support Assistant	TRAFFIC	Yaounde, Cameroon
15	F	Data Entry Assistant, TRAFFIC	TRAFFIC	Yaounde, Cameroon
16	M	Driver and Logistic Assistant, TRAFFIC	TRAFFIC	Yaounde, Cameroon
17	M	Manager - ICT & Statistics	TFS	Dar es Salaam, Tanzania

Forest at sunset, East Region, Cameroon
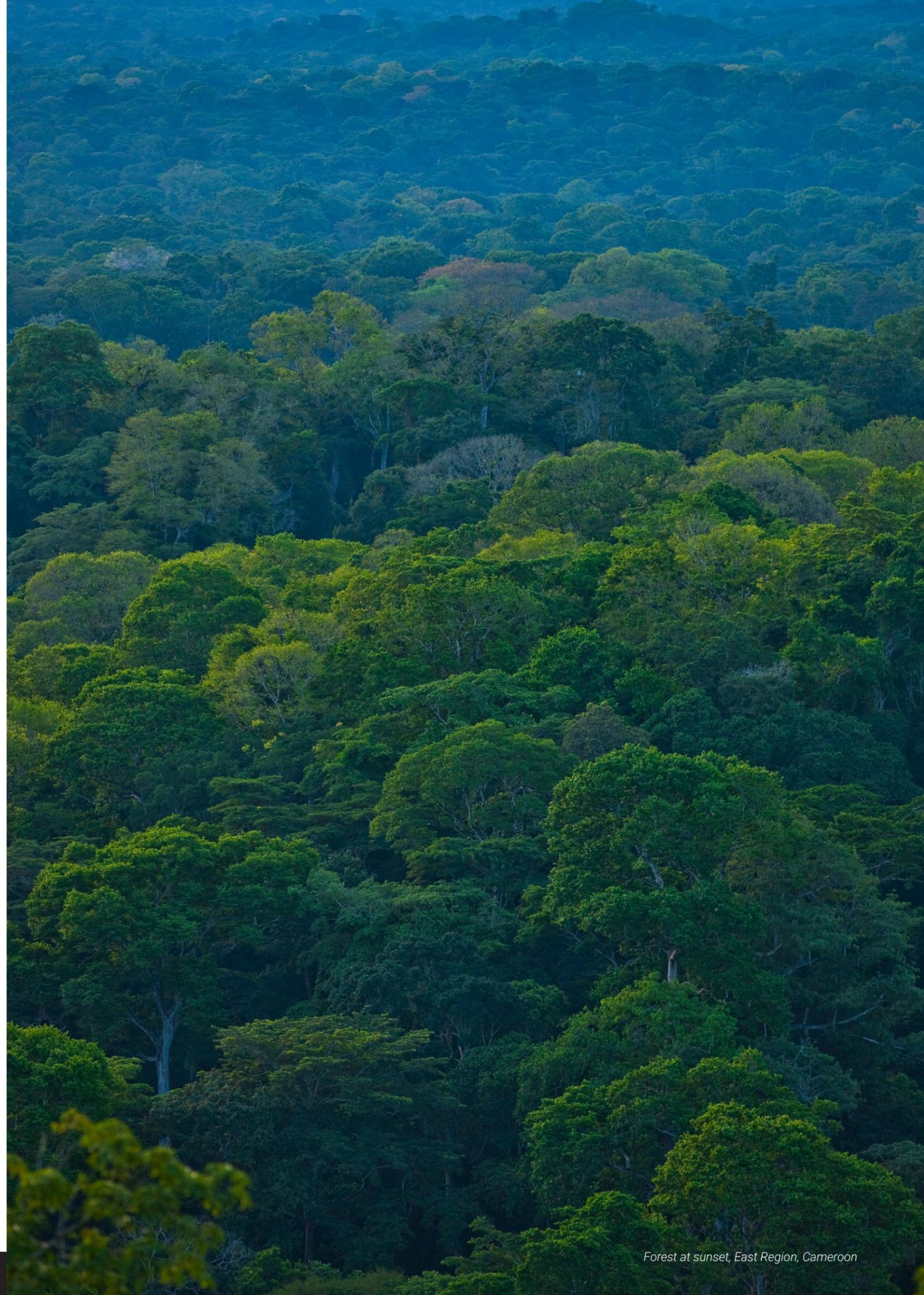
TRAFFIC is a leading non-governmental organisation working to ensure that trade in wild species is legal and sustainable, for the benefit of the planet and people.

For further information contact:
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Yaounde, Cameroon, PoBox 5506

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