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par

Anthony BAIDOO

Forest politics in the context of Global China: Essays on Chinese presence in Ghana's rosewood sector

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List of Acro Acronyms

CBD- Convention on Biological Diversity

CEO-Chief Executive Officer

CSOs-Civil Society Organizations

EC-European Commission

EUTR- European Union Timber Regulation

FLEG- Forest Law Enforcement and Governance

FLEGT- Forest Law Enforcement, Governance and Trade

FLEGT-Forest Law Enforcement Governance and Trade

FSD-Forest Service Division

GRA-Ghana Revenue Authority

GWTS-Ghana Wood Tracking System

ITTA- International Tropical Timber Agreement

IUCN-International Union for the Conservation of Nature

LC-Letter of credit

LMCC-Log Measure Conveyance Certificate

NAM- Non-Aligned Movement

NFPs-National Forest Programmes

NIEO- New International Economic Order

OECD-Economic Co-operation and Development

REDD+ - Reduce emissions from deforestation and forest degradation

SDGs-Sustainable Development Goals

TIDD- Timber Industry Department Division

TLAS-Timber Legality Assurance System

TVD -Timber Validation Department

UENR- University of Energy and Natural Resources

UNCED- United Nations Conference on Environment and Development

VAT -Value-added Tax

VPA -Voluntary Partnership Agreement

WD-Wildlife Division

WWF – World Wildlife Fund

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Personal motivation and acknowledgements

As a ten-year-old boy growing up with my grandparents in a small village in the Eastern region of Ghana in the nineties, I was exposed to labour work very early in life as I had to follow my grandparents to the farm. I was given a portion of land to cultivate vegetables. Most of the time, I was also made to collect firewood which I carried back home after the day's work. Thinking through my life back then as a young boy, one thing was clear to me, I could not remain on the farm forever in my life. I, therefore, resented the idea of going to the farm always, yet there was little I could do about it because that was the only option for me at the time.

On one Good Friday, my biological mother who was then in Accra, the capital city of Ghana visited us in the village. Her visit then meant that I was to enrol in school since her parent could not afford to put me in school. And this was the beginning of my academic journey. My resentment for the farm life meant to me that I needed to give my all to studying even at a young age. This I did religiously making me one of the best students throughout my academic journey. It was as if I had read Nelson Mandela's quote on education which goes *"Education is the great engine of personal development. It is through education that the daughter of a peasant can become a doctor, that the son of a mine worker can become the head of the mine, and that a child of farmworkers can become the president of a great nation. It is what we make out of what we have, not what we are given, that separates one person from another."*

The understanding of the value of education from the outset has been with me to date. I have had several financial challenges in my academic journey but I would not give up its pursuit. After my secondary school education, I had to pause and work for three years to raise money for my university education. The money I saved served as seed money upon which I received support from other benevolent individuals like Rev. Canon Samuel Lamptey. Today, my long-standing persuasion about the power of education has become a reality as through education, I am now gainfully employed at at University of Energy and Natural Resources, Ghana as a Lecturer, helping several others to become academically empowered in the pursuit of their life dreams and aspirations.

With this firm-standing belief about the power of education, and in line with my career path as an academic, the pursuit of a PhD comes in for me not as a privilege but a necessity to become better placed and efficient in delivering my career mandate. The PhD offers me the opportunity to sharpen my academic skills in problem identification, undertakings in scientific research, the art of research publication, scientific communication, making a global scientific network for the future etc. Not only do these academic skills spell out an upward trajectory in my career path, but they also better equip me to become efficient and productive in delivering my career mandate as I seek to contribute my quota in making my community, country and the world a better place through my academic career. The financial reward, which comes from diligent work, will also help me to give my family a decent living.

I would like to acknowledge my Supervisors, Philippe Méral, PhD and Symphorien Ongolo, PhD for the rich contributions and support they continue to give me in line with this. Dr. Symphorien Ongolo, you deserve a special mention because this PhD journey began when we had not even met face to face. Through email exchanges, you supported me in writing an award-winning PhD proposal and coached me all through the interview to prepare to get into the aeroplane from Ghana to Europe for the first time in my life. You can be likened to Pep Guardiola, the Spanish Football Manager who has turned the football fortunes of the English Manchester City football side, making it the envy of many football clubs across the globe.

Throughout this PhD journey, I have personally interfaced with nationals from more than Twenty-five countries and travelled to five countries and still counting. I want to especially thank you Dr. Symphorien Ongolo for believing in me and supporting me all through this journey and even beyond.

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Thanks to my thesis monitoring committee members for their support and their keen interest in my academic and professional development. To you Prof. Dr. Grechen Walters, you not only served as a third Supervisor to me on this journey. You equally served as a mother who wants the best opportunities for his son and continued to introduce me to many useful opportunities relevant to this PhD pursuit and my professional development. To the thesis defense jury, Prof. Justice Bawole, Prof. Annah Lake Zhu, Prof. Emilie Dupuits, Prof. Catherine Tucker, and Prof. Gilles Massardier, thank you for a job well done.

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To my beloved mother, Prophetess Belinda Ohenewah Darko, your prayers have brought me this far and I do not take that for granted. God bless you, Mama. To you Rev. Canon Samuel Lanquaye Lamptey, God Bless you. To my sister Mrs. Leticia Baidoo Asiedu and brother-in-law, Prof. Berchie Asiedu, thank you.

To my beloved wife, Mrs. Ellen Baidoo, ChPA, thank you for all the support and love. You are a blessing to generations, my beloved wife. To my biological children Ohene Baidoo, Sompa Baidoo and Asempa Baidoo, thanks for releasing Daddy to travel in pursuit of a PhD. You will do more than what I have done, my biological Children. This is just the beginning and foundation of what my children are going to do in life and the great global impact they are going to make.

Thank you Holy Spirit, thank you, Father God. I do not take God's grace and favour for granted through all these. God I am grateful. THANK YOU.

Disciplinary approach

This study is mainly rooted in political science discipline through the mobilization of international relations and policy as sub-disciplines.

Political science is an academic field concerned with the study of government and political processes, institutions, and behaviours. Political science falls into the academic and research division known as the

social sciences with a major focus on the human dimensions of life (Peters et al., 2022; Almond, 1996; Rosenberg, 2016). The history of political science traces back to Greek political science, to the Roman centuries, and to the Middle Ages, then to the Renaissance and the Enlightenment, to the 19th century, and making groundbreaking strides in the 20th century when political science assumed a professional status with its commensurate characteristics (Almond, 1996). The history of political science has been progressive, as depicted in the quantity of knowledge and also quality, taking into account both insight and rigour (Almond, 1996). Just like any other scholarship, the main thrust of political science is the creation of knowledge defined as inferences or generalizations about politics which stem from evidence (Almond, 1996).

Postwar and Cold War resulted in a growth in academic enterprise. This brought about rapid expansion in the curriculum of political science and departmental faculties of higher education. This phenomenon birthed international relations, political economy, public opinion (which feeds into public policy) etc. as subdisciplines under political science (Rosenberg, 2016; Almond, 1996). University of Chicago School of Political Science and the University of Michigan Institute of Social Research have played leading roles in the scientific revolution of political science. As the former featured prominently in the inter-war decades, the latter engineered the spread of the political science culture in the post-World War II decades into major academic centres in the United States and abroad (Almond, 1996).

International relations is a subfield of political science (Rosenberg, 2016). It is an offshoot of World War II when there was a rapid spread of political science departments and curricula in the USA which started academic collaborations in this area and the transfer of knowledge and expertise (Almond, 1996). International relations is defined as the study of strategic diplomatic relations of states with a focus on war, peace, conflict and cooperation. It is viewed to be related to the cross-border transactions of all kinds, political, economic and social between states (Brown & Ainley, 2009).

The concentration of international relations hinges on statehood because of the element of sovereignty associated with it. Because international relations must be devoid of formal control of one state over another (Brown & Ainley, 2009). International relations have been in force for over a century (Rosenberg, 2016) as different states have been relating with each other, however, the theorists of globalization contend that different national states are relating to each other on a wider range of issues in recent times (Brown & Ainley, 2009). This closely knitted global system has emerged on the back of new technologies that have created the Internet and the twenty-four-hour stock market (Brown & Ainley, 2009).

Public policy as a subdivision of political science is concerned with the consolidation of public opinion on matters that border on institutional, power and administrative elements. It answers the fundamental question of "who gets what", (Peters et al., 2022) which by extension stretches into the laid down rules and regulations governing public entities. Policy can be viewed from the realm of the environment, the distribution of power, prevailing ideas, institutional frameworks and the process of decision-making (Simeon, 1976). Three dimensions of policy feature prominently in political science. First is the scope of government policy, which deals with the aspects of social and economic life in the society on which government make decisions. Second, is the means through which government ensures approval or compliance with their decisions. Third is the distributive dimensions of how the costs and benefits of government activities are distributed among members of the society (Simeon, 1976).

Political economy as a subfield of political science is concerned with the analysis of the allocation of scarce resources among competing ends, individuals, groups and classes (Boyce, 2002). An analysis of the political economy of the environment shall pose three basic questions (Boyce, 2002):

- Who wins? Who benefits from economic activities that degrade the environment?
- Who loses? Who is harmed by environmentally degrading activities?
- Who decides? Why can the beneficiaries of these activities impose environmental costs on the people who are harmed by them?

This PhD study is rooted in international relations as it concentrated on the trade relationship between Ghana and China, two sovereign states with trade relationships dating back to the 20th Century. This study scrutinizes the various institutional arrangements responsible for supervising and streamlining the trade. Special attention is paid to the power dynamics between the various institutional arrangements and actors who were involved in this trade. This study also through the mobilization of public policy a subfield of political science zero in on the overarching forest policy debate of illegal logging, sustainable forest management and the relationship between global forest politics and local forestry dynamics.

The major discipline of this PhD is political science with a focus on International Forest Policy.

INTRODUCTION GÉNÉRALE

Contexte et motivation

Le rôle des forêts est mondialement connu et apprécié. Elles fournissent à l'homme et à la nature des services et des biens écosystémiques utiles, à l'échelle locale comme à l'échelle mondiale. Ces services comprennent la conservation de la biodiversité, l'atténuation du changement climatique, la protection de l'eau, l'alimentation et l'énergie, le bois et d'autres matières premières pour les industries forestières et les chaînes de valeur de la bioéconomie (Sotirov et al. 2020 ; Assessment, 2001). Les forêts couvrent environ 30 % des terres émergées de la planète (Sotirov et al. 2020). Les objectifs de développement durable (ODD) de l'Organisation des Nations unies (ONU) confirment l'importance de la contribution des forêts à la quasi-totalité d'entre eux. Plus précisément, les forêts sont visées par l'ODD 15 « Protéger, restaurer et promouvoir l'utilisation durable des écosystèmes terrestres, gérer durablement les forêts, lutter contre la désertification, enrayer et inverser le processus de dégradation des terres et enrayer l'appauvrissement de la diversité biologique » (Swamy et al., 2018).

La gouvernance est un terme étroitement lié aux gouvernements pour exprimer la manière dont les questions politiques sont traitées. La gouvernance est une émanation de la compétence managériale ou technocratique et représente également la prise de décision coopérative et consensuelle (Rose-Ackerman, 2017). Au cœur du discours sur la gouvernance se trouvent les questions de l'internationalisation, de la défaillance de l'État, de la libéralisation du marché, de la décentralisation, de l'individualisation, de l'ancien paradigme du haut vers le bas, du commandement et du contrôle, et des approches dirigées par l'État (Pierre, 2000). La gouvernance forestière mondiale fait référence aux multiples initiatives traitant des forêts et des questions forestières au sens large (Begemann et al., 2021).

L'importance des forêts est reconnue au niveau mondial. De nouveaux discours - y compris de nouvelles significations attachées à d'anciens concepts - ont émergé dans la politique forestière mondiale au cours des trois dernières décennies : biodiversité, gestion durable des forêts et gouvernance privée (Arts & Buizer, 2009 ; Humphreys, 2008). Le rôle des forêts dans la séquestration et la fixation des gaz à effet de serre comme moyen de contrôler le changement climatique a donné lieu à divers débats en faveur de la conservation des forêts et des compensations pour les pays riches en forêts (Humphreys, 2008). Même si de nouveaux concepts et de nouvelles significations sont apparus au cours de la dernière décennie dans les politiques forestières mondiales, il est généralement admis que ces politiques n'ont pas été efficaces car la déforestation à grande échelle persiste à l'échelle mondiale (Sotirov et al. 2020 ; Arts & Buizer, 2009).

Humphreys (2010) utilise indifféremment les termes « politique forestière mondiale » ou « politique forestière internationale » pour désigner les diverses initiatives internationales visant à faire de la déforestation un enjeu politique international en s'appuyant sur la conservation et la gestion durable des forêts. Les termes « politique forestière mondiale » et « politique forestière internationale » basés sur le postulat ci-dessus sont utilisés de manière interchangeable dans le présent document. Les questions de gouvernance forestière mondiale ont été en grande partie un conflit entre les préoccupations environnementales du Nord et les préoccupations économiques du Sud (Humphreys, 1996 ; Humphreys, 2008).

La déforestation et la dégradation des forêts sont les deux plus grandes menaces environnementales mondiales qui affectent les moyens de vie de milliards de personnes et le changement climatique (FAO, 2018 ; Fischer et al., 2020). Afin de proposer des solutions et de gérer efficacement les défis environnementaux et sociaux interconnectés dans le monde entier concernant les forêts, une myriade d'initiatives et d'institutions de politique forestière mondiale ont évolué au cours des trois dernières décennies (Cashore et al., 2004 ; Rodriguez Fernandez-Blanco et al., 2019 ; Sotirov et al., 2020).

Brève trajectoire historique de la politique forestière internationale

Il existe un discours forestier mondial sur les moyens de gérer durablement les forêts (Dimitrov, 2005 ; Cashore et al., 2004 ; Sotirov et al., 2020). Les deux idées qui dictent le rythme de ces discussions internationales sur la politique forestière sont les préoccupations de l'Occident en matière de conservation des forêts et les préoccupations du Sud en matière de rétribution financière (Humphreys, 2008 ; Humphreys, 1996). Il est clair que la gestion des forêts mondiales doit être une responsabilité partagée entre les pays industrialisés et les pays en voie de développement (Nations Unies 2005).

La publication du rapport Brundtland, « *our common future* » « Notre avenir à tous », a rendu le concept de développement durable de plus en plus populaire à la fin des années 1980 et au début des années 1990. Le développement durable a commencé par une notion de « rendement soutenu » pour équilibrer les besoins humains en produits forestiers et la capacité de production de la forêt (« la récolte est égale à la croissance de la biomasse ») (Wiersum, 1999). La Commission Brundtland a défini le développement durable comme un moyen de trouver un équilibre commun entre l'économie et l'écologie. En termes plus spécifiques. Cette idée, dans le débat international sur les politiques forestières, propose une voie future pour les forêts mondiales où les ressources forestières peuvent être gérées efficacement pour les besoins actuels et futurs.

Humphreys (2008) affirme que la politique forestière internationale est profondément enracinée dans les préoccupations internationales concernant le climat anthropique et la déforestation. Il ajoute que le discours sur la politique forestière internationale s'inscrit également dans le cadre du débat sur l'économie de l'environnement, où les compromis auxquels on renonce en commercialisant les produits de la forêt devraient apporter une compensation financière aux propriétaires qui les préservent. La stratégie du discours international sur les politiques forestières des années 1990 est considérée comme la sœur de la stratégie du Nouvel ordre économique international (NOEI) des années 1970 (Humphreys, 2008). La stratégie du NIEO a été menée par le Mouvement des pays non alignés (NAM) et le groupe des pays en développement aux Nations Unies, le Groupe des 77 (G77). Le G77 et le Mouvement des pays non alignés ont cherché, par le biais de l'idéologie de la NIEO, à tirer parti du contrôle et de la propriété des ressources naturelles des pays en développement pour négocier et faire pression sur les demandes économiques des pays développés (Humphreys, 2008).

La Conférence des Nations unies sur l'environnement et le développement (CNUED), qui s'est tenue à Rio de Janeiro en 1992, a marqué le début d'une nouvelle phase dans les relations Nord-Sud en ce qui concerne la politique forestière internationale. Le projet d'inscrire les négociations sur une convention forestière à l'ordre du jour du sommet de Rio s'est heurté à une forte opposition et, dans un premier temps, à de fortes dissensions entre les gouvernements quant à la nécessité d'un tel traité. Alors que les États-Unis, le Canada et les pays européens ont mis l'accent sur le principe de la responsabilité mondiale en matière de préservation des forêts (Dimitrov, 2005), les pays en développement ont insisté sur le droit d'utiliser les ressources naturelles (Dimitrov, 2005). Pour eux, les réglementations internationales proposées sont un

moyen de restreindre leurs droits commerciaux : un traité limiterait leurs exportations de bois et/ou les obligerait à s'engager dans une gestion durable des forêts qui rendrait l'exploitation plus coûteuse (Dimitrov, 2005).

Lors du sommet de Rio, le G77 a notamment négocié les éléments suivants : un fonds forestier mondial et des transferts de technologie pour aider les pays en développement à gérer leurs forêts de manière durable (Humphreys, 2008). Le concept sous-jacent à ces négociations menées par le G77 sous l'égide de la Malaisie était le principe des « responsabilités communes mais différenciées ». Le message clé de ce concept était que la responsabilité de la conservation des forêts tropicales ne devait pas incomber uniquement au Sud, mais aussi au Nord, qui est un grand consommateur de produits forestiers tropicaux (Humphreys, 2008).

Dans le sillage d'une prise de conscience internationale accrue des questions de durabilité mondiale, dont la déforestation et la dégradation des forêts sont un élément clé, il y a eu différents arrangements internationaux en matière de gouvernance et de politique forestière, les IFGA (Sotirov, 2020). La classification des AGFI en fonction du caractère de l'autorité juridique fait apparaître deux grandes catégories, à savoir les initiatives juridiquement contraignantes et les initiatives non juridiquement contraignantes (Sotirov, 2020). Des exemples d'AGFI juridiquement contraignantes sont la Convention forestière mondiale, l'Accord sur les bois tropicaux, la Convention des Nations Unies sur la diversité biologique et la Convention-cadre des Nations Unies sur les changements climatiques. L'arrangement international sur les forêts est un exemple d'AGFI non juridiquement contraignant. Entre les accords juridiquement contraignants et les accords non juridiquement contraignants, on trouve des accords de gouvernance réglementaire hybrides, par exemple le Forest Law Enforcement Governance and Trade (FLEGT) (L'application des réglementations forestières, la gouvernance et le commerce) et le Reducing Emissions from Deforestation and forest Degradation (REDD+) (Réduction des émissions dues à la déforestation et à la dégradation des forêts) (Sotirov, 2020).

La conférence de Rio n'a produit que la Déclaration de principes, non juridiquement contraignante, pour un consensus mondial sur la gestion, la conservation et le développement durable de tous les types de forêts (Dimitrov, 2005). Par conséquent, après un processus de négociation fastidieux, la Convention-cadre sur la diversité biologique a été adoptée en 1992 à Rio de Janeiro. Ce cadre visait à conserver la biodiversité dans le monde entier, à l'utiliser de manière durable et à en partager les bénéfices de manière équitable. La biodiversité est aujourd'hui comprise de manière plus large et intégrée et inclut la diversité des gènes des espèces et de leur habitat (Arts & Buizer, 2009).

Les approches susmentionnées sont largement considérées comme présentant de nombreux défis, ouvrant la voie à de nouvelles formes de gouvernance multi-acteurs et multi-niveaux et à de nouveaux types d'instruments politiques tels que les accords de type réseau d'acteurs publics et privés, l'autorégulation par les organisations de marché, les partenariats public-privé, les systèmes d'échange de quotas d'émission, les programmes de certification, etc. (Pierre, 2000 ; Bendell, 2000 ; Glasbergen et al., 2007). La foresterie communautaire, les partenariats entre les ONG et les entreprises, les accords volontaires et les programmes de certification sont des dispositifs de gouvernance relativement nouveaux dans la foresterie mondiale et la politique forestière (Arts & Buizer, 2009).

Les gouvernements jouent désormais un rôle actif dans les partenariats et les programmes de certification. Les gouvernements ont également reformulé le débat de la durabilité à la légalité dans les initiatives FLEG (Forest Law Enforcement and Governance). La gouvernance et les autres parties prenantes reconnaissent que la gouvernance privée ne peut à elle seule assurer la durabilité à grande échelle (Glasbergen et al., 2007). Il existe donc des approches gouvernementales mixtes, des ONG et des entreprises à la recherche de

la durabilité et de la légalité dans la foresterie mondiale, la transformation du bois et le commerce du bois, ce qui entraîne une hybridation du gouvernement et de la gouvernance dans la politique forestière mondiale (Arts et Leroy, 2006). La dynamique de la politique forestière internationale dans le domaine de la gouvernance s'est accompagnée d'une législation, d'une élaboration de règles et d'approches de contrôle de la conformité, tant au niveau national qu'international. Les gouvernements ont introduit des règles volontaires, et le marché et la société civile ont établi des règles privées (Meidinger, 2002).

Le pouvoir a été involontairement un élément clé des différents discours, de la formation de coalitions et de l'élaboration de règles dans la politique forestière mondiale. L'émergence du pouvoir des entités non étatiques par rapport à celui des Etats est l'une des principales caractéristiques de ces discours, de la formation de coalitions et de l'élaboration de règles dans la politique forestière mondiale. Par exemple, les organisations de conservation de la nature telles que l'UICN et le WWF ont encadré les discours sur la biodiversité et la durabilité et ont influencé la Convention sur la diversité biologique du PNUE (Arts & Buizer, 2009 ; Dimitrov, 2005)). Les ONG exercent un pouvoir d'influence politique : la mesure dans laquelle les ONG peuvent influencer la prise de décision politique par les États. (Pierre, 2000).

La question de la convention mondiale sur les forêts

L'absence d'un traité mondial juridiquement contraignant sur les forêts peut être attribuée à plusieurs facteurs qui vont à l'encontre de la coordination des politiques internationales en matière de gestion forestière (Sotirov, 2020). Cette situation est largement due à l'incapacité du Nord et du Sud à trouver un terrain d'entente en ce qui concerne les engagements en faveur de la conservation des forêts tropicales. Le Nord n'est pas encore prêt à répondre à toutes les exigences économiques du Sud en matière de conservation des forêts (Humphreys, 2008). La politique forestière mondiale est contrôlée par les principes néolibéraux du capitalisme et du libre-échange qui ont alimenté l'exploitation forestière. (Dauvergne, 2001 ; Humphreys, 2003 ; Lipschutz 2001). Le néolibéralisme avance l'idée qu'un bien public commun peut être réalisé par des mesures volontaires et des politiques fondées sur le marché, et pas nécessairement par le pouvoir législatif de l'État ou la réglementation par des instruments exécutifs du gouvernement. (Harvey, 2005 ; Humphreys, 2009)

Le néolibéralisme prône une réduction du rôle de l'État dans la gestion des ressources et un renforcement du rôle du secteur privé (Saad-Filho et Johnston, 2005). Cette perspective néolibérale de la politique forestière mondiale encourage certains acteurs forestiers à piller les forêts de leur bois, ce qui se fait le plus souvent de manière illégale. Il est donc nécessaire de repenser le néolibéralisme dans la politique forestière mondiale.

La gouvernance forestière mondiale a été décrite comme étant fragmentée et fortement influencée par certaines politiques clés. Les politiques climatiques internationales, y compris REDD+, et les efforts mondiaux de lutte contre le commerce du bois d'origine illégale en sont des exemples classiques (Begemann et al., 2021 ; Singer et Giessen, 2017 ; Cadman et al., 2017 ; Leipold et al., 2016). Aux niveaux national et local, ces fragmentations sont le résultat d'intérêts concurrents de divers acteurs, de manœuvres de pouvoir de l'État, de l'hégémonie de la bureaucratie de l'État dans l'administration forestière, etc. (Ongolo, 2015). Dans l'ensemble, les initiatives de gouvernance forestière mondiale n'ont pas réussi à remplir leur mandat car, malgré la plupart des initiatives forestières mondiales, le problème de la dégradation des forêts persiste (Giessen, 2013 ; Sotirov et al., 2020). Parmi les autres explications avancées pour expliquer cette efficacité limitée figurent la demande croissante de ressources forestières (Winkel et al., 2019), les acteurs puissants qui bénéficient de l'exploitation continue des forêts, le rôle des normes néolibérales (Bull et al., 2018 ;

Dimitrov, 2005), l'attention insuffisante accordée aux dynamiques locales et nationales (Arts et al., 2016 ; Rayner et al., 2010), etc. En rapport avec l'argument ci-dessus, la Déclaration de New York sur les forêts, approuvée par les Nations unies, qui visait notamment à réduire de moitié la déforestation tropicale d'ici 2020, a récemment été déclarée un échec (Déclaration de New York sur les forêts, 2020).

Dans leur analyse et leur évaluation des orientations futures possibles de la gouvernance forestière mondiale, Begemann et al. (2021) ont établi une feuille de route pour la gouvernance forestière mondiale à l'horizon 2030. D'après leur étude, les États/gouvernements, le secteur privé, les multinationales, les investisseurs et l'agro-industrie seront, dans l'ordre, les cinq acteurs les plus influents qui façonneront et influenceront la gouvernance forestière mondiale d'ici 2030. En particulier, la Chine est mentionnée comme l'État qui se distinguera par sa capacité à influencer la gouvernance forestière mondiale d'ici à 2030. Les auteurs proposent donc que la coopération stratégique avec de nouveaux États puissants comme la Chine soit essentielle à l'avenir. Les résultats de l'étude révèlent en outre le rôle potentiellement puissant des politiques publiques dans le soutien à la gestion durable et à la conservation des forêts du monde, par opposition à une approche de laissez-faire mettant l'accent sur des marchés, des échanges et des investissements libres et inconditionnels (Humphreys, 2006, 2009). Ils affirment que l'établissement de règles par les États en toute confiance, en mettant l'accent sur le caractère de bien public des forêts ou de certaines de leurs propriétés (par exemple, la biodiversité, les impacts climatiques) par le biais du droit international et national, est une option pour revigorer la primauté des politiques.

Begemann et al. (2021) ont en outre révélé que l'importance des marchés informels, en particulier en Afrique, ne peut pas être minimisée par la gouvernance forestière mondiale en cours, car ils restent une masse critique avec un enjeu très important. Ils définissent les marchés informels au sens large comme toute personne opérant en dehors des cadres légaux actuels, normalement en dehors du paiement des taxes. La mise au point d'un moyen réaliste de prendre en compte les marchés et activités informels dans les initiatives de gouvernance forestière mondiale est essentielle si l'on veut obtenir des effets réels sur le terrain, sans criminaliser des pans entiers des communautés tributaires de la forêt. L'étude révèle également la nécessité pour les initiatives de gouvernance forestière d'intégrer la tenure et d'utiliser les droits des citoyens locaux, en particulier pour éviter les tensions entre les droits coutumiers traditionnels, les pratiques commerciales informelles courantes et l'intérêt du gouvernement à contrôler les ressources forestières pour le développement (futur) (Aggarwal et al. 2021).

La gouvernance et les politiques forestières mondiales qui font rage et qui en découlent ont eu leur dynamique locale dans les pays riches en bois, en particulier en Afrique (Begemann et al. 2021 ; Andong & Ongolo 2020). Pour certains de ces pays africains, les initiatives de gouvernance forestière mondiale sont perçues comme des interventions de politique étrangère et une tentative des acteurs occidentaux de restreindre leur souveraineté nationale en limitant leurs droits d'accès à leurs ressources. En utilisant l'étude de cas de l'Accord de partenariat volontaire européen sur l'application des réglementations forestières, la gouvernance et les échanges commerciaux (APV-FLEGT) au Cameroun, Andong & Ongolo (2020) examinent l'interaction entre les réformes de la gouvernance forestière mondiale et les politiques nationales en Afrique, en utilisant le Cameroun comme cas test à travers l'objectif de l'APV-FLEGT. L'étude met en évidence le fait que l'une des principales raisons susceptibles de conduire l'APV-FLEGT vers un échec programmé est la mauvaise connaissance et l'occultation du contexte socio-anthropologique des politiques de coopération entre le Cameroun et ses partenaires internationaux. Un phénomène qui illustre également les réalités du processus APV-FLEGT dans le Bassin du Congo.

L'étude d'Andong & Ongolo (2020) a également révélé que la majorité des acteurs locaux de la gouvernance forestière au Cameroun considèrent l'APV-FLEGT comme un symbole d'un nouveau mode de domination

occidentale dans la gouvernance des ressources forestières. Une observation intéressante faite par l'étude à travers le cas du Cameroun est que parfois les bureaucraties étatiques dans les contextes africains utilisent un ensemble de tactiques gouvernementales astucieuses pour éviter, transformer ou saboter les réformes politiques perçues comme imposées ou importées. Cette stratégie de ruse permet également à cette catégorie d'acteurs de « jouer le jeu » du changement dans la gouvernance étrangère tout en évitant habilement d'être « blâmés » en cas d'échec des réformes politiques importées au niveau national.

Au cœur des accords internationaux de gouvernance forestière se trouvent les moyens d'aborder la déforestation et la dégradation des forêts comme des questions de durabilité mondiale (Sotirov et al. 2020). Le rôle des forêts dans les transitions en matière de durabilité est de nouveau souligné par de nombreux programmes internationaux actuels en matière de durabilité. Les principaux sont les objectifs de développement durable par le biais des contributions aux services écosystémiques, des opportunités économiques vertes et des programmes de justice sociale et environnementale ; l'Accord de Paris sur le climat ; les objectifs d'Aichi en matière de biodiversité et le cadre mondial pour la biodiversité après 2020 ; le défi de Bonn qui vise à restaurer 350 millions d'hectares de terres dégradées dans le monde d'ici 2030 (Katila et al., 2019) ; et la Déclaration de New York. (Timko et al., 2018 ; Katila et al., 2019 ; Grassi et al., 2017 ; Butchart et al., 2015 ; Oldekop et al. 2020).

Bien que divers arrangements internationaux en matière de gouvernance et de politiques forestières (IFGA) aient été élaborés pour favoriser la protection et la gestion plus durable des forêts, on ne peut pas dire que ces IFGA aient été largement couronnés de succès en raison de leurs limites apparentes à résoudre efficacement les problèmes de la déforestation et de la dégradation des forêts qui persistent à des niveaux même élevés. En conséquence, la communauté mondiale n'est pas en mesure d'atteindre les objectifs de développement durable d'ici 2030 (Pokorny et al., 2019).

Les découvertes de l'étude de Sotirov et al. (2020) ont révélé d'importants défis au changement transformateur positif et à l'efficacité qui sont enracinés dans des incohérences majeures dans deux lieux politiques interdépendants : dans la conception, la mise en œuvre, l'influence, l'intégration et la coordination au sein des AGFI existantes et entre elles ; et dans les dispositions de gouvernance influentes et défavorables aux forêts à l'extérieur des AGFI. Leurs conclusions suggèrent un besoin important d'action globale pour une meilleure cohérence mutuelle, une influence plus ciblée, et une plus grande visibilité et exhaustivité des questions forestières dans les objectifs de développement durable, l'agenda des gouvernements et des acteurs non étatiques.

La mondialisation et le capitalisme dans la politique forestière internationale

Étroitement liées à la déforestation et à la dégradation des forêts, les principales questions au cœur des initiatives de gouvernance forestière mondiale sont la mondialisation et le capitalisme (Aldyan, 2020). Grâce aux principes de la mondialisation, les pays en développement, en particulier, s'ouvrent à l'aide et à la coopération avec des parties extérieures. Le néolibéralisme, amalgame de libéralisation, de dérégulation et de privatisation, est né de la crise des années 1970 pour faciliter la restructuration de la production avec la libre circulation, l'accumulation et la concentration du capital. Ces mesures ont permis de transférer le poids de la crise du centre vers la périphérie en délocalisant les technologies périmées vers les pays en développement, en vendant des produits obsolètes et en utilisant les bénéfices tirés de ces activités pour poursuivre le progrès technologique dans les pays du centre (Artner, 2020).

La présence d'investisseurs étrangers dans les pays en développement se traduit le plus souvent par des accords commerciaux. À l'ère de la mondialisation des forces de production, les intérêts individuels sont le

plus souvent subordonnés à l'ordre mondial de l'offre et de la demande. Cet afflux de capitaux financiers, qui s'appuie essentiellement sur les principes capitalistes de création de richesses, se fait parfois au détriment de l'environnement, en l'occurrence de la forêt (Aldyan, 2020).

La structure économique capitaliste est compétitive. La logique de l'accumulation mondiale du capital limite la possibilité de rattraper le retard dans le cadre du capitalisme contemporain (Artner, 2020). Le capitalisme affirme que la concurrence peut conduire à un processus de sélection naturelle, et que chaque individu peut atteindre le niveau de position qu'il est le plus à même d'occuper (Artner, 2020). Dans une économie capitaliste, les personnes qui possèdent du capital doivent être mieux placées que celles qui n'en ont pas.

La question de la mondialisation est le fer de lance de plusieurs formes de capitalisme dans les pays en développement, où les ressources naturelles telles que les forêts disparaissent rapidement parce que les investisseurs mondiaux injectent des capitaux dans les pays dans leur quête de commerce de ces ressources naturelles. Avec la désintégration de l'Union soviétique en 1991, les États-Unis sont restés la principale superpuissance sur la carte géopolitique, même si cet ordre est en train de changer avec la montée en puissance de la Chine mondiale. Le capitalisme triomphait dans ses aspects économiques, politiques et idéologiques, et le monde n'était pas protégé contre l'activité impérialiste mondiale de la triade dirigée par les États-Unis (Artner, 2020).

En relatant le cas de l'Indonésie face au mode capitaliste des investisseurs étrangers, Aldyan (2020) raconte comment les zones forestières en Indonésie ont été converties en plantations de palmiers à huile et en sites miniers. Plus précisément, selon l'étude Dans le Kalimantan central, en Indonésie, 7,8 millions d'hectares de forêts ont été convertis en plantations de palmiers à huile, en zones minières et en d'autres paysages non forestiers. Ces conversions s'inspirent fortement des orientations commerciales de la communauté mondialisée, qui fixe l'ordre du jour des produits de base à commercialiser.

Les forêts ont repris une place centrale dans les conversations mondiales sur la durabilité, le climat et la biodiversité (Oldekop et al. 2020). Les cinq grandes tendances susceptibles d'avoir des effets substantiels à moyen et long terme sur les forêts et leurs moyens de subsistance sont les mégaperturbations forestières, l'évolution de la démographie rurale, l'essor de la classe moyenne dans les pays à revenu faible et intermédiaire, l'accès et l'utilisation accrus des technologies numériques et le développement d'infrastructures à grande échelle (Oldekop et al. 2020).

L'influence mondiale croissante de la Chine

A l'ère de la mondialisation contemporaine, la Chine joue un rôle de premier plan et pourrait avoir un impact considérable sur les accords de gouvernance forestière au niveau mondial (Begemann et al.,2021). Alors que l'influence globale du centre dirigé par les États-Unis s'est affaiblie et que la majeure partie de la périphérie mondiale est en proie au chaos ou à la misère, un nouvel horizon se dessine. Dans un avenir prévisible, l'Asie, sous l'impulsion de la Chine, pourrait jouer le rôle d'un nouveau centre ou au moins d'un co-centre dans une nouvelle structure de pouvoir mondiale (Artner, 2020).

En décrivant la feuille de route de la Chine pour percevoir le capitalisme, Artner (2020) écrit : *« En 1978, Deng Xiaoping a initié des changements de politique pour accélérer l'accumulation et les investissements nationaux et pour favoriser le développement économique, technologique et infrastructurel. Le premier amendement à la constitution chinoise en 1988 a donné le feu vert au secteur privé dans l'économie, déclarant que « l'État protège les droits et les intérêts légitimes du secteur privé ». Cet amendement a également libéralisé l'utilisation des terres, permettant qu'elles soient « transférées conformément à la loi ». Le quatrième amendement de 2004 est allé encore plus loin en déclarant que l'État non seulement protège,*

mais aussi « encourage, soutient et guide le développement des individus non publics et des secteurs privés de l'économie ». Cet amendement a également permis l'accumulation de richesses privées. Entre-temps, les investissements étrangers et le commerce international ont été progressivement libéralisés. Après 2002, la Chine a commencé à investir à l'étranger les capitaux privés et publics qu'elle avait accumulés et, en 2007, elle a créé son premier grand fonds souverain (China Investment Corporation) Société d'investissement chinoise, doté de 200 milliards d'USD. La croissance rapide des investissements chinois à l'étranger qui en a résulté a, dans une certaine mesure, limité le champ d'action mondial du capital central.

L'accumulation de capital en Chine se poursuit et le rôle du secteur privé s'accroît dans l'économie chinoise. Entre 1990 et 1999, les investissements privés sont passés de 3,7 % à 17 % du PIB chinois (Greeven 2007, 98). Au milieu des années 2000, les capitaux privés ont contribué à hauteur de 55 à 63 % au PIB (Artner, 2010). En 2019, ils représentaient environ 60 % du PIB, 90 % de toutes les exportations et des nouveaux emplois, 80 % de l'emploi urbain et 70 % de l'innovation (Guluzade, 2019). L'économie de marché non capitaliste qui existait dans les années 1980 s'est transformée en une économie capitaliste, où pratiquement toutes les entreprises fonctionnent selon les principes du capitalisme (Andreas, 2008).

La Chine est devenue capitaliste alors qu'elle essayait de moderniser le socialisme bien que la série d'événements qui l'a conduite à devenir capitaliste n'ait pas été programmée et que les résultats aient été inattendus (Coase et Wang, 2012). L'ascension économique vertigineuse de la Chine et son activité accrue à l'échelle internationale, comme la constitution d'alliances en Asie, en Afrique et en Amérique latine après l'éclatement de la crise de 2008 (Engdahl, 2015 ; Weissmann, 2015), se sont accompagnées du déclin de la force hégémonique de la triade dirigée par les États-Unis (États-Unis, Royaume-Uni et Allemagne). La commercialisation a progressivement progressé en Chine au cours des quatre dernières décennies, bien que le capitalisme n'ait pas encore été entièrement reconstruit dans le pays. Toutefois, une classe capitaliste autochtone massive a émergé en Chine, intéressée par l'accumulation continue de richesses (Artner, 2020).

L'influence croissante de la Chine semble être à la fois une cause contributive et un effet partiel du vide international perçu quant à l'action multilatérale nécessaire pour prévenir et répondre à un moment aussi grave de crise planétaire (Tyfield & Rodríguez, 2022). Cela dit, il faut reconnaître que la Chine est en train de forger un système complexe et dynamique d'interaction avec le « monde » d'où émergent de nouvelles relations (Tyfield & Rodríguez, 2022). Lee (2017) décrit l'expansion économique et la stratégie de mondialisation de la Chine dans d'autres domaines : « Global China ».

Depuis la fondation de la Chine en 1949 et la décolonisation de la majorité des pays africains dans les années 1950 et 1960, les relations Afrique-Chine ont connu différentes phases de transformation (Sibiri, 2021). D'une période de solidarité mutuelle pour soutenir la lutte de décolonisation de l'Afrique et le statut politique de la Chine à l'état actuel des engagements économiques et politiques multilatéraux et bilatéraux (Liu, 2018 ; Morris, Taylor, 2010). L'Afrique est un partenaire commercial important pour la Chine, car l'hégémonie mondiale émergente continue de tisser des liens commerciaux étroits avec l'Afrique. Près de 2010, la Chine a conclu des traités bilatéraux avec 31 pays africains (Ofodile, 2013). En 2012, la Chine est devenue le premier partenaire commercial des pays africains, l'Afrique étant devenue un marché intéressant en pleine croissance et une source de ressources naturelles extractives pour le marché chinois (Osabutey et Jackson, 2019).

Les relations entre le Ghana et la Chine : de la diplomatie à l'extraction des ressources naturelles

L'Afrique de l'Ouest est l'un des endroits préférés des investisseurs chinois. Les relations entre le Ghana et la Chine ont progressivement progressé au cours des six dernières décennies, passant d'une orientation politique dans les années 1960 à un front inclusif ces derniers temps (Sibiri, 2021).

La rencontre entre le Ghana et la Chine a commencé le jour même où le premier a obtenu son indépendance de la Grande-Bretagne, lorsque le vice-premier ministre chinois Nieh Jungchen a assisté à la célébration de l'indépendance du Ghana le 6 mars 1957 (Ismael, 1971). En retraçant les relations entre le Ghana et la Chine au cours des trois dernières décennies, Sibiri (2021) raconte :

En général, trois phases ont défini les relations entre le Ghana et la Chine. La première phase trouve son origine dans la conférence de Bandung de 1955. Cette conférence, qui visait à promouvoir la coopération et à s'opposer au colonialisme sous toutes ses formes, a été le premier engagement afro-asiatique formel qui a facilité la conclusion d'un contrat entre des fonctionnaires chinois et une poignée de fonctionnaires africains, dont des représentants de la Côte d'Or (l'actuel Ghana). Après la conférence et l'indépendance du Ghana, les deux pays ont officiellement établi des relations diplomatiques en 1960. Les nouvelles relations se sont renforcées et les échanges de visites de haut niveau sont devenus plus fréquents. Par exemple, entre 1961 et 1966, le premier président du Ghana, Kwame Nkrumah, s'est rendu trois fois en Chine avec le premier ministre chinois Zhou Enlai, qui lui a rendu la pareille en se rendant au Ghana en 1964. Au cours de ces visites, les deux pays ont noué des liens particuliers. La deuxième phase a débuté en 1972, après une rupture momentanée des relations. C'est à cette époque que la politique étrangère de la Chine, en général, a commencé à se libérer de ses contraintes idéologiques, ouvrant ainsi une nouvelle ère de relations entre l'Afrique et la Chine. Au cours de cette phase, les relations entre le Ghana et la Chine se sont métamorphosées, passant de la nature politique telle qu'elle était caractérisée dans les années 1960 à un engagement global, axé sur les questions économiques, l'approfondissement de la réforme et de l'ouverture de la Chine à la fin des années 1970 ayant permis aux sociétés et aux entreprises chinoises de s'aventurer en Afrique. La fin de la guerre froide a marqué le début de la troisième et actuelle phase. Cette phase a été consolidée par la création du Forum sur la coopération sino-africaine en 2000, qui constitue un cadre multilatéral pour le dialogue et la coopération entre les pays africains et la Chine. L'engagement bilatéral entre le Ghana et la Chine a depuis lors connu une croissance sans précédent des activités économiques et d'aide, ainsi que de fréquents échanges culturels et entre les peuples, sans équivalent au cours des six dernières décennies.

Les relations entre le Ghana et la Chine se sont développées au fil des ans, au fur et à mesure des succès et du soutien mutuel. La Chine a reçu le soutien politique et diplomatique du Ghana au niveau international, notamment la reconnaissance inébranlable de la « politique d'une seule Chine », le vote en faveur de la réintégration de la Chine aux Nations unies et le soutien apporté à la suite de l'incident de la place Tian'anmen en 1989 (Idun-Arkhurst, 2008). Le Ghana, quant à lui, a été l'un des premiers pays africains à bénéficier de l'aide chinoise avec un prêt sans intérêt de 19,5 millions de dollars américains en 1961, suivi d'un crédit sans intérêt de 22,5 millions de dollars américains en 1964 pour financer le premier plan de développement septennal du Ghana (Copper, 2016). Par la suite, le Ghana a reçu un soutien substantiel de la Chine sous diverses formes et à plusieurs fins, en particulier dans les secteurs des infrastructures et de l'énergie (Idun-Arkhurst, 2008 ; Jiang et Jing, 2010). Aujourd'hui, la Chine est à la fois le premier partenaire commercial et le premier partenaire d'investissement du Ghana, les investissements chinois créant environ 100 000 emplois locaux pour les Ghanéens et les volumes d'échanges dépassant 7,40 milliards de dollars en 2019 (Sibiri, 2021).

Les relations actuelles entre le Ghana et la Chine ont été créées pour renforcer le partenariat et l'assistance mutuelle afin d'améliorer les conditions de vie dans ces deux États. Le Ghana et la Chine collaborent dans le secteur du pétrole et du gaz par le biais d'un accord de plusieurs milliards de dollars engageant la Chine à financer des infrastructures dans ce domaine. (Sarpong, 2015). La Chine a également conclu un accord de 9 milliards de dollars avec la China ExIm Bank pour des projets de construction de routes et de chemins de fer. Les entreprises chinoises sont également impliquées dans d'autres secteurs ghanéens tels que l'agriculture, l'énergie, la pêche, l'industrie manufacturière, le bois et les télécommunications (Sarpong, 2015 ; Baidoo et al., 2023). La Chine est impliquée dans de nombreuses activités minières illégales au Ghana, ce qui a entraîné l'arrestation de quelques ressortissants chinois au Ghana (Graphic Online, 2023 ; Africa Defense Forum, 2023). Alors que la Chine recherche des ressources, un marché et une influence, des échanges commerciaux et des investissements, le Ghana est également motivé par la possibilité d'obtenir une aide au développement grâce à son engagement avec la Chine (Ayerigah, 2021). Au Ghana, la Chine est de plus en plus acceptée dans l'exploitation minière, l'acquisition de terres, les parts de marché, le développement des infrastructures et, tout récemment, dans le commerce du bois de rose - autant d'éléments favorisés par l'approche de la politique de libre marché d'Accra et la recherche de progrès technologiques, d'innovation et de réalisation des objectifs de développement (Sakyi, 2011 ; Dumenu, 2019, Kansanga et al., 2021 ; Baidoo et al., 2023).

La Chine est le deuxième investisseur au Ghana après l'Inde, avec environ 247 projets entre 1994 et 2006 : 34 % dans le secteur manufacturier et 19 % dans le secteur commercial (GIPC, 2005). La Chine a augmenté sa part d'investissement dans des secteurs tels que la vente au détail, le commerce et l'industrie manufacturière (Tsikata, et al., 2008). On craint de plus en plus que le Ghana, parmi les pays africains, ne soit devenu le centre d'une lutte entre les grandes puissances, avec la concurrence accrue de la Chine (Ayerigah, 2021). Comme toute autre relation, celle entre le Ghana et la Chine a connu des hauts et des bas (Sibiri, 2021).

Récemment, le bois de rose a été l'une des ressources naturelles les plus échangées entre la Chine et le Ghana. Le bois de rose, également connu sous le nom de hong mu en mandarin, désigne un groupe de trente-trois espèces de bois durs tropicaux très chers sur le marché chinois. Nombre de ces arbres sont également des espèces menacées (Zhu, 2020). Le bois de rose a traversé les différentes phases de l'histoire chinoise. Il a connu les dynasties, les révolutions et le goût actuel des Chinois pour le capitalisme (Fig. 1). Voici un résumé de la trajectoire du bois de rose en Chine, tel qu'il est présenté par Zhu (2020) :

Le conte du bois de rose remonte à la dynastie Ming (de la fin du XIVe siècle au début du XVIIe siècle), lorsque le mobilier est devenu un investissement essentiel pour les ménages. À mesure que les maisons devenaient plus élaborées, que les pieds de table s'allongeaient et que les chaises remplaçaient les nattes sur le sol, le mobilier a commencé à devenir l'un des éléments déterminants de la maison chinoise traditionnelle. Les meubles en bois de rose, en particulier, en sont venus à signifier les plus hauts niveaux de sophistication culturelle et de richesse économique. Depuis ces débuts ruraux, le bois de rose a progressivement attiré l'attention des impériaux. À la fin de la dynastie Ming et pendant une bonne partie de la dynastie Qing (du milieu du XVIIe siècle au début du XXe siècle), les meubles en bois de rose ont dominé la scène royale. Dans le cadre de la transformation de l'économie en capital culturel, le bois de rose constituait la première étape. Il suffisait de voir le mobilier de la salle principale d'une famille pour apprécier sa position sociale, son pouvoir économique et son niveau culturel. L'histoire du bois de rose dynastique, telle qu'elle est racontée dans le folklore commercial chinois, s'achève avec la chute de la dynastie Qing (1912)Au milieu du XXe siècle, cependant, le conte du bois de rose en Chine a pris un tournant décisif. La révolution communiste chinoise a lancé une campagne de près de trois décennies visant

à abolir les distinctions de classe et à réinventer radicalement les fondements économiques et culturels du pays. La dévaluation n'était toutefois que temporaire. Avec la mort de Mao en 1976, la révolution culturelle a pris fin et le parti a pris un tournant réformiste. Dénonçant l'ancien programme d'élimination des distinctions de classe, le parti communiste chinois se tourne vers un tout nouveau programme de développement économique. S'enrichir, aurait déclaré Deng Xiaoping, le nouveau leader réformateur du Parti, c'est glorieux. Après son entrée en fonction en 2013, le président Xi Jinping s'est lancé dans une vaste campagne de lutte contre la corruption qui a frappé de plein fouet de nombreux marchés du luxe, y compris ceux des espèces menacées, en particulier le bois de rose. Conscients de ce bouleversement politique, les investisseurs à la recherche des meilleurs rendements ont réfléchi à deux fois avant de placer leur argent dans le bois de rose. Le marché du bois de rose connaît des cycles mais rebondit toujours.

Fig. 1 La trajectoire du bois de rose dans l'histoire de la Chine (Construction de l'auteur, inspirée de Zhu, 2020)

La Chine est l'un des principaux importateurs de bois de rose dans le monde depuis le début des années 2000, car elle a une demande insatiable à cet égard (Zhu, 2017 ; Dumenu et Bandoh, 2016). La Chine a été classée au premier rang des dix premiers pays et territoires pour la source et la destination des expéditions de bois de rose saisies entre 2005 et 2015, avec environ 5 232 tonnes de bois de rose (World WISE). Avec un poids de 4 276 tonnes de bois de rose, rapporté dans les données d'importation, de 2006 à 2013, la Chine était en tête des dix premiers pays (CITES Trade data). La Chine a produit à elle seule 44 % de la valeur des meubles en bois tropicaux en 2016, soit environ 20 milliards de dollars (UNODC, 2016).

Le bois de rose est une icône culturelle en Chine, car il est transformé en meubles classiques ornés (Zhu, 2017). Le symbole culturel du bois de rose en Chine a été transformé en un potentiel économique florissant. On estime qu'il existe en Chine une industrie du bois de rose d'une valeur de 26 milliards de dollars. Cette

économie du bois de rose amortit en partie l'économie chinoise et soutient les moyens de subsistance des acteurs de l'industrie du bois de rose (Zhu, 2020). La demande excessive de bois de rose en Chine a conduit à une exploitation accrue et illégale dans de nombreux pays producteurs d'Asie et d'Afrique (Treanor, 2015).

La Chine à la recherche de bois de rose au Ghana

L'Afrique de l'Ouest contribue à hauteur d'environ 80 % au commerce mondial du bois de rose. Ces bois sont principalement destinés à l'Asie (Dumenu, 2019). Le Ghana a été classé deuxième après le Nigeria en Afrique et quatrième dans le monde parmi les principaux fournisseurs de rondins de bois de rose à la Chine en termes de volume (Treanor, 2015 ; Dumenu et Bandoh, 2016).

Le bois de rose est un large éventail d'espèces de bois dur que l'on trouve principalement dans les zones tropicales de l'Asie du Sud-Est, de l'Afrique, de l'Amérique centrale et de l'Amérique du Sud. Il comprend des espèces sélectionnées des genres Dalbergia (« vrai bois de rose ») et Pterocarpus (bois de rose de substitution) (Dumenu et Bandoh, 2016). Les espèces de Dalbergia ont été la principale cible du commerce, car l'augmentation de la demande a réduit leur disponibilité. Ce phénomène a donc attiré l'attention sur le genre Pterocarpus comme substitut (Winfield et al., 2016). La demande de Pterocarpus erinaceus (bois de rose africain) explose aujourd'hui dans des pays africains tels que le Bénin, la Gambie, le Ghana, la Guinée-Bissau, le Nigeria et le Mozambique (Winfield et al., 2016). Le bois de rose africain est un produit économiquement viable et fait donc l'objet d'un trafic important à l'échelle mondiale (Lawson, 2015). Afin d'enrayer le rythme de disparition de l'espèce, certaines espèces des genres Dalbergia et Pterocarpus ont été inscrites sur diverses annexes de la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction, la CITES (CITES, 2016).

Au Ghana, le bois de rose africain (Pterocarpus erinaceus) se trouve dans certaines parties des régions de Brong Ahafo, Volta, Northern, Upper East et Upper West. Il est prédominant dans les zones écologiques de transition forêt-savane, de savane soudanaise et de savane guinéenne. Jusqu'à son exploitation comme bois d'œuvre, le bois de rose africain était utilisé localement comme bois de chauffage et charbon de bois pour les besoins énergétiques, le feuillage comme fourrage pour le bétail, et le bois pour la construction d'instruments de musique tels que le xylophone dans la région de l'Upper West (Dumenu et Bandoh, 2016). Kansanga et al (2021) affirment que, bien que le bois de rose soit présent sur le marché du bois ghanéen depuis plusieurs années, la récente ruée sur le bois est due à l'augmentation de la demande internationale et à l'intrusion associée des Chinois, qui s'installent dans les espaces ruraux avec des capitaux et des technologies sophistiquées d'exploitation du bois de rose.

L'exploitation illégale du bois de rose est très répandue dans les zones écologiques de savane du Ghana (Kansanga et al., 2021). Dans la figure 2, Dumenu (2019) montre que l'imposition et la levée incessantes d'interdictions sur l'exploitation illégale du bois de rose au Ghana témoignent du fait que le pays n'a pas été sérieux dans son engagement à mettre en place des mesures rigoureuses pour lutter contre l'exploitation toujours croissante du bois de rose illégal au Ghana, alors que la situation continue de s'aggraver.

Fig. 2: Chronologie des interdictions de l'exploitation et du commerce du bois de rose au Ghana (Source : Dumenu, 2019)

GENERAL INTRODUCTION

Context and Motivation

The role of forests is globally known and acknowledged. Forests provide people and nature with useful ecosystem services and goods across local to global scales. These services include biodiversity conservation, climate change mitigation, water protection, food and energy, wood, and other raw materials for forest-based industries and bio-economy value chains (Sotirov et al. 2020; Assessment, 2001). Forest covers about 30% of the world's land area (Sotirov et al. 2020). The United Nations (UN) Sustainable Development Goals (SDGs) give credence to the importance of forests contributing to nearly all of them. More specifically forests are addressed by SDG 15 "Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss" (Swamy et al, 2018).

Governance is a term closely linked to governments to express how political issues are addressed. Governance is an offshoot of managerial or technocratic competence and also represents cooperative and consensual decision-making (Rose-Ackerman, 2017). At the heart of the governance discourse are issues of internationalization, state failure, market liberalization, local community-based governance, commons governance, decentralization, individualization, the old paradigm of top-down, command and control, and state-led approaches (Pierre, 2000). Global forest governance refers to the manifold initiatives dealing with forest and wider forest issues (Begemann et al., 2021).

The importance of forests is globally acknowledged. New discourses-including new meanings attached to old concepts have emerged in global forest policy in the last three decades: biodiversity, sustainable forest management, and private governance (Arts & Buizer, 2009; Humphreys, 2008). The role of forests in sequestering and fixing greenhouse gasses as a way of controlling climate change has scaled up diverse

debates in favour of forest conservation and compensations for forest-rich countries (Humphreys, 2008). Even though new concepts and meanings have emerged in the past decade in global forest politics, it is generally argued that global forest politics have largely not been effective because large-scale deforestation persists at the global scale (Sotirov et al. 2020; Arts & Buizer, 2009)

Global forest politics or international forest politics is used interchangeably by Humphreys (2010) to mean the various international initiatives aimed to tackle deforestation as an international political issue on the back of conservation and sustainable forest management. Global forest politics and international forest politics based on the above premise are used interchangeably in this document. The issues of global forest governance have largely been a contention between the environmental concerns of the North and the economic concerns of the South (Humphreys,1996; Humphreys, 2008).

The two biggest global environmental threats affecting the livelihoods of billions of people and climate change are deforestation and forest degradation (FAO, 2018; Fischer et al., 2020). As a way to proffer solutions and effectively manage the interconnected environmental and social challenges around the globe regarding forests, myriad global forest policy initiatives and institutions have evolved over the past three decades (Cashore et al., 2004; Rodriguez Fernandez-Blanco et al., 2019; Sotirov et al., 2020).

A brief historical trajectory of international forest politics

There is an ensuing global forest discourse on ways to sustainably manage the forest Dimitrov, 2005; Cashore et al., 2004; Sotirov et al., 2020). The two ideas dictating the pace of these international forest politics arguments are the forest conservation concerns of the West and the financial reward concerns of the South (Humphreys, 2008; Humphreys,1996). The point is well made that, the management of global forests needs to be shared responsibility between both the industrialized and developing countries (United Nations 2005).

The release of the Brundtland report, 'Our Common Future' made the concept of Sustainable development increasingly popular at the end of the 1980s and the beginning of the 1990s. Sustainable development started as a notion of 'Sustained yield' to balance human needs for forest products and the production capacity of the forest ('harvest equals biomass growth') (Wiersum, 1999). The Brundtland Commission defined sustainable development as a way to find a common balance between economy and ecology. In more specific terms. This idea in the international forest politics debate proposes a future path for global forests where forest resources can be effectively managed for both present and future needs.

Humphreys (2008) argues that international forest politics is deeply rooted in international concerns about anthropogenic climate and deforestation. He further argues that the international forest politics discourse also sits well within the environmental economics debate, where the foregone tradeoffs of marketing products of the forest should bring financial compensation for the owners who preserve them. The international forest policies discourse strategy in the 1990s is seen as a sister to the New International Economic Order (NIEO) strategy in the 1970s (Humphreys, 2008). The NIEO strategy was spearheaded by the Non-Aligned Movement (NAM) and the developing countries caucus in the UN, the Group of 77 (G77). The G77 and the NAM through the NIEO ideology sought to leverage the control and ownership of natural resources of the developing countries to bargain and press home economic demands from developed countries (Humphreys, 2008).

The United Nations Conference on Environment and Development (UNCED), in Rio de Janeiro in 1992 ushered in a new phase in the North-South relations regarding international forest politics. The plan to

include negotiations on a forest convention on the agenda for the Rio Summit) met strong opposition in its initial stage due to sharp dissent among governments on the need for such a treaty. While the US, Canada and European countries emphasized the principle of global responsibility in preserving forests. Developing countries stressed the right to utilize natural resources (Dimitrov, 2005). To them, the proposed international regulations were a way to curtail their trade rights: a treaty would put limitations on their timber exports and/or oblige them to engage in sustainable forest management that makes harvesting more expensive (Dimitrov, 2005).

Among other things, the G77 negotiated for the following during the Rio Summit: a global forest fund and technology transfers to assist developing countries in managing their forest sustainably (Humphreys, 2008). The underpinning concept for these negotiations by the G77 led by Malaysia was the principle of "common but differentiated responsibilities". The key message from this concept was the fact that the responsibilities for tropical forest conservation should not lie solely with the South, but also with the North as the North has been a major consumer of tropical forest products (Humphreys, 2008).

In the wake of heightened international awareness of global sustainability issues with deforestation and forest degradation being a key feature, there have been different international forest governance and policy arrangements, IFGAs (Sotirov, 2020). Classifying the IFGAs in terms of the character of legal authority reveals two broad categories namely legally binding and non-legally initiatives (Sotirov, 2020). Examples of legally binding IFGAs are the Global Forest Convention; Tropical Timber Agreement; United Nations Convention on Biological Diversity and the United Nations Framework Convention on Climate Change. An example of a non-legally binding IFGA is the International Arrangement on Forest. In between legally binding and non-legally binding arrangements are hybrid regulatory governance arrangements, examples are Forest Law Enforcement Governance and Trade (FLEGT) and the Reducing Emissions from Deforestation and Forest Degradation (REDD+) (Sotirov, 2020).

The Rio conference produced only the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests (Dimitrov, 2005). Therefore, after a tedious negotiation process, the Framework Convention on Biological Diversity was adopted in 1992 in Rio de Janeiro. The framework aimed to conserve biodiversity worldwide, to use it sustainably and to share its benefits equally. Biodiversity is now given a broader and an integrated understanding to include a diversity of genes of species and their habitat (Arts & Buizer, 2009).

The above-stated approaches are largely viewed to be fraught with challenges, paving the way for new forms of multi-actor and multi-level governance and new types of policy instruments like network-like arrangements of public and private actors, self-regulation by market organizations, public-private partnerships, emission trading schemes, certification programs etc. (Pierre, 2000; Bendell, 2000; Glasbergen et al., 2007). Community forestry, partnerships between NGOs and businesses, voluntary agreements, and certification programs are relatively new governance arrangements in global forestry and forest politics (Arts & Buizer, 2009).

Governments now play active roles in partnerships and certification programs. Governments also reformulated the debate from sustainability to legality in the Forest Law Enforcement and Governance (FLEG) initiatives. Governance and other stakeholders appreciate that private governance alone cannot achieve sustainability at a larger scale (Glasbergen et al., 2007). There are therefore mixed government approaches, NGOs and businesses in a search for sustainability and legality in global forestry, wood processing and timber trade resulting in a hybridization of government and governance taking place in global forest politics (Arts and Leroy, 2006). The international forest politics dynamics in the area of

governance have had commensurate law-making, rule design and control compliance approaches, both at the national and international levels. Governments have introduced voluntary rules, and market and civil society have established private rules (Meidinger, 2002).

Power has inadvertently been a key feature within the various discourses, coalition formation and rulemaking in global forest politics. Prominent among these is the emergence of the power of non-state entities in comparison with that of states. For example, nature conservation organizations like IUCN and WWF co-framed the biodiversity and sustainability discourses and influenced the UNEP Convention on Biological Diversity (Arts & Buizer, 2009; Dimitrov, 2005)). NGOs wield power of political influence: the extent to which NGOs can influence political decision-making by states. (Pierre, 2000).

The issue of the Global Forest Convention

The lack of a global legally binding forest treaty can be attributed to several factors working against international policy coordination in forest management (Sotirov, 2020). This situation is largely due to the inability of North and South to reach a common ground regarding commitments to the conservation of tropical forests. The North is not yet ready to meet all the economic demands of the South in conserving the forest (Humphreys, 2008) Global forest politics is controlled by neoliberal principles of capitalism and free trade which has fueled logging. (Dauvergne, 2001; Humphreys, 2003; Lipschutz 2001).

Neoliberalism advances the notion that a common public good can be realized through voluntary measures and market-based policies not necessarily by state legislature or regulation by government executive instruments. (Harvey, 2005; Humphreys, 2009) Neoliberalism advocates for a reduced state role in the management of resources as against enhanced private sector roles (Saad-Filho and Johnston, 2005). This neoliberal perspective on global forest politics emboldens some forest actors in plundering forests of timber, which is mostly done illegally. There is therefore a need for a rethink of neoliberalism in global forest politics.

Global forest governance has been described as fragmented and strongly influenced by certain key policies. International climate policies, including REDD+, and global efforts to combat illegally sourced timber trade are classical examples (Begemann et al., 2021; Singer and Giessen, 2017; Cadman et al., 2017; Leipold et al., 2016). At the national and local levels, these fragmentations have been a result of competing interests from various actors, state power manoeuvrings, the hegemony of state bureaucracy in forest administration etc (Ongolo, 2015). Overall, the global forest governance initiatives have not been successful in achieving their mandate because, in the face of most of the global forest initiatives, the problem of forest degradation persists (Giessen, 2013; Sotirov et al., 2020). Other explanations adduced for this limited effectiveness include increasing demand for forest resources (Winkel et al., 2019); powerful actors benefiting from continued forest exploitation, the role of neo-liberal norms (Bull et al., 2018; Dimitrov, 2005); inadequate attention to local and national dynamics (Arts et al., 2016; Rayner et al., 2010) etc. In connection with the argument above, the UN-endorsed New York Declaration on Forests, which aimed amongst others to halve tropical deforestation by 2020, was recently declared a failure (New York Declaration on Forests, 2020).

In their analysis and assessment of possible future directions for global forest governance, Begemann et al. (2021) made some roadmap for global forest governance benchmarked against the year 2030. From their study, States/government, Private sector, Multinational companies, Investors and Agribusiness in the order of rank will be the five most influential actors to shape and influence global forest governance by 2030. Specifically, China is mentioned as the State to stand out as a force to influence global forest governance by 2030. They therefore propose that strategic cooperation with new powerful states like China is critical going

forward. Results from the study further reveal the potentially powerful role of public policies in supporting sustainable management and conservation of the world's forests, as opposed to a *laissez-faire* approach emphasizing unconditioned free markets, trade and investments (Humphreys, 2006, 2009). They state that self-confident rule-setting by states with a focus on the public goods character of forests or some of their properties (e.g. biodiversity, climate impacts) through international and domestic law is an option for reinvigorating the primacy of policies.

Begemann et al. (2021) further revealed that the importance of informal markets, especially in Africa, cannot be downplayed by global forest governance going forward as they remain a critical mass with a very important stake. They define informal markets broadly as anyone that is operating outside of current legal frameworks, normally outside of payments of taxes. Developing a feasible way to consider informal markets and activities in global forest governance initiatives is instrumental if genuine effects are sought on the ground, without criminalizing substantial parts of forest-dependent communities. The study also reveals the need for forest governance initiatives to inclusively inculcate tenure and use the rights of local citizens especially to avert the tension between traditional customary rights, prevalent informal business practices and government interest in controlling forest resources for (future) development (Aggarwal et al., 2021)

The raging and ensuing global forest governance and politics have had their local dynamics in timber-rich countries especially in Africa (Begemann et al. 2021; Andong & Ongolo 2020). For some of these African countries, global forest governance initiatives are perceived as foreign policy interventions and an attempt at national sovereignty by Western actors to curtail their rights of access to their resources. Using the case study of the European Voluntary Partnership Agreement on Forest Law Enforcement, Governance and Trade (VPA-FLEGT) in Cameroon; Andong & Ongolo (2020) scrutinize the interplay between global forest governance reforms and domestic politics in Africa using Cameroon as a test case through the lens of the VPA-FLEGT. The study highlights the fact that one of the main reasons that may lead to VPA-FLEGT towards a programmed failure is the poor knowledge and overshadowing of the socio-anthropological context of cooperation policies between Cameron and its international partners. This phenomenon also exemplifies the realities of the VPA-FLEGT process in the Congo Basin (Andong & Ongolo, 2020)

Andong & Ongolo's (2020) study further revealed that the majority of local forest governance actors in Cameroon see VPA-FLEGT as a symbol of a new mode of Western domination in the governance of forestland resources. An interesting observation made by the study through the case study of Cameroon is that sometimes State bureaucracies in African contexts use a set of cunning government tactics to avoid, transform or sabotage policy reforms perceived as imposed or imported. This cunning strategy also enables this category of actors to "play the game" of change in foreign governance while skillfully avoiding "blame" in case the imported policy reforms fail at the national level.

At the heart of international forest governance arrangements have been ways of addressing deforestation and forest degradation as global sustainability issues (Sotirov et al. 2020). The role of forests in sustainability transitions is re-emphasized by multiple current international sustainability agendas. Key among these are the Sustainable Development Goals through, contributions to ecosystem services, green economic opportunities, and social and environmental justice agendas; the Paris Climate Agreement; the Aichi Biodiversity Targets and the Post-2020 Global Biodiversity Framework; the Bonn Challenge which aims to bring under restoration 350 million hectares of degraded lands globally by 2030 (Katila et al., 2019); and the New York Declaration. (Timko et al., 2018; Katila et al., 2019; Grassi et al., 2017; Butchart et al., 2015; Oldekop et al. 2020)

Although a variety of International Forest Governance and Policy Arrangements (IFGAs) have been developed to foster the protection and more sustainable management of forests, these IFGAs cannot be said to have been largely successful because of their apparent limitations in effectively solving the problems of deforestation and forest degradation as it persists in even high levels. As a result, the global community is not on track to meet sustainable development targets by 2030 (Pokorny et al., 2019).

Findings from Sotirov et al's (2020) study revealed important challenges to positive transformative change and effectiveness that are rooted in major inconsistencies in two interrelated political loci: In the design, implementation, influence, integration, and coordination within and between the existing IFGAs; and, in influential forest-adverse governance arrangements outside the IFGAs. Their findings suggest an important need for global action towards better mutual coherence more targeted influence, and greater visibility and comprehensiveness of forest issues in the Sustainable development goals, governments' and non-state actors' agenda.

Globalisation and Capitalism in international forest politics

Closely linked to deforestation and forest degradation, the major issues at the heart of global forest governance initiatives are globalization and capitalism (Aldyan, 2020). Through the tenets of globalization, developing countries especially open themselves to aid and cooperation with external parties. Neoliberalism, the amalgamation of liberalization, deregulation and privatization, was born as a result of the crisis of the 1970s to facilitate the restructuring of production with free movement, accumulation and concentration of capital. These measures helped transfer the burdens of the crisis from the centre to the peripheries by relocating expired technologies to developing countries, selling outdated products and using the profits deriving from these activities to further the technological advancement in the centre countries (Artner, 2020).

The entry of foreign investors into developing countries mostly results in trade arrangements. In the era of globalized production forces, individual interests are mostly subservient to the global order of demand and supply. However, individual interests still prevail and cause more harm than good, as evident in the largely unresolved problems of social, economic and ecological sustainability (Artner, 2020).This influx of financial capital which is mostly underpinned by the capitalist principles of wealth creation sometimes at the expense of the environment in this instance the forest (Aldyan, 2020).

The capitalist economic structure is competitive. The logic of global capital accumulation limits the possibility of catching up within the framework of contemporary capitalism (Artner, 2020). Capitalism states that competition can lead to a process of natural selection, and each individual can reach the level of position most capable of occupying (Artner, 2020). In a capitalist economy people who have capital must be in a better position than those who do not have capital.

The issue of globalization is spearheading this in several capitalist ways across developing countries where natural resources like forests are being lost at a fast rate because global investors are injecting capital into countries in their quest to trade in these natural resources. With the disintegration of the Soviet Union in 1991, the United States remained the major superpower on the geopolitical map, even if this order is changing with the rise of global China. Capitalism was triumphant in its economic, political and ideological aspects, and the world lay unprotected from the global imperialist activity of the US-led Triad (Artner, 2020).

In recounting the case of Indonesia in the face of the capitalist mode of foreign investors, Aldyan (2020) narrates how forest areas in Indonesia have been converted into oil palm plantations and mining sites. More specifically, according to the study In Central Kalimantan, Indonesia, 7.8 million hectares of forests have been converted into oil palm plantations, mining areas, and other non-forest landscapes. These conversions are heavily inspired trade directions of the globalized community which sets the agenda of commodities to trade in.

Forests have re-taken centre stage in global conversations about sustainability, climate and biodiversity (Oldekop et al. 2020). The five large-scale trends that are likely to have substantial medium and long-term effects on forests and forest livelihoods are forest mega disturbances, changing rural demographics, the rise of the middle-class in low and middle-income countries; increased availability in access and use of digital technologies; and large-scale infrastructure development (Oldekop et al. 2020).

China's Growing Global Influence

In the contemporary globalization era, one nation which is playing a leading role and has the prospect of heavily impacting global forest governance arrangements is China (Begemann et al.,2021). As the overall influence of the US-led centre has weakened, and most of the global periphery is in either chaos or misery, a new horizon is showing itself. In the foreseeable future, Asia, with the leadership of China, could play the role of a new centre or at least a co-centre in a new global power structure (Artner, 2020).

In narrating China's roadmap to perceive capitalism, Artner (2020) writes:

> *In 1978, Deng Xiaoping initiated policy changes to speed up accumulation and domestic investments and to foster economic, technological and infrastructural development. The first amendment to the Chinese constitution in 1988 gave the green light to the private sector in the economy, declaring, 'The State protects the lawful rights and interests of the private sector'. This amendment also liberalized the use of land, allowing it to 'be transferred according to law'…The Fourth Amendment in 2004 went even further to declare that the state not only protects but also 'encourages, supports and guides the development of the non-public individual and private sectors of the economy. This amendment also allowed the accumulation of private wealth. In the meantime, foreign investments and international trade had been gradually liberalized. After 2002, China began to invest its accumulated private and public capital abroad, and in 2007 established its first major sovereign wealth fund (China Investment Corporation), with 200 billion USD. The resulting fast growth of the Chinese outgoing foreign investments limited the global playing field for the central capital to a certain extent.*

China's capital accumulation continues, and the role of the private sector is growing in the Chinese economy. Between 1990 and 1999, private investments grew from 3.7% to 17% of the Chinese GDP (Greeven 2007, 98). By the middle of the 2000s, private capital contributed 55-63% to the GDP (Artner, 2010). In 2019, it comprised about 60% of the GDP, 90% of all exports and new jobs, 80% of urban employment and 70% of innovation (Guluzade,2019). The non-capitalist market economy that existed in the 1980s has been transformed into a capitalist economy, where virtually all enterprises operate according to capitalist principles (Andreas, 2008).

China became capitalist while it was trying to modernize socialism, however, the series of events that led China to become capitalist was not programmed and the results were unexpected (Coase and Wang, 2012). The breathtaking economic ascent by China and its increased activity on the international scale, such as

alliance-building in Asia, Africa and Latin America after the outbreak of the 2008 crisis (Engdahl 2015; Weissmann 2015), have been accompanied by the decline in the hegemonic strength of the US-led Triad (US, UK and Germany). Marketization has gradually progressed in China over the last four decades, although capitalism has not been fully reconstructed in the country yet. However, a massive internal capitalist class has emerged in China, which is interested in the continuous accumulation of wealth (Artner, 2020).

The growing influence of China appears to be both a contributing cause and partial effect of the perceived international vacuum of the multilateral action needed to prevent and respond to such a serious moment of planetary crises (Tyfield & Rodríguez, 2022). That said, it needs to be acknowledged that China is forging a complex and dynamic system of interaction with the "world" from which new relations are emerging (Tyfield & Rodríguez, 2022). Lee (2017) describes China's economic expansion and globalizing strategy in other domains 'Global China'.

Since the founding of China in 1949 and the decolonization of the majority of African countries in the 1950s and 1960s, African-China relations have seen different phases of transformation (Sibiri, 2021). From a period of mutual solidarity in support of Africa's decolonization struggle and China's political status to the current state of all-embracing multilateral and bilateral economic and political engagements (Liu, 2018; Morris, Taylor, 2010). Africa has been a relevant trading partner for China as the emerging global hegemony continues to forge close trading ties with Africa. Close to 2010, China concluded bilateral treaties with 31 African countries (Ofodile, 2013). In 2012, China became the largest trade partner for African countries as Africa became an interesting growing market and a source of extractive natural resources for the Chinese market (Osabutey and Jackson, 2019).

Ghana-China Relations: From Diplomacy to Natural Resource Extraction

West Africa has been one of the preferred spots for Chinese investors. Ghana-China relations have gradually progressed for the past six decades, shifting from politically oriented in the 1960s to an all-inclusive front in recent times (Sibiri, 2021).

Ghana and China's encounter began the same day the former gained independence from Britain as the Chinese Vice Premier Nieh Jungchen, attended Ghana's independence celebration on 6 March 1957 (Ismael, 1971). In recounting Ghana-China relations over the past three decades Sibiri (2021) narrates:

> *In general, three phases have defined Ghana-China relations. The first phase originates from the Bandung Conference of 1955. The Conference which aimed to promote cooperation and oppose colonialism in any form or kind, was the first formal Afro-Asian engagement that facilitated a contract between Chinese officials with a handful of African officials, including representatives from the Gold Coast (present-day Ghana). After the Conference and the eventual independence of Ghana, the two countries, officially established diplomatic relations in 1960. The new relations grew robust, and the exchange of high-level visits became more frequent. For instance, between 1961 and 1966, Ghana's first President, Kwame Nkrumah, visited China thrice with Chinese Premier Zhou Enlai, reciprocating with a visit to Ghana in 1964. During these visits, the two countries established a special bond. The second phase began in 1972 after an earlier momentary break in relations. This was the same period that China's foreign policy, in general, began to break away from its ideological constraints, thus ushering in a new era of Africa-China relations. Under this phase, Ghana-China relations metamorphosed from the political nature as characterized in the 1960s to encompass all-around engagement, focusing on economic issues as the deepening reform and*

opening-up of China in the late 1970s allowed Chinese companies and businesses to venture into Africa. The end of the Cold War ushered in the third and current phase. This phase was consolidated with the creation of the Forum on China-Africa Cooperation in 2000 as a multilateral framework for dialogue and cooperation between African countries and China. Ghana-China bilateral engagement has since witnessed unprecedented growth in economic and aid activities, as well as frequent cultural and people-to-people exchanges unmatched in the past six decades.

Ghana-China relations have grown over the years as it has recorded success and mutual support. China has received political and diplomatic support from Ghana at the international level, including the unwavering recognition of the 'One-China Policy', the vote to reinstate China to the United Nations, and the support in the aftermath of the consequential *Tian'anmen* Square Incidence in 1989 (Idun-Arkhurst, 2008). Ghana, on the other hand, was one of the earliest African countries to benefit from Chinese aid with a non-interest-bearing loan of US$19.5 million in 1961, followed by non-interest credit of US$ 22.5 million in 1964 to finance Ghana's first Seven-Year Development Plan (Copper, 2016). Subsequently, Ghana has received substantial support from China in various forms for several purposes, particularly in the infrastructure and energy sectors (Idun-Arkhurst, 2008; Jiang and Jing, 2010). Today, China is both Ghana's biggest trading partner and investment partner, with Chinese investments creating about 100, 000 local jobs for Ghanaians and trade volumes exceeding US$ 7.40 billion in 2019 (Sibiri, 2021).

Present-day relations between Ghana and China were created to enhance partnership and mutual assistance to improve livelihoods in these two states. Ghana and China are collaborating in the oil and gas sector through a multibillion-dollar agreement committing China to finance infrastructure in that regard. (Sarpong, 2015). China also has a $9 billion agreement deal with the China ExIm Bank for road and railway construction projects. China companies are also involved in other Ghanaian sectors such as agriculture, energy, fishing, manufacturing, timber and telecommunications (Sarpong, 2015; Baidoo et al., 2023). China is involved in widespread illegal mining activities in Ghana which have resulted in a couple of arrests of some Chinese nationals in Ghana (Graphic Online, 2023; Africa Defense Forum, 2023)

While China seeks resources, market and influence, trade, and investment; Ghana is also motivated by the opportunity to obtain development assistance from its engagement with China (Ayerigah, 2021). In Ghana, China is gaining acceptance in mining, land acquisition, market share, infrastructure development and quite recently in the trade of rosewood-all of which are promoted by Accra's free market policy approach and the quest to achieve technological advancement, innovation and achievement development targets (Sakyi, 2011; Dumenu, 2019, Kansanga et al., 2021; Baidoo et al., 2023).

China is the second leading investor in Ghana after India accounting for about 247 projects from 1994 to 2006: 34% in manufacturing and 19% constituting the trading sector (GIPC, 2005). China has increased its investment share in industries such as retail, commerce and manufacturing (Tsikata, et al., 2008). There is a growing concern that Ghana among African countries has become a centre of a struggle between the great powers, with increased competition from China (Ayerigah, 2021). Like any other relationship, the Ghana-China relationship has had its low and up moments (Sibiri, 2021).

In recent times, one of the key natural resource products China has traded the most with Ghana is rosewood. Rosewood, also known as *hong mu* in Mandarin refers to a group of thirty-three species of very expensive tropical hardwoods in the Chinese market. Many of these trees are also endangered species (Zhu, 2020). Rosewood has been through the changing phases of Chinese history. It features in dynasties, revolutions and present-day Chinese taste for Capitalism (Fig. 1). Below is a summary account of the trajectory of rosewood in China as given by Zhu (2020):

The story of rosewood dates back to the Ming Dynasty (late fourteenth century to the early seventeenth century) when furniture became a critical household investment. As houses became more elaborate, table legs grew, and chairs replaced mats on the floor, furniture began to feature as one of the defining elements of the traditional Chinese home. Rosewood furniture in particular came to signify the highest levels of cultural sophistication and economic wealth. From these rural beginnings, rosewood gradually gained imperial attention. During the late Ming Dynasty and continuing well into the Qing Dynasty (mid-seventeenth century to the early twentieth century), rosewood furniture came to dominate the royal scene.

In the pursuit of transforming the economy into cultural capital, rosewood thus served as the first stop. One only needed to see the furniture in a family's main hall, to appreciate the household's social position, economic power, and cultural level. The story of dynastic rosewood, as told through China's commercial folklore, ends with the fall of the Qing Dynasty (1912).

By the mid-twentieth century, however, the story of rosewood in China took a sharp turn. China's Communist Revolution initiated a nearly three-decade campaign of abolishing class distinctions and drastically reinventing the economic and cultural foundations of the country.

The devaluation was only temporary, however. With Mao's death in 1976, the Cultural Revolution ended and the Party took a reformist turn. Denouncing the former program of eliminating class distinctions, China's Communist Party turned to an entirely new program of economic development. To get rich, the Party's new reformist leader Deng Xiaoping is said to have declared it glorious.

After taking office in 2013, President Xi Jinping embarked on a massive anticorruption campaign that has hit many luxury markets hard- including those for endangered species, especially rosewood. Cognizant of this political overhaul, investors seeking the highest returns thought twice about putting their money into rosewood. The rosewood market goes through cycles but still bounces back. (pp 284-289)

Fig. 3The trajectory of rosewood in Chinese history (Author's Construct, inspired by Zhu, 2020)

China has been a leading importer of rosewood across the globe since the early 2000s, as it has an insatiable demand in this regard (Zhu, 2017; Dumenu and Bandoh, 2016). China was listed as the first among the top ten countries and territories for source and destination of shipment with the weight of rosewood seized from 2005 to 2015 about 5,232 tons of rosewood (World WISE). With 4,276 tons weight of rosewood, reported in import data, from 2006 to 2013, China was first among the top ten countries (CITES Trade data). China singlehandedly produced 44% of the value of world tropical hardwood furniture in 2016, valued at about US$ 20 billion (UNODC, 2016).

Rosewood is a cultural icon in China as it is transformed into ornate classical furniture (Zhu, 2017). The cultural symbol of rosewood in China has been harnessed into a flourishing economic potential. It is speculated that there is a $26 billion rosewood industry in China. This rosewood economy is partly cushioning the Chinese economy and supporting the livelihoods of these rosewood industry players (Zhu, 2020). The over-heightened demand for rosewood in China has led to increased and illegal exploitation in many producer countries in Asia and Africa (Treanor, 2015).

China in search of rosewood in Ghana

West Africa contributes about 80% of rosewood to global trade. These are mostly supplied to Asia (Dumenu, 2019). Ghana was ranked second to Nigeria in Africa and fourth in the world among top suppliers of rosewood logs to China by volume (Treanor, 2015; Dumenu and Bandoh, 2016).

Rosewood is a wide range of hardwood species mostly found in the tropical areas of Southeast Asia, Africa, Central, and South America. It comprises selected species of the genera *Dalbergia* ('true rosewood') and *Pterocarpus* (substitute rosewood) (Dumenu and Bandoh, 2016). *Dalbergia* species have been the main target in the trade as a result; increasing demand has reduced its availability. This phenomenon, therefore, has shifted attention now to the *Pterocarpus* genus as a replacement (Winfield *et al.*, 2016). There is now an explosive demand for *Pterocarpus erinaceus* (African rosewood) in African countries such as Benin, Gambia, Ghana, Guinea Bissau, Nigeria and Mozambique (Winfield *et al.*, 2016).

The African rosewood is an economically viable commodity and as a result is highly trafficked globally (Lawson, 2015). As a way to halt the rate at which the species is being depleted, selected species in the *Dalbergia* and *Pterocarpus* genera were listed on various Appendices of the Convention on International Trade of Endangered Species of Wild Fauna and Flora, CITES (CITES, 2016).

In Ghana, African rosewood (*Pterocarpus erinaceus*) is found in parts of Brong Ahafo, Volta, Northern, Upper East and Upper West Regions. It is predominant in the Forest-Savanna Transition, Sudan Savanna and Guinean Savanna ecological zones. Until its exploitation as timber, African rosewood was used locally as firewood and charcoal for energy needs, the foliage as fodder for livestock, and the wood for construction of musical instruments such as xylophone in the Upper West region (Dumenu and Bandoh, 2016). Kansanga *et al* (2021) argue that, although rosewood has been present in the Ghanaian timber market for several years, the recent scramble for the wood is because of rising international demand and associated intrusion of mostly the Chinese who move into rural spaces with capital and sophisticated rosewood logging technology.

Illegal logging of rosewood is widespread in the savannah ecological zones of Ghana (Kansanga *et al*., 2021). In Fig. 2, Dumenu (2019) illustrates that the incessant placing and lifting of bans on the illegal logging of rosewood in Ghana is a testimony to the fact that the country has not been serious in its commitment to put forward stringent measures to tackle the ever-increasing exploitation of illegal rosewood in Ghana, as the situation continues to worsen.

Fig. 4Timeline of bans on rosewood exploitation and trade in Ghana (Source: Dumenu, 2019)

Over-exploitation of the rosewood in Ghana, although motivated by the demand by the Chinese investors is made possible through the collaboration of some local actors including political elites (Kansanga *et al.*, 2021). BBC (2019) reported that about 6 million rosewood trees have been cut down in Ghana for illegal export to China since 2012. Local actors, which mostly comprise Chiefs, some community leaders and other community rosewood players form backdoor logging networks with the Chinese collaborating with them in the illegal rosewood logging business. Kansanga *et al.*, (2021) argue in their work that the government of Ghana is partly to be blamed for the illegal logging of rosewood, as it is neck-deep in its activities through the issuance of salvage permits to mostly ruling political party sympathizers. This also explains figure 1, imposing and lifting of rosewood ban (Dumenu, 2019). Among the drivers of the illicit depletion of rosewood in Ghana are ecological and socioeconomic vulnerability in rosewood endemic communities, hierarchical corruption, selective enforcement of logging bans and the weakening of the local governance system (Kansanga *et al.*, 2021).

Chinese nationals and investors have been visibly present in Ghana in the wake of the booming rosewood business. Authorities in Ghana have had to impound trucks loaded with rosewood allegedly owned by the Chinese (BBC, 2019). *"The Ghanaian situation demonstrates how global forces interact with local processes to shape environmental resource extraction"* (Kansanga *et al.*, 2021). The Ghana-China rosewood case, with its accompanying institutional dynamics, power play tactics, illegal extraction drive, largely failed management approaches, continued exotic taste of the endeavour, international concerns of forest conservation etc. provides a perfect picture and a conducive atmosphere for the launch of detailed scientific probe. To investigate the situation on the ground, marrying that with global forest politics and making a good scientific and policy analysis for the future. Ongolo *et al* (2021) contend that there is a need for more studies, to have a successful science-policy interaction and the interests and motivations of the different actors involved in forestland governance in Africa.

As the world becomes more globalized, a better understanding of trends connected with forests and their livelihoods is crucial. The identification of levers for change requires that the research community not only continue to build on case studies that have dominated research efforts so far, but place greater emphasis on causality and causal mechanisms, and generate a deeper understanding of how local, national and international geographical scales interact (Oldekop et al. 2020). A sharp analysis of how rural commons govern their resources in line with pressure from transnational forces is a step in the right direction in deepening understanding of alternative ways of natural resource management. The prominent attention to forests, especially in human-dominated tropical and subtropical regions, creates a need for a comprehensive policy-oriented research agenda. (Oldekop et al. 2020). Against the backdrop, this PhD thesis set out to broadly investigate the power dynamics and related governance processes of Ghana-China rosewood trade since the early 2000s and also Ghana's timber legality through the lens of the VPA FLEGT, as this forms a good basis for assessing Ghana's forestry trajectory. The study seeks to broadly respond to the questions below:

What have been the established procedures in the Ghana-China rosewood trade? Why has Ghana become one of the most preferred rosewood business destinations in Africa by Chinese investors and their allies? Is there any arrangement to ensure the sustainability of the rosewood business between Ghana and China? The proposed empirical-based research seeks to contribute to the literature on rosewood at the local, national and transnational levels using the Ghana-China arrangements as a case study. This study fits into the global forest governance and associated environmental politics debates in African contexts. It looks at the various institutions, structures and related to the Ghana-China rosewood trade and how they were affected by the trade. The study also situates well with the globalization effects on domestic politics and sustainability

challenges as it delves into how the rise of global China changes the governance of natural resources in Africa with a focus on Ghana.

Research Objectives, Questions and Hypothesis

The research objectives, research questions and hypothesis for the PhD are presented below as follows:

Research Objective

Analyzing the power dynamics and related governance processes of the growing influence of Global China in the Ghana forestry sector from the early 2000s to 2023, with a focus on rosewood trade and Ghana's timber legality trajectory.

Specific objectives:

(i) Identify the key actors, factors, and formal and informal interests that ensure the thriving of Ghana's rosewood trade with China
(ii) Investigate the access dynamics of the Ghana-China rosewood trade by key actors involved.
(iii) Evaluate the impact of China on rosewood governance and the implication on the 'commons' in rural Ghana.
(iv) To appraise the governance structures and power dynamics among key actors of the Ghana-China rosewood trade.
(v) To assess Ghana's timber legality through the lens of VPA FLEGT. Challenges and Prospects.

Research Questions

What are the power dynamics and related governance processes of the growing influence of Global China in the Ghana forestry (including rosewood trade to timber legality) sector from the early 2000s to 2023?

Specific questions:

(i) Which key actors, factors, and interests ensure the thriving of Ghana's continued rosewood business with China and what were their specific roles?
(ii) How did the Chinese rosewood investors get access to rosewood in Ghana?
(iii) What is the impact of China on rosewood governance and the implication on the 'commons' in rural Ghana?
(iv) What are the power dynamics among key actors of the Ghana -China rosewood trade?
(v) Which factors are hindering Ghana's timber legality based on VPA FLEGT?

Thesis hypotheses

The PhD research seeks to address the following hypotheses:

1. Rosewood trade in Ghana thrives based on the collective efforts of a mosaic of actors, each of which plays specific roles.
2. The Chinese rosewood investors did not have direct control of processes to secure rosewood in Ghana
3. Ghana's timber legality is in limbo due to the trade incentives of global China
4. The issue of actor power in the rosewood trade is a major determinant in the governance of the rosewood.
5. Rural communities in Africa cannot govern common pool resources in the face of increasing global trade pressure on resources.

Theoretical and Methodological Approach

Theoretical Approach

Theories are webs of concepts that we use to guide or disentangle empirical observations and to make sense of them. Theories therefore represent social phenomena by highlighting certain features and relating them in a logical system (Fuhse, 2022). Theories are perspectives that make different aspects of the social world visible. (Giere, 2006). These perspectives only represent the data they help bring about (Putnam, 1988; van Fraassen, 2008).

Theories offer concepts and construct orderly patterns to make sense of a world we know nothing about without them (Feyerabend, 1962).

In underscoring the role of theories in social research, Parsons (1938), made the following remarks: Our study of fact, however little we may be aware of it, is always guided by the logical structure of a theoretical scheme, even if it is entirely implicit. For theory to be fruitful we must have research techniques which provide the right kind of facts. Parsons (1938) states the functions of analytical theory in research as follows:

1. In the vast welter of miscellaneous facts we face it provides us with selective criteria as to which are important and which can safely be neglected.
2. It provides a basis for the coherent organization of the factual material thus selected without which a study is unintelligible.
3. It provides a basis not only for the selection and organization of known facts but in a way which cannot be done otherwise and reveals the gaps in our existing knowledge and their importance. It thus constitutes a crucially important guide to the direction of fruitful research.
4. Through the mutual logical implications of different analytical systems for each other, it provides a source of cross-fertilization of related fields of the utmost importance. This often leads to very important developments within a field which would not have taken place had it remained theoretically isolated.

This PhD work is well grounded in theories and frameworks as a way of taking a point of departure from the perspective of a sound scientific paradigm. Appropriate theories and frameworks were selected to help address each of the objectives, which fed into the various research articles of the PhD.

Rosewood in Africa by the Realist Synthesis Review

To get a general overview of the rosewood case in Africa and map out the various actors, the realist synthesis review approach was used. The output of this work is a book chapter published in Routledge, Taylor and Francis Group titled "*Global China and Domestic Politics of Rosewood in Africa: A Realist Review"* (Baidoo, A., Méral, P., & Ongolo, S. (2023). Global China Effects and Domestic Politics of Rosewood in Africa: A Realist review. In S. Ongolo & M. Krott (Eds.). *Power Dynamics in African Forests* (pp. 88-107). Routledge (Taylor & Francis). Available: Global China Effects and Domestic Politics of Rosewood in Africa | 5 | (taylorfrancis.com))

The realist synthesis review (RSR), in comparison to the more common systematic review, allows for the analysis of what works, for whom, in what circumstances, and why (Pawson, 2013; Pawson and Tilley, 1997). In this review, the concentration was to find out key patterns of the state of the rosewood trade in key African-producing countries, the challenges that the rosewood trade faced, and the actors and their relationships in the rosewood business and trade. In addition, the review examined the rosewood regulatory laws, whether they have been effective or not, and what accounted for their successes or failures within the special context of forest governance in African countries.
RSR presents an explanatory model that is more accountable to the complexity of the social sciences (Pawson et al., 2004; Barletti, 2020). Our paper describes the application of the realist approach to synthesizing evidence from research publications examining rosewood trade in the African sub-region and various local to international arrangements and regulations in the exploitation and trade of rosewood in Africa (McLain, 2018).
Realist synthesis helps to clarify, how, where and why illegal rosewood trade continues to thrive in various African countries and the factors, which drive them. A realist synthesis focuses on outcomes and the social and political issues which lead to them (McLain, 2018; Barletti, 2020).

This review benefits from a model of searching called 'berry-picking' which asserts that typical search queries are not static but evolve, gather information in bits and pieces rather than in one grand best-retrieved search and use a wide variety of search techniques and sources beyond common bibliography databases (Kastner, 2011). In seeking an understanding of the power relations among rosewood actors in Africa the review took inspiration from the network theory. Using the idea from Cook and Emerson's (1978) experimental study of the exercise of power in an exchange network. The different bargaining power of five major actors in the African rosewood trade is explained.

Rosewood by the access theory

The second major thrust of the PhD work delves into the actors and access dynamics of the major actors. It further examines the different formal and informal network arrangements, which necessitated its trade and sharing of benefits in the Ghana-China rosewood trade chain and has resulted in a published research article at Geoforum, Elsevier titled "*Chinese-driven Ghana rosewood: Actors and access dynamics*" (Baidoo, A., Méral, P., & Ongolo, S. (2023). Chinese-driven Ghana rosewood trade: Actors and access dynamics.

Geoforum, *146*, 103871. https://doi.org/10.1016/j.geoforum.2023.103871). This objective of the PhD took inspiration from the Access theory by Ribot and Peluso (2013).

The definition of access as the ability to derive benefits from things introduces a bundle of powers, which may exclude people from deriving benefits from the same resource, unlike the property classification notion of a bundle of rights. This understanding of rights encapsulates a wider range of social relationships that constrain or enable benefits from use than property relations alone (Ribot and Peluso, 2003). According to Peluso and Ribot (2020), resource controls that result from struggles over access overlap with theoretical ideas in political economy and political ecology (see Mann, 2009; Blaikie, 1987).

The theory of access helps with understanding the mechanisms at work in the process involved in gaining, maintaining or controlling access (Rousseau et al., 2017). Ribot and Peluso (2003) note that social identity can influence the distribution of benefits from things, both conferring and eliminating rights of access. The ability to negotiate varied social relationships (e.g. economically based ties, identity-based ties and relationships at local, regional and national scales) can affect access to resources, particularly where new values and structures are emerging

The theoretical framework proposed by Ribot and Peluso (2003) is a rich component of the matrix. These two authors define access as the ability to benefit from things, including material objects, persons, institutions and symbols. The stress on ability instead of rights makes it possible to focus on processes and negotiations. With an understanding of the background, this objective explored how the various actors in the rosewood trade gained access to the rosewood. How the Chinese, contractors, community members, institutions and others had or were denied access to the rosewood trade has not received attention even though it is significant for placing the rosewood trade in its proper context and understanding the intricacies of the Africa-China rosewood trade.

Rosewood by the theory of the commons

The third objective of the PhD to assess the impact of China's rosewood demand on the rural commons in Ghana benefits from the theory of the commons, which results in an output of a peer-reviewed article titled "*Global China and the 'commons': rosewood governance in rural Ghana"* which has been publication at World Development Sustainability, Elsevier. (Baidoo, A., Walters, G., & Ongolo, S. (2024). Global China and the 'commons': Rosewood governance in rural Ghana. World Development Sustainability, 4, 100126. https://doi.org/10.1016/j.wds.2024.100126)

For local users to manage the resources they share, the theory of commons is used to predict and explain local users' actions (Ostrom, 2000). Common pool resources refer to a natural or man-made resource system that is sufficiently large to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use (Ostrom, 1990). Common-pool resources are natural resource systems or human-made systems used by multiple individuals. Examples of common-pool resources include forests, grazing lands, groundwater basins, mainframe computers and the internet. Examples of resource units derived from common pool resources include timber, water, fodder, computer-processing units, information bits, and budget allocation (Ostrom and Basurto, 2009).

Ostrom (2009) argues that all natural resources are nested in complex social-ecological systems (SES). Ostrom proposes a common classificatory framework to enhance multidisciplinary efforts to better understand complex SES. The overview of this framework shows relationships among four first-level core subsystems of an SES that affect each other as well as linked social, economic, and political settings and

related ecosystems. The subsystems are (i) resource systems (e.g., a designated park encompassing a specified territory containing forested areas, wildlife, and water systems); (ii) resource units (e.g., trees, shrubs, and plants contained in the park, types of wildlife, and amount and flow of water); (iii) governance systems (e.g., the government and other organizations that manage the park, the specific rules related to the use of the park, and how these rules are made); and (iv) users (e.g., individuals who use the park in diverse ways for sustenance, recreation, or commercial purposes) as depicted in Figure 1 below (Ostrom, 2009).

Fig 5 :The core subsystems in a framework for analyzing social-ecological systems. Adapted from Ostrom (2009, p. 420).F

Rosewood by actor-centred power

The fourth objective of the PhD, which interrogated the power dynamics among key actors of the Ghana - China rosewood trade received inspiration from the actor-centred power framework by Krott et al., (2014). The results in a research article titled "*Ghana-China rosewood trade: unbridled power in resource extraction*" are under revision for submission to the Political Geography journal (Elsevier).

Actor-centred power approach (ACP) is defined as a social relationship in which actor A alters the behaviour of actor B without recognizing B's will. Krott et al. (2014) posit that in most cases both actors try to alter each other's behaviour, and one actor resists the other's efforts to a degree. They call the actor who alters the behaviour of another actor "potentate" and the other actor "subordinate". According to the authors, based on the specific issue at hand an actor may either play the role of a potentate or a subordinate.

The ACP framework distinguishes between three core elements: coercion, (dis-)incentives and dominant information that make up the basis for observable facts that involve not only physical actions but also threats by power elements and the very sources of said power elements (Krott et al. 2014). The authors define these three core elements of ACP as follows: One, Coercion is altering the behaviour of the subordinate by force.

Force triggers counterforce from the subordinates. An example of an actor in forest governance heavily grounded in force is the state, acting through different state administrative offices. Two, (dis-) incentives are defined as altering the behaviour of the subordinate using disadvantages or advantages. Three, dominant information is defined as altering the behaviour of the subordinate utilizing unverified information.

Timber legality by 'fragile state' and incentive theories

The fifth objective of the PhD is to assess Ghana's timber legality through the lens of the European Union's voluntary partnership agreement (VPA) of Forest Law Enforcement Governance and Trade (FLEGT). The challenges and prospects.
Looking at Ghana as a 'fragile state'

Looking at Ghana as a fragile state: insufficient state capacity or the unwillingness of a state to meet its obligations, generally understood as delivering 'core functions to the majority of its people. A developing country with some parts of the country under extreme poverty, Ghana passes for the tag of a 'fragile state' (Bøås & Jennings, 2007, Brinkerhoff, 2010).

Actors in so-called 'fragile states' have not remained passive in the process of the transnational dissemination of the concept. Their resources have allowed them 'to resist, ignore, engage with, disengage from, and exploit' international involvement (Osaghae, 2007, Boege, 2009). This paper adopts the OECD/DAC (2007: 29) definition of a fragile state as those countries where there is a "lack of political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their population". Linking this conceptual framework to forest governance issues, this definition emphasizes two major points: the will and the capacity to implement public policies that would tackle vested interests in changing the existing trends favouring illegal logging.

The opportunistic behaviour of humans can be altered by incentives and sanctions (Eisenhardt, 1989 p. 63). In the economic theory of incentives, incentives are different types of motivations which encourage employees to do better. Most incentives deployed in firms have been in the form of 'pay for performance', which is mostly targeted at improving productivity (Gibbons & Roberts, 2013). An incentive is an offer of value, in either cash or its equivalent altering a person's course of action through the influence of a transaction (Grant, 2002). Both the giver of the incentive and the receiver of the incentive stand to benefit in this endeavour. There are material and immaterial incentives. Material incentives are money, technical sources like machines, plants or food, support in labour etc., and immaterial sources are manifold, they offer social or psychological advantages (Olson, 1971, p. 61). The European Union's green light of trade for only legally sourced trade partners especially in the tropics gives incentives targeted at reducing deforestation. In this case, the EU turns to achieve its goals of conservation which has attendant benefits and forest-rich countries also benefit economically from their forest resources.

Based on the understanding of a 'fragile state' and the theory of incentives, a research output titled "*Beyond incentive theory: governing a transnational policy instrument to combat illegal logging (VPA FLEGT) in a 'fragile state*" is under review to be published.

(Baidoo, A., Karsenty, A & Ongolo, S. (2023). Beyond incentive theory: governing a transnational policy instrument to combat illegal logging (VPA FLEGT) in a 'fragile state'. *Under review for publication.*

Methodological Approach

Qualitative research approach*: The study broadly adopts the Qualitative approach. Qualitative research emphasizes exploring and understanding the meaning that a person or group of people ascribe to social or human problems (Creswell, 2014). The historic origin for qualitative research comes from anthropology, sociology, the humanities and evaluation (Asenahabi, 2019).*

The research design process in qualitative research commences on the note of philosophical assumptions that the inquirers make in deciding to undertake a qualitative study. In addition, researchers bring their worldviews, paradigms, or sets of beliefs to the research project, and these inform the conduct and writing of the qualitative study. In many approaches to qualitative research, the researchers use interpretive and theoretical frameworks to advance the course of the study. (Creswell & Poth, 2016).

According to Creswell & Poth, (2016), five philosophical assumptions lead to an individual's choice of qualitative research: ontology, epistemology, axiology, rhetorical, and methodological assumptions. Further details of these are provided in Table 1.

Table 1. Philosophical Assumptions With Implications for Practice (Creswell & Poth, 2016)

Assumption	***Question***	***Characteristics***	***Implication for practice (Examples)***
Ontological	What is the nature of the reality?	Reality is subjective and multiple, as seen by participants in the study	The researcher uses quotes and themes in the words of participants and provides evidence of different perspectives
Epistemological	What is the rel**No table of figures entries found.**ationship between the researcher and that being researched?	The researcher attempts to lessen the distance between himself or herself and the being researched	The researcher collaborates, spends time in the field with participants, and becomes an 'insider'
Axiological	What is the role of values?	The researcher acknowledges that research is value-laden and that biases are present	The researcher openly discusses values that shape the narrative and includes his or her interpretation in conjunction with the interpretations of participants
Rhetorical	What is the language of research?	The researcher writes in a literary, informal style using the personal voice and uses qualitative terms and limited definitions	The researcher uses an engaging style of narrative, may use first-person pronouns, and employs the language of qualitative research

Methodological	What is the process of research?	The researcher uses inductive logic, studies the topic within context, and uses emerging design	The researcher works with particulars (details) before generalizations, describes in detail the context of the study, and continually revises questions from experiences in the field

Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquire, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes (Creswell & Poth, 2016).

Qualitative research is conducted because a problem or issue needs to be explored. This exploration is needed, because of a need to study a group or population, identify variables that can then be measured, or hear silenced voices. These are all good reasons to explore a problem rather than to use predetermined information from the literature or rely on results from other research studies. Qualitative research is conducted because there is a need for a complex, detailed understanding of issues. This detail can only be established by talking directly with people, going to their homes, or places of work, and allowing them to tell the stories unencumbered by what we expect to find or what we have read in the literature (Creswell & Poth, 2016).

Research Design

Qualitative research design produces data that is not quantifiable using open-ended questions. This approach enables the researcher to comprehend issues by investigating themes in their specific context and the meaning that individuals bring to them (Denzin & Lincoln, 2005).

This PhD employs the use of case study and phenomenological research qualitative research design methods. A case study is a design of inquiry in which a researcher creates an in-depth analysis of a case which entails a process, animal, person, household, organization, group, industry, culture or nationality (Sjoberg et al., 2007; Mugenda & Mugenda, 2003). A case study is an intensive study of a phenomenon, but it gives subjective information rather than objective. It gives detailed knowledge about the phenomena and is not able to generalize beyond the knowledge (Singh, 2006).

The case study gives a rigorous understanding of how and why certain phenomena occur by revealing the mechanism by which a causal relationship occurs (Wabwoba & Ikoha, 2011). The researcher collects detailed information using a variety of data collection procedures and tools over a sustained time (Yin, 2012). It gives detailed information about the unit being studied. It requires a considerable amount of information, and therefore conclusions are based on a much more detailed and comprehensive set of information (Marczyk et al., 2005).

Phenomenological research is a design of inquiry which originates from philosophy and psychology where the researcher describes the lived experience of individuals about a phenomenon as described by the participants. It is a qualitative strategy in which the researcher identifies the essence of human experiences about a phenomenon as described by participants in a study (Cresswell, 2014). It uses the analysis of

significant statements, the generation of meaning units, and the development of essence description (Moustakas, 1994). This design has strong philosophical underpinnings and typically conducts interviews (Giorgi, 2009).

Study sites of the PhD research

Ghana Forestry Commission (2021) data demonstrate significant populations of rosewood species are found in the Upper East, Upper West, Northern (currently split into North East, Savannah and Northern Regions), Brong-Ahafo (currently split into Bono, Bono East and Ahafo Regions), Volta (currently split into Volta and Oti Regions) and parts of Ashanti and Eastern Regions (

In Ghana, rosewood is principally endemic to the northern regions (Northern, Northeast, Upper West, Upper East and Savannah). Due to the fragile nature of the environment in the north, trees fall under the Protection Management Unit of the Forestry Commission and not under the Production Unit as happens in the south of Ghana where there are more timber species for production. As a result, before the rise in the trade of rosewood, there were no management regulations regarding the species due to its geographic location predominantly in the north of Ghana, which did not fall within the country's forest production zones. The government, through the Forestry Commission, resorted to the use of salvage permits, conveyance certificates and transportation permits as a means to try to regulate rosewood exploitation when it was rife.

To investigate and explore for answers for these PhD study objectives in line with the Ghana-China rosewood trade, the three topmost regions where the rosewood trade in Ghana thrived, namely the Upper West Region, Upper East Region and Savannah Regions, were purposively selected for the study. Two communities were selected from each of the three regions featuring the rosewood activities. In the Upper West Region, Nabugubelle and Dolinbizon were selected; in Upper East Region, Bachonsa and Kadema were selected; in Savannah Region, Sonyo and Kablima were selected

Empirical methods

The empirical research focuses on social sciences methods: including document analysis, field observations, focus group discussions and expert interviews of relevant stakeholders like the forestry commission, chiefs, and community members and their activities were analyzed in connection with the Chana- China rosewood trade and its related activities.

Given the political sensitivity of the rosewood trade in the study context, we ensured that our sample included key stakeholders from local and regional to national levels. Various attempts made to engage the Chinese rosewood merchants proved futile as most of them would rather make the Ghanaian trade partners front for them. Due to the illegal tag with the rosewood trade, most of the Chinese will not risk divulging any information in this regard as there have also been a couple of arrests of Chinese nationals who are into illegal mining in Ghana.

In-depth interviews with Ghana forestry officials sought to understand how the rosewood trade was initiated, how the Chinese initiated the rosewood trade and the role of the Ghana Forestry Commission in the rosewood trade activities. Interviews with rosewood contractors focused on how their trade with their Chinese rosewood counterparts was initiated and maintained, and how the Chinese built informal trust with them as key Ghanaian partners. The interviews also focus on the processes of accessing rosewood from the communities. Questions for community youth leaders focused on the role of community members in rosewood activities, their access to land and the rosewood in their communities. For the rest of the

stakeholders' interviews, questions focused on their involvement in the rosewood trade and its related activities. Each of the interviews lasted about an hour, depending on the interviewee's motivation and availability to collaborate. Each interview was comparable to a face-to-face open conversation (Lavrakis, 2008), although they also followed specific pre-defined topics. This strategy of conversation enables interviewees to freely share on the topic without hindrance as thoughts easily flow through conversation than when discourse follows a structured pattern.

Seven different focus group discussions, one in each community of the three regions (Upper East Region, Upper West Region and Savannah Region) and one with senior forestry community officials in Tumu, Upper West Region. Participants for the focus group discussion are chiefs, community leaders and members, landowners with rosewood on their lands, rosewood loaders and spotters, unit committee members etc. However, as compared to the face-to-face interviews participants of focus group discussions are careful in what they share for fear of being tagged by others. Participants of the focus group were consistently encouraged to freely provide information for a better appreciation of the subject matter. They were also assured of their anonymity in the final analysis of the findings of the study. Overall, one hundred and six participants were involved in the focus group discussions. These discussions centred on the rosewood and land access in the communities, the involvement of different stakeholders in the rosewood trade, the role of communities in the rosewood activities, how various stakeholders had or did not have access to the rosewood and the meanings they constructed around it (Bryman 2012).

Most of the stakeholders were fellow university bachelor and master mates of the PhD Candidate. His nationwide network of forestry officials enabled the team to gain access to extremely sensitive information based on trust and confidentiality. Most of the interlocutors provided sensitive information because they were convinced that their relationship with the PhD candidate was strictly for scientific research purposes and not as a way to incriminate or witch-hunt anybody. The research team, therefore, had to guarantee the interlocuters that the source of the information would remain anonymous and confidential. Against this background, information was freely given to facilitate this study. Regarding access to communities, information was not entirely forthcoming at the initial stages, but upon further interrogation and explanations of the purpose of the exercise as a research endeavour for purely scientific work, most of the community members opened up to provide the needed information.

All interviews and focus group discussions were audio-recorded, with the prior consent of each interviewee, and transcribed in English. Transcripts were manually analyzed by grouping statements under similar sub-headings. Selected quotations from the transcripts are used from time to time in the text to support themes and foreground the lived experiences of participants. Thematic analysis is useful for examining both theory and data-driven materials (Boyatzis, 1998).

Academic originality of the work

The originality of a scientific work is the degree to which a scientific discovery provides subsequent studies with unique knowledge that is not available from previous studies (Shibayama & Wang, 2020). As science advances through discoveries of new knowledge, originality constitutes one of the core values in science (Hagstrom 1974; Merton 1973; Storer 1966).

This PhD work makes an original two-pronged contribution to both the scientific literature on Chinese impacts on Ghana's forest governance and the empirical-based implementation of scientific theories. In

terms of a scientific literature contribution, this is the first time in our knowledge a PhD work has solely dedicated extensive research work concerning Ghana and China using rosewood as a case study. The special attention on China as a global force helps deepen understanding of the implications of globalization in forest governance and politics in the context of global China expansion in Africa.

This research makes an empirical-based contribution to what drives access to and who benefits from the globalization of natural resources in African countries characterized by 'political disorder'. It unveils the intricacies of institutional architecture in Ghana paraded around the natural resources extraction in forestry governance in Ghana in copious details which has not before been projected in literature.

From a China-Africa relations perspective, this work contributes to advanced research on the politics of natural resources and the related sustainability challenges in the context of increasing global Chinese influence in Africa. This study in a novel way unveils the Ghana-China relations in line with natural resource extraction in a manner which has not been recorded in literature. The work also contributes to the debate on global timber legalities using Ghana's timber legality issue through the lens of the European Union's voluntary partnership agreement (VPA) of Forest Laws Enforcement of Governance and Trade (FLEGT). This is important as there has been an increasing shift in Ghana timber/wood export from Europe to China.

In terms of empirical-based contribution to theories this PhD contributes to the theory of access (Ribot and Peluso, 2013), provides empirical evidence and makes an important contribution to understanding the politics of the rosewood trade engineered at local and national levels and subject to transnational influence. In addition to access to resources, the work addresses access to the profits, or at least the revenues, derived from trade and purchase. While previous work (Haugen, 2011) has emphasized the role of local mediators in the export of primary goods to China, the contribution of the PhD addresses the distribution of profits between buyers, contractors and local communities.

This study contributes to the debate on common-pool resources, demonstrating that with the right information and communication network, rural people can self-govern common-pool resources to their advantage despite the alarming influences that external factors pose. The study also contributes to the literature on the actor-centred power approach, provides empirical evidence, and makes an important contribution to the power discourse in forest governance. It also sheds light on the powers of transnational forces like China, vis-à-vis that of national and local power.

Limitations of the Study

This PhD study as seen above has made several interesting contributions, providing interesting first-hand data regarding a globalized trade using Ghana and China's rosewood trade as a case study. It provides interesting reflections on theories of access, commons and incentives. It also adds to the reflections of Socio-Ecological Systems (SES) and the Actor-Centered Power framework.

That said, the findings of the study should be interpreted in the context of some of the limitations of the study. The sensitive nature of the topic was a key limitation in achieving a large sample size. It was ensured,

however, that the sample was representative of all key stakeholders in the rosewood business, including community members, traditional leaders, CSOs, youth group leaders and the Ghana Forestry Commission.

Most of the interlocutors provided sensitive information because they were convinced that the information divulged was strictly for scientific research purposes and not as a way to incriminate or witch-hunt anybody. The research team, therefore, had to guarantee the interlocuters that the source of the information would remain anonymous and confidential. Against this background, information was freely given to facilitate this study. Regarding access to communities, information was not entirely forthcoming at the initial stages, but upon further interrogation and explanations of the purpose of the exercise as a research endeavour for purely scientific work, most of the community members opened up to provide the needed information.

Several attempts made to engage some Chinese rosewood dealers proved futile as they would not open up for fear of their lives. However, other Chinese nationals in Ghana engaged in different businesses were engaged as a way to understand the Chinese perspective on things.

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Chapter One(1)

Global China effects and domestic politics of rosewood in Africa: A realist review

Baidoo, A., Méral, P., & Ongolo, S. (2023). Global China Effects and Domestic Politics of Rosewood in Africa: A Realist review. In S. Ongolo & M. Krott (Eds.). *Power Dynamics in African Forests* (pp. 88-107). Routledge (Taylor & Francis). Available: Global China Effects and Domestic Politics of Rosewood in Africa | 5 |

Abstract

African Rosewood (*Pterocarpus erinaceus*) has remained the most traded and internationally sought-after endangered wood species for the past decade. The explosion in the trade of rosewood is directly linked to the rise of global China since rosewood furniture is associated with a cultural renaissance in a new paradigm of the Chinese economic revolution. Due to the explosive, demand for African rosewood in African countries such as Benin, Gambia, Ghana, Guinea Bissau, Nigeria, and Mozambique the species' natural populations are declining and tending towards extinction in several countries in Africa.

Using the realist synthesis review approach, inspiration from the network theory and key informant interviews of key actors in the Ghana rosewood case, the review contributes to the rosewood debate by shedding light on the power relations among key actors in the rosewood conundrum in Africa. The review has shown that China and Politicians are major rosewood actors in Africa and have more bargaining powers in the trade as they have both strong and weak actors to bargain with. It is clear from the review that various regulatory processes set in motion by different African states to contain and manage the spike in rosewood extraction mostly due to the Chinese trade demand have not been successful. This is depicted by the various lifting and placing of bans on the trade and felling of rosewood in most African countries. This review provides additional information that inadequate technical training for customs officers contributes to the illegal trafficking of rosewood since these officers are not well equipped to identify the rosewood and flag them out when necessary.

There is a need for a regional approach in dealing with the rosewood trade and its associated challenges instead of the various droplets of country-specific approaches, which have been largely ineffective.

Keywords: Rosewood, Forest Politics, Governance, China-Africa

Introduction

Rosewood is the most trafficked group of endangered plant species in the world (Zhu, 2017; Adjonou et al., 2020, Zhu, 2022). African Rosewood remains the most traded and internationally sought-after endangered wood species for the past decade (Asanzi, 2014; Dumenu and Bandoh, 2016; Zhu, 2017; Kansanga et al., 2021). The explosion in the trade of rosewood is directly linked to the rise of global China since rosewood furniture is associated with a cultural renaissance in a new paradigm of the Chinese economic revolution (Zhu, 2022).

In the same vein, rosewood is also an endemic and threatened plant species in arid and semiarid zones of Africa and is highly exploited for timber, animal feeding, and various medicinal uses (Dumenu and Bandoh, 2016; Kossi et al., 2019). Rosewood is a wide range of hardwood species mostly found in the tropical areas of Southeast Asia, Africa, Central, and South America. It comprises specific species of the genera *Dalbergia* ('true rosewood') and *Pterocarpus* (substitute rosewood) e.g. *Pterocarpus erinaceus*, *Pterocarpus soyauxii Taubb*, (padouk); *Pterocarpus chrysothrix* (called Mukula in Zambia and Congo) etc. (Dumenu and Bandoh, 2016; Cerutti et al., 2018). *Dalbergia* species have been the main target in the trade. As a result, increasing demand has reduced its availability. This phenomenon has shifted attention now to the *Pterocarpus* genus as a replacement (Winfield *et al.*, 2016).

Rosewood refers to different meanings to different people in terms of the benefits derived, as its uses depend on ecological zones, sociolinguistic groups, gender, and profession (Abdul-Rahaman et al., 2016; Zhu, 2017; Ouinsavi et al., 2021). Locally, rosewood is a utility species as it has diverse uses in Africa- sap called kilo is used as a dye in tanning and cloth making, as a legume it harbours rhizobia that returns nitrogen to the soil, making it fertile; foliage is a nutritious fodder for farm animals. The tree has highly traditional medicinal uses including the reduction of fever and cough suppression (Abdul-Rahaman et al., 2016; Adjonou et al., 2020). Because of its diverse uses, the species is subject to growing anthropogenic pressure (Ouinsavi et al., 2021). To the Chinese, it represents the identity of culture and the preservation of aged old mid-Ming to early-Qing dynasties' pride since the late 16th to 18th centuries (Zhu, 2017).

Africa has been the centre stage for most of this illegal rosewood trafficking across the globe (Adjonou et al 2020; Kansanga et al., 2021). This illegal African rosewood trade has emerged because of the collapse of rosewood stocks in Southeast Asia making Sub-Saharan African countries the target (Singh,2014; Kraisoraphong, 2018; Nhung, 2020). Rosewood is a subject of large-scale international traffic between Africa and Asia, which is the greatest threat to the species (Kossi et al., 2019). The thriving rosewood trade especially in the African sub-region has sparked several debates across the globe.

The value placed on rosewood by China especially has resulted in a boom in trade in various African regions where rosewood is abundant (Asanzi, 2014; Zhu, 2017; Kansanga et al., 2021). China's rosewood imports from Africa have increased by 700% since 2010 (Treanor, 2015). African rosewood provides a more affordable and abundant source of raw material compared to the high prices and limited resources of traditional species in Southeast Asia (Wenbin and Xiufang, 2013). The African rosewood is an economically viable commodity and as a result is highly trafficked globally (Lawson, 2015).

There is a raging debate about the conservation of rosewood (Zhu, 2017; Zhu, 2022) as this has been a contention between China and Western countries, especially in Madagascar Western countries are much more interested in environmental sustainability and therefore concentrate on the conservation of the rosewood, the Chinese are interested in the extraction of the rosewood to meet their demand. Rural dwellers in Madagascar sometimes marvel at why the Chinese would pay so much money to buy rosewood (Zhu and

Klein, 2022). The rosewood debate revolves around illegal felling and trade of rosewood, the benefit of rosewood to local people, and the laws to regulate rosewood in the face of sustainability and proper regulation of rosewood trade along its value chain (Asanzi, 2014; Dumenu and Bandoh, 2016; Zhu, 2017; Kansanga et al., 2021; Ouinsavi et al., 2021; Zhu and Klein, 2022).

Due to the explosive, demand for rosewood, especially for the *Pterocarpus erinaceus* (African rosewood) in African countries (Winfield *et al.*, 2016) the species' natural populations are declining and tending towards extinction in several countries in Africa. The first affected countries were Benin, Guinea Bissau, Ivory Coast, Gambia, Ghana, and Nigeria (Ouinsavi et al., 2021).

Madagascar is known for its relative abundance of rosewood globally as rosewood trafficking activities have been extensively documented (Zhu, 2017; Zhu, 2020; Zhu, 2022). This is partly the case because pressure on natural resources in Madagascar's parks and reserves- each of which has its complexities regarding management issues comes from various groups, ranging from impoverished subsistence farmers to cunningly organized international timber dealers (Schuurman and Lowry, 2009).

The threat to rosewood is linked to the quality of its wood which has a high commercial value, its fodder importance in ruminant breeding, and its various traditional uses in the treatment of several diseases and symptoms in animals and humans (Ouinsavi et al., 2021).

As a way to halt the rate at which the species is being depleted, selected species in the *Dalbergia* and *Pterocarpus* genera were listed on various Appendices of the Convention on International Trade of Endangered Species of Wild Fauna and Flora, CITES (CITES, 2016).

Using the realist synthesis review approach and inspiration from the network theory, this review contributes to the rosewood debate by shedding light on the power relations among key actors in the rosewood conundrum in Africa. Based on empirical research and key informant engagement through Zoom interviews as well as an email exchange with experts in the Ghana rosewood case, this review provides additional first-hand information that inadequate technical training for the customs officers contributes to the illegal trafficking of rosewood since these officers are not well equipped to identify the rosewood and flag them out when necessary. It also reveals how different actors in the Ghanaian rosewood trade chain took advantage of the rosewood business to make financial gains instead of setting up a proper regulatory framework to manage the rosewood business sustainably.

Method: A Realist Synthesis Approach

The realist synthesis review (RSR) was selected as a methodological framework of this paper because, in comparison to the more common systematic review, it allows for the analysis of what works, for whom, in what circumstances, and why (Pawson, 2013; Pawson and Tilley, 1997). In this review, the concentration was to find out key patterns of the state of the rosewood trade in most African countries, the challenges that the rosewood trade faced, and the actors and their relationships in the rosewood business and trade. In addition, the rosewood regulatory laws, whether it has been effective or not, and what accounted for their successes or failures within the special context of forest governance in African countries.

RSR presents an explanatory model that is more accountable to the complexity of the social sciences (Pawson et al., 2004; Barletti, 2020). Our paper describes the application of the realist approach to synthesizing evidence from research publications examining rosewood trade in the African sub-region and various local to international arrangements and regulations in the exploitation and trade of rosewood in Africa (McLain, 2018).

Realist synthesis helps to clarify, how, where and why illegal rosewood trade continues to thrive in various African countries and the factors, which drive them. A realist synthesis focuses on outcomes and the social and political issues which lead to them (McLain, 2018; Barletti, 2020).
Realist synthesis operates on the assumption that policy interventions do not produce outcomes in and of themselves. Rather it is the mechanisms that underlie interventions that result in the outcome (Durham & Bains, 2015). In a realist review, there is no finite set of relevant articles that can be defined and then found, as the process is iterative. Realist reviews mostly employ the use of snowball sampling i.e. references and citation tracking yield the majority of relevant articles than protocol-driven search strategies (Pawson, 2004; Kastner, 2011)
This review benefits from a model of searching called 'berry-picking' which asserts that typical search queries are not static but evolve, gather information in bits and pieces rather than in one grand best-retrieved search and use a wide variety of search techniques and sources beyond common bibliography databases (Kastner, 2011). The review was based on research from peer-reviewed journals retrieved from Google Scholar based on the input of selected keywords such as "China Africa Rosewood", "African rosewood" "Illegal rosewood trade", "illegal rosewood logging" etc; reference tracking from initially retrieved papers enabled us to secure additional papers which were relevant for this review. Rosewood information from conservation NGOs complements data from peer-reviewed journals.

In realist reviews, searching continues in a cyclical and iterative process that is not designed to be exhausted. According to Pawson (2004), the test of saturation can be applied iteratively, by asking at each stage of searching whether the latest sample of literature has added anything new to the understanding of the purpose of the review and whether further searching is likely to add anything new (Glaser and Strauss, 1967).
Based on this, thirty (30) publications were selected and decided on as they provided the needed information relevant to this African rosewood review. There is no one prescribed approach to doing a realist synthesis, rather the reviewer must be sympathetic to the philosophy of realism in the issue being explored (Pawson, 2004; Rycroft-Malone, 2012)
The African rosewood trade and its related issues are not an intervention with underlying theories. However, it passes as a social phenomenon with diverse implications (Pawson, 2004). It has theory leanings such as network theory, political ecology, political economy, theory of access, conservation, etc. Hence, the realist review fits perfectly in unravelling the complexity of governance issues regarding actors, power, interest, and institutional arrangements.

In seeking an understanding of the power, and relations among rosewood actors in Africa the review took inspiration from the network theory. Using the idea from Cook and Emerson's (1978) experimental study of the exercise of power in an exchange network. The different bargaining power of five major actors in the African rosewood trade is explained.

To supplement the secondary data, representatives from the National Office of Ghana's Forestry Commission and Civic Response Ghana, a leading natural resource and environmental (NRE) governance policy advocacy organisation working to entrench resource rights, were interviewed to pick their thoughts on the Ghana China Rosewood trade.

Specifically, we sought to answer the following questions. Who are the key actors governing the rosewood sector in Africa and what different bargaining power strategies do they have? What are the regulatory procedures for rosewood in Africa? How does rosewood contribute (or not) to livelihoods in Africa? Who are the dominant and marginalized actors in the African rosewood trade system?

Findings

Box 1: Global China and rosewood

China's rise as a global economic power since the beginning of the twenty-first century continues to elicit concerns in the Western world. Lee (2017) coined the term 'Global China' to mean China's economic expansion and globalizing strategy in other domains. China has been a global force for centuries, yet the unprecedented expansion of trade activities of China in the twenty-first century is what scholars and the media often refer to as global China.

China is a key player in global governance issues due to the sheer size of the country and the deliberate efforts being made by the Chinese to extend their influence across the globe (Wang and Rosenau, 2009). China uses several strategies in its quest to maintain businesses and production in Africa. This sometimes includes diversifying support for political figures to eventually gain their business support as demonstrated by Lee (2017) in Zambia.

China has traded globally on the side of caution, respecting their five principles of peaceful coexistence namely mutual respect's sovereignty and territorial integrity, mutual nonaggression, mutual noninterference in each other's internal affairs, equality and mutual benefit and peaceful coexistence. China, therefore, does not deploy authorizing sanctions and military interventions, which have been the Western response to some international trade partners' political misconduct and human rights abuse. In these instances of trade sanctions from the West China has mostly emerged as the best trade alternative to these sanctioned countries (Zhu, 2022).

Lee (2017) distinguishes carefully between the Chinese state capital and global private capital in terms of their business objectives, labour practices, management ethos, and political engagement with the Zambian state and society. Lee (2017) concludes that the Chinese capital in Africa is indeed different in objectives and orientation. She argues that while global private capital (mainly Western) is often oriented towards 'profit maximization, Chinese state capital on the other hand is oriented towards 'profit optimization. That is China invests state capital in Zambia to realize "state-defined interest" including the long-term sustainability of the state firms rather than just the short-term goals of making a profit.

Zhu (2022) recounts her experience of how she witnessed first-hand in Madagascar the transformation that China's trade of the endangered rosewood species in its northeastern region brought in the lives of the community members in the region. As she rightly puts it "Any new houses that were constructed or new motorbikes that buzzed on the streets and there were many-were said to be effects of rosewood. New metal roofs and solar panels out in the countryside were also attributed to the booming trade" (Zhu, 2022 p.6). There is therefore markedly a direct spillover effect of the rise of China on the rest of the world with Africa being one of the most affected.

As China seeks to redefine its modernity, it lays strong emphasis on its cultural past, with a strong connection of rosewood to the historic past of China based on the value placed on it, rosewood falls directly within China's agenda of recapturing its past glory and forging a new path of progress and dominance. Rosewood furniture is therefore in high demand spurring an aggressive and sporadic

Rosewood Actors in Africa and their interests

Identification of the relationship between the main rosewood actors in Africa is based on Cook and Emerson's (1978) experimental study of the exercise of power in exchange networks. Following their lead, we, therefore, substitute the five major rosewood actors in Africa namely the Forestry institutions, private investors including Chinese, Community members/leaders, Politicians and Civil society organisations as subjects to occupy the nodes in the network. Based on Cook and Emerson (1978), substituting the five main rosewood actors in the exercise of power in an exchange network (Fig. 1) in which actors are supposed to make pairwise deals based on the experiment with those they are directly connected to, For example, Politicians, can make a deal with either community members/leaders or civil society organisations, but not both.

According to Cook and Emerson a set of thirty-six (36) pairwise deals in which every actor has an equal opportunity to pair based on their position in the network will show that Chinese investors and Politicians will have high bargaining power (This is confirmed by Ghana rosewood case where after a Chinese initiated the rosewood trade, it continued to thrive on the demand of the Chinese. In the same Ghana case, the role of politicians in regulating the rosewood trade through the placing and lifting of bans and sometimes their direct involvement in the trade by using others is also revealed. There are also cases of how some politicians brought some Chinese to Ghana to trade in rosewood), whereas Forestry institutions, community members/leaders and civil society organisations have low power.

Of special interest in the situation of community members/leaders as an actor, which is more central than, and has as many trading partners as, Chinese investors and Politicians. However, Chinese investors and Politicians are stronger because each has partners (Forestry institutions and Civil Society Organisations) that are in weak positions (no alternative bargaining partners). Having only strong actors to bargain with makes community members/leaders weak. In this way, an actor’s power becomes a function of the powers of all the other actors in the network; and results in a situation in which an actor’s power can be affected by changes in the network far away from the actor. The review thus showed how actors have unequal bargaining power based on the influence they have in engaging different actors. There are therefore dominant actors and marginalized actors.

Fig. 1 A five-rosewood actor exchange network. Nodes represent actors; lines represent exchange relations. Source: Authors.

Box 2: Steps of official timber export processes in Ghana

As a concrete example, an expert email online interview with one of the lead officers at the Timber Industry Development Division of the Ghana Forestry Commission further revealed the following steps in the processes of timber export in Ghana.

a) It begins with registering a limited liability company with the Registrar's General Department (RGD). The nature of business must include the export of timber and timber products; b) This is followed by registration with the Forestry Commission as an exporter of timber and timber products. Documents required include Certificates issued by RGD; c) Registered Exporter then closes a sales contract with an overseas buyer who is also registered with the Forestry Commission as an Importer of timber and timber products from Ghana. Both Exporter and Buyer are issued with Registration Certificates, which are valid for a year and renewed after the expiration date; d) The Sales contract is submitted by both parties for vetting and approval at the Forestry Commission before the commencement of the production processes at the Mill; e) Processed timber products at the Mills are subsequently inspected by Forestry Commission Timber Inspectors to ensure conformity of the terms and conditions of the sales contract; f) Exporters then apply for Export Permit to export wood goods; Regarding the role of the customs in the export of timber and the technical expertise in identifying timber this was his response:

"Customs do not have the technical expertise to determine the type of timber species and the product being exported. The Export Permit issued by the Forestry Commission triggers the release by Customs to load the consignment on board the vessel via the UNIPASS at the Port of Exit"

(*National Officer at Timber Industry Development Division (TIDD), Ghana; Email interview on 10th March 2022*)

This lack of technical ability may partly facilitate the illegal rosewood trade as the customs officers are unable to double-check the wood before final export and rely solely on export permits issued by the Forestry Commission of Ghana. It will therefore be necessary that customs officers be trained to identify the various types of wood to aid in tracking and flagging the illegal rosewood trade.

In a related development, an interview with a representative from Civic Response Ghana, a leading natural resource and environmental governance policy advocacy organisation showed that over the years rosewood has not been part of the Ghana wood tracking system. He mentioned, however, that because of Ghana's preparations for the FLEGT licence rosewood has now been added to the wood tracking system.

Brief description of major rosewood actors in Africa

Rosewood actors are broadly categorized into domestic and foreign actors. The latter includes multilateral or international actors such as CITES and transnational private actors such as conservation NGOs and Chinese investors. The domestic rosewood sector consists of the various individuals, groups, and institutions that are involved in the rosewood from its identification and felling to its being sawn, parked onto tracks or vessels, and transported through cities to the harbours where they are finally shipped outside of the respective African country to an Asian import country, mostly China. Throughout the rosewood value chain, there are designated mandatory institutions which are supposed to do due diligence to ensure proper compliance with wood regulations in the various African countries but, most of these officials are compromised. This explains why several rosewood bans have not been adhered to (Dumenu, 2019; Kansanga et al., 2021).

Domestic actors can be grouped into sub-national and national actors (Fig. 2). National actors are individuals or institutions mandated by state or country laws and regulations to provide services tailored to ensure the sustainable management of forest resources which include rosewood e.g. Forestry Commission/Departments. These formal institutions are mostly at both the national, sub-division and district level.

Sub-national institutions on the other hand are the individuals or groups along the rosewood value chain, which provide services as a means of economic survival, as exploitation of the rosewood situation to gain financially or working to ensure sustainable extraction of rosewood.

Fig. 2: Main Rosewood actors in Africa. Source: Authors.

Examples of domestic actors in the African rosewood conundrum are:

(1) Rosewood hunters: these are individuals in the various rosewood export countries who by their proximity to the forest where the rosewood is located know where these resources are. They can help identify them in their respective locations (Kansanga et al., 2021).

(2) Chainsaw operators/Cutters: they are mostly local nationals responsible for felling the rosewood from the forest. According to Cerutti et al (2018), cutters are typically farmers who take up illegal logging as an additional livelihood activity. Cutters are mostly price takers with little negotiation capacity as they sell rosewood to traders. In Zambia, before the rosewood regulatory changes around 2014, cutters used to sell rosewood directly to Chinese dealers. After the regulatory changes cutters now had to deal with Zambian nationals who now become intermediaries and now had to buy the rosewood at a cheaper price as compared to what the Chinese used to provide to the cutters (Cerutti et al., 2018).

(3) Rosewood Traders: These are groups of mostly local nationals. They serve as intermediaries between the Chinese by buying rosewood from the cutters and later selling them to the Chinese (Cerutti et al., 2018).

(4) Community groups: These groups have emerged either as a network to collaborate with transnational rosewood dealers or to fight the illegal extraction of rosewood (Kansanga et al., 2021)

(5) Traditional Authorities: Most traditional leaders in rosewood-abundant communities in Africa are neck-deep in the rosewood trade either through the release of lands for the felling of rosewood in their communities or cooperation with transnational rosewood dealers in the extraction of rosewood (Dumenu 2019; Kansanga et al., 2021). In Zambia, the Forest Act of 2015 gives formal access rights to rosewood to Traditional authorities. They, therefore, control formal access rights, drawing on traditional authority among rural populations as the custodians of customary land. Taking advantage of the boom in rosewood trade, these Traditional authorities act as financiers, traders, and mobilizers of cutters from local communities (Cerutti et al, 2018).

(6) Local government officials e.g. assembly members in Ghana: The spate of illegal logging in most African countries sometimes moves the local government officials as evident in the Ghana case to organize the youth in the rosewood communities as a third force in its desire to put the issue under control. This they do by organizing the youth in the communities to resist these illegal rosewood operators (Kansanga et al., 2021).

(7) Forestry Institutions: In most African countries, there is a legally mandated specific forestry institution, Commission or department responsible for regulating forestry activities to ensure the sustainable utilization of forest resources and proper management of the forest. In the rosewood scheme of affairs, the forestry institution is responsible for providing permits before the rosewood can be felled. These forestry institutions mostly have national officers and district officers who are rather close to the forest. Mostly rosewood felling permits are issued at the national offices without any recourse to the existence of the district officers, which renders them ineffective in monitoring felling activities since they are mostly not directly involved in the pre-inspection and issuance of rosewood felling permits (Dumenu 2019; Kansanga et al., 2021). In the Ghana Rosewood case, other Rosewood actors sometimes accuse some forestry institutions to be encouraging rosewood activities for monetary gains instead of paying attention to their legally mandated duty of being a regulator.

(8) Military/Police: In most forest-rich countries military and police work in collaboration with forestry institutions to patrol forests, and combat poaching and illegal logging activities. In the cases of Ghana and Cameroon, contrary to military-aided forest patrols in forests including in protected areas, Ahmed & Oruonye (2016) reports the forest has not been seriously patrolled in Nigeria for the past decade due to a lack of logistics and employment of forest guard. They further argue that state governments have rather diverted forestry funds to other areas, making forest encroachment the order of the day.

(9) Politicians: In the context of co-management of resources between the state and local communities, as in forest governance in Ghana, governments tend to hide behind regulations to create opportunities for resource extraction for a few political party elites through selective enforcement of logging regulations (Johnson, 2019). These political party favourites are giving salvage permits to fell rosewood as a direct way to make money (Dumenu, 2019).

(9) On the other hand, some of the foreign rosewood actors are:
(9a)Transnational rosewood dealers are dominated by Asian investors including the Chinese: About 80% of rosewood from Africa is exported to China. The increasing craving for rosewood furniture in China fuels the trade of rosewood across the globe. Africa has been a major supplier of rosewood to China. This makes China a major foreign actor in the African rosewood trade. Many scholars have identified two models the Chinese use in securing rosewood. In the first model, Chinese investors participate all along the rosewood value chain. In this arrangement, Chinese nationals have direct or indirect access to the forest, make agreements with local chiefs, supply the local people with equipment, cash flow, and operating equipment, and ultimately purchase logs from them. This model is more profitable for the Chinese since middlemen could be avoided, which makes profit higher for them. In the second model, the Chinese buyers participate at a distance from the harvesting places, usually the cities, and rather source the rosewood from a constellation of domestic traders who directly purchase them from the local partners (Innes 2010; Cerutti et al., 2018; Zhu 2022).

(9b) Donors, Transnational Non-Governmental Organizations (NGOs) and Multilateral Agencies: Donors in the rosewood sector are international organizations that have specially allocated funds to work towards the sustainable management and conservation of natural resources across the globe, e.g. World Bank, German cooperation (GIZ & KfW), UKAid and the European Union Commission. These funds are mostly released to international NGOs who submit detailed proposals on plans to achieve the vision of the donors regarding the conservation or sustainable management of natural resources. As these NGOs make a good case for this pursuit, funds are released for the said purpose. There are also multilateral agencies such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which play a key role in regulating the trade of rosewood.
Although, all these actors in the rosewood value chain play a critical role in the trade. Some of the actors are dominant as they wield more power and resources and dictate the pace of the rosewood trade. Some of the dominant actors are Politicians, Chinese, state and Traditional authorities. Through their influence, coercion capacities and financial muscle they determine the pace of the rosewood trade. Marginalized actors, on the other hand, are mostly at the mercy of the dominant actors even though they work so hard. The financial benefits which mostly accrue to them are not commensurate with their rights and efforts. Examples of marginalized actors are the cutters, rosewood hunters, and forest-dependent people in general (Cerutti et al., 2018; Dumenu 2019; Kansanga et al., 2021).

Political disorder and power at work in the African rosewood sector

Political instability in many forest-rich countries in Africa has been an exacerbated factor of informality and illegality in the rosewood sector. This is particularly the case in Madagascar (Zhu, 2017) since the 2009 coup d'état which resulted in indiscriminate logging of rosewood. Across time and along the chain, cronyism, stakes, and elite capture have left little space for environmental concerns regarding the sustainability of rosewood production or any other species (Cerutti et al., 2018).
Indeed, there is every indication of the close ties between forests, lands, and political issues, which have various territorial and social implications (Ongolo et al., 2021). According to a study done by Cerutti et al., (2018) in Zambia, power hierarchies at all levels of the state and across borders try to benefit from rosewood as quickly as possible, ultimately hampering the establishment of sustainable rosewood business.

In investigating the Ghana case of why illegal rosewood trade continues to fester even in the face of the ban on rosewood activities, Kansanga et al (2021) observed that Politicians, Traditional Chiefs, and Forestry officials, are key players in creating the success or failure conditions for an (in) effectiveness of the ban of rosewood trade. Based on the study, powerful local community actors liaise with Chinese rosewood dealers in illegal logging arrangements. The Chinese negotiate with these community leaders and hand them lucrative bribe offers to pave the way for them to extract the rosewood sometimes at the blind side of the state authorities. In Nigeria, rosewood can be compared with a rush for gold in which the activity is 'well organized in a coordinated network that has defied all existing forestry regulations (Ahmed, 2016). EIA (2018) reports how in Nigeria, approximately 3,000 questionable CITES permits were officially issued by the Nigerian authorities for traffickers to smuggle over 1.5 million logs to the Chinese market equivalent to three Empire State buildings.

In Ghana, the thriving of illegal rosewood logging also hinges on the abuse of salvage permits. The gap between rosewood salvaging companies and officials of the Forestry Commission officers within those specified localities during the identification of salvageable logs provides the opportunity for companies to fell rosewood and later report it as salvageable wood (Kansanga et al., 2021). These salvage permits are issued at the discretion of the top hierarchies of the forestry administrations mainly appointees of the ruling government. Some Chiefs in Ghana claim ownership of forestlands and by extension the trees on those territories. They, therefore, exercise a discretional power (Ribot 2003) for others to fell the rosewood.

The prevalence of forest crime has been on the increase because of poor governance, corruption, and illegality in the forest sector, particularly in sub-Saharan countries of Africa. Using the forest of Taraba state as a case study, Ahmed (2017) reports how Nigeria's forests have been without patrols for a decade. This sends a signal of how illegalities and forest crimes are likely to thrive in such an environment. Pervading political influence in the rosewood trade across Africa is a central theme running through most of the studies addressing this issue. This creates perverse incentives where rural communities lose out while powerful connections continue to exploit forests for significant profits (Ahmed, 2017; Cerutti et al., 2018; Dumenu, 2019; Mawuko-Yevugah, 2019; Kansanga et al., 202; Ouinsavi et al., 2021).

Dominant Perception and livelihoods of rosewood in Africa

Learning from our empirical experiences in Ghana, Cameroon and Madagascar, a section of Africans in the forest sector holds the belief that rosewood is ubiquitous i.e. it grows everywhere and grows back at the same time. This belief is mostly a slap in the face of rosewood conservation efforts as it emboldens the indiscriminate logging of rosewoods. In that same vein, conservation processes led or promoted by the West, including Northern American and European NGOs, are sometimes viewed as foreign control.

Communities, where rosewood is abundant, contend that they have a major stake in the rosewood and need to benefit from the extraction in every possible way. Therefore, in the event of outright neglect in the distribution of the benefit of rosewood extraction in the catchment areas be it legal or illegal, community members sometimes react with brute force. A case in point is where in February 2019, tensions over the extraction of rosewood escalated as some Ghanaian youth in a community in the Upper West Region attempted to prevent illegal chainsaw operators from felling rosewood within their enclave. The altercation resulted in the shooting of two illegal operators, with many sustaining various degrees of injuries (Kansanga et al., 2021). Rural community members in rosewood-rich localities attribute significant livelihood benefits

and business opportunities to the rosewood trade, despite decreasing profitability over the years and the risk of criminalization and prosecutions.

In much of Sub-Saharan Africa (SSA), the informal economy takes centre stage. Often defined as unregulated production, distribution, and service provision, informal economic activities across SSA provide crucial cash income and employment for both rural and urban populations. The informal economy provides support for youth and women, especially those who may otherwise be excluded from the formal economy (Cerutti et al., 2018).
For conservation arrangements to yield the needed results, the environmental and economic needs of indigenous communities who live close to the forest resources need to be given good consideration (Zhu, 2017).

Ouinsavi et al (2021) identified fifty-seven (57) uses of rosewood among different sociolinguistic groups in Benin. Rosewood, therefore, plays a critical role in rural communities.
Livelihood analysis in political ecology has demonstrated how unequal resource access tends to encourage the vulnerable into illegal rosewood logging as it is viewed as the means of survival and a lucrative business venture (Kansanga et al., 2021). Sometimes, the collaboration of local community members with Chinese nationals in illegal rosewood extraction in the face of bans is seen as a survival strategy in these communities that cannot boast of any alternative employment aside from agriculture. As a result, youth especially those who may not be interested in Agriculture easily fall for these rosewood business networks (Ahmed, 2016; Kansanga et al., 2021). This is for instance the case in Nigeria where illegal logging of rosewood employs youth in Taraba State, as they seek decent lives and escape poverty. This trade persists in the area because of the widespread benefit it provides to some members of the affected communities. (Ahmed, 2016). In Zambia (Cerutti et al., 2018), a significant number of farmers have become rosewood loggers due to better financial offers in the rosewood business. Local community members continue to form a network with Chinese traders to facilitate the illegal rosewood trade.

The issue of wood regulatory laws in the African rosewood sector

Rosewood is subject to general legislation and regulation governing land tenure, forestry, and timber trade in the relevant range states (CITES 2015). There is a boom in the rosewood trade, notably due to the insatiable demand for rosewood by the Chinese. This has resulted in the indiscriminate felling of rosewood in Africa (Nigeria, Ghana, Gambia, Madagascar, Cote D'Ivoire, Senegal, Togo, Burkina Faso, Sierra Leone, and Mali). In most African countries, there are imposed felling and export bans seeking more control over the overwhelming tide of exploitation yet China customs report significant imports of rosewood logs from these countries (Lawson, 2015; Cerutti et al.,2018; Dumenu, 2019).

Findings from a study done by Kansanga et al (2021) revealed that the Ghana government use regulations as a conduit to create opportunities for resource extraction for a few political party elites through selective enforcement of logging regulations. Rosewood felling bans to curtail the pillaging removal of rosewood in most African forests have not been effective mostly due to the following reasons: systematic lack of enforcement and monitoring, hierarchical and systemic corruption, lack of accountability, and less transparency (Dumenu, 2019; Kansanga et al., 2021). In this vein, the issuance of salvage permits remains one of the ways of rosewood exploitation as the political class has abused it. According to regulations 37 and 38 of the Ghana Timber Resources Management Regulations (LI 1649) 1998, salvage permits should only be granted under the following conditions (1) Salvage of trees from an area of land undergoing

development such as road construction, expansion of human settlement, or cultivation of farms. (2) Salvage of abandoned trees (marked or unmarked). This provision has been grossly overlooked as most of the harvested rosewood in Ghana in the regime of bans was obtained using abused and misapplied salvage permits (Dumenu, 2019; Kansanga et al., 2021).

Over the political instability period, the government of Madagascar seized illegal rosewood and kept it at warehouses dotted across the nation (Wilme et al., 2020). These seized rosewoods have come to be technically referred to as stockpiles. Until 2021, there were issues both at national and international levels with these stockpiles regarding their right quantities and management (Nijman et al., 2021). In Zambia, there is intentional legal ambiguity created by the widespread use of mouth-to-ear messages of placing and lifting bans on rosewood harvesting and trade to enable national elites connected to power to continue profiting from rosewood trade (Cerutti et al., 2018).

In line with attempts to create synergies against illegal wildlife trafficking initiated by the international criminal police organisations (INTERPOL), there is a need for formalized transnational collaborations in the fight against illegal rosewood investments and trade in Africa and China where most of the rosewood is exported (Kansanga et al., 2021).
Cerutti et al. (2018) argue that the following four factors are driving the ineffective implementation of the regulatory system resulting in a huge gap between policies' aims and their results on the ground. The four factors are: (i) rent-seeking behaviours at higher levels by politicians and people with close association with political power, (ii) rent-seeking behaviours at lower levels by officials and traditional authorities, (iii) severely constrained capacity of the Forestry Departments to monitor and enforce regulations on the ground, (iv) insufficient understanding by regulators of the market forces and operators' behaviour.
The failure of the controls rolled out in African countries to halt illegal and unsustainable harvesting is evidenced by the major seizures, which are regularly announced in the media. In addition to this is the discrepancy between African and Chinese statistics for wood exports and imports.

Box 3: Discrepancies and inconsistencies between African export and Chinese import wood
In 2018, data from Global Trade Information Services (GTIS) indicated that the total global trade volume of logs and lumber was 992.92 million m^3. This was an all-time high and a growth of 13.69% since 2017. The import value of logs and lumber by volume amounted to 476.34 million m^3, but exports amounted to 516.58 million m^3, pointing to a gap of 40.24 million (Liu et al., 2020) m^3. The data above is indicative of a trade discrepancy. In related work, Blundell et al (2005), in comparing data from the Convention on International Trade in Endangered Species of Wild Fauna(CITES) and US Customs data observed that discrepancies ranged from a CITIES-reported volume 376% greater than that reported by Customs (live coral imports, 2000) to a Customs' report 5202% greater than CITES (conch exports, 2000).
There are sometimes observed discrepancies and inconsistencies in global data as churned out by databases. These inconsistencies are often a result of systematic biases (Zhao et al., 2020) emanating from measurement gaps caused by professional and statistical standards adopted by partners.

Liu et al (2020) grouped the factors that contribute to the discrepancies into intentional and unintentional causes. The unintentional factors are shipment issues, statistical/measurement errors, and Government regulations/policies. The intentional factors are misreporting and misclassification.

In the face of the China-Africa rosewood trade, it has been observed that there are mostly discrepancies in reported data between some African countries' outlets and that of China outlets. Dumenu (2019) commented on Ghana as a case in point that China's import data showed that, only sawn rosewood and round logs were imported from Ghana for a certain period. Interestingly, Ghana's export data within the same period showed that lumber, plywood, sliced/rotary veneer, and kitchen parts were exported to China. In 2014-2015, Nigerian authorities consistently declared zero log exports, while Chinese authorities registered the equivalent of US$350 million worth of imported logs from Nigeria (EIA 2017).

These discrepancies and inconsistencies strongly indicate that large quantities of potentially illegally traded rosewood are undeclared casting which affects the credibility of available rosewood data. About the discrepancies in the volume of traded rosewood reported to CITES, by the Ghanaian and Chinese authorities. Dumenu (2019) observed that three factors might account for this negative phenomenon. These factors are (i) significant under-reporting of export volumes by Forestry and/or customs officials (ii) substantial undeclared or under-declared export volumes by exporting companies (iii) the existence of a large volume of illegally sourced rosewood within Ghana.

A study done by Cerutti et al., (2018) showed that domestic African solutions regarding regulations to streamline the trade of rosewood in African countries like Zambia are bound to fail where commodities can be grabbed before national laws even realize that something is wrong. According to the same study, international agencies (e.g. INTERPOL), laws, regulations, agencies(e.g. customs) and conventions (e.g. CITES) have not been successfully effective in regulating the rosewood trade in Africa. Study data reveals that what is necessary first and foremost is a better regional, supra-national integration of Sub-Saharan countries where such commodities can be found and harvested

The study suggests that until that is done, various African countries will keep perfecting their laws, only to find that implementation is useless because the resources are already harvested and fragile forest ecosystems are irreparably damaged.

Rosewood in Africa-China transnational trade

The domestic demand for rosewood timber is now inconsequential compared with international demand, which presents by far the greatest threat to the species (CITES, 2015).

Dumenu (2019) revealed that the rosewood business boomed after the restrictions of the Convention on International Trade in Endangered Species (CITES), making the comparison before and during the CITES restrictions, using export, import, and seizure of data over a period. Findings from the study conducted in Ghana showed that while the ban was operative, exploitation increased by 129% and the incidence of illegal trade shot up by 120% in the CITES designation period (2016-2018) compared with the pre-CITES period (2010-2015).

Box 4: On the motivations and effects of CITES bans on rosewood

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement aimed at preventing the exploitation of and regulating the trade of wildlife and plant species. In 2022, there were 184 signatory parties to CITES[1] globally and managing authorities in designated countries feed trade data to centralized database systems. China joined the CITES as a contracting party in April 1981. CITES authorities in respective countries are expected to make two findings before they award an export permit. (1) their national Management Authorities must verify that the shipment was legally obtained; and (2) their Scientific Authority must verify that the shipment's harvest was "non-detrimental" to the survival of the species, that is, the harvest does not jeopardize the ability of the species to maintain its role in the ecosystem (Blundell, 2007). It is the sovereign responsibility of each country to develop appropriate systems for legal and non-detriment findings of the species, as a result, certain countries use less restrictive and generally insufficient regulations to promote trade, to the detriment of the species and CITES itself (Blundell, 2007).

CITES is used as a tool to monitor the illegal trade of some endangered hardwood species and that of animals as well (Siriwat and Nijman, 2018). Species listed on CITES Appendix I are species listed as endangered species and need to be prevented from international commercial trade. Species listed on CITES Appendices II and III are species of sustainability concerns that trade needs to be regulated internationally (Blundell, 2007).

The insatiable demand by the Chinese market makes African rosewood (*Pterocarpus erinaceus*) the most traded tropical hardwood in the world (Lawson, 2015). As a way to regulate the overwhelming spate of rosewood exploitation, especially in the African subregion, the species was listed on CITES Appendix III and later up-listed to Appendix II. According to Dumenu (2019) even though the listing and up-listing of rosewood on CITES Appendices III and II are expected to contribute to sustainable exploitation and trade of the species, that conclusion cannot be made yet. Using the Ghana rosewood case, and analysis of the export and import data on rosewood, results from the study indicated that since the listing and up-listing of African rosewood on CITES Appendices, it appears that the designation is yet to contribute notably to sustainable trade of the species in Ghana since illegal logging and its associated trade has not significantly reduced. This is indicative of the huge discrepancies and inconsistencies in export and import volumes officially reported by Ghana and China in their respective timber trade statistics and to CITES.

The International Union for Conservation of Nature,(IUCN) has listed rosewood as an endangered species (Kansanga et al., 2021). Experience has shown that the listing of rosewood in Appendix III of CITES does not always allow for addressing the scale of regional issues related to the unsustainable and illegal exploitation of timber resources for international trade (CITES 2015).

China was listed as the first among the top ten countries and territories for source and destination of shipment with the weight of rosewood seized from 2005 to 2015 having obtained about 5,232 tons of rosewood (World WISE). With 4,276 tons weight of rosewood, reported in import data, from 2006 to 2013, China was first among the top ten countries (CITES Trade data). China singlehandedly produced 44% of the value of world tropical hardwood furniture in 2016, valued at about US$ 20 billion (UNODC, 2016).

The Chinese investors use various strategies to secure the rosewood from African countries and they now deploy sophisticated technologies for logging the rosewood. Highly powered chainsaws with silencers, loaders, and square-edged lumber machines. These machines support mass felling and rapid evacuation of

[1] https://cites.org/eng/disc/parties/index.php

illegally logged rosewood. It is also difficult to hear the sound of these machines from a distance, which makes particularly difficult the work of military, police and forest control operations (Kansanga et al., 2021).

Transnational dealers navigate regulatory processes by paying bribes to key actors in national regulatory institutions with the responsibility of implementing the rosewood ban to enable the transportation and export of rosewood (Treanor, 2015; Kansanga et al., 2021).

Complex phenomena of rosewood smuggling at the regional level have also been recorded. National regulatory frameworks and police operations carried out within national territories often prove powerless against regional and international trade dynamics (CITES, 2015).

Conclusion

In this review, we have examined current research leanings and dispositions regarding rosewood in Africa. This review casts a wider net on the current trends of the China-Africa rosewood trade in the era of global China. The review has revealed that there are various actors in the African rosewood conundrum. These actors have different or conflicting interests and play different roles along the rosewood value chain. Some of these actors are dominant while others are marginalized. The dominant ones have the backing of state laws or financial capital, play a key role in decision-making, and wield more power.

These dominant actors dictate the pace of the trade while the marginalized actors are mostly at the mercy of the dominant ones and barely survive in terms of the modest financial rewards they obtain from the rosewood trade. With inspiration from the network theory and specifically the work of Cook and Emerson (1978), the review has shown that Chinese foreign actors and African politicians are major rosewood actors in Africa. These actors have more bargaining powers in the trade as they can influence diverse actors to gain more financial advantage in the rosewood trade.

It is clear from the review that various regulatory processes set in motion by different African states to contain and manage the spike in rosewood extraction mostly due to the Chinese trade demand have not been successful. It is observed in various African states that this phenomenon has been depicted by the various lifting and placing of bans on the trade and felling of rosewood.

In most cases, rosewood bans have not been effective because those who are supposed to enforce them either have been compromised or are too engrossed in the same activities they are unable to extricate themselves and come clean to do the needful as required of them in this matter. In this case, the individual interests and private agenda of actors have dominated the collective interest of the state rendering the laws and regulations powerless and ineffective.

The review has also further revealed how relevant rosewood is to local communities and their domestic lives. Providing varied therapeutic benefits, serving as construction material, leaves of trees serving as fodder for animals, etc.

Listing of rosewood to Appendice II and further uplisting to Appendice III has still not been able to contain the situation as the China-Africa trade continues to persist. This is evident in the recorded data and accessed data between the Chinese customs and the various African rosewood trade data outlets. It has been observed

from the review that these recorded data have not been too accurate, as the figures sometimes do not tally between the Chinese recorded data and their African trade counterparts in the rosewood trade.

According to the review, there is a need for a regional and a global approach in dealing with the rosewood trade and its associated challenges instead of the various droplets of country-specific approaches, which have been largely ineffective. The dynamics of global China in Africa rosewood trade continue changing; this warrants continued research into how the actors continue to play their roles in sustaining this trade and how they access the rosewood cutting through various regulations and institutional arrangements. Both international and local trade regulations need to be assessed in line with how they continue to promote the trade of rosewood in the African sub-region. It is also important for research to be tailored to how the various and potential benefits local communities expect from rosewood can be made more sustainable without compromising on the regeneration capacity of the rosewood species.

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Chapter Two (2)

Chinese-driven Ghana rosewood trade: Actors and access dynamics

Baidoo, A., Méral, P., & Ongolo, S. (2023). Chinese-driven Ghana rosewood trade: Actors and access dynamics. *Geoforum*, *146*, 103871. https://doi.org/10.1016/j.geoforum.2023.103871

Abstract

The growing demand for rosewood in China has led to systemic and rapid illegal exploitation in many forest-rich countries in tropical regions, especially in Africa. It is speculated that there is a 26-billion-dollar rosewood industry in China. West African countries contribute about 80% of rosewood to global trade. Ghana has been ranked second in Africa and fourth in the world among top suppliers of rosewood logs to China by volume. Drawing theoretical insights from access theory and based on original empirical research conducted in Ghana from April to August 2022, we analyze how a constellation of actors along the rosewood trade chain had access to that natural resource. In the same vein, we scrutinize the complexity of the related formal and informal network arrangements both between key actors and within state bureaucracies in Ghana. Our research broadly responds to the question of how Chinese investors got access to rosewood in Ghana and examines the different institutional arrangements which encouraged the Chinese-driven trade of rosewood in Ghana. Our findings reveal that there was no formalized agreement between Ghana and China's rosewood trade as the related domestic market was sporadic and informally initiated in 2009 by a Chinese entrepreneur. The study reveals that different non-state and state institutions (including sectoral state bureaucracies and individuals) benefited from the rosewood trade without recourse to a formal governance structure. The study reveals an embedded informal system of national and community-level arrangements, which enabled access to rosewood and its attendant benefits. This research makes an empirical-based contribution to what drives access to and who benefits from the globalization of natural resources in African countries characterized by 'political disorder'. From a China-Africa relations perspective, this work contributes to the politics of natural resources and the related sustainability challenges in the context of increasing global Chinese influence in Africa.

Keywords: Rosewood, politics, illegal logging, livelihoods, China-Africa

Introduction

Mr. Asiedu is a Ghanaian and has worked as a timber contractor for the past 35 years. In 2009, he was contacted by Serwaa, a woman in the marketing section of the Timber Industry Division Department (TIDD), under the Ghana Forestry Commission headquarters in Accra. When he arrived at the Commission, he was made aware that a Chinese woman by the name of Alice had come with a sample of the bark from a certain tree. The description she gave of the tree was that there was a reddish exudate from the trunk when the tree was felled. Mr. Asiedu was not familiar with the sample but decided to search for it.

Together with the Chinese woman Alice, he went to see Mr. Afrifa, the district forest manager at Jasikan in the Volta Region of Ghana. Mr. Afrifa indicated that he had sighted a tree on a portion of land that looked like what was being described. Therefore, they drove to the land in question. Upon seeing it, the Chinese woman concluded that it was the tree she was looking for. She was building an estate in mainland China and needed that particular rosewood species as they had tested it and had realized its quality. Hence, she had come to Ghana in search of it. There and then they felled sixteen of the African rosewood tree species and brought them to a sawmill in Jasikan. From that area, they managed to obtain two containers of rosewood. This is how Ghana's rosewood trade activity was initiated. Asiedu sold the first rosewood container to Alice for 5,000.00 USD. Prior to the last ban in 2020, a container of rosewood was sold to the Chinese for 110,000.00 USD.

Rosewood is a trade term for a wide range of tropical hardwoods, not a botanical category (UNODC, 2020, page 37). In Africa, rosewood is found in the Guinea forest Savannah mosaic ecoregion and reported from Senegal to Cameroon (Kossi et al., 2019). *Pterocarpus erinaceus*, a rosewood mostly found in Africa, has been used as a substitute for the original rosewood, *Dalbergia* spp. (Dumenu and Bandoh, 2016; Winfield et al., 2016; Cerutti et al., 2018). In Ghana, local names given to rosewood differ based on the location of the species. In the Bole area (Savannah Region) where the Gonja people dominate, it is referred to as *Jenkeli*; in the Sandema area (Upper East Region) where the Builsa people dominate, it is referred to as *Niak*; in the Tumu area (Upper West Region) where the Sissala people dominate, it is called *Butuma tia*. In the Twi language (which is the most commonly spoken language in Ghana, native to the Akan people in the south), rosewood is called *Krayie.*

Rosewood is native to the arid and semiarid zones of West Africa and is extensively exploited for timber, animal feed and various medicinal uses. Rosewood is mostly found in the forest-Savannah transition, Sudan Savannah and Guinea Savannah ecological zones of Ghana (Dumenu, 2019).

West Africa is the world's leading producer of rosewood (Dumenu, 2019; Kossi et al., 2019). In 2016, 80% of rosewood exported to China was from West Africa. Between January 2015 and December 2016, an annual average of 764,000 m^3 of rosewood, worth 840 million USD, was imported into China from West Africa (Kossi et al., 2019).

Observations by market experts point to the fact that China's active exploration of African timber took effect in 2010. China remains the world's leading consumer of tropical timber and it is expected to maintain this in the future (ITTO, 2011). Despite measures put in place to increase the internal wood supply in China through forest plantations, it remains inadequate as China still needs to import.

China accounts for over 50% of global tropical log imports, and this demand is projected to increase in China even though the international demand for tropical logs is projected to decrease. Africa has been China's preferred destination for rosewood as it is cheaper and more readily available there compared with the high prices and limited resources of traditional rosewood from Southern Asia (Wenbin and Xiufang, 2013).

The rosewood value chain is almost entirely driven by Chinese demand (Cerutti et al., 2018). To Chinese investors, rosewood is an expression of cultural identity and a means to preserve the traditional pride of the mid-Ming to early-Qing dynasties from the late 16th to 18th centuries (Zhu, 2017). As China lays strong emphasis on its cultural past, rosewood, with its close connections to the country's history, now has a significant role to play.' Rosewood falls directly within China's agenda of recapturing its past glory and forging a new path towards progress and dominance. Rosewood furniture is therefore in high demand, spurring an aggressive and sporadic trade from regions in the world where rosewood is available (Zhu, 2022).

The value placed on rosewood, especially by China, has resulted in a boom in trade in various African regions where rosewood is endemic (Asanzi, 2014; Zhu, 2017; Kansanga et al., 2021). China's rosewood imports from Africa have increased by 700% since 2010 (Treanor, 2015). Ghana exported close to $300 million (542,085 tons) worth of rosewood to China despite repeated bans on harvesting, transportation and export between January 2015 to June 2019 (Dumenu, 2019). According to environmental activist groups, approximately 6 million rosewood trees were felled and imported to China from Ghana while Ghana still had bans on rosewood in place (EIA, 2019). Ghana is one of the main African countries where the problem of the rosewood activities continued to fester despite various attempts by different governments to stop the illegal felling and trade of rosewood (Dumenu and Bandoh, 2016; Dumenu, 2019; Kansanga et al., 2021).

Different works have indicated how the Chinese have influenced the trade of rosewood in the African subregion (Wenbin and Xiufang, 2013; Treanor, 2015; Zhu, 2017; Cerutti et al., 2018; Kossi et al., 2019; Dumenu, 2019; Kansanga et al., 2021). However, none of these works focused on the access strategies employed by key actors of the China-Ghana rosewood trade. In the same vein, very little is known about informal arrangements, including the process of building trust, between domestic and Chinese actors in Ghana. This paper aims to reduce this gap in knowledge by focusing on the following research question: How did key actors in Ghana's rosewood trade gain access to rosewood? Which formal and informal arrangements encouraged the trade of rosewood?

Our findings reveal that the Chinese initiated the globalization of the rosewood trade in Ghana. The ongoing rosewood trade activities in Ghana were the result of the continued demand from China. The Chinese relied solely on their Ghanaian trading partners to have access to the rosewood to trade in. Some of the Chinese had a joint venture rosewood company with their Ghanaian partners to continue to stay in business, while others also fully sponsored their Ghanaian rosewood contractors to supply them with the requisite number of rosewood containers for export to China. While the majority of the Chinese rosewood merchants in Ghana did not follow their rosewood trade partners into the field, some of the Chinese occasionally visited the communities to engage with the community leaders and to impose a price for the rosewood at the local level. For some of the Chinese, the way to access rosewood in Ghana was to win over the majority of the stakeholders and buy their way through the processes. In terms of originality, this paper contributes to the literature on the theory of access, provides empirical evidence and makes an important contribution to understanding the politics of the rosewood trade engineered at local and national levels and subject to transnational influence. In addition to access to resources, the work addresses access to the profits, or at least

the revenues, derived from trade and purchase. While previous work (Haugen, 2011) has emphasized the role of local mediators in the export of primary goods to China, the contribution of the present article is to address the distribution of profits between buyers, contractors and local communities.

Linking the theory of access to the Rosewood issue

Access is the ability to derive benefits from things. This expands the property classification definition of access as 'the right to benefit from things' (Ribot and Peluso, 2003). The definition of access as the ability to derive benefits from things introduces a bundle of powers, which may exclude people from deriving benefits from the same resource, unlike the property classification notion of a bundle of rights. This understanding of rights encapsulates a wider range of social relationships that constrain or enable benefits from use than property relations alone (Ribot and Peluso, 2003). According to Peluso and Ribot (2020), resource controls that result from struggles over access overlap with theoretical ideas in political economy and political ecology (see Mann, 2009; Blaikie, 1985).

The theory of access (Ribot and Peluso, 2003) helps with understanding the mechanisms at work in the process involved in gaining, maintaining or controlling access (Rousseau et al., 2017). Ribot and Peluso (2003) note that social identity can influence the distribution of benefits from things, both conferring and eliminating rights of access. The ability to negotiate varied social relationships (e.g. economically based ties, identity-based ties and relationships at local, regional and national scales) can affect access to resources, particularly where new values and structures are emerging.

In managing the rosewood trade activities in the African sub-region, various countries have resorted to using laws and regulations in the form of bans on the felling and export of rosewood (Dumenu, 2019; Kansanga et al., 2021). The idea underpinning these state regulations has been to regulate access to rosewood. While these regulations can be described as being at best partially successful, one is even tempted to conclude that these laws failed to deny rosewood players access as the rosewood trade continued to thrive in the face of the imposing and lifting of bans (Dumenu and Bandoh, 2016; Dumenu, 2019, Cerutti et al., 2018).

In Ghana, concerning rosewood trade activities, the government through the Ministry of Lands and Natural Resources has imposed and lifted rosewood felling and export bans about eight different times since 2012. Some contractors, through the influence of government officials, have been given access to the rosewood trade through the issuance of salvage permits. It has, therefore, been the case that denying one group access to rosewood has involved giving a different group the right to access rosewood. In this case, while the general populace has been denied access to rosewood through the regulatory ban on its harvest and export, a select few have been issued salvage permits to evacuate rosewood in different regions in Ghana. This has been made possible through the government exercising its powers.

Until China expressed the need for Ghana's rosewood and started purchasing it, various rosewood endemic communities in Ghana had the right to it but did not commercially benefit from it. Therefore, the ability to commercially benefit from a resource depends more on whether its owner has access to the market than whether someone has rights to it (Ribot and Peluso, 2003).

The theoretical framework proposed by Ribot and Peluso (2003) is a rich component of the matrix. These two authors define access as the ability to benefit from things, including material objects, persons, institutions and symbols. The stress on ability instead of rights makes it possible to focus on processes and negotiations. With an understanding of the background, this study explored how the various actors in the rosewood trade gained access to the rosewood. How the Chinese, contractors, community members,

institutions and others had or were denied access to the rosewood to trade in has not received attention even though it is significant for placing the rosewood trade in its proper context and understanding the intricacies of the Africa-China rosewood trade.

This rosewood access study, unlike leading scholarly works which employ Ribot's and Peluso's access theory, digresses slightly from the norm because, unlike the subjects of the existing works, harvesting rosewood is not like collecting non-timber forest products (NTFPs) or shea as it goes beyond that. The major interest in rosewood is timber. Therefore, this work on rosewood access is tailored around the broad objective of identifying the various strategies and mechanisms that different rosewood actors (Chinese investors, contractors, communities, different institutions, etc.) used to access the rosewood in Ghana and the different institutional arrangements that either encouraged or denied access to the rosewood trade activities.

We must understand access: who can benefit from things, under what conditions, mobilizing what relations of power, and through what set of mechanisms. With that, we can outline the cause, identify the response, indicate responsibility and promote positive change (Blaikie, 1985).

Materials and methods

Study sites

Ghana Forestry Commission (2021) data demonstrate significant populations of rosewood species are found in the Upper East, Upper West, Northern (currently split into North East, Savannah and Northern Regions), Brong-Ahafo (currently split into Bono, Bono East and Ahafo Regions), Volta (currently split into Volta and Oti Regions) and parts of Ashanti and Eastern Regions (see Fig. 1).

In Ghana, rosewood is principally endemic to the northern regions (Northern, Northeast, Upper West, Upper East and Savannah). Due to the fragile nature of the environment in the north, trees fall under the Protection Management Unit of the Forestry Commission and not under the Production Unit as happens in the south of Ghana where there are more timber species for production. As a result, before the rise in the trade of rosewood, there were no management regulations regarding the species due to its geographic location predominantly in the north of Ghana, which did not fall within the country's forest production zones. The government, through the Forestry Commission, resorted to the use of salvage permits, conveyance certificates and transportation permits as a means to try to regulate rosewood exploitation when it was rife.

Fig. 1 The distribution of a significant population of Pterocapus erinaceus (Rosewood) in Ghana.

(Source: Authors, 2023)

To understand the effect of the Ghana-China rosewood trade on local governance structures and related issues, the three topmost regions where the rosewood trade in Ghana thrived, namely the Upper West Region, Upper East Region and Savannah Regions, were selected for the study. Two communities were selected from each of the three regions featuring the rosewood activities. In Upper West Region, Nabugubelle and Dolinbizon were selected; in Upper East Region, Bachonsa and Kadema were selected; in Savannah Region, Sonyo and Kablima were selected (see Fig 2).

Pterocapus erinaceus (Rosewood) is native to the forest-Savannahh transition belt and the Savannahh ecological zones, with a concentration in the Savannahh in Ghana (Dumenu, 2019; Kansanga et al., 2021). Locally, rosewood has been mainly a source of firewood and charcoal. Due to its durability, water and fire resistance and strength, rosewood is used in carving mortars and pestles, musical instruments, handles for local farm tools and the construction of homes. Following the rise of *Pterocarpus erinaceus* as a substitute for the *Dalbergia* species, rosewood started to be exploited globally as a timber product in Ghana (Dumenu, 2019; Kansanga et al., 2021). China is the final beneficiary of Ghana's rosewood, importing over 96% of logs and sawn wood (Dumenu, 2019).

Fig. 2. Map of the study area (Authors, 2023)

Empirical methods

This paper is based on fieldwork conducted from April to August 2022, using in-depth interviews and focus group discussions in addition to several field observations. Given the political sensitivity and complex nature of the rosewood trade in the study context, we ensured that our sample included key stakeholders from local and regional to national levels. For the key informants' interviews, participants included Ghana Forestry Commission officials (n = 7) past and present within the three regions in Ghana where the rosewood activities were most predominant; rosewood contractors (n = 3), who were actively involved with the Chinese rosewood merchants; community youth leaders (n = 4), who actively mobilized the youth either against the rosewood activities or for illegal rosewood and related activities. We also interviewed chiefs (n = 2) in the communities where the activities were predominant; local government officials (n = 2),

assemblymember[2] from the study communities and also civil society organizations (n = 2) involved in anti-rosewood activism (see Appendix i).

In-depth interviews with Ghana forestry officials sought to understand how the rosewood trade was initiated, how the Chinese initiated the rosewood trade and the role of the Ghana Forestry Commission in the rosewood trade activities. Interviews with rosewood contractors focused on how their trade with their Chinese rosewood counterparts was initiated and maintained, and how the Chinese built trust with them as Ghanaians. The interviews also focus on the processes of accessing rosewood from the communities. Questions for community youth leaders focused on the role of community members in rosewood activities, their access to land and the rosewood in their communities. For the rest of the stakeholders' interviews, questions focused on their involvement in the rosewood trade and its related activities. Each of the interviews lasted about an hour, depending on the interviewee's motivation and availability to collaborate. The interviews were comparable to a face-to-face open conversation (Lavrakis, 2008), although they also followed specific pre-defined topics.

We also conducted seven different focus group discussions, six in each community of the three regions (Upper East Region, Upper West Region and Savannah Region) and one with senior forestry community officials in Tumu, Upper West Region. Participants for the focus group discussion are chiefs, community leaders and members, landowners with rosewood on their lands, rosewood loaders and spotters, unit committee members etc. Overall, one hundred and six participants were involved in the focus group discussions (see Appendix 2). These discussions centred on the rosewood and land access in the communities, the involvement of different stakeholders in the rosewood trade, the role of communities in the rosewood activities, how various stakeholders had or did not have access to the rosewood and the meanings they constructed around it (Bryman 2012).

Most of the stakeholders were fellow university Bachelors and Masters mates of the first author who is a Ghanaian national. His nationwide network of forestry officials enabled the team to gain access to extremely sensitive information based on trust and confidentiality. Most of the interlocutors provided sensitive information because they were convinced that their relationship with the first author meant that it was strictly for scientific research purposes and not as a way to incriminate or witch-hunt anybody. The research team, therefore, had to guarantee the interlocuters that the source of the information would remain anonymous and confidential. Against this background, information was freely given to facilitate this study. Regarding access to communities, information was not entirely forthcoming at the initial stages, but upon further interrogation and explanations of the purpose of the exercise as a research endeavour for purely scientific work, most of the community members opened up to provide the needed information.

All interviews and focus group discussions were audio-recorded, with the prior consent of each interviewee, and transcribed in English. Transcripts were manually analyzed by grouping statements under similar sub-headings. Selected quotations from the transcripts are used from time to time in the text to support themes and foreground the lived experiences of participants. Thematic analysis is useful for examining both theory and data-driven materials (Boyatzis, 1998).

[2] An assembly member is a locally elected representative of the people at community level who represents the community/suburb at district meetings.

Rosewood access in Ghana

Our findings show that different actors employ different access strategies. For instance, Chinese investors, contractors and community members have different ways of getting access to rosewood. We present the different access strategies and circumstances which enable the various stakeholders to have access to the rosewood trade in Ghana. We also present other factors related to access to rosewood in Ghana.

A brief introduction to the actors

The Chinese stakeholders are Chinese investors who come to Ghana in search of rosewood to trade in. While the undertakings of the Chinese investors when they are in China are unclear, their pursuit of rosewood when in Ghana is public knowledge since they are intently focused on it when in the country. Rosewood contractors are timber merchants in Ghana who are mostly in the timber business. These timber contractors are not solely into the rosewood trade but into trading several other timber species. They took advantage of the rosewood business to get involved in the trade. The community members are stakeholders in the selected communities where the study was carried out.

Chinese access to rosewood in Ghana

The Chinese rosewood investors are the major drivers of the rosewood trade as they are the bankrollers of the trade. They either sponsor their Ghanaian rosewood partners from the outset to produce the number of containers needed or place a request for the number of containers they will need and agree on the amount of money to pay for them. Some of these Chinese rosewood dealers have registered companies with their Ghanaian rosewood trade partners as joint owners of the companies as a way to get them more committed to the trade venture and foster cooperation.

These Chinese rosewood investors work closely with their Ghanaian counterparts who engage in the rosewood business at the community, district and regional levels. Some investors follow them to the communities and try to dictate the processes of rosewood acquisition.

The main strategy for accessing rosewood has been to use money to attract Ghanaian counterparts. They give them sums of money that they are not likely to refuse. Some Ghanaian rosewood dealers have even argued that, before the Chinese rosewood dealers expressed the desire to purchase the rosewood, it largely did not have financial value, so any financial benefit being received from the rosewood trade is enough motivation to engage in the trade. A youth leader in Tumu had this to say:

> *The major tactic the Chinese use to access rosewood is money. The moment they give money to some community members, they direct them to where the rosewood can be located. A Chinese rosewood merchant by the name of Helena had a lot of money and freely gave money to people. She gave most of the stakeholders money. She met the community rosewood taskforce one-on-one to find out why they had refused to take the money to enable them to carry out their rosewood operations successfully [CYLI-24422].*

As a way to track the activities of these contractors, some of these Chinese rosewood investors follow them to the communities and sometimes engage the local community members. In doing so, they sometimes persuade the contractors, who have salvage permits to collect lying rosewood logs, to fell fresh ones, since

they prefer the fresh ones to the already felled dried ones. Regarding the salvage permit, some of these Chinese rosewood investors sponsor the companies, which apply for the permit to fell the rosewood. This is all part of the rosewood trade arrangements. The Chinese rosewood dealers' idea of access has been to pursue any advantageous avenue that is likely to enhance their chances of securing the rosewood. Respondents had this to say in connection with the foregoing:

> *Mostly the Chinese sponsor the local contractors. The Chinese sponsor the companies, which go for the permit for the felling of the rosewood; an example of such a company is Sunshine Brothers, Dowingi, and Asase aban. The Chinese followed the contractors, who were given the salvage permits to pick up the lying logs, and influenced them to fell fresh logs. This was mostly done out of sight of the Forestry Commission. When later the forestry commissions find out, financial negotiation is initiated to settle the issue [GFCOI-12422; GFCOI-07622].*

Another way the Chinese had access to rosewood was by handing out money. There are several instances where the Chinese gave some of the regulators' money. As the Chinese infiltrate the ranks of the Ghanaian wood regulators, who are supposed to enforce an end to illegal rosewood activities, they become empowered to advance their rosewood activities in the rosewood activities. In their emboldened state, some of the Chinese even seize the rosewood and dictate the price to pay for it. A respondent put this succinctly in the statement below:

> *The Chinese woman, Helena, will go to the field directly. She sometimes seizes people's rosewood logs and states the amount she will pay for them. She will tell those who are not happy with the prices to go to the police commander. She gave money to most of the top officials in stakeholder institutions and could always have her way because of money [CYLI-23522].*

One access strategy used by the Chinese is to build trust with their Ghanaian trade partners. Findings from our study reveal that the Chinese used different and principally three means of building trust with their Ghanaian counterparts. First, they relied on recommendations from the Ghana Forestry Commission to contact timber contractors who could help them access the rosewood. Second, they established joint rosewood companies with some of the contractors to help them stay in the rosewood business. Third, they relied on how their Ghanaian contractors were able to deliver the required rosewood containers to continue to do business with them. That said, it is worth pointing out that there were a couple of China-Ghana rosewood trade arrangements which were unsuccessful as the Ghanaian partners involved did not meet their side of the deal by supplying the necessary rosewood containers nor did they refund the money they were initially paid by their Chinese partners.

> *There is also a special case where trust is built based on the recommendation of the government officials who facilitated the rosewood trade arrangement by bringing in the Chinese to Ghana, as indicated in the response of a rosewood contractor: Some of the Ministers of State brought the Chinese themselves and managed to secure a permit for them to do the rosewood business. For such people, they had local insiders who showed them around the rosewood trade and could lead them to potential rosewood contractors to commence the business with them [RCI-12522].*

Contractors' access to rosewood

Rosewood contractors go through several processes and undertakings to have access to the rosewood to facilitate its trade. The major hurdle of a rosewood contractor is to be able to get the rosewood from the

communities. This involves dealing with various levels of community arrangements and leadership. At the community level, the chiefs[3] and community members mostly have the power over who can access the rosewood. The rights of chiefs and landlords to land are state-recognized traditional rights as Ghana's constitution regards chieftaincy as an institution of leadership and authority. The contractor has a responsibility to convince these community leaders to buy into the idea of the rosewood trade. As the study reveals, there have been instances where contractors with salvage permits were denied access to harvest rosewood in some communities due to the collective decision of the community members not to allow the logging of rosewood on their lands. Mostly, the first point of call in each of the communities is the chief. Traditionally, the chief as the leader of the community must sanction most of the activities that go on in the community.

These rosewood contractors mostly come from the south of Ghana, as reported by some respondents. They manage to sell their trade ideas to influential people in communities where they wish to trade and then proceed from there. While the rosewood trade helps to establish some new trade relationships, in some instances existing relationships are marred because some parties in the communities were not involved in the trade activities, which denied them some financial benefits from the trade. Once access is established, contractors leverage that to continue to engage in other future trade activities. Already established contacts in some communities are used as entry points when there is a need for other trade activities.

Our results further show that chiefs at both municipal and community levels have the power to determine the route that contractors need to take to have access to the rosewood. In some communities, especially in the Upper East Region of Ghana (UER), chiefs have unbridled power over the land and, by extension, they largely determine whether the contractors will have access to the rosewood. However, in the Upper West Region, the chiefs share the powers over the land with landlords[4] to the extent that sometimes the landlords can exercise power over the land and, by extension, the rosewood.

The contractors are the driving force behind the rosewood trade as they engage almost every other stakeholder to ensure that the rosewood activities are well coordinated. The contractors, therefore, meet the chief and present the mission. After the chief has received them, he may then direct them to other leaders of the community. There are also instances where the chief may single-handedly lead the mission and appoint those to support the contractor and his team in identifying where the rosewood is located. Contractors meet other leaders like the assemblyman, unit committee members and landlord. These dealings may involve a financial settlement, namely paying the leaders an amount of money to enable the transaction to proceed. A community member at Kadema had this to say:

> *In the communities around the Sandema area, some of the chiefs take money from the contractors for themselves without using the money for any developmental project. In addition, some of the community members manage to take money from the contractor. There was an instance where an assembly member (local government official) received GH 11,000 in cash from a contractor. This information was revealed after the Forestry Commission initiated the arrest of the contractor [KDUERF-18422].*

[3] The chiefs referred to are legally recognized as a legacy of colonial law. The 1992 Constitution of Ghana further strengthened the position of chiefs and chieftaincy as an institution in Ghana.

[4] Landlords are mostly community heads who hold the land in trust for the family. A landlord is believed to own the land. Depending on the location of the community, the landlord may either have outright power over the land and its resources or rely on the chief to exercise control over the land.

When a contractor has a permit to collect rosewood within a certain jurisdiction, he first visits the community to engage them and their leaders. In addition, the community members who have rosewood in their localities may decide to find a contractor, who has been given a permit to fell or collect rosewood within their jurisdiction, to come and buy their rosewood. The contractor needs to cooperate with the assembly and leaders of the community because they can mount resistance to their activities where they are not in favour of the rosewood trade arrangement. In terms of access to rosewood at the community level, factors influencing access by the contractor include the ability of the contractor to pay more for the rosewood and the relationship the contractor has with people in the community. Below are the words of a contractor respondent concerning his access to rosewood:

> *As a contractor, sometimes you may have a misunderstanding with chiefs during negotiations. Sometimes the district chief executive in the area can say that he will not agree to rosewood being felled in his area, which can also be a challenge that the contractor may have to surmount. They will therefore tell you the amount they will charge you per container of rosewood before they allow you to harvest the rosewood. On the other hand, the work becomes easy when you can get these influential people to support your rosewood course. There are times that the community may collectively agree that the contractor can fell several rosewoods and drill a borehole for the community or embark on a certain project for the benefit of the entire community. For example, there is an area in Sawla called Gilinkon where the community made me build a market for the community as their charge for allowing me to fell rosewood in the area [RCI-19422].*

Community members' access to rosewood and land

There are differences in approach regarding how the rosewood business was transacted in the various communities in the north of Ghana. For instance, while chiefs in the Upper East Region communities were mandatorily consulted by the rosewood contractors because of the well-established recognition that the chiefs have responsibility for overseeing the land in the communities even though there are landlords, the same cannot be said about chiefs in the equivalent Upper West Region. Like most of the chiefs, they were ignored because the landlords assumed full powers over their land. It is only in cases where the chief is respected that he can have a share of the rosewood proceeds.

Access to rosewood in the community is connected to who has power over the land on which there is rosewood in the community. Depending on which part of the rosewood endemic area is concerned, either the chief has total control over the land, partly shares the right of ownership of the land with the landlord or the landlord has total control over the land.

There are instances where people own the land but do not have a hundred per cent control over the land because, in some communities, the chiefs own all the land, and the families hold the land in trust for the chief. The chief is the sole custodian of the land. In addition, settlers in the communities who have been given land to farm on have access only to their crops on the land and not the trees as they do not have full control over the land. In a focus group discussion at Kablima, an elder of the community had this to say:

> *In the Kablima community, it is the chief who has power over all the land; therefore, he has the final say regarding what needs to be done with and on the land. The chief owns all the land in the community, he gives it to families and individuals based on their need for land. No community member, therefore, owns the land. There are landlords but they do not have power over the land.*

Rather the landlord's role is to help pacify the gods when there is a calamity on the land [KBSRF-25622].

Our findings also revealed how folklore affects access to rosewood in some of the communities in the north. There are long-standing beliefs in some of the communities regarding areas of land that are accessible to certain tribes and groups of people. Based on these folklores, different groups already find themselves unable to access some rosewood not in their folklore territories and will not take the risk of trying to access such rosewood. According to folklore, the risk includes spiritual sanctions and death. There are reported cases where some community members flouted these folklore beliefs and lost their lives.

There are areas of land in the forest reserve where some community members will not work even under the supervision of forestry staff for fear that they may die. This is normally the case because, according to traditional folklore, certain communities are not supposed to work on certain lands. Under the taungya system, some of the degraded lands were given to community members to cultivate both their crops and trees. The community members are careful to respect the traditional beliefs relating to the forestland given to them to exploit. They will therefore refuse any land given to them which does not fall within their jurisdiction of safe lands for the community to work on. As a result, the land is accessed based on ancestral folklore. There are therefore ancestral boundaries to lands within some of the Upper East Regions of Ghana. Contractors who visit these areas are obliged to respect the existing traditions as community members in most cases will not cooperate in flouting the rules and belief systems. A community youth leader at Bachonsa had this to say:

There are taboos in the communities, which forbid certain groups of people from farming or entering certain lands. There have been instances of people crossing traditional land boundaries that originally had been forbidden by taboo to cross and they lost their lives [CYLI-24422].

Findings from the study revealed that in some communities, irrespective of who has power over land, taboos linked to ancestral land demarcations have not changed. However, it was also observed in some communities that the perceived monetary value of the rosewood business resulted in the flouting of some traditional rites. For example, the rite of pacifying the gods before trees are felled was abandoned in some communities because some community leaders bypassed the entire community to spearhead the trade activities and had to do so in haste and undercover. In this case, payments were effective at undermining cultural rites.

How different stakeholders accessed monetary benefits from the rosewood trade

On average, fifty (50) rosewood logs make one rosewood container. Average contractors transported 200 containers of rosewood to China per month. Before the latest ban on rosewood in Ghana in 2020, which is the longest ban on rosewood in Ghana so far, a container of rosewood was sold to the Chinese for 110,000 USD. According to a Ghanaian rosewood contractor, 'On average, about 60% (66,000 USD) of the amount of the rosewood container goes into expenses in different forms and 40% (44,000 USD) of the amount is realized as profit. Therefore, the rosewood trade was very lucrative. [RCI-19722]

Findings from our study show that different stakeholders took advantage of the rosewood trade to make money. Benefits from the rosewood trade were not evenly distributed at the community level. For most of the communities, those in positions of authority, such as chiefs, assemblymen, unit committee members and landlords, benefited largely from those who did not hold any position in the communities. Different regulatory institutions, like the Forestry Commission, police, court, local government institutions, the

military, Customs and politicians, all benefited financially from the rosewood trade. In 2018, there was a rosewood incident where the police commander was mentioned as being involved in rosewood activities. He was later transferred from the area.

> *The government through the Forestry Commission capitalized on this and levied a charge per container through the issuance of conveyance permits. Before the ban in 2020, the amount paid for Forestry Commission documentation, which includes TIDD levy, CITES, conveyance certificate, etc., was GH 20,000 (2,003.49 USD) [5][GFCOI-03522].*

There was a lot of abuse in the system concerning the rosewood trade. The Indigenous people are those who do the prospecting for rosewood at different locations for the contractors and the Chinese dealers. Before the contractor gets to the Forestry Commission office to report that his load is ready for a conveyance certificate, he already has an area council ticket, municipal authority ticket, district assembly ticket, traditional authority ticket and Sissala youth association ticket. They bring all these receipts of payment to provide evidence that it is from a legal source. The assembly member in the area issues receipts of payments and takes the money, and the chiefs in the area receive money. Every ticket issued goes with a fee payment.

Payment for the conveyance certificate is made at a bank. Therefore, the contractor, after the payment, has to bring the bank draft to the office for the conveyance certificate to be issued. Before the certificates are finally given, the contractor demonstrates a level of financial appreciation to some Forestry Commission staff otherwise they can also frustrate proceedings. Everybody was involved, the Forest Service Division and the Wildlife Division, because it had to issue the CITES permit before transportation, and this might have required some financial negotiations as well. In addition, the Timber Industry Division Department (TIDD) was also involved as it operates the checkpoints and allows the rosewood timber to be transported. So, all the arms of the Forestry Commission in Ghana were involved in this. Officers at the port had their part to play as they finally cleared the rosewood container for transport to China. From the village to the port, there was a chain of people sharing the benefits of the rosewood money.

However, these benefits were shared proportionally, with the Chinese benefiting more because there was a huge difference between how much rosewood was sold to them in Ghana and how much it was sold in China. Then came the contractors who were selling it to the Chinese (on average, 40% of proceeds from the sale of a container of rosewood emerged as profit for the contractor, with 60% going into expenses). Next were the agents at the community level: the chiefs, rosewood hunters, tractor operators, district assemblies (local government), unit committees, Forestry Commission, police (informally), individuals, etc. all benefited financially from the rosewood trade.

The institutions that took advantage of the rosewood trade to make money included the District Assembly, the BNI, the Court, the District Police Commander, the Presiding Member and MCE. These institutions sometimes took advantage of the work of an anti-rosewood task force. The court would mostly confiscate it and auction the rosewood any time the anti-rosewood task force seized the rosewood.

> *The Customs mostly did not allow a rosewood-loaded container to pass their borders without accepting money for it. No matter what the documentation on the rosewood, they also needed their money before they would permit it to pass. The BNI, Customs and National Security all had their share of money from the rosewood business. They mostly knew that, if the timber was loaded in a container, it was rosewood. Over time, they came to know the characteristics of rosewood. The regulation was that containers could not be loaded unless in the presence of a customs officer and a*

[5] At exchange rate of 1 Ghana Cedis to 9.983 USD

senior forestry officer. Sometimes the customs officers, after they had been influenced by money, would supervise the loading of the rosewood and seal the container when a forestry officer was not present [GFCOI-05522].

Some of the ways some community members accessed benefits from the rosewood trade were through logging, transporting and loading activities as they were contracted by the rosewood contractors in most of the communities where the trade activities persisted. For a community to benefit fully from the rosewood trade, various community leaders had to team up and demand benefits for the entire community. The Sonyo community was able to position itself to benefit from the rosewood trade by gathering intelligence. The community had prior information about how the rosewood merchants and agents had lied to some community members and duped them. Knowing this, they put measures in place to ensure that they did not also fall victim to them. The Bole forest manager then mobilized some young people to protect the forest reserve from being encroached on by the rosewood dealers.

The rosewood trade has immensely benefited the Sonyo community. Through the rosewood trade, a good number of community members have built blockhouses to replace mud houses. There are three boreholes in the community because of the trade of rosewood. Damaged boreholes were also repaired from the amount of money the unit committee gathered from the rosewood trade. Some of the money realized was also used to assist the community school and clinic. Through the rosewood trade, a chief's palace is being built [CYLI-10622].

Different tax regimes in the rosewood trade

Our findings reveal that rosewood contractors paid different types of levies at different levels of the transaction, – at the community level, in transit to the port and at the port (see Fig. 2). The rosewood trade was in the form of a chain, and different groups and stakeholders were involved. It starts at the community level involving levies by the chiefs or opinion leaders, chainsaw operators, tractor operators, loaders, hunters, transport owners, district assemblies and youth associations. As well as the chief, the community-level chief and paramountcy[6] chief and the overlord chief all issue a levy.

The Forest Service Division issues a Log Measure Conveyance Certificate (LMCC) at the local level. The Timber Industry Department Division (TIDD) issues a Log Inspection Certificate (LIC) for transport to the port. The TIDD also takes about two or three levies, including the export levy. The Wildlife Division (WD) issues the CITES at the port for export. Customs levies the Value-added Tax (VAT) which is attached to the LMCC and the LIC. At the port of Tema, the Ghana Revenue Authority (GRA) works out the export value to be paid on the rosewood product. All these levies and certificates come with a charge that the owner of the rosewood needs to pay. It is worth noting that without even one of these documents, the rosewood cannot be transported.

[6] A paramountcy refers to the traditional territory under the authority of a paramount chief. It consists of other smaller, traditional areas governed by divisional/sub-chiefs.

Fig. 3. Different tax regimes in Ghana's rosewood trade chain. Source: Authors

While the price per container of rosewood was being sold from 10,000 USD in Ghana to the Chinese, it was being sold for 22,000 USD per container in China. Before the last ban was imposed, contractors paid approximately GH 20,000 (2,003.49 USD) per container as shown by Ghana Forestry Commission documentation, (this includes the Log Measure Conveyance Certificate (LMCC), Log Inspection Certificate (LIC), Export Levy and CITES Levy). Contractors also paid GH 1,200 (120.21 USD) as Value-added Tax (VAT). GH 1,000 (100.17 USD) was paid as a CITES Levy even though this levy is supposed to be GH 80 (8.01 USD). Depending on the location, the chiefs were likely to charge GH 3,000 (300.52 USD) per container, and the District Assembly also charged between GH 2,000 and GH 5,000 (200.35 USD to 500.87 USD) per container.

Box 1: On the rise of Chinese actors in the Ghana rosewood trade

A Ghanaian timber contractor, by the name of Mr Asiedu [RCI-12522], discovered and initiated Ghana's rosewood trade [SFSDOTF-22522]. Mr Asiedu is a veteran timber contractor in Ghana and was recommended by the Forestry Commission when the first Chinese came to Ghana in search of African rosewood. Below is his account of how the rosewood trade was initiated.

I have been in the timber trade business for 35 years. In 2009, I was contacted by Serwaa, a woman in the marketing section of the Timber Industry Division Department (TIDD) under the Forestry Commission headquarters in Accra. When I got to the Commission, I was informed that a Chinese woman by the name of Alice from China had come with a sample of the bark of a certain tree. The description she gave of the tree was that there was a reddish exudate from the trunk when the tree was felled. I was not familiar with the sample.

I picked them up at their hotel the next day and took them to Mr Afrifa, the district forest manager at Jasikan in the Volta Region of Ghana. Mr Afrifa indicated that he had sighted a tree that looked like what was being described on a portion of land. Therefore, we drove together with the Chinese to the land. Upon seeing it, the Chinese concluded that it was the tree they were looking for. The Chinese woman Alice was building an

estate in mainland China and needed that particular African rosewood species as they had tested it there and realized its quality. Hence, they had come to Ghana in search of it. There and then we felled sixteen of the tree species and brought them to a sawmill in Jasikan. At that time in Ghana, the government was not allowing round logs to be exported, so we squared the wood. From that area, we managed to get two containers of rosewood.

I later went to the TIDD director to assist me with pricing the rosewood container. They delayed in helping us price the wood, so we were forced to sell the container for 5,000 USD, which of course the Chinese woman was very happy about. She gave me 75,000 USD to start my operations of trading rosewood with them. They wanted to send me the money through a letter of credit (LC), but I objected to that and requested that the money be paid into a bank account in Unibank. I therefore requested a loan from Unibank using that money as collateral.

When I got back to the Volta Region again in search of the rosewood, I realized that some Togolese were felling the rosewood trees and sending them to Togo. I told them I had buyers from China who were interested in rosewood, so if anyone had it, I could buy it from them. They did not buy into the business, so I decided to search for them with my team. Later, we were shown by the Indigenous peoples where we could get what they called *Krayie*. We were shown areas called Daroto, a town beyond Katanga. At Daroto, we were not allowed to sell rosewood because some cattle rearers (Fulani men) objected to it for the reason that they gave the animals rosewood as fodder. This was on 2 December 2009.

We then decided that, since there was plenty of rosewood at Daroto, there could be more in the adjoining towns. Therefore, we moved on in search of it and had some at Domaben on our way to Dambai. At Domaben, they accepted the fact that there was rosewood in the town, but they were not going to allow us to live in the town. It took a man by the name of Yaw to direct us to his father's land at Abongo village, close to Barifare near Dambai. At Abongo village, we felled one container of rosewood just behind a school building. Within a short time, we were able to fell more rosewood to supply the Chinese woman Alice with ten containers. Therefore, she left to return to China. Unfortunately, because we did not know how the rosewood was sold in China, we could not price it properly. Therefore, we sold a container for 5,000 USD. These were the first containers of rosewood to be exported to China from Ghana. We later realized that it was sold in China for 22,000 USD per container in China.

Later, I visited the TIDD office again to try to find a name for the species to facilitate the trade. The then director stated that this was not the original rosewood, even though it had all the characteristics of rosewood; he therefore proposed the name *pseudo rosewood*. This name was to convey the fact that rosewood is originally located in Southeast Asia, making what was found in Africa a substitute rosewood, as explained by Dumenu, 2019.

Box 2: Political influence in Ghana's rosewood trade

In terms of the involvement of politicians, there were instances where the minister of state was involved in the rosewood business and had his truck and men who mobilized the rosewood for export to China. Some of these politicians influenced the processes of transporting rosewood to the port for export to China [RCI-19722].

The increase in political interest in rosewood activities resulted in a corresponding increase in illegal rosewood activities. The escalation of rosewood activities spread to different regions in Ghana like the Upper East, Upper West and Savannah Region. The political will was there for this to continue. Out of the fourteen companies which were very much involved in the rosewood trade, a leading political figure and his brother owned seven companies. The leading politician's seven companies were solely in charge of removing rosewood as well as illegal rosewood from everywhere in the country.

After the change of government in Ghana in 2016, the new government started with a ban on rosewood. Later, influential timber contractors lobbied the government to issue a permit for them to collect the already felled rosewood. Therefore, rosewood salvage permits were issued to sympathizers of the party in government, which included musicians and entertainers. When these new rosewood permit holders went into the field, the previous contractors had found a way to steal their felled rosewood.

The current government has already given out 268 rosewood permits. Petty traders, musicians, and entertainers, who knew next to nothing about timberwork, were all given rosewood permits to engage in the business. Allegedly, people simply went to the Ministry of Lands and Natural Resources and paid GH 30,000 (2,977.67 USD) to secure permits [RCI-19722].

The issuing of salvage permits to contractors to salvage rosewood in the north was political and this was partly because the CEO of the Forestry Commission was also a politician. Hitherto, salvage permits had never been issued in that manner. This process also enjoyed support from a deputy minister of state and other politicians. It was a political cartel. Even Forestry Commission staff were helpless and could not speak about it for fear that they might lose their positions. Most of this information remains confidential.

A leading political figure mobilized money from some rosewood contractors to campaign for a seat as a Member of Parliament. After he won the seat, he pretended to be fighting the rosewood threat [GFCOI-08622]. Most Members of Parliament speak on the radio as though they were fighting the threat and yet, on the ground, they are part of this illegal activity. The government has not been successful in combating it. In April 2022, there was an accident with a heavily loaded rosewood truck; it was travelling along an unapproved route [CSOI-18422].

There was an instance when a chief sent some community members to confront a rosewood operator on the farms of community members. This resulted in the arrest of the operator. It later took a parliamentary select committee to intervene and, eventually, the rosewood operations ceased. That was the last they heard about the case [KDUERF-18422]. There are instances of this rosewood activity where politicians threatened forestry officials in their line of duty with being sacked [GFCO-I16422].

Apart from the Chinese, who are behind the rosewood trade, government appointees like municipal chief executives were also part of the rosewood activities. There were instances where cars containing rosewood were seized and the Municipal Chief Executive came to release the cars at the police station. The police were also involved in this [LCOI-15422].

Discussion and conclusion

This study was embarked on to seek answers to the following research questions: How did the Chinese rosewood merchants and the other rosewood actors get access to rosewood in Ghana? Which formal and informal arrangements encouraged access to rosewood and its trade in Ghana?

The Ghana Rosewood case is a classic example of how the rosewood trade in Africa has progressed to involve both the national and transnational interests of different stakeholders (Dumenu, 2019, Kansanga et al., 2021). The interest of the Chinese in the rosewood trade is widely known in almost every rosewood endemic community in Ghana. Yet what was not widely known was how the Chinese rosewood dealers got access to the rosewood. This is the gap in knowledge that this study aims to fill.

Ghana's rosewood trade activities are a case of increased illegality and a lack of properly established institutional procedures. We demonstrate that no formal arrangement was made at the outset of the rosewood trade as the Chinese who came in search of the rosewood tended to contract individuals to assist in finding the wood for trade. The rosewood trade, therefore, thrived on individual arrangements instead of regulators taking the initiative to properly plan for the rosewood activities with carefully thought-through regulations. Instead of the state stepping in to regulate the rosewood trade, regulation came in the form of bans, which eventually gave access to a privileged few. The latter were aligned with politicians and community leaders who had the power to make decisions in this regard, as reported by Dumenu and Bandoh (2016), Dumenu (2019) and Kansanga et al. (2021).

Unlike Madagascar, where an attempt to stop illegal rosewood logging was primarily through the confiscation of logs, which led to the accumulation of substantial stockpiles of seized rosewood in different parts of the country (Wilmè et al., 2020), the same cannot be said about Ghana, where confiscated rosewood was auctioned by Forestry Commission officials. In the end, the illegally sourced rosewood still has some level of benefit for a different group of people and eventually finds its way to China. There are therefore issues with the legality versus the illegality of the rosewood trade.

As pointed out by Dumenu (2019), more rosewood was exported to China from Ghana when bans were in force than when there was no ban. A study by Kansanga et al. (2021) further reveals that Ghana's Ministry of Lands and Natural Resources, through the Forestry Commission, issued salvage permits to government-aligned contractors to evacuate already felled rosewood. As a result, the rosewood trade was still promoted in place of a comprehensive ban on the felling and export of rosewood countrywide. As Kansanga et al. (2021) put it, the laws were selectively enforced in this regard. This directly aligns with the discussion of Ribot and Peluso (2003) who emphasize access to the ability to derive benefits from things. It also encapsulates factors that deny others access to the rosewood. Further probing into this has revealed that contractors, who were given salvage permits to evacuate 'lying logs', ended up felling fresh logs because the Chinese were more interested in the fresh rosewood logs than the dried 'lying logs'. Therefore, due to a lack of monitoring by the Forestry Commission, the contractors with salvage permits were able to satisfy their Chinese trade partners with freshly felled rosewood.

A debate has been raging on whether the Chinese are involved in the illegal aspects of the rosewood trade in African countries (Dumenu and Bandoh 2016; Dumenu, 2019). The argument has been that the Chinese are not directly involved in illegal rosewood operations, since they are at the receiving end and do not have a direct hand in how the rosewood is sourced from the African country. In response and using the Ghana case study, we argue, however, that the Chinese have had direct involvement in the rosewood trade activities.

Initiating the trade, forming companies in Ghana, partnering and sponsoring Ghanaian contractors, direct involvement with some community leaders and forming direct alliances with leaders of regulatory bodies like the police in Ghana, all point to the direct and sometimes illegal involvement of the Chinese in local rosewood trade activities. As observed by Cerutti et al. (2018) concerning the Zambia rosewood case, the rosewood value chain is almost entirely driven by Chinese demand.

Our study highlights some factors which affect access to rosewood in Ghana: (1) power over land (2) cultural beliefs (3) finances and (4) government regulations.

As demonstrated in our findings, power over land is a major determinant of who has access to rosewood in Ghana. The chiefs and landlords mostly wield power over lands and, as a result, can access rosewood on the lands to enjoy financially through its trade. It is worth pointing out that for some rosewood endemic communities in Ghana, people may have access to farm a piece of land but will not have access to the rosewood on the same land as the land customarily belongs to the chief in the area and is leased to community members to farm.

Data from the study revealed that, in certain rosewood endemic areas, cultural beliefs affected the access to lands, thereby affecting access to rosewood. Long-standing folklore set certain boundaries for different tribes regarding the type of lands they could access. With such beliefs, certain tribes were barred from accessing rosewood in certain areas and lands and would never venture to do the opposite. As a result, rosewood in those areas could only be accessed by those who were rightfully permitted by the folklore and cultural beliefs to do so.

Finances play a major role in who can access rosewood in Ghana. Before China's heightened demand for rosewood in Ghana, rosewood did not have substantial commercial value. Therefore, community members' involvement in the rosewood trade was necessitated by the money involved. As demonstrated in the study, it is evident how various community leaders and regulators who received money allowed the problem of the trade to fester. For most of them, the issue of conservation of rosewood as a resource was not in focus so long as there was financial value for the rosewood. We demonstrate how different stakeholders aligned themselves to obtain financial benefits from the rosewood trade. Various stakeholders alluded to how the Chinese gave money to some key regulators to enable them to access the rosewood.

Our study supports a general definition of access that extends beyond rights of entry to include the wide range of social and relational factors that affect people's ability to have access to a resource by deriving benefits from it. That said, the findings should be interpreted in the context of some of the limitations of the study. The sensitive nature of the topic was a key limitation in achieving a large sample size. We ensured, however, that our sample was representative of all key stakeholders in the rosewood business, including community members, traditional leaders, CSOs, youth group leaders and the Ghana Forestry Commission. Notwithstanding these limitations, the study highlights the different ways in which various stakeholders have access to rosewood. It traces the outset of the Ghana rosewood trade and how it is sustained. This historical background of the Ghana rosewood trade gives a good foundation for proper future planning and benchmarking to guide the future extraction of resources like rosewood.

Our analysis shows how different stakeholders had access to rosewood and related benefits using different strategies and practices. It is also clear from the findings that different stakeholders took advantage of the rosewood trade to make financial gains without recourse to proper procedural arrangements to ensure sustainability. Because of the continued interest of China in rosewood, which is projected to increase, Ghana

as a rosewood supply nation, must plant and nurture more rosewood and properly regulate the trade to fetch foreign exchange for the nation.

In the Ghana rosewood case, there are instances of a Chinese merchant determining the price to pay for rosewood at the community level due to their relationship with the police commander in each area of their extractive activities. There are various instances of rosewood contractors forging close relational ties with chiefs and some community leaders to enable them to get easy access to rosewood. This is in line with Kansanga et al. (2021) who hint at relationships between the Chinese and local rosewood actors. However, unlike the work of Kansanga et al. (2021) and Cerutti et al. (2018), who stated there was a close link between the local people and the Chinese, our work reveals a rather contrasting case where the Chinese instead rely heavily on their Ghanaian rosewood dealers and partners without necessarily being close to community members. Rather, the Chinese sponsor their local rosewood contractor partners to forge close ties with the local people to get access to the rosewood for business.

Overall, our analysis reveals how transnational forces like Chinese actors contributed to the increasing extraction of rosewood in Ghana. This, therefore, calls for a more transnational and synergic regulatory approach to dealing with the rosewood trade and associated informalities beyond sporadic efforts by individual rosewood-rich countries which resort simply to imposing domestic bans that have largely been ineffective due to their poor enforcement.

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Chapter Three (3)

Global China and the 'commons': rosewood governance in rural Ghana

Baidoo, A., Walters, G., & Ongolo, S. (2024). Global China and the 'commons': rosewood governance in rural Ghana. *World Development Sustainability*, *4*, 100126.

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Abstract

The rise of Global China or the rapid expansion of Chinese influence abroad has had a commensurate impact on transnational trade and related commercial pressure in the governance of natural resources in Africa. Rosewood with its direct link to China's cultural renaissance has had a boost in extractivism in tropical regions. Taking inspiration from common property theory and based on empirical research conducted in Ghana in 2022, we analyze the effect of the Ghana-China rosewood trade on the governance of rosewood as a 'common-pool' resource in rural Ghana. Our research broadly responds to the question of how the Ghana-China rosewood trade changes formal and informal governance arrangements in rural Ghana. In a constructive light, the study demonstrates how one community created rules to access rosewood on community lands. The results also show that more challenging influences of rosewood trade on land boundary disputes resulting from violent protests of existing rules and norms, including customary rights, contestation of rural authorities, rural leadership manoeuvrings, and corruption are increasingly prevalent since the boom in the rosewood trade at the local level. This study contributes to the debate on common-pool resources, demonstrating that with the right information and communication network, rural people can self-govern common-pool resources to their advantage despite the alarming influences that external factors pose. From a China-Africa relations perspective, this work contributes to the politics of natural resources in the context of the increasing global influence of China in Africa.

Keywords: Rosewood, Politics, Forest Governance, China-Africa, Common-pool resources

1. Introduction

China's growing global influence has directly affected transnational trade. This has affected natural resource governance in Africa due to the direct trade ties Africa has with China (Lee, 2017, Zhu, 2022). The mere population size of China makes it a force to reckon with in terms of global trade as it has the numerical advantage to instigate shifts in the trade of commodities. 'Global China' was a term coined by Lee (2017) to mean China's economic expansion and globalizing strategy in other domains. China has been a global force for centuries, yet the unprecedented expansion of trade activities of China in the twenty-first century is what scholars and the media often refer to as "global China".

Zhu (2022) argues that global China began when China joined the World Trade Organization (WTO) in 2001. The momentous event was highly welcomed: it was "an event of historic proportions for the world trading system," as told by then UN Secretary-General Kofi Annan, and a "historic moment in China's reform and opening up and the process of modernization," The establishment of permanent normal trade relations with the United States in the year 2000 preceded this singular event. WTO membership opens up China's market for more international trade and investment. China has since become an important member of the world economic community and now plays an important role in the global economy (Chow, 2003).

China-Africa trade relation dates back to two thousand years ago. At the time of the Ming dynasty (1368-1644), Chinese products were directly shipped to Africa. Chinese silk and bronze pots were sent to Egypt through the Silk Road; in return, elephant tusks and rhinoceros horns from Africa were transported to China (Gao, 1984). In recent times, there has been a surge in trade between China and Africa due to changes in China's policy, which encourages and supports Chinese domestic entrepreneurs to trade and conduct business abroad (Nowak, 2015). Generally, the basis for China-Africa economic cooperation is a competitive political advantage, and economic diplomacy and development assistance (Nowak, 2016). By the year 2014, China was the largest importer of goods and services from sub-Saharan Africa (Regissahui, 2019).

During China's mid-twentieth century Cultural Revolution, the same rosewood and ivory heirlooms that adorned the imperial palaces were violently confiscated and vilified as a symbol of bourgeois oppression. Antique paintings were mutilated and disfigured. Porcelain was broken and burned alongside bourgeois books and rosewood furniture (Nowak, 2016; Regissahui, 2019). As China embraces capitalism and seeks to redefine its modernity with strong reference to its cultural past, rosewood furniture and other cultural goods are being bought back – or in some cases "stolen" back – by individuals who endured the hardships of the Cultural Revolution. Given the booming market and rapid returns on investment, rosewood now represents a ready buying opportunity for investors interested more in financial than cultural appreciation (Zhu, 2022).

The price of rosewood in China has increased since the early 2000s, by about 500% in 2005 (Treanor, 2015), due to this increase and rapid demand for rosewood in China, and the scarcity of rosewood from South-east Asia forest-rich countries that were major suppliers of the Chinese Market over the last decades China therefore now looks to Africa for fresh supply (Wenbin and Xiufang, 2013). Today, rosewood is a cultural icon in China as it is transformed into ornate classical furniture (Zhu, 2017). In the same vein as

what has been observed with the new wave of Asian investments in agro-industrial plantations in other forest-rich regions including those in central Africa (Feintrenie, 2014).

The cultural symbol of rosewood in China has been harnessed into a flourishing economic potential. This rosewood economy is partly cushioning the Chinese economy and supporting the livelihoods of these rosewood industry players (Zhu, 2020). The heightened demand for rosewood in China has led to increased and illegal exploitation in many producer countries in Asia and Africa (Treanor, 2015). West Africa contributes about 80% of rosewood to global trade and this rosewood is mostly supplied to Asia (Dumenu, 2019). Ghana was ranked second to Nigeria in Africa and fourth in the world among suppliers of rosewood logs to China by volume (Treanor, 2015; Dumenu and Bandoh, 2016).

Rosewood is a subject of large-scale international traffic between Africa and Asia, which is the greatest threat to the species (Kossi et al., 2019). The thriving rosewood trade especially in the African sub-region has sparked several debates across the globe. These debates have largely centred on the sustainability of the species. In contributing to this global discourse, our research investigates how the Ghana-China rosewood trade affects formal and informal governance arrangements in rural Ghana, paying attention to rosewood governance and rosewood as a common pool resource.

2. A brief literature review on rosewood governance in land commons in Ghana

About 78% of the total land area in Ghana belongs to customary landowners. These customary land tenure systems comprised stool, skin, clan, family and individual lands. (Arko-Adjei et al., 2009; Damnyag et al., 2012). The remaining percentage of the land is divided into two categories: 20% of the land belongs to the state and 2% is held in a dual ownership system that is comprised of legal estates for government and customary authorities, respectively (Damnyag et al., 2012). The traditional land-owning authorities hold allodial titles to land in trust for the community (Kansanga, 1996). Ownership of Ghana's forests is either as public land, stool land, family land or private land.

The key regulation in Ghana regarding forest governance is Timber Resource Management and Legality Licensing Regulation, 2017 (LI 2254). This law regulates the grant of timber rights and related matters. It encompasses (a) the identification of land suitable for the grant of timber rights, (b) the terms and conditions for small and large-scale timber rights, (c) other sources of timber, and (d) the legality-licensing scheme. Regarding legal rights to harvest, according to LI 2254, No person shall harvest timber in Ghana unless that person holds timber rights.

In Ghana, the forests are divided into on-reserve and off-reserve forests. On-reserve forests are gazetted forest reserves strictly under the management of the state while off-reserve forests are not under strict management by the state but could be under the management of private landowners based on the land use (Kansanga et al., 2021). Rosewood in the study areas is naturally dotted in the off-forest reserve areas, on farms and in fallow areas and growing naturally. In the Upper East and Upper West Regions of Ghana, the lands where rosewood is located are under the family land ownership systems while in the Savanna region of Ghana, land ownership falls within the stool land system.

Trees occurring in off-reserve areas are held in trust by the president of Ghana for the people and therefore the Forestry Commission is the statutory institution with the responsibility to manage and regulate the exploitation of such trees. By convention, citizens at the local community level do not apply for any permit before exploiting trees as a customary resource for their day-to-day needs, with customary rules controlling their usage rights. This situation, therefore, makes trees and other resources in off-reserve areas in Ghana appear as common-pool resources (Obiri et al. 2022).

The governance of rosewood has gone through different paradigms from the community level to the national level. At the peak of the Ghana-China rosewood trade, rather than requesting authorization from the Forestry Commission to cut the rosewood trees, some traditional authorities (chiefs) arrogated to themselves the privilege of issuing rosewood-felling permits to individuals and groups for fees and royalties (Obiri et al. 2022). After the ban was placed, in 2012, 2014 and 2017, on the harvesting and export of rosewood, a loose management structure was put in place for the responsible government agency (Forestry Commission) and the local communities to jointly manage the situation through the issuance of salvage permits, monitoring

and reporting of rosewood illegalities. However, monitoring and enforcement of the ban and other forest regulations were still poor as the illegal acts of felling and trading in rosewood continued under fake and inappropriate salvage permits (Kansanga et al., 2021).

It would appear that some government officials in charge of the regulation and some elites in the local communities were behind the illegal harvesting of the species. Salvage Permits were issued to some contractors to cover their illegal activities. Salvage Permits usually state the particular species, number, and diameter classes of trees to be salvaged in an identified area within a stipulated period. However, some players in the rosewood business alleged that none of the specifics mentioned above was clearly stated in the permits issued to contractors to 'salvage' rosewood (Kansanga et al., 2021; Obiri et al., 2022; Baidoo et al., 2023).

The Ghana-China rosewood trade affected the way land is managed in these rosewood-endemic regions of Ghana. Due to the interest of government officials who have a stake in the trade, authority notes are sometimes issued from national offices in the form of salvage permits to specific communities for rosewood to be evacuated, which eventually results in felling fresh rosewood. Contractors would submit these permits to some communities without respect to their land management procedures and commence rosewood timber extraction activities.

The governance dynamics of the Ghana-China rosewood trade offer insights into the governance of tree resources on lands that serve communal purposes. Probing the governance of rosewood as a type of commons provides a good pathway for analyzing how the demand of transnational actors influences the governance of resources in rural Ghana. This can offer clues in carving policies, which may offer some governance insights for other rosewood-rich developing countries.

3. Theoretical and analytical framework

For local users to manage the resources they share, the theory of commons is used to predict and explain local users' actions (Ostrom, 2000). Common pool resources refer to a natural or man-made resource system that is sufficiently large to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use (Ostrom, 1990). Common-pool resources are natural resource systems used by multiple individuals. Examples of common-pool resources include both natural and human-made systems including forests, grazing lands, groundwater basins, government and corporate treasuries, mainframe computers and the internet. Examples of resource units derived from common pool resources include timber, water, fodder, computer-processing units, information bits, and budget allocation (Ostrom and Basurto, 2009).

Hardin's Tragedy of the Commons model predicts the eventual overexploitation or degradation of all resources used in common (Feeny et. al., 1990). Hardin (1968) depended on a thought experiment. He asked the reader to imagine what would happen to a metaphorical village commons if each herder were to add a few animals to his herd. His metaphor highlighted the divergence between individual and collective rationality. If each herdsman found it more profitable to graze more animals than the pasture could support because each took all the profit from an extra animal but for only a fraction of the cost of overgrazing, the result would be a tragic loss of the resource for the entire community of herders (Feeny et. al., 1990). Hardin then concluded, "Freedom in the commons brings ruin to all" (Hardin, 1968, p.1244).

While Ostrom's approach argues for a rules-based approach which regulates resource use and access, Hardin's theory rules out the existence of self-organized groups even though empirical evidence indicates that considerable variance in performance exists and many more local users self-organize (Hardin, 1968). Empirical evidence challenges the generalizability of Hardin's theory as demonstrated by Ostrom's works and several other scholars over the last decades (Mckean 1992, 1998; Wade 1994; Schlager 1990; Ostrom 1990, 1992a, 1992b).

While Hardin's theory is successful in predicting outcomes in settings where appropriators are alienated from one another or cannot communicate effectively, it does not explain settings where appropriators can create and sustain agreements to avoid serious problems or over-appropriation. This, therefore, provides the basis for another layer of theory building and different thinking which advances the Self-Governed common-pool resources theory.

The self-governed common-pool resources theory proceeds on the premise that there is a probability for resource users to self-organise and devise rules that regulate harvesting patterns and management of the resource to ensure its sustainability (Ostrom, 1999). This has been the line of thinking and formulation by scholars based on research (Baland and Platteau 1996; Ostrom et al., 1994; Ostrom, 2010). For example, in Nepal, research about farmer-governed and national government irrigation systems showed that farmers with long-term ownership claims, who can communicate, develop their agreements, establish the positions of monitors, and sanction those who do not conform to their rules, are more likely to grow more rice, distribute water more equitably, and keep their systems in better repair than is done on government systems (Lam 1998).

Self-governed common-pool resource systems are different across systems and time; while some became largely successful, others did not succeed (Ostrom, 2000). For a self-governed common-pool resource system to survive the test time, it needs to be able to adapt to new situations over time as new dynamics of the system are bound to emerge (Shepsle 1989, Haller et al., 2021).

The management of common pool resources is saddled with several challenges. In interrogating Ostrom's widely accepted design principles (DPs) of common pool resources (CPRs), using Tanzania's community-based forest management (CBFM) case, Perfect-Mrema (2022) made interesting observations. The study primarily revealed that due to institutional inadequacies related to DPs- i.e. boundaries, rules, collective action, arrangements, conflict resolution etc., their relationships and cumulative impacts contribute towards unsustainable outcomes.

In the same vein, through a Kenyan example of the management of common pool resources, it is evident that there is a place of political power struggle in the management of common pool resources such as land as the legitimacy of communal land rights can be undermined (Achiba & Lengoiboni, 2020). The work of Kansanga et al., (2018), using the northern Ghana case common pool resource case, exposes the frailties in governing common pool agricultural land resources in the period of progressive agricultural modernization. The study shows how rival land claims and intra-familial land grabbing have weakened the customary management of communal lands.

Ostrom (2009) argues that all natural resources are nested in complex social-ecological systems (SES). Ostrom proposes a common classificatory framework to enhance multidisciplinary efforts to better understand complex SES. The overview of this framework shows relationships among four first-level core subsystems of an SES that affect each other as well as linked social, economic, and political settings and related ecosystems. The subsystems are (i) resource systems (e.g., a designated park encompassing a

specified territory containing forested areas, wildlife, and water systems); (ii) resource units (e.g., trees, shrubs, and plants contained in the forest, types of wildlife, and amount and flow of water); (iii) governance systems (e.g., the government and other organizations that manage the forest, the specific rules related to the use of the forest, and how these rules are made; from our study traditional or customary authorities becomes a part of this list); and (iv) users (e.g., individuals who use the forest in diverse ways for sustenance, recreation, or commercial purposes) as depicted in Figure 1 below (Ostrom, 2009).

The socio-ecological dimensions of the Ghana-China rosewood trade make Ostrom's (2009) socio-ecological systems framework a good framework for gaining a comprehensive understanding and implications of the trade arrangements.

Fig. 1. The core subsystems in a framework for analyzing social-ecological systems. Adapted from Ostrom (2009, p. 420).

4. Methods

4.0 Materials and Methods

4.1. Study sites

Ghana Forestry Commission (2021) data demonstrate significant populations of rosewood species are found in the Upper East, Upper West, Northern (Currently split into North East, Savanna and Northern regions), Brong-Ahafo (Currently split into Bono, Bono East and Ahafo regions), Volta (Currently split into Volta and Oti regions), and parts of Ashanti and Eastern regions (see Fig. 1)

In Ghana, rosewood is mostly endemic to the northern regions (Northern, Northeast, Upper west, Upper east, Savanna), due to the fragile nature of the environment in the north, trees fall under the protection management unit by the Forestry Commission and not under production unit as it happens in the south of

Ghana where there are more timber species for production (Ghana Forestry Commission, 2021). As a result, before the rise in the trade of rosewood, there were no management regulations regarding the species due to its geographic location predominantly in the north of Ghana, which did not fall within the forest production zones of Ghana. The government through the Forestry Commission resorted to the use of salvage permits, conveyance certificates, and transportation permits as a means to try to regulate the rosewood when it was rife.

Fig. 1 The distribution of a significant population of Pterocapus erinaceus (Rosewood) in Ghana.

To understand the effect of the Ghana-China rosewood trade on the local governing structures and its related issues, the three topmost regions where the rosewood trade in Ghana thrived namely the Upper West Region, Upper East Region and Savannah Regions were selected for the study. Two communities each for the three regions where the rosewood activities were selected. In Upper West Region, Nabugubelle and

Dolinbizon were selected; in Upper East Region, Bachonsa and Kadema were selected; in Savannah Region, Sonyo and Kablima were selected (see Fig 2).

Pterocapus erinaceus (Rosewood) is native to the forest-savannah transition belt and the savannah ecological zones, with a concentration in the savannah in Ghana (Dumenu, 2019; Kansanga et al., 2021). Locally, rosewood was mainly a source of firewood and charcoal. Due to its durability, water and fire resistance and strength rosewood is used in carving mortar and pestles, musical instruments handling local farm tools and the construction of homes. Following the rise of the *Pterocarpus erinaceus* as a substitute for *Dalbergia* species, globally rosewood started to be exploited as a timber product in Ghana (Dumenu, 2019; Kansanga et al. 2021). China is the final beneficiary of Ghana's rosewood, importing over 96% of logs and sawn wood (Dumenu, 2019).

Figure 6Fig. 2. Map of the study area (Authors, 2023).

4.2 Data collection

This paper is based on two sources of data: common-pool resources empirical fieldwork and a rosewood-related literature review. Empirical data is based on fieldwork conducted from April to September 2022, using 20 in-depth interviews and seven focus group discussions (FGDs) involving 106 people, in addition to several field observations.

For the key informant interviews, participants included Ghana Forestry Commission officials (n = 7) past and present within the three regions in Ghana where the rosewood activities were most predominant; rosewood contractors (n = 3), who were actively involved with the Chinese rosewood merchants; community youth leaders (n = 4), who actively mobilized the youth either against the rosewood activities or for illegal rosewood and related activities. We also interviewed Chiefs (n = 2) in the communities where the activities were predominant; local government officials (n = 2), 'assemblymen'[7] from the study communities and civil society organizations (n = 2) involved in anti-rosewood activism (see Table 1).

We also conducted seven focus group discussions, six in each community of the three regions (Upper East Region, Upper West Region and Savanna Region) and one with Senior Forestry community officials in Tumu, Upper West Region. Participants in the focus group discussion included Chiefs, Community leaders and members, landowners with rosewood on their lands, rosewood loaders and spotters, Unit committee members etc. To get gender-balanced data, the women were separated from the men during the focus group discussions to ensure that they freely express themselves. Overall, 106 participants were involved in the focus group discussions (see Table 2). These discussions centred on the rosewood trade management at the community level as it pertains to land regulatory issues and their impact on their livelihoods.

Given the political sensitivity and complex nature of the rosewood trade in the study context, we ensured that our sample included key stakeholders from local and regional to the national level. Reliability and Validity were embedded in the methodology by engaging a cross-section of the most relevant stakeholders involved in the rosewood trade activities. In addition, the information obtained during the key informant interviews and field investigations through participant observation was triangulated during the focus group discussions as a way to ensure reliability.

Table 1 Summary of Participants in Key Informant Interviews

Actor	Description	Number interviewed	Date of interview	Interviewee Codes
Ghana Forestry Commission officials	Statutory body responsible for forest governance: including the regulation of the extraction of timber and non-timber forest resources.	7	1. 12/04/2022 2. 16/04/2022 3. 03/05/2022 4. 05/05/2022 5. 07/06/2022 6. 08/06/2022 7. 18/07/2022	GFCOI-12422 GFCOI-16422 GFCOI-03522 GFCOI-05522 GFCOI-07622 GFCOI-08622 GFCOI-18722
Rosewood contractors	Rosewood merchants who mobilized and traded in the rosewood	3	1. 19/04/2022 2. 12/05/2022 3. 19/07/2022	RCI-19422 RCI-12522 RCI-19722
Community youth leaders	Leaders of various groups in the communities	4	1. 24/04/2022 2. 23/05/2022	CYLI-24422 CYLI-23522

[7] An assemblyman is a locally elected representative of the people at the community level who represents the community/suburb District meetings

			3. 06/06/2022 4. 10/06/2022	CYLI-06622 CYLI-10622
Chief	Highest traditional authority and custodian of natural resources in local communities.	2	1. 22/05/2022 2. 19/04/2022	CI-22522 CI-19422
Local government officials	Represents an electoral area at the district level and serves as a link between the district and his/her community.	2	1. 15/04/2022 2. 07/05/2022	LCOI-15422 LCOI-07522
Civil Society Organizations	Officials of environmental activism/ advocacy groups.	2	1. 18/04/2022 2. 21/05/2022	CSOI-18422 CSOI-21522
Total Interviews		**20**		

In-depth interviews with Ghana forestry officials among other things sought to understand the dynamics of the rosewood trade from the regulatory perspective. Interviews with rosewood contractors among other things focused on their trade engagements with both community members and leadership. Questions for community youth leaders focused on the role of community members in the rosewood activities and their access to land and rosewood in their communities. For the rest of the interviews, questions focused on their involvement in the rosewood trade and its related activities. Each of the interviews lasted about an hour, depending on the interviewee's motivation and availability to collaborate. The interviews were comparable to a face-to-face open conversation (Lavrakis, 2008), although they also followed specific pre-defined topics.

All interviews and focus group discussions were audio-recorded, with the prior consent of each interviewee, the study objectives were explained anonymity was guaranteed, as well as the usage of data was for strictly academic purposes. The language for the interviews was both English and the local dialect depending on which of them was best fit for the respondent. The data was transcribed in English (Bryman, 2016; Creswell & Creswell, 2017). Transcripts were manually analyzed by grouping statements under similar sub-headings. Selected quotations from the transcripts are used from time to time in the text to support themes and foreground the lived experiences of participants.

Table 2. Summary of participants in Focus Group Discussions.

Name of Focus Group Discussion (FGD)	Type participants	Number of participants	Date of FGD	FDG Codes
Kadema, Upper East Region(UER)	Community leaders and members, rosewood loaders and spotters, Unit committee members, and land owners with rosewood on their lands	28	18/04/2022	KDUERF-18422
Bachonsa, Upper East Region (UER)	Chief, Community leaders and members, land owners with rosewood on their lands	19	23/04/2022	BYUERF-23422
Sonyo, Savanna Region (SR)	Chief, Community leaders and members, land owners with rosewood on their lands	9	26/06/2022	SYSRF-26622
Kablima , Savanna Region (SR)	Chief, community leaders	8	25/06/2022	KBSRF-25622
Dolinbizon, Upper	Chief, Community leaders and	12	23/05/2022	DZUWRF-23522

West Region (UWR)	members, land owners with rosewood on their lands			
Nabugubele, Upper West Region (UWR)	Community leaders and members, land owners with rosewood on their lands	25	21/05/2022	NBUWRF-21522
Senior Ghana Forestry Commission officials, Tumu, Upper West Region	Forestry officials within the ranks of Forest range manager to Municipal manager	5	22/05/2022	SFSDOTF-22522
Total Focus Group Participants		**106**		

5. Results

Our findings revealed that the Ghana-China rosewood trade had both positive and negative effects on the governance of rosewood as a common-pool resource in the study areas. The positive case of the community Sonyo contributes to the debate of self-government common-pool resources as advanced by some scholars. We present this and other related issues in the sections below.

5.1 Sonyo community, a positive rosewood example of management of a common pool resource on stool lands

The Ghana-China rosewood presents an interesting contribution to this argument with a community by the name Sonyo as a positive case study. Sonyo is one of the communities fringing the Kenikeni Forest Reserve in the savanna region of Ghana. Traditionally, the Grupe, Kanato, Kabampe and Sonyo hold the Kenikeni Forest Reserve in high esteem as an abode for their idol called “Kipo”. The fear of these gods serves as a governance mechanism as it helps regulate entry and access to resources. There are days considered sacred that no one is permitted to enter the forest. Land ownership in this part of Ghana is through stool lands. The Chiefs hold the land in trust for the people and wield the privilege to allocate lands to family members. Rosewood trees in this area are mostly found in the off-reserve areas. Before the start of the Ghana-China rosewood trade, community members did not need to apply for any permit before exploiting any species as a customary resource for their day-to-day needs as there were no governance arrangements in place at both the national and local levels.

However, the Sonyo community was able to harness the Ghana-China rosewood trade for the collective benefit of the entire community. The Sonyo case presents an interesting model of analysis because unlike the majority of the rosewood endemic communities in this study (which we will present below), Sonyo had a good governance structure in the community, helping it to reap dividends from the trade. For the other communities in this study, only a selected group of individuals were in privileged positions, like Chiefs, local elected government officials (assemblymen, unit community members) and also a few community members who were occasionally employed as either rosewood gatherers or loaders. However, in the Sonyo case, the structure put in place by the community benefits from the rosewood sales accrued to the community.

In laying the foundation to effectively trade rosewood with the Chinese, the community set up a seven-member community to supervise the activities of the trade. Members of the committee were selected based on their credibility in society and these were representative of the various groups in the community. The community also decided not to allow anyone who was a native of the land to engage in felling rosewood on

their community lands. As a way of principle, the Sonyo community decided not to engage the Chinese rosewood traders directly but rather through their intermediaries so that local Ghanaians could also benefit from the trade. The Sonyo community put rules, regulations, and punitive measures in place as a way to regulate trade to the advantage of the entire community. In a focus group discussion, this is how an elder of the community narrated it:

> *The Sonyo community did not allow anyone who was not a native to enter the bush to fell the rosewood. We did the felling ourselves and supplied it to the merchants. So community members fell the trees and loaded them onto tractors. This employed different groups in the community. The women also benefited as they collected the back of the logs, burnt charcoal with it, and used some for firewood. Even though the chief owns all the land in the community, the landowners also take land fees when rosewood is felled on their land. Before the rosewood finally leaves the community, the Chiefs will take their levy, landowners' levy, and the unit committee levy. There is an understanding between the chief and the community members. There is a seven-member committee selected by the three fetish priests in the community. They collect the money from the contractor. The money collected from the contractor is shared among the various local stakeholders (elders who represent the people). There is an open and transparent system of benefit sharing in the community. Most of the contracts with the rosewood dealers have been oral. However, in the end, systems are in place to ensure that it is honoured.* [SYSRF-26622]

Concerning the benefits that accrued to the Sonyo community, this is what a youth leader in the community had to say about it:

> *Rosewood trade has immensely benefited the Sonyo community. Through the rosewood trade, a good number of community members have built blockhouses to replace mud houses. There are three boreholes in the community because of the trade of rosewood. Damaged boreholes were also repaired from the amount of money the unit committee gathered from the rosewood trade. Some of the money realized was also used to assist the community school and clinic. Through the rosewood trade, a Chief palace is being built.* [CYLI-06622]

The Ghana-China rosewood trade has ensured that a community like Sonyo unite around a common goal to reap benefits from the resource.

5.2 Land boundary and/or Chieftaincy disputes in either stool lands or family land ownership arrangements

The study revealed that one of the negative turnouts from the Ghana-China rosewood trade at the various study communities is disputes either in the form of land boundaries, chieftaincy or community and leadership. For these study communities, land ownership is through either stool lands or family lands. In the stool land arrangement, the ultimate power over the land lies with the Chiefs while in the family land arrangement, the ultimate power over the land lies with the heads of the family. The Chiefs are mostly the first point of call for rosewood merchants when they visit communities since they are the leaders of the community. This is also true for family lands as chiefs are mostly consulted before they are given out to people.

The study also revealed that it is often the case that most community members who have rosewood on their farms stand to financially benefit either legitimately or through force in both the stool land ownership and

the family land ownership. Community members legitimately benefit from the rosewood trade when chiefs invite those with rosewood on their farms to strike a deal with rosewood merchants when they come to express their desire to trade in the rosewood. On the other hand, in the cases where the Chief chooses to ignore the landowners/landlords[8] in brokering the rosewood trade deal, they may choose to confront the rosewood contractors when they get information that they are working on their farms and force them to pay a ransom for invading their farms.

This is what a community elder at Bachonsa had to say concerning this:

> *When the rosewood dealers come to the community, they first visit the chief's palace and negotiate with the chief. It is after the chief has agreed that they go ahead to do the harvesting. Sometimes the chief will call the landlord, sometimes he will not. In situations where the chief does not invite the landlord during the negotiations, the landlord upon meeting the operators on their land will question them before they refer them back to the chief. Mostly when the landlord confronts the chief about why people are working on their lands but have not been informed, he states that the people came with a permit from the national to do the rosewood business. The chief may decide to just give them a token from it. There have been pockets of confusion between the chief and landlord over the settlement of rosewood monies by the contractor in the community. This is likely to be the case when the landlord is ignored by the chief during the negotiations with the rosewood dealers. In situations like these, the landlord together with some community members approaches the contractor with force to get their money*. [BYUERF-23422]

Before, the Ghana-China rosewood trade, there was no competition for rosewood as the species was abundant enough to serve a domestic need in a manner which did not lead to competition and dispute. Even in the face of population growth with its accompanying demands, the stock of the rosewood population was not markedly affected due to its ubiquitous nature. However, the consciousness of the benefits of rosewood because of the Chinese interest made people overly aware and alert concerning their lands, which housed rosewood, which was not the case before then. Most community members expected to see an improvement in their lives due to the rosewood trade through the provision of social amenities such as the building of schools, the provision of portable water and other community projects. For most of them, this does not happen. This sparked anxiety among some of them.

In other to register their displeasure, the community members sometimes revolt as one community youth leader succinctly puts it:

> *There were instances when the people had to revolt against the chief and leaders concerning contractors working on their land without their prior notice. Eventually, the chief will give an excuse for permits being issued from the national forestry headquarters to brush the issue aside*. [CYLI-10622]

Another type of dispute that the study revealed is within the ranks and files of leadership in some of the communities. In Bachonsa, there is a rift between two chieftaincy royal gates based on perceived rosewood financial benefits that one group is receiving that the other group is not. This brought division and tension in the community, which resulted in, heated exchanges and the issuing of threats, which resulted in making

[8] Landlords are mostly community heads who hold the land in trust for the family. He is believed to own the land. Depending on the location of the community, the landlord may either have outright power over the land and its resources or rely on the Chief to exercise control over the land.

police arrests of some individuals in the community. A local government official in the community had this to say:

> *Due to the undisclosed amount of money that contractors give to the community leaders like Chiefs, unit committee members, assembly members etc. there is a conflict between them. There is no trust in the leadership and this breeds tension and chaos in the community.* [LCOI-07522]

Without proper regulatory processes and procedures, resources, which provide common interest, are likely to be a breeding ground for conflict and dispute.

5.3 The legality in the illegality of Ghana's rosewood trade in the face of the breakdown of law

Our findings reveal that Ghana's rosewood trade is fraught with several illegalities as the trade was initiated without any proper institutional arrangements from regulatory bodies and various stakeholders. After many realized the financial benefits of the trade, without recourse to any proper procedural arrangements strategically positioned themselves to have a share of the benefits of the rosewood. Therefore, most of the time, what was meant to be a legal step to curb the illegality eventually promoted the illegality.

In the course of the trade, when the Forestry Commission confiscates illegal rosewood, it auctions it to Ghanaian contractors who in turn sell it to the Chinese rosewood dealers. The Forestry Commission confiscates the rosewood when they crosscheck to ascertain the fact that there were no salvage permits issued for the rosewood in question. In the end, a contractor only had to pay a little more to still be allowed to continue to stay in the rosewood business. In addition, one could safely say that the confiscation of the rosewood was not targeted at stopping the illegality but to redistribute the money involved to other quarters.

In another example, the Customs Division of the Ghana Revenue Authority will take the money and allow the rosewood to pass illegally at the border. It normally enters and comes out of Togo through different routes like *Jasikan* for it to appear that it was legally felled in Togo. Similarly, on the Volta River, national security will take a lot of money and put it on the river to float down and land at *Akosombo* where it will be removed from the Ferry. Some also use a boat to transport it on the Volta River, get to *Akosombo* and then Tema port and then finally export it. In addition, when there is a ban, people cover the rosewood up as if it were Teak and transport it. Teak falls within the normal harvested timber in Ghana, has no ban or strict regulation on it, and therefore would be allowed to pass at any checkpoint. The rosewood becomes even more lucrative since there are no levies to pay along the transport chain when there is a ban in place.

In the north of Ghana, the salvage permit given was for the contractor to evacuate the already felled rosewood but unfortunately, people exploited that permit to fell fresh rosewood. Also after the ban, people were felling it with the intention that the ban would be lifted and permitted to continue to trade. As a community leader said:

> *Initially, the Forestry Commission pretended to be stopping the illegal rosewood trade but later one gave the green light to conclude that they were aiding them because the people needed conveyance to transport the wood to the harbour and the Forestry Commission issued the conveyance. Mostly Forestry Commission forges figures in the office to issue conveyance to the rosewood dealers without having inspected the wood. Most of the documents are conjured. Some of the rosewood dealers can have more than three conveyances. According to one informant, the loggers sometimes buy the conveyance from the contractor to convey their logs.* [CYLI-06622]

At the community level, when some of the community members realized that even in the face of the ban on the rosewood trade, the Ghana Forestry Commission was allowing salvage permit holders to evacuate

already felled rosewood both in the off-reserve and on reserve areas, some community members in different communities mobilized to deliberately fell more rosewood at different locations without recourse to whose land on which the rosewood was located. This points to how the rosewood trade reduces the ability of various groups to govern as a common property resource as the perceived benefit of the resource would mostly not make people adhere to laid down rules and regulations.

Our findings indicate the involvement of several traditional leaders and local government officials were involved in the illegal harvesting of rosewood in these rosewood endemic communities. Some of these community leaders as reported by some respondents were compensated with cars and cash by rosewood merchants to be giving the green light to continue the illegal rosewood trade within their enclave. In short, this was a scramble for the benefit and financial rewards from the trade at different stages within the Ghana-Chana Rosewood value chain.

In responding to allegations of impropriety raised against the Forestry Commission, Forestry officials agreed to the fact that conveyance certificates were issued to convey rosewood. According to the officials, this was a way to raise revenues for the government. The officials clarified the fact that rosewood did not originally fall within commercial timber and so was not regulated by strict timber rules. The commission had to take action after it realized that the demand from China had triggered the sale of the wood. Officials from the Forestry Commission agreed to the fact that there was abuse in the systems regarding the trade of rosewood. According to them, the abuse was from the community members to community groups and associations. They also agreed to the fact that some Forestry officials benefited financially from the rosewood trade in the form of appreciation from contractors and dealers after processing their documents. Below are statements from a Senior Forestry official during one of the focus group discussions:

> *There was a lot of abuse in the system concerning this rosewood trade. The indigenes are those who do the hunting of rosewood for the contractors and the Chinese. Before a contractor gets to the Forestry Commission office to report that his load is ready for conveyance certificate, he already has an Area Council ticket, Municipal Authority ticket, District Assembly ticket, Traditional Authority ticket, and Sissala Youth Association ticket. They bring all these tickets to adduce evidence that it is from a legal source. The Assembly Member in the area issues tickets and collects money and the Chiefs in the area also receive money and give tickets. Every ticket issued by the groups goes with a fee payment. Then the Forestry Commission has to issue a conveyance certificate because the people themselves who should rise against it are doing it. Payment for the conveyance certificate is done at the Bank. Therefore, the contractor after the payment has to bring the bank draft to the office for the conveyance certificate to be issued. Before the certificates are finally given, the contractor will show some level of financial appreciation to some Forestry Commission staff as they can also frustrate them in case that is not done. So there was a lot of abuse in the system and everybody was involved, Forest Service Division and then Wildlife, because Wildlife Division would have to issue the CITES permit before it is transported which may warrant some financial negotiations as well. In addition, the Timber Industry Division Department were also involved as they operated the checkpoints and allowed the rosewood timber to be transported. So all the arms of the Forestry Commission Ghana were involved in this. Officers at the port had their part to play in this as they finally cleared the rosewood container to be transported to China. From the village person to the personnel at the port, there was a chain of benefit sharing of the rosewood money.*[SFSDOTF-22522]

The Chinese rosewood investors as the sole initiators of the rosewood trade greatly influenced the trajectory of the trade. As a dominant actor in the rosewood trade chain, the Chinese investors had the power to bargain and dictate the decision-making process in line with the trade. At the national level, there are reports

of Chinese rosewood investors influencing the top leadership echelons with money to pave way for the trade activities. As one interview respondent puts it *"The Chinese are ready to pay money to have what they want'*. [CSOI-21522]. At the institutional level, they had their way of establishing good working relationships with key influential personalities within regulatory institutions like the Forestry Commission and the Police Service. This emboldened them in the rosewood trade as they could fall on these influential bigwigs to provide them with some level of security from other law enforcement officials who may want to clamp down on their activities. In summary, Chinese rosewood investors leveraged the regime by giving loans to merchants, paying bribes and manoeuvring their way through the creation of networks which ensured the thriving of the rosewood trade. (See Baidoo et al., 2023a & Baidoo et al., 2023b for a detailed account of the access strategies by the Chinese rosewood investors in the Ghana-China rosewood trade).

6. Discussion

The rosewood trade fits into the broader picture of how international trade and global demand impact local natural resource governance. The case of global shea trade markedly has similarities with the rosewood trade, focusing on the complex contours of shea's pathway from the forests, farms, and markets of the West African savanna to industrial economies of North America, Europe, and Asia, we observe a similar case with rosewood from the forest of Ghana to the industrial hub in China. Shea's new role luxury item used in the cosmetics industry has significantly affected its global trade (Elias and Arora-Jonsson, 2017). Shea has come to hold cosmopolitan consumers, defining a market that is profitable, well-known, and on the cutting edge of global capitalism (Chalfin, 2004). In this vein, in the case of rosewood, China's embrace of capitalism has resulted in the attachment of the Chinese to its strong cultural past, which is connected to rosewood furniture (Zhu, 2022).

Ghana's shea governance has also gone through different phases (Wardell and Fold, 2013). As in the colonial period, the 1980s and 1990s marked diverse changes in terms of state involvement in the export of shea and restructuring of the domestic shea economy. In the 1980s government agents set up thousands of cooperatives known as Shea Nut Farmer Societies throughout Ghana's northern savanna with the exclusive charge of collecting and marketing shea nuts for export. In the early 1990s, the government's disposition toward the shea trade changed as the shea market was opened to the private sector. This accelerated the shea trade and invited more international merchants from Europe (Chalfin, 2004). The same case of institutional trade structure cannot be said in the case of rosewood trade, as the trade has rather been sporadic and thrived on ad hoc institutional initiatives.

The growth of the international shea trade in the global North has generated new contexts for actors along the chain in producer countries (Chalfin, 2004; Elias and Arora-Jonsson, 2013). This also holds for the international trade of rosewood. Our study shows that international actors affect local structures and systems in the trade of resources as the Ghana-China rosewood trade reveals some of the ways the governance structures have impacted as the trade has progressed. Underscored by Gilli et al. (2020) based on the Ghana shea case, sourcing certified shea sourced from local communities who chose to establish Community Resource Management Areas caused concerns over land use and resource access.

Looking at the study through the lens of the socio-ecological system (SES), our analysis presents an interesting scenario. Based on the SES, the Ghana forest becomes the resource system(RS); the rosewood tree specifically becomes the resource unit(RU); the government, Forestry Commission of Ghana and all

other related institutions become the governance systems(GS); community members who exploit the rosewood for various purposes becomes the Users (U). Our analysis shows that in the advent of the Ghana-China trade, rosewood as a resource unit has been under constant pressure due to the trade interest of the Chinese traders. The issue of how the economic potential of resources affects the sustainability of the resource coupled with both the social settings and political arrangements around the resource as advocated by SES became known in the Ghana-China rosewood trade arrangements.

Our analysis showed that the government of Ghana through the Ministry of Lands and Natural Resources deployed the use of bans on the harvesting and export of rosewood as a way to manage the illegal exploitation of rosewood across the nation. In the same vein, rosewood resource users triggered different local arrangements as a way to benefit financially from the rosewood trade. While individuals from various rosewood-rich communities collaborated with rosewood contractors in various rosewood harvesting activities as a way to secure some financial gains others worked as a community group unit to make a case for communal benefits. These different governance arrangements subjected Rosewood to pressure, which drastically reduced the resource base. Thereby affecting its sustainability.

That said, it is worthy of note, that the Sonyo community self-organized by setting out ground rules for assessing the rosewood as a community and ways in which benefits from the rosewood trade would be shared for the collective benefit of the community. Our analysis further revealed that community leadership played a key role in whether the community will self-organize or not. This is because in most of the communities, which did not self-organize, for most of the time leaders were accused of arrogating all powers to themselves without consulting community members. This ensured that the financial benefits from the trade of rosewood went to some selected individuals instead of the entire community.

Our analysis supports the works of Ostrom and several other scholars (Mckean 1992, 1998; Wade 1994; Schlager 1990; Ostrom 1990, 1992a, 1992b) who support the stance that appropriators can create and sustain agreements to avoid serious problems or over-appropriation. Different scholars have advanced the argument that appropriators of common-pool resources, who can communicate, develop their agreements, establish their positions of monitors, and sanction those who do not conform to their rules are more likely to succeed at undertaking self-government regulations (Lam, 1998, Mckean 1992, 1998; Wade 1994; Schlager 1990; Ostrom 1990, 1992a, 1992b; Baland and Platteau 1996; Ostrom, Gardner, and Walter 1994). These scholars admit, however, that it is not automatic that most resource users using common-pool resources will undertake self-governed regulations as situations may vary from place to place and rules of engagement may differ (Ostrom, 2000, p10).

Dating back to Ghana's pre-colonial period, Traditional authorities (also called chiefs) have been the main political figures and principal local governance actors (Abrefa Busia and Adjei (2022). Chieftaincy remains one of the few resilient institutions that have survived the three phases of Ghana's political history, pre-colonial, colonial, and post-colonial periods (Adjaye and Misawa, 2006; Owusu-Mensah, 2014). Traditional authorities are custodians of lands in most Ghanaian communities; they are responsible for land appropriation (Campion and Acheamong, 2014). Traditional authorities, therefore, play a key role in the management of common pool resources such as lands and forests. They have played a role in negotiating community access to certified shea markets (Gilli et al. 2020). This is also evident in the Ghana-China rosewood trade as traditional authorities played a key role in facilitating access to rosewood to various actors (Baidoo et al., 2023, forthcoming).

In terms of appropriation of proceeds of lands and other communal natural resources, Campion and Acheampong (2014) observed how chiefs do this at the expense of their (local) community members.

According to the authors, this undermines local development. Our study reveals this old phenomenon was at play as most chiefs and community leaders intercepted most of the benefits from the rosewood trade instead of laying down structures to enable the communities at large to benefit.

Given this new value for rosewood, individuals and families are keen on protecting their boundaries as a way of safeguarding their perceived rosewood financial reward. There have been cases of land boundary disputes, as people will change land boundary pillars on rosewood-rich lands to claim ownership of the rosewood. This inevitably sparks different levels of disputes. Group size and heterogeneity may have a great impact on forest commons since they affect the ability of the group to take collective action. Conflicts are often associated with governance decisions when a group is large and/or has poorly defined boundaries (Hemant et al., 2019).

Community members continued to see the thriving of the rosewood trade in their communities without any tangible evidence of community benefits in the form of social amenities, financial rewards to community members etc. It gave these community members a cause for concern; this gradually grew into disputes between community members and leaders. They sometimes demanded accountability from their leaders of which they were mostly unable to render accounts regarding the rosewood trade. Mostly, after financially settling the Chief and the unit committee members, some of the rosewood contractors would refuse to pay the landlords and loading boys with the excuse that they deal with the top leadership. In discussing the issue of accountability in Ghana's local governance systems, Abrefa Busia & Adjei (2022) underscore the fact those business transactions undertaken by traditional authorities in Ghana mostly lack accountability and transparency and are driven by personal interests.

At the peak of the rosewood trade, the drive was to get as many rosewood trees clear-felled just to influence the continuation of the trade in the face of the ban through the salvage permit conduit. Issues of the sustainability of rosewood were clearly out of the picture, as the interest was just to make financial gains from the trade at different levels, community, district, and national levels. Appropriators will overuse the resources unless efforts are made to change one or more of the variables affecting perceived costs or benefits (Ostrom, 2000, p10).

Our study partly supports the underlying thought of the "tragedy of the commons", that people may become irresponsible and act in ways that will injure their common pool resources when not properly governed (ElHadary and Obeng-Odoom, 2012), but our study also shows that some communities may choose to govern their resources differently in the face of globalization of natural resources. Notwithstanding, the findings should be interpreted in the context of some of the limitations of the study. The sensitive nature of the topic was a key limitation in achieving a large sample size. We ensured, however, that our sample was representative of all key stakeholders in the rosewood business, including community members, traditional leaders, CSOs, youth group leaders and the Ghana Forestry Commission.

Before the advent of the Ghana-China rosewood trade, rosewood as a resource in various communities was appropriated for domestic purposes. Mostly used for firewood, burning of charcoal, used as fodder etc., rosewood was accessed for various domestic purposes with customary rules as the case is for some common pool resources. In the heat of the rosewood trade, the perceived benefit from the trade made some community members (except for the Sonyo) irresponsible in harvesting the resources, thereby injuring the potential of the resource to serve the common good of the communities. However, in the Sonyo community rules were made by community members to ensure its communal benefit.

The effect of multiple governance structures of forest commons is always contested since the variables involved are many and influence each other. However, van Laerhoven et al., (2020) suggest that almost invariably, group members with superior economic and political power often have a greater say in the governance of forest commons and gain a greater share of benefits accruing from the resource. This is typically the case of the Ghana-China rosewood trade as political power delegated through state institutions like the Forestry Commission is seen as dictating the pace of the rosewood trade even in an illegal manner sometimes. Different community leaders like the Chief, unit committee members, assembly members etc. portray the same scenario.

A carefully observed phenomenon in the Ghana-China rosewood trade is the subtle interplay between legality and illegality. As earlier observed, the Forestry Commission, a mandated state institution, clamped down on the illegal trade of rosewood in Ghana by auctioning seized rosewood. In this case, the cycle of rosewood trade continues, requiring that the same trade actors acquire rosewood but at a higher price. There are also several allegations against some personnel of state law enforcement agencies like the police, court, and military being illegally involved in the rosewood trade due to attractive financial packages given to these personnel. These regulatory actions by these institutions are a function of the regulations made in the management of resources. This largely confirms the observations of de Sardan (2015) concerning regulations in Africa that either the state employees or the service users rarely adhere to regulations, procedures, specifications and organizational structures in either the letter or the spirit. The case of the issuance of salvage permits as a way to regulate the rosewood trade further confirms de Sardan's (2015) observations as it became a conduit for abuse, fueling corruption.

7. Conclusion

This study aimed to explore the effects of the Ghana-China rosewood trade on formal and informal governance arrangements in rural Ghana. We demonstrate that the influence of Global China in this specific case has necessitated the trade of rosewood in Ghana since rosewood furniture falls directly within China's embrace of capitalism and redefinition of modernity with a strong cultural reference to its cultural past. The effect of this agenda as demonstrated in the study has had both positive and negative effects.

In a constructive light, the study demonstrates how one community created rules to access rosewood, a type of common pool resource, on community lands. The results also show how more challenging tendencies such as land boundary disputes resulting from protests of existing rules and norms, including customary rights, contestation of rural authorities, rural leadership manoeuvrings, and corruption are increasingly prevalent since the boom in the rosewood trade at the local level. This study contributes to the debate on common-pool resources, demonstrating that rural people can self-govern common-pool resources to their advantage despite the alarming influences that external factors pose. From a China-Africa relations perspective, this work contributes to the politics of natural resources in the context of the increasing global influence of China in Africa.

The governance of rosewood in Ghana in the era of China's demand has provided insight into how international trade affects local governance systems. As this becomes a test case for accessing the effectiveness of governance structures at the national and local levels, it also provides the benchmark to consolidate efforts to improve forest governance systems. Future research could probe into the governance issues regarding the trade of other natural resources. Rosewood governance should be institutionalized sustainably. There should be laid down procedures for accessing, processing and trading in rosewood from

the community level, regional level and the national level. The role of various institutions and stakeholders should be well defined to foster a more productive collaboration. Benefits from the rosewood trade should be evenly distributed at the community level. The trade of rosewood is a lucrative business that can provide decent employment for Ghanaian citizens, the state through the Forestry Commission can invest in rosewood plantations to enable the sustainable and regulator supply of rosewood for trade.

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Chapter four (4)

Ghana-China rosewood trade: unbridled power in resource extraction

Abstract

The Africa-China rosewood trade, which started as an alternative source of rosewood to the original rosewood, which was found in South Eastern Asia did so rather in a sporadic manner with its commensurated imbricated power issues. The Ghana-China rosewood trade presents a good foundation for exploring power relations in forest governance. Taking inspiration from the actor-centred power (ACP) approach and based on empirical research conducted in Ghana in 2022, the study explores the different power strategies the actors in the Ghana-China rosewood trade deployed in the rosewood trade. The study broadly responded to the question of what has been the influence of power in governing the forest in the era of the Ghana-China rosewood trade. The findings of the study revealed that the three core elements of actor-centred power, coercion, (dis-)incentives, and dominant information, were at play in the Ghana-China rosewood trade. Different actors, in different instances, either played the role of potentate or subordinate. The study reveals that forest-fringed communities are not always powerless, as they can be powerful (potentate) with coercive force in flouting state rules in pursuit of their forest needs. It is clear from the study, that in the absence of well-laid structures in administering power, abuse is inevitable. In terms of originality, this paper contributes to the literature on the actor-centred power approach, provides empirical evidence, and makes an important contribution to the power discourse in forest governance. It also sheds light on the powers of transnational forces like China, vis-à-vis that of national and local power.

Keywords: Actor-centred power, Rosewood, Politics, Forest Governance, China-Africa

Introduction

The Africa-China rosewood trade, which started as an alternative source of rosewood to the original rosewood, which was found in South Eastern Asia (Dumenu and Bandoh, 2016; Cerutti et al., 2018), did not just grow, it did so rather in a sporadic manner (Zhu, 2017; Adjonou et al., 2020, Zhu, 2022) with its commensurated imbricated power issues.

West Africa is the world's leading producer of rosewood (Dumenu, 2019; Kossi et al. 2019). In 2016, 80% of rosewood exported to China was from West Africa. Between January 2015 and December 2016, an annual average of 764,000 m^3 worth US Dollars 840 million rosewood was imported into China from West Africa (Kossi et al. 2019).

Ghana exported close to $300 million (542,085 tons) worth of rosewood to China despite repeated bans on harvesting, transportation and export between January 2015 to June 2019 (Dumenu, 2019). According to environmental activist groups, approximately 6 million rosewood trees have been felled and imported to China from Ghana while Ghana still had bans on rosewood in place (EIA, 2018). Ghana is one of the main African countries where rosewood activities festered despite various attempts by different governments to stop the illegal felling and trade of rosewood (Dumenu and Bandoh, 2016; Dumenu, 2019; Kansanga et al., 2021).

China accounts for over 50% of global tropical log imports and this demand is projected to increase in China even though there is a projected decrease in international demand for tropical logs going forward. Africa has been a preferred destination by the Chinese for rosewood as it is comparably cheaper and readily available against the high prices and limited resources of the traditional rosewood from Southern Asia (Wenbin and Xiufang, 2013).

The rosewood value chain is almost entirely driven by Chinese demand (Cerutti et al. 2018). To Chinese investors, rosewood represents the identity of culture and the preservation of aged old mid-Ming to early-Qing dynasties' pride from the late 16th to 18th centuries (Zhu, 2017). China lays strong emphasis on its cultural past, with a strong connection of rosewood to the historic past. Rosewood, therefore, falls directly within China's agenda of recapturing its past glory and forging a new path of progress and dominance. Rosewood furniture is therefore in high demand spurring an aggressive and sporadic trade from regions in the world where rosewood is available (Zhu, 2022).

Chinese demand for rosewood especially has resulted in a boom in trade in various African regions where rosewood is endemic (Asanzi, 2014; Zhu, 2017; Kansanga et al., 2021). China's rosewood imports from Africa have increased by 700% since 2010 (Treanor, 2015).
Different works have indicated how the Chinese have influenced the trade of rosewood in the African subregion (Wenbin and Xiufang, 2013; Treanor, 2015; Zhu, 2017; Cerutti et al., 2018; Kossi et al. 2019; Dumenu, 2019; Kansanga et al., 2021). However, none of those works has focused on the power processes among the actors of the China-Ghana rosewood trade. This paper aims to reduce this gap of knowledge by focusing on the following research question: What different power strategies did the actors in the Ghana-China rosewood trade deploy in the process? What has been the influence of power in governing the forest in the era of the Ghana-China rosewood trade? The study addresses two hypotheses, namely: 1. Actors'

decisions are mostly a result of a power process 2. The problems of forest governance are deeply rooted in power processes and be better addressed when viewed through the lens of power relationships.

The findings of the study revealed that the three core elements of actor-centred power, coercion, (dis-)incentives, and unverified information as stated by Krott et al., (2014), were at play. Different actors, in different instances, either played the role of potentate (influencing the behaviour of another actor without recognising his will) or subordinate (one whose behaviour is being influenced). The state, through institutions like the Ministry and Lands and Natural Resources (MLNR) and Forestry Commission (FC), used regulations of bans and lifting of bans; and salvage permits as a coercive force in trying to manage the trade. The Chinese used monetary incentives in dictating the pace of the rosewood trade. At some point, some local suppliers were just price takers and did not have the power to bargain with the Chinese.

In resisting directives issued by state authorities, some community members at some point were the potentate and the state became the subordinate, as even in the face of directives they still proceeded to illegally fell and trade in the rosewood. At the community level, there were different power plays among community leaders like chiefs and community members.

In terms of originality, this paper contributes to the literature on actor-centred power provides empirical evidence and makes an important contribution to the power discourse in forest governance. It also sheds light on the powers of transnational forces like China, vis-à-vis that of national and local power.

Actor-Centred Power approach (ACP) in Ghana-China Rosewood trade

The power of important political actors has been reported as a decisive factor in explaining the trends of forest governance (Brockhaus et al., 2012; Agrawal et al., 2008). “Awareness of the power relationships helps to find the right actors who can support a specific solution politically (Krott et al. 2014 p.2)”. Schneider (2009 p.192) as cited in Krott (2014) defined an actor as an “acting entity that is involved in the formulation and implementation of policy. Actors might be single individuals or groups, the group can be collectives built or internally coordinated individuals, or corporate actors acting as an organization as a whole, e.g., state administrations or associations (Krott et al 2014).

An actor influences forestry problems in many ways. He can technically modify the forest by cutting or planting trees; he can improve decisions with new and better knowledge about forests, e.g. about the ecological needs of trees; he can participate in discourse or he can sell or buy timber (Krott et. Al 2014). Baidoo et al. (2023, forthcoming) identified the following actors in the Africa-China rosewood trade: Rosewood hunters, Chainsaw operators/cutters, Rosewood traders, Community groups, Traditional authorities, Local government officials, Forestry institutions, Military/Police, Politicians, Transnational rosewood dealers e.g. China, Donors, and Transnational NGOs etc.

Important actors have the power to misuse community forestry approaches for self-gain. This has been inimical to the success of community forestry (Krott et al. 2014). The actor-centred power (ACP) developed by Krott et al. (2014) is an analytical, theory-based and empirically applicable framework for assessing an actor’s power using community forestry as an illustrative case. ACP analysis aims to provide a scientific answer to the question of who are the politically most powerful actors in community forestry practices.

Actor-centred power approach (ACP) is defined as a social relationship in which actor A alters the behaviour of actor B without recognizing B's will. Krott et al. (2014) posit that in most cases both actors try to alter each other's behaviour, and one actor resists the other's efforts to a degree. They call the actor who alters the behaviour of another actor "potentate" and the other actor "subordinate". According to the authors, based on the specific issue at hand an actor may either play the role of a potentate or a subordinate.

The ACP framework distinguishes between three core elements: coercion, (dis-)incentives and dominant information that make up the basis for observable facts that involve not only physical actions but also threats by power elements and the very sources of said power elements (Krott et al. 2014). The authors define these three core elements of ACP as follows: One, Coercion is altering the behaviour of the subordinate by force. Force triggers counterforce from the subordinates. An example of an actor in forest governance heavily grounded in force is the state, acting through different state administrative offices. Two, (dis-) incentives are defined as altering the behaviour of the subordinate using disadvantages or advantages. Three, dominant information is defined as altering the behaviour of the subordinate utilizing unverified information.

The actor-centred power approach contends that stronger power is exercised in day-to-day implementations at different levels of forest governance including the local level (Krott et al., 2014).

The concept of actor-centred power provides a suitable basis for both research and consulting activities as it provides clear-cut definitions and links to observable facts. (Devkota, 2010; Maryudi, 2011; Schusser et al., 2012 as cited in Krott et al., 2014).

Based on inspiration from the actor-centred power approach, varied interplay of power arrangements is observed among various actors in the Ghana-China rosewood trade. The power relationships among these various actors have been the thriving force of the rosewood trade. The study, of the Ghana-China rosewood, carefully reflects on the power cases and gives more credence to the fact that power plays a major role in forest governance.

Materials and methods

Study sites

Ghana Forestry Commission (2021) data demonstrate significant populations of rosewood species are found in the Upper East, Upper West, Northern (Currently split into North East, Savanna and Northern regions), Brong-Ahafo (Currently split into Bono, Bono East and Ahafo regions), Volta (Currently split into Volta and Oti regions), and parts of Ashanti and Eastern regions.

Rosewood is native to the Forest-Savannah Transition belt and the Savannah ecological zones, with a concentration in the Savannah in Ghana (Dumenu, 2019; Kansanga et al. 2021). Locally, rosewood was mainly a source of firewood and charcoal. Due to its durability, water and fire resistance and strength rosewood is used in carving mortar and pestles, musical instruments handling local farm tools and the construction of homes. Following the rise of the *Pterocarpus erinaceus* as a substitute for *Dalbergia spp* globally rosewood started to be exploited as a timber product in Ghana (Dumenu, 2019; Kansanga et al. 2021). China is the final beneficiary of Ghana's rosewood importing over 96% of logs and sawn wood (Dumenu, 2019).

To understand the effect of the Ghana-China rosewood trade on the local governing structures and its related issues, the three topmost regions where the rosewood trade in Ghana thrived namely the Upper West

Region, Upper East Region and Savannah Regions were selected for the study. Two communities each for the three regions where the rosewood activities were predominant were selected. In the Upper West Region Nabugubelle and Dolinbizon were selected; in Upper East Region Bachonsa and Kadema were selected; in the Savannah Region Sonyo and Kablima were selected (see Fig 1).

Fig. 1. Map of the study area

Source of data

The source of data for this study is based on empirical fieldwork conducted from April to September 2022, using in-depth interviews and focus group discussions, in addition to several field observations. Given the political sensitiveness dimension and complex nature of the rosewood trade in the study context, it was ensured that the sample included key stakeholders from local and regional to the national level. For the key informant's interviews, participants included Ghana Forestry Commission officials (n = 7) past and present within the three regions in Ghana where the rosewood activities were most predominant; Rosewood contractors (n = 3), who were actively involved with the Chinese rosewood merchants; Community youth leaders (n = 4), who actively mobilized the youth either against the rosewood activities or for illegal

rosewood and related activities. interviewed Chiefs were also interviewed (n = 2) in the communities where the activities were predominant; local government officials (n = 2), assemblymen[9] from the study communities and civil society organizations (n = 2) involved in anti-rosewood activism (see Table 1).

In-depth interviews with Ghana forestry officials among other things sought to understand the dynamics of the rosewood trade from the regulatory perspective. Interviews with rosewood contractors among other things focused on their trade engagements with both community members and leadership. Questions for community youth leaders focused on the role of community members in the rosewood activities, their access to land and the rosewood in line with power issues in their communities. For the rest of the stakeholders' interviews, questions focused on their involvement in the rosewood trade and its related activities. These data collection engagements were done with the understanding of power relations, which ensured that different meanings and understanding were gleaned from the entire processes of the Ghana-China rosewood trade. Each of the interviews lasted about an hour, depending on the interviewee's motivation and availability to collaborate. The interviews were comparable to a face-to-face open conversation (Lavrakis, 2008), although they also followed specific pre-defined topics.

Seven different focus group discussions were conducted in six communities of the three selected regions (Upper East Region, Upper West Region and Savanna Region), two each from a region and one with Senior Forestry community officials in Tumu, Upper West Region. Participants for the focus group discussion included Chiefs, Community leaders and members, landowners with rosewood on their lands, rosewood loaders and spotters, Unit committee members etc. Overall one hundred and six participants were involved in the focus group discussions (see Table 2). These discussions centred on the rosewood trade management at the community level as it pertains to the power dynamics of the rosewood trade and its related issues.

All interviews and focus group discussions were audio-recorded, with the prior consent of each interviewee, and transcribed in English. Transcripts were manually analyzed by grouping statements under similar sub-headings. Selected quotations from the transcripts are used from time to time in the text to support themes and foreground the lived experiences of participants. Thematic analysis is useful for examining both theory and data-driven materials (Boyatzis, 1998).

Table 1 Summary of Participants in Key Informant Interviews

Actor	Description	Number interviewed	Date of interview	Interviewee Codes
Ghana Forestry Commission officials	Statutory body responsible for forest governance: including the regulation of the extraction of timber and non-timber forest resources.	7	1. 12/04/2022 2. 16/04/2022 3. 03/05/2022 4. 05/05/2022 5.	GFCOI-12422 GFCOI-16422 GFCOI-03522 GFCOI-05522 GFCOI-07622 GFCOI-08622 GFCOI-18722

[9] An assemblyman is a locally elected representative of the people at the community level who represents the community/suburb District meetings

			07/06/2022 6. 08/06/2022 7. 18/07/2022	
Rosewood contractors	Rosewood merchants who mobilized and traded in the rosewood	3	1. 19/04/2022 2. 12/05/2022 3. 19/07/2022	RCI-19422 RCI-12522 RCI-19722
Community youth leaders	Leaders of various groups in the communities	4	1. 24/04/2022 2. 23/05/2022 3. 06/06/2022 4. 10/06/2022	CYLI-24422 CYLI-23522 CYLI-06622 CYLI-10622
Chief	Highest traditional authority and custodian of natural resources in local communities.	2	1. 22/05/2022 2. 19/04/2022	CI-22522 CI-19422
Local government officials	Represents an electoral area at the district level and serves as a link between the district and his/her community.	2	1. 15/04/2022 2. 07/05/2022	LCOI-15422 LCOI-07522
Civil Society Organizations	Officials of environmental activism/ advocacy groups.	2	1. 18/04/2022 2. 21/05/2022	CSOI-18422 CSOI-21522
Total Interviews		**20**		

Table 2 Summary of Participants in Focus Group Discussions

Name of Focus Group Discussion (FGD)	Type participants	Number of participants	Date of FGD	FDG Codes
Kadema, Upper East Region(UER)	Community leaders and members, rosewood loaders and spotters, Unit committee members, and land owners with rosewood on their lands	28	18/04/2022	KDUERF-18422
Bachonsa, Upper East Region (UER)	Chief, Community leaders and members, land owners with rosewood on their lands	19	23/04/2022	BYUERF-23422
Sonyo, Savanna Region (SR)	Chief, Community leaders and members, land owners with rosewood on their lands	9	26/06/2022	SYSRF-26622
Kablima , Savanna Region (SR)	Chief, community leaders	8	25/06/2022	KBSRF-25622
Dolinbizon, Upper West Region (UWR)	Chief, Community leaders and members, land owners with rosewood on their lands	12	23/05/2022	DZUWRF-23522
Nabugubele, Upper West Region (UWR)	Community leaders and members, land owners with rosewood on their lands	25	21/05/2022	NBUWRF-21522
Senior Ghana Forestry Commission officials, Tumu, Upper West Region	Forestry officials within the ranks of Forest range manager to Municipal manager	5	22/05/2022	SFSDOTF-22522
Total Focus Group Participants		**106**		

Results

Results from the study revealed different actor-centred power relationships as different actors in the Ghana-China rosewood one power tactic or the other to gain an advantage. Through the strict lens of the actor-centred power approach defined as a social relationship in which actor A alters the behaviour of actor B without recognizing B's will, this section scrutinizes the different interplay of power relations which was on display in the Ghana-China rosewood trade.

The power of the Chinese Rosewood investors

The trade of rosewood in the African sub-region has been a brainchild of the Chinese. It was initiated by the Chinese and the continued trade is sustained by the continued demand of the Chinese (Dumenu and Bandoh, 2016; Cerutti et al., 2018, Kossi et al. 2019, Kansanga et al., 2021, Wenbin and Xiufang, 2013, Zhu, 2017, Adjonou et al., 2020, Zhu, 2022). The Ghana case of the rosewood trade follows the same trend, as the trade was initiated by a Chinese woman who came to Ghana in 2009 to prospect for the species with its sample.

In terms of power relations, the Chinese rosewood investors utilized the (dis-)incentives core power elements of the actor-centred power approach in their trade relations with their Ghanaian counterparts. Based on the monetary incentive offered by the Chinese in exchange for rosewood, various trade reactions were initiated across the regions of the nations where the rosewood was located. A contractor respondent in connection with this had this to say:

"The Chinese had the money to pay for the rosewood which before they arrived did not have any commercial value, and we were prepared to go all length to find the rosewood and make the money from it. My initial search for rosewood was in Jasikan, Daroto, Domaben, Abongo and Dambai these are all towns in the Volta region of Ghana. Together with my team, we harvested several rosewood trees and sold them to a Chinese woman by the name of Alice who had come to Ghana in search of rosewood. We sold a container to her for USD 5000 at that time. We later got information that a container of rosewood was being sold in China for USD 22,000" [RCI-19722]

There is a case of power at display in these engagements because but for the monetary incentives, these Ghanaian actors would not go in search of the rosewood and fell them for sale. The Chinese rosewood investors continued to use the monetary incentives by increasing the price at which they bought the rosewood from the Ghanaian trade partners, as the Ghana side did their checks to realise the value of the rosewood in China. A container of rosewood, which was sold in Ghana to the Chinese at USD 5000 in 2009, sold at USD 110,000 in 2020.

Kansanga et al., (2021) reported on material incentives in the form of social amenities like boreholes, markets etc. that the Chinese rosewood investors gave to some communities, which resisted their rosewood activities as a way to buy their cooperation in all the cases they succeed that.

A youth leader interviewee respondent reported cases where some Chinese rosewood merchants would visit some communities and dictate the price they would offer for the rosewood and even threaten that the community members could report them to the police if they disagreed with the prices they would offer for the rosewood. According to this respondent, most of these Chinese contractors had ways of using money to incentivize regulatory authorities to facilitate their rosewood trade. These are the words of the community youth leader:

"The Chinese woman, Helena, had a lot of money and easily bribed people. She sometimes ceases people's rosewood logs and states the amount she will pay for them. She will tell those who are not happy with the prices she is giving to go to the police commander. She had bribed most of the top officials in stakeholder institutions and could always have her way through because of money. She had most of the stakeholders bribed. She met the community rosewood taskforce one-on-one to find out why they had refused to take the bribe to enable them to carry out their rosewood operations successfully. This was between 2017 to 2019" [CYLI-06622]

The power of the state

The state by its structural architecture wields power to influence a wide array of areas in a country. State influence permeates environmental issues and forest governance. The state works through different institutions to provide the blueprint for the administration of various resources. In Ghana, the management of forest resources falls directly within the ambit of the Forestry Commission of Ghana (FC) under the supervisory guidance of the Ministry of Lands and Natural Resources (MLNR).

The Ghana-China rosewood trade serves a good purpose in scrutinizing the power of the state in the governance of forest resources. Findings from the study expose the state as not always having the solutions in the management of resources and sometimes abusing its power in the quest to manage resources. Politicians in Ghana heavily influence the state architecture and so in the cases where these politicians have a vested interest in the resource being managed, decisions of management are skewed in the interest of these politicians to the detriment of the common good of the state.

As Dumenu (2019) and Kansanga et al., (2021) have pointed out in their respective works on the Ghana-China rosewood trade, the state heavily relied on the use of bans and lifting of bans in trying to regulate the trade, which according to these researchers have been largely unsuccessful. Kansanga et al., (2021), described the many instances in the state in the MLNR and FC wrongfully deployed the salvage permits to the advantage of some selected political affiliates.

Viewing the Ghana-China rosewood trade through the lens of the actor-centred power approach, it becomes clear the state in this case has been using the strategy of coercion in its quest to manage the trade which in this case has been largely unsuccessful. At the level of the state, it makes laws and regulations without proper engagement and consideration and proper alignment of the interest of the local people fringing these forests housing the rosewood trees.

Of particular concern from the findings of this study is how the state, which is, supposed to act as a neutral arbiter in managing state resources like forests, to the benefit of the common good, can have its leading figures taking advantage of the system to milk financial benefits from it without recourse to proper procedure. This is what a respondent from a leading Civil Society Organization had to say:

"In terms of involvement of politicians, there were instances where a minister of state was involved in the rosewood business and had his truck and men who mobilized the rosewood for export to China, some of these politicians influenced processes of transport of rosewood to the port for export to China.

The increase in political interest in rosewood activities resulted in a corresponding increase in illegal rosewood activities. The escalation of rosewood activities spread to different regions in Ghana like the Upper East and Upper West around 2010. The trade in the rosewood mostly thrived on political will. Out of the fourteen companies, which were very much involved in the rosewood trade, seven of the companies belonged to a leading political figure and his relative. These seven companies of the leading politicians were solely in charge of removing rosewood everywhere in the country as well as the illegal rosewood.

After the change of government in Ghana, the new government started with a ban on rosewood. Later, influential timber contractors lobbied the government to issue a permit for them to collect the already felled rosewood. Therefore, permits were issued to party sympathizers of the government, which included musicians and entertainers. When these new rosewood permit holders went to the field, the previous contractors had found a way to steal their felled rosewood on the field.

When there is a ban, the rosewood business is even more lucrative because it does not pass through the normal channel. Moreover, buyers are ready to pay for it at a higher cost. The transport direction changes and they move it to Togo. It normally enters and comes out from Togo through different routes like Jasikan for it to appear that it was illegally felled in Togo. Ghana Customs and Ghana Revenue Authority will take the money and allow it to pass at the border. Some police officials will take their share of the money along the road. Different regulatory groups, all sort to take advantage of their regulatory power, to access financial benefits from the Ghana-China rosewood trade [CSOI-18422]

Findings from the study reveal that the state did not put the right governance structure in place through the FC to regulate the Ghana-China rosewood trade but rather left it in the hands of private timber contractors. The state only came in when it realized the boom in trade by introducing some taxes. This is a state with all the power architecture at its disposal right from the outset of the Ghana-China trade and yet did not lay down any trade structure to ensure the sustainability of the trade.

Of particular interest from the findings of the study is how various state agencies took advantage of making financial gains from the rosewood trade to neglect their responsibilities. This brings the question of how the powers of the state can be checked for abuse. The exercise of power should be within the regulatory confines of laws, which functions without interference.

The power of traditional leaders

The study reveals another potentate and subordinate power relationship between traditional leaders and their respective constituents. By their position in various communities, traditional leaders wield power. They mostly have power over lands and their administration in their communities.

Regarding the Ghana-China rosewood case, it is often the norm that the first point of call by rosewood merchants in the various communities is the Chief. The consent or otherwise of the Chief determines the direction of the rosewood activity in the community. In cases where these traditional leaders positively consent to the rosewood trade to siphon all the benefits from it without putting the communal interest first, the Chief will employ the power strategy of coercion to sanction that rosewood contractors proceed to collect or fell rosewood on any land in their community where rosewood is located. In such situations, community members are simply under the mercy of their leaders and would have to comply for the rosewood to be felled on their lands even against their will. This was what a rosewood contractor who has worked in all three of the study regions had to say:

"…We see the Chiefs of the community find out if they will allow us to fell the rosewood in their community. If he agrees to the transactions, he gets us a hunter to lead us to the bush. There are times that as a contractor you may have a misunderstanding with Chiefs during negotiations. Sometimes the district chief executive in the area can say that he will not agree for rosewood to be felled in his area. This can also be a challenge that the contractor may have to surmount. They will therefore tell you the amount they will charge per container of rosewood before they allow you to harvest the rosewood. On the other hand, the work becomes easy when you can get these influential people to support your rosewood course. Depending on the community involved, Chiefs will mostly demand GH 3000.00 (USD 250) per container of rosewood felled in his community". [RCI-12522]

There are also cases in which these traditional leaders use the power of dominant information as a strategy to get community members to consent to freely allowing rosewood contractors to fell the rosewood on their

farms. In such instances after the chief has brokered the rosewood deal with the contractors and received his financial benefits, he then informs the community members to allow the contractors to fell rosewood on their respective lands without any force of resistance because they have salvage permits from the officials in the capital city to do so. In such instances, these community members do not have any means of verifying such information and would just have to comply.

The power of community members

The study reveals that community members have not always been the subordinate, there have been instances that they have also been the potentate by resisting state laws and regulations concerning the trade of rosewood. Having full knowledge of the financial reward the rosewood trade brought, some of the community members flouted rosewood ban regulations to illegally fell rosewood trees on several lands to push the state to lift bans.

This is because whenever there was a ban on the fell and trade of the rosewood, influential rosewood contractors would make a case with MLNR and FC that there were several lying logs which needed to be collected for salvage permits to be issued to them. This ensured the lifting of the bans. Contractors with salvage permits to collect lying logs mostly took advantage to fell fresh logs with the support of some of these community members. In such instances, the community members using the power strategy of coercion with the force of resistance and flouting of state regulations become the potentate with the state now being subordinate.

Table 3 Summary of power relations among key actors in the Ghana-China rosewood trade

Potentate	Subordinate	Core Strategy	Details
State	Rosewood dealers	Coercion	Through the directives of the ban and its lifting and also the issuance of salvage permits
Chinese rosewood dealers	Ghana rosewood merchants	Incentives	Money is mainly used to ensure the thriving of the rosewood trade
Rosewood contractors	Community members	Incentives	Money is used to influence community members to go to all lengths to identify the rosewood in the bush
Chiefs	Community members	Coercion and dominant information	Capitalize on their influence in the community to sanction the trade without the consent of the community members and use their association with timber contractors to inform community members that the contractors are working on the orders of the state through salvage permits which in most cases is not
Community	State	Coercion	Flouting the directives of the state to still illegally fell the rosewood for trade

Source: Author

Conclusion

This paper aimed to explore the different power strategies the actors in the Ghana-China rosewood trade deployed in the rosewood trade. The study broadly responded to the question of what has been the influence of power in governing the forest in the era of the Ghana-China rosewood trade. The study addresses two hypotheses, namely: 1. Actors' decisions are mostly a result of a power process 2. The problems of forest governance are deeply rooted in power processes and can be better addressed when viewed through the lens of power relationships.

The findings of the study revealed the three core elements of actor-centred power, coercion, (dis-)incentives, and dominant information as stated by Krott et al., (2014), were at play in the Ghana-China rosewood trade. Different actors, in different instances, either played the role of potentate (influencing the behaviour of another actor without recognising his will) or subordinate (one whose behaviour is being influenced). The state, through institutions like the Ministry and Lands and Natural Resources and Forestry Commission, used regulations of bans and lifting of bans; salvage permits as a coercive force in trying to manage the trade. The Chinese used monetary incentives in dictating the pace of the rosewood trade. At some point, some local suppliers were just price takers and did not have the power to bargain with the Chinese.

In resisting directives issued by state authorities, some community members at some point were the potentate and the state became the subordinate, as even in the face of directives they still proceeded to illegally fell and trade in the rosewood. At the community level, there were different power plays among community leaders like chiefs and community members.

The study demonstrates that at different levels of forest governance is imbricated by power relationships. Power seems to be the pivot around which many forest governance initiatives revolve. As power can be an effective tool in administering the forest for the common good of all, it can also if unchecked serve as an abused tool in marginalising the less powerful in accessing the benefit of the forest.

It has often been portrayed that forest-fringed communities are mostly powerless when it comes to forest governance. However, this study presents an interesting scenario through the actor-centred power approach lens that, community members are not always powerless, as they can be powerful (potentate) through the use of coercive force in flouting state rules in pressing home their forest needs.

It is also clear from the study, that in the absence of well-laid structures in administering power, abuse is inevitable. The study shows how state institutions in the hands of some politicians became a conduit for the unbridled use of power in serving self-interest instead of communal interest. It is therefore imperative for power to be given critical consideration in the designing of principles for forest governance.

In terms of originality, this paper contributes to the literature on actor-centred power provides empirical evidence and makes an important contribution to the power discourse in forest governance. It also shed light on the powers of transnational forces like China, vis-à-vis that of national and local power.

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Chapter five (5)

Beyond incentive theory: governing a transnational policy instrument to combat illegal logging (VPA FLEGT) in a 'fragile state'

Baidoo, A., Karsenty, A & Ongolo, S. (2023). Beyond incentive theory: governing a transnational policy instrument to combat illegal logging (VPA FLEGT) in a 'fragile state'.

Abstract

In recognition that European demand was a significant driver of illegal logging, the Forest Law Enforcement Governance and Trade (FLEGT) action plan was designed to restrict access to illegal timber in the EU market in 2003. Drawing theoretical insights from the theory of incentives, linking it with the "fragile state", and based on empirical research in 2022, we explore the state of the VPA FLEGT in Ghana. It seeks answers to why Ghana has delayed issuing a FLEGT licence despite being tipped to be next in line to do so after Indonesia. The study reveals that Ghana has made positive strides in line with the VPA FLEGT process; nonetheless, our findings show that Ghana has not been forthright in making timely decisions, which could have resulted in the earlier delivery of the VPA licence. Our analysis further reveals that Ghana lacks the political will to finally decide on the VPA FLEGT as issues of artisanal milling stand in the way of ensuring full legality of domestic timber, typical of a "fragile state". Regarding the future of VPA FLEGT, our findings reveal that the EU does not seem to be as committed to the VPA as it used to be. This is partly due to a new EU regulation which emphasises due diligence based on the type of country timber is emanating from and not necessarily having a FLEGT licence. From our findings, artisanal milling and alternative timber market to China are major reasons why the momentum on the Ghana part has stalled. This study contributes to the overall debate on VPA FLEGT. There is a need for countries like Ghana to commit to fully rolling out VPA FLEGT since it has become part of its laws to strengthen forest governance.

Keywords: Illegal logging, Deforestation, Incentive theory, VPA FLEGT, China-Africa

1. Introduction

The global debate to halt deforestation and promote sustainable management of forest ecosystems and their endowment has been ensuing for decades (Beeko and Arts, 2010; Humphreys; 2008; Humphreys, 1996). While the emphasis on the subject has taken various turns, the underlying principles of conservation and sustainable resource use have remained constant (Begemann et al., 2021; Singer and Giessen, 2017; Cadman et al., 2017). There have been, the International Tropical Timber Agreement (ITTA), the Tropical Forestry Action Plan (TFAPs), the United Nations Convention on Biological Diversity (CBD), National Forest Programmes (NFPs), Forest Investment Programmes (FIPs) by the World Bank, Reduce emissions from deforestation and forest degradation (REDD+) established by the UN convention on climate change, etc. (Humphreys, 2006; Beeko and Arts, 2010).

Not all these initiatives have yielded convincing and long-term results (FAO, 2007), and as a result, new policy initiatives and measures continue to be sought to control deforestation, reduce biodiversity loss and manage the forest sustainably including by combatting illegal logging (Giessen, 2013; Sotirov et al., 2020). In recent times, it was realised that weak forest governance systems, which lead to or exacerbate illegal logging, contributed largely to the persistence of deforestation and forest degradation (Begemann et al., 202; Contreras-Hermosilla et al. 2007). Illegal logging flies in the face of sustainable forest management undermines the rule of law and causes various governments to lose several billions of dollars (Contreras-Hermosilla et al. 2007; Li et al. 2008). In short, illegal logging takes place when timber is harvested, transported, bought or sold in violation of national laws (Brack, 2003).

The EU FLEGT was introduced as a direct response to the reaction to market pressure and civil society activism to firm requirements owing to scepticism that regional voluntary cooperative efforts would address the cause of corruption and forest degradation. (Bernstein & Cashore, 2012).Therefore, in recognition that European demand was a significant driver of illegal logging, the Forest Law Enforcement Governance and Trade (FLEGT) action plan was designed to restrict access to illegal timber in the EU market in 2003 (EC, 2020).

The vision behind this, originally in the 2003 FLEGT Action Plan (EC, 2003) includes three main components: (1) negotiating bilateral Voluntary Partnership Agreements (VPAs) with producer countries to achieve broad stakeholder participation in building domestic institutions to promote sustainable forest governance and assure the 'legality' of exported timber; (2) supporting complementary initiatives by private business and civil society actors to advance these same goals; and (3) enacting legislation in the form of the EU Timber Regulation (EUTR) that makes it an offence to place illegally harvested timber from whatever source on the European market and obliges trading firms to demonstrate 'due diligence that they have not done so.

The European Commission (EC) developed the FLEGT VPA as a comprehensive forest governance package that includes in-depth national forest policy reforms in the VPA partner countries, as well as development policy tools and structures to improve legal timber supply, monitoring and exploring EU markets (EC 2018; EREA 2016; Carlsen 2014; Hajjar 2014; Hirons et al. 2018; FERN Nov. 2017) A key component of the VPA is Timber Legality Assurance System (TLAS). A TLAS tracks timber and timber products from their origin to their point of export, to verify whether timber and timber products have been harvested, transported and traded legally. The entire system is a subject of independent auditing and in the end, FLEGT licences are issued for legally verified products to be exported to the EU.

The European Union (EU) as part of its commitment to the VPA FLEGT processes has made several financial commitments to the process. FLEGT has funnelled significant aid from the EU, member states, and

other bilateral and multilateral donors to assist recipient government agencies in developing countries, NGOs and other business associations in partner countries with TLAS development and the implementation of governance reforms mandated by the VPAs. The VPA FLEGT processes have therefore served as a level of incentives targeted at ensuring forest sustainability through the trade of legal timber.

An independent evaluation 2016 of the FLEGT Action Plan estimates that the EU and its member states together invested €882.4 million through individual and multi-country projects, of which €231 million was directed to the six VPA signatory countries. The total investments by the EU and Member States in the preparation, negotiation and implementation of FLEGT VPAs since 2004 is estimated in the Fitness Check at €1.5 billion shared between the EU and the Member States (much of it spent on preparation and negotiation rather than actual implementation). This excludes the amount invested by VPA partner countries at the level of which "has been proven difficult to quantify as this was partly in the kind i.e. time and effort invested by authorities and stakeholders".[10]

The VPA is targeted to provide development assistance to volunteering forest-rich countries to improve their overall forest governance systems as well as curtail trade in illegal timber using both supply and demand side measures (Beeko and Arts, 2010). On September 3, 2008, Ghana became the first country to conclude negotiations on a Voluntary Partnership Agreement (VPA) with the European Union (EU) (Beeko and Arts, 2010). To date, the EU has signed VPAs with 15 partner countries (EC 2021). Eight countries - Ghana, Cameroon, the Central African Republic, Honduras, Indonesia (FLEGT licensing since November 15, 2016), Liberia, the Republic of Congo, and Vietnam - are implementing the VPA (EU FLEGT Facility 2021). The EU has concluded the VPA negotiations with Guyana and is negotiating with six other countries, namely Côte D'Ivoire, the Democratic Republic of Congo, Gabon, Laos, Malaysia and Thailand.

The VPA FLEGT and its different processes have been widely researched as processes in the different volunteering countries, including Ghana, are being keenly followed and monitored globally (Ongolo et al. 2020, Hansen & Acheampong, 2018, Springate-Baginski, 2014, Brack, 2012) Although the VPAs have become increasingly standardized, they differ from one another in several areas, reflecting both specific features of the local and the sequence in which they are negotiated (Overdevest and Zeitlin, 2018).

The existing scientific literature covers various aspects of the VPA in Ghana, from the perceived strengths and weaknesses (Lesniewska & McDermott, 2014, Derkyi et al, 2021) governance and justice issues (Wiersum & Elands, 2013) to the announcement of Ghana's supposed readiness to issue a FLEGT license (Adams et al. 2021, Hansen et al. 2018, Ramcilovic-Suominen et al. 2010, 2019). Ghana's interest in the VPA came on the back of the government's interest in securing continuing access to the EU market, which then accounted for 60% of national timber exports, as well as in supporting improved regulation and advancing key reforms of the forest sector (Beeko and Arts, 2010, Ochieng et al. 2013, Lesniewska & McDermott, 2014).

Ghana's VPA was signed in November 2009 and ratified by both sides in March 2010 (EU-Ghana 2010). It was the first VPA to be agreed upon and the only one before the passage of the European Union Timber Regulation (EUTR). Over the years, Ghana has gone through several phases regarding the VPA FLEGT processes. The most outstanding of these VPA processes has been the deployment of the Ghana Wood Tracking System (GWTS) as the Timber Legality Assurance System (TLAS) in Ghana and the creation of the Multi-stakeholder dialogue forum to address forest governance issues (Beeko and Arts, 2010).

[10] https://flegtimm.eu/news/flegt-eutr-fitness-check-mixed-verdict-on-effectiveness/

From all indications, Ghana appears to have shown positive commitment in its quest to secure the green lane to issue the FLEGT license. Ghana was seen as the next country to secure a FLEGT license in 2017 a year after Indonesia got the permit to start issuing a FLEGT license in 2016 (Overdevest and Zeitlin, 2018, Wiersum & Elands, 2013). However, Ghana was still not able to start issuing FLEGT licences in 2022. Even though other works have delved into the key processes of the Ghana VPA FLEGT ((Lesniewska & McDermott, 2014; Derkyi et al, 2021; Wiersum & Elands, 2013) the exact question of why Ghana has delayed issuing a FLEGT license despite the many strides still hang in the balance. This paper aims to scrutinize what can explain such a paradox. It answers the question, what are the root causes explaining the huge tardiness of the Ghanaian government in issuing FLEGT licences since 2017?

This article contributes to the VPA FLEGT debate in Ghana by shedding light on Ghana's delay in issuing a VPA FLEGT. This discussion is done in light of the theory of incentives in a 'fragile state' like Ghana. The study is guided by two hypotheses: first, Ghana's inability to properly regulate artisanal milling is partly the reason why it has yet to secure a VPA FLEGT licence. Second, the emergence of China as an alternative market for Ghana timber has stalled Ghana's motivation in rigorously pursuing the VPA FLEGT.

2. Linking incentive theory in a 'fragile state' to the VPA FLEGT process

Scholars argue that, on the donor side, the concept of fragile state is used primarily to classify states facing major political crises or extreme poverty as 'fragile' (Bøås & Jennings, 2007, Brinkerhoff, 2007), 'failing' (Carment, 2003, Call, 2011) or 'failed' (Fisher, 2014) to legitimize aid spending and interventionist strategies. On the recipient side, although, such labelling is generally contested (Brinkerhoff, 2010) it is also frequently accepted and reinterpreted when there is the potential for political gains (Grimm et al 2014). The concept of a fragile state boils down to insufficient state capacity or the unwillingness of a state to meet its obligations, generally understood as delivering 'core functions to the majority of its people[11].

Western donors' interest in fragile states emerged as an indirect consequence of donors' shift towards aid selectivity (Grimm et al 2014). Two major donor countries, the USA and the UK played a leading role in the construction of the policy agenda on fragility within multilateral organisations. In 2005, developed and developing countries under the aegis of the Organisation for Economic Co-operation and Development (OECD) endorsed the Paris Declaration on Aid Effectiveness which was equally applied to fragile states and 'to environments of weak ownership and capacity and immediate needs for basic service delivery (Zoellick, 2008, Call, 2011)[12].

The encompassing nature of the concept of a fragile state has made it possible for aid-dependent governments especially in sub-Saharan Africa to manoeuvre with donors by emphasising the degree of political instability. By referring to the notion of 'state fragility', some authoritarian regimes like in Uganda (Grimm et al 2014) and the Democratic Republic of Congo (Trefon 2009) have successfully persuaded donors to continue their support despite their domestic extraversion (Bayart & Ellis 2000). This reveals how diverging purposes are merged in the 'fragile states' label. The definition of 'fragile state' is far from stable, despite attempts by many international institutions to create a more rigorous definition. Various actors with different agendas to describe dissimilar national contexts of political disruption, institutional weakness and economic collapse use the term (Grimm et al 2014).

[11] Department for International Development (DFID), Why We Need to Work More Effectively
[12] Organisation for Economic Co-operation and Development (OECD), Paris Declaration on Aid Effectiveness, para. 27

Actors in so-called 'fragile states' have not remained passive in the process of the transnational dissemination of the concept. Their resources have allowed them 'to resist, ignore, engage with, disengage from, and exploit' international involvement (Osaghae, 2007, Boege, 2009). This paper adopts the OECD/DAC (2007: 29) definition of a fragile state as those countries where there is a "lack of political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their population". Linking this conceptual framework to forest governance issues, this definition emphasizes two issues: the will and the capacity to implement public policies that would tackle vested interest in changing the existing trends favouring illegal logging.

For the past hundred years, Ghana has advanced in the number of forest policies, legislations and management approaches (Oduro et al. 2011). Despite the different forest management regulations which have been churned out over the years, forest degradation and deforestation remain very high (Akomah, 2022). Ghana's forest management for the past hundred years has largely been through state use of regulations, which has largely been unsuccessful based on the alarming rate of the loss of forest cover (Akomah, 2022). Over the years, there has been a lack of compliance with logging regulations; there are gaps between official forest management prescriptions and their implementation on the field (Oduro et al. 2011). The ineffective implementation of forest policies and other sector policies in Ghana makes Ghana pass as a 'fragile' state.

The opportunistic behaviour of humans can be altered by incentives and sanctions (Eisenhardt, 1989 p. 63). In the economic theory of incentives, incentives are different types of motivations which encourage employees to do better. Most incentives deployed in firms have been in the form of 'pay for performance', which is mostly targeted at improving productivity (Gibbons & Roberts, 2013).

An incentive is an offer of value, in either cash or its equivalent altering a person's course of action through the influence of a transaction (Grant, 2002). Both the giver of the incentive and the receiver of the incentive stand to benefit in this endeavour. There are material and immaterial incentives. Material incentives are money, technical sources like machines, plants or food, support in labour etc., immaterial sources are manifold, they offer social or psychological advantage (Olson, 1971, p. 61)

The European Union's green light of trade for only legally sourced trade partners especially in the tropics are a king of incentives targeted at reducing deforestation. In this case, the EU turns to achieve its goals of conservation, which has attendant benefits, and forest-rich countries benefit economically from their forest resources. By 'incentives', we refer to any action by an economic agent (which can be the European Union) leading some other agents to adopt a given behaviour. In the theory of incentives, an agent-whom the theory calls 'the principal", delegates a specific task to another agent (here can be VPA countries). This task in line with the VPA FLEGT processes is to be able to satisfy some conditions of ensuring that timber from these countries and produced from a legal source with all the evidence intact qualify for a reward (pay) of the country being allowed to trade in the EU market.

- Using the theory of incentives as applied to the forest governance domain (Karsenty & Ongolo 2012), a political economy story regarding the VPA FLEGT can be summarized as follows:
- EU would like to see an overall reduction in illegal logging which is a major contributor to deforestation that threatens the sustainability of forestry
- Developing/VPA countries with forests are assumed to be capable of influencing the amount of illegal logging which at the very least, would reduce the rate of degradation by having the right national and local institutional framework

- EU (the Principal) propose an institutional arrangement to developing/VPA countries (the Agents) to offer them support to put all the mechanisms in place to ensure that that timber is harvested and traded from a legal source and the processes in doing the same are transparent and can be monitored by interested parties.
- EU by this arrangement is ready to offer all the trade support to the countries, that can successfully go through the VPA FLEGT processes.

In light of the EU's VPA FLEGT arrangements with partner countries, it is yet to be seen if it serves the purpose of incentivising member countries to behave in the manner that will achieve the intended purpose. "Public policies are characterized by legacies to be managed, and a high level of path-dependence vis-à-vis previous choices that prohibit 'autonomy' of public decision similar to that envisaged for the economic agents referred to by the incentive theory agents" (Karsenty and Ongolo, 2012:4).

With implied inspiration from the theory of incentives in a 'fragile state' like Ghana, we explore why Ghana's VPA FLEGT processes although have received several financial support (incentive) from the European Union to put in place various structures needed for the VPA FLEGT license has still not been able to deliver the licences. Has it been a case of failed incentives if the theory of incentives is implicitly applied in this case or there has been a better incentive, which has slowed Ghana's momentum in consolidating all efforts to secure a VPA FLEGT licence?

3. Methodology

This paper is based on three sources of data. First, FLEGT-related policy literature, including policy documents, FLEGT Briefing notes, VPA texts and their annexes.

The second source of qualitative data was through targeted interviews with stakeholders who are well-vested in Ghana's VPA FLEGT processes at the international, national and district levels. At the international level, a representative (1) from FERN (an international NGO that has a working relationship with Ghana's VPA FLEGT) was interviewed. Questions in this interview focused on the processes of Ghana's VPA FLEGT so far, the EU's present commitment to Ghana's VPA FLEGT etc. At the Ghana national level, two (2) representatives from leading Civil Society Organisations (CSOs) which have actively been part of the Ghana VPA processes from the onset till now were interviewed.

The concentration of the interviews was on stakeholder engagements in the VPA processes, challenges, gains and way forward. In addition, two (2) representatives from the Forestry Commission of Ghana, one from the Timber Validation Department (the legal unit responsible for VPA FLEGT processes in Ghana) and the Timber Industry Department Division (TIDD) were interviewed. These interviews focused on the structures put in place for Ghana to secure the VPA FLEGT license, i.e. legal instruments, Ghana wood tracking system (GWTS), why Ghana has delayed in securing the FLEGT licence, Ghana's commitment to the VPA etc. Also a representative from the Ministry of Lands and Natural Resources (the Government Ministry officially responsible for the VPA FLEGT).

The questions in this interview centred on Ghana's commitment to the VPA. At the District level in Ghana, twelve (12), forest monitors[13] within seven (7) regions in Ghana namely: Western North Region, Ashanti Region, Bono Region, Volta Region, Western Region, Eastern Region and Ahafo Region were interviewed.

[13] Representatives from various CSOs in Ghana who have been specially trained to monitor the forest in various districts and regions in Ghana and report on illegalities and infringements on the rights and privileges of forest fringed communities.

Interviews with these district forest governance officers boarded on the impact of VPA processes at the community level, the understanding of the community members of the VPA processes, forest governance challenges at the community level etc. (see Appendix i).

As a way to ensure reliability and validity, the data collection processes included a cross-section of the most relevant stakeholders who have been a part of the VPA processes from the outset and continue to play leading roles. In addition, the information obtained during the key informant interviews was triangulated during the focus group discussions as a way to ensure reliability.

The respondents for the key informant's interviews were purposively selected based on their knowledge and involvement in the VPA processes. It is worth noting that there were prospective interviewees who declined the invitation to interview citing personal reasons. As recommended by Rossman and Rallis (2017), key informant interviews are suitable when complicated problems need to be unravelled and to obtain in-depth information to shed light on contested issues in the academic debate. It is worth mentioning that these interviews were targeted at people who had an in-depth understanding of Ghana's VPA process and not necessarily every stakeholder in Ghana's VPA FLEGT processes.

The third source of data for this paper was through focus group discussions with two selected communities in the Bono Regions of Ghana in the Dormaa West District namely Yaakrom and Diabaa. These two communities are fringing the Mpamesu Forest Reserve where both legal and illegal timber activities are rife. At Yaakrom, participants in the focus group discussion included the District Chief Executive(DCE)[14], the Chief's linguist, community leaders, community members, and the forest monitor in that district. In all, there were fifteen (15) participants in the focus group discussion.

At Diabaa, participants in the focus group discussion included the Chief, elders of the town, the Social Responsibility Agreement (SRA) Chairman, youth leaders, the forest monitor for the area and some community members (Appendix ii). All sixteen (16) people participated in the discussion. These focus group discussions centred on the community members' understating of the VPA processes, the direct impact of Ghana's VPA trajectory at the community level, forest governance issues at the community level etc. It served as a platform to validate the information received at the regional and national level concerning the VPA by triangulating the information.

All interviews and focus group discussions were audio-recorded, with the prior consent of each interviewee, and transcribed in English. Transcripts were manually analyzed by grouping statements under similar sub-headings. Selected quotations from the transcripts are used from time to time in the text to support themes and foreground the lived experiences of participants. Thematic analysis is useful for examining both theory and data-driven materials (Boyatzis, 1998).

4. Results

Our results show that Ghana's VPA FLEGT has gone through several processes. We present the state of Ghana's VPA FLEGT, Why Ghana has delayed securing a VPA FLEGT licence, rosewood in the VPA

[14] The District Chief Executive is a government appointee who is head of the District

FLEGT processes, the Way forward for EU regarding Ghana's VPA FLEGT and the Way forward for Ghana regarding its VPA FLEGT.

4.1 State of Ghana's VPA FLEGT

The Ghana VPA FLEGT has achieved several milestones. The empirical data collection revealed that Ghana fit into the definition of a fragile state because, over the years, Ghana has not been effective in implementing forest policies and policies in other areas. A close observation of forest policy implementation reveals that although Ghana has frantic efforts in revising policies, changing management plans and adopting, this has not positively impacted the field as problems of deforestation and land degradation persist at an alarming rate.

On commenting on the state of Ghana's VPA FLEGT a representative from Civic Response, one of the Civil Society Organizations that has played a leading role in the processes made the following observation:

> *It has been out there that Ghana is ready to issue a VPA FLEGT license because almost all the technical aspects required for this have been done. Under the VPA FLEGT, all timber rights must be ratified by Ghana's parliament. To ensure this the current (2021) Ministry for Lands and Natural Resources wrote to the Cabinet of Ghana in October 2020 for approval to submit these timber rights for ratification. This approval was given finally in April 2022[CSOI-20042022*]

Below are some of the key highlights of Ghana's VPA FLEGT so far:

> *The Ghana VPA process has ensured the establishment of a multi-stakeholder implementation committee (M-SIC) to engage in forest governance issues. This Committee is chaired by a representative of the Ministry of Lands and Natural Resources and members include representatives of several Government ministries and agencies that have responsibilities for aspects of the VPA. Other members of the Committee include a parliamentarian, a representative of traditional authority and representatives of civil society and the private sector. The VPA Secretariat in Ghana's Forestry Commission coordinates implementation activities.*
>
> *Ghana's VPA process has deployed a legal instrument in the forestry sector to streamline activities. The Timber Resources Management and Legality Licensing Regulations adopted in November 2017 outline several procedures related to the access to timber resources, including those on large-scale and small-scale timber rights, timber contracts, timber stumpage fees, the registration and use of chainsaws, and offences and penalties. Clear legislation makes it easier for the Forestry Commission and other regulatory bodies to enforce the law and for the justice system to prosecute illegal loggers.*
>
> *There has been the creation of the Timber Validation Department (TVD) a unit within the Forestry Commission (FC) which oversees the legality verification process and monitors compliance with the legality definitions, by auditing procedures and reconciling data at each critical control point, ensuring that they match the information in the central database. The TVD is also responsible for reporting on infractions and making recommendations for improvement of the Legality Assurance System (LAS) and regulatory framework to the Ministry of Lands and Natural Resources (MLNR).*
>
> *Ghana's VPA has also established a multi-stakeholder Timber Validation Committee (TVC) chaired by the Chief Executive Officer of the Forestry Commission. The TVC deals with complaints on the operation of the TVD and provides an opportunity for redress by aggrieved parties through a team of adjudicators headed by a high court judge.*

Ghana's VPA has also established the Joint Monitoring and Review Mechanism (JMRM), which serves as a crucial platform for accountability, learning, and recursive problem-solving.

Through the Ghana VPA process, the domestic timber market has received attention since the domestic market for timber market is bigger than the export market and reportedly, most timber supplied to the domestic market is from an illegal source. Initiatives such as the EU Chain Saw Project and others have tried to provide both policy and technical solutions to the problem of the domestic market. Ghana is developing a public procurement policy to ensure that state-funded projects do not use illegally harvested wood.

One of the major gains that the Ghana VPA process has brought at the district and community levels is the awareness of community rights to claim their Social Responsibility allowances (SRAs) and compensation fees. [YFGD-25092022; DFGD-25092022; DLMI-28052022; DLMI-21062022; DLMI15082022]

Ghana has developed a wood tracking system, which has been rolled out nationwide. The Ghana Timber Legality Assurance System-LAS (GhLAS) is based on an integrated national Wood Tracking System (WTS) to ensure the traceability of timber flows through a series of critical control points from forest to mill to port. This has come to be known as the Ghana Wood Tracking System (GWTS). Appendixes iii, iv & v give a snapshot of the GWTS. The GWTS is now the working environment of the Ghana Forestry Commission as real-time data is input across the nation on a day-to-day basis as Forestry Commission officials undertake their daily activities on the field. Based on this, different levels of management decisions are taken at different levels using the GWTS. The GWTS helps to coordinate the various forestry activities between the different sections and units of the forestry commission.

4.2 Why Ghana has delayed securing a VPA FLEGT licence

Our findings revealed a couple of reasons which has delayed Ghana's VPA FLEGT licence. The first is a lack of political will on the part of Ghana. Even though Ghana's interest in the VPA was a result of a political decision as the government in power at the time of the negotiations saw the need to continue to leverage the 60% timber trade market to the EU. According to our fieldwork, the same political momentum, which started this whole VPA process, does not seem to have been sustained. It is rather the case that the Civil Society Organisations(CSOs), the private sector and other stakeholder institutions have carried out the vision of pushing to the limit for Ghana's VPA FLEGT to become a reality more than the political architecture of the nation itself has been committed to. Civil society groups especially have served as watchers to the VPA processes, following up at each stage to ensure that purposeful progress is made in this regard. A respondent in one of the interviews right pointed this out:

What is holding Ghana back is the political aspect of the VPA. Mostly when there is a change of government which results in a change of Ministers, the VPA processes grind to a halt since the new minister will now have to be oriented about the issues all over again which can take months or even years. Also based on their disposition to the whole arrangement they now decide on the way forward [CSOI-20042022]

Our findings further revealed that Ghana over the period in this VPA process has lacked the urgency in making bold decisions in favour of the VPA to make headway. This further strengthens the notion of Ghana being a fragile state i.e. inability to swiftly implement policies in a timely and productive manner. For instance, based on the Timber Resources Management and Legality Licensing Regulations adopted in

November 2017, all Timber Utilization Permits (TUPs) were supposed to be converted to Timber Utilisation Contracts (TUCs) which required the payment of Timber Rights Fees (TRF).

This meant that contractors who initially held the TUPs were now being required to make payment of TRF. This decision was met with stiff opposition from the private sector, which stalled the VPA processes for months. First of all, before making such an arrangement, the decision should have been critically thought through and the situation managed in a manner, which would not have incurred strong opposition from the private sector to this arrangement. This does not seem to have been the case initially. It, therefore, took the private sector to mount pressure and resist the payment of the TRF and even threatened to engage in a legal battle before it was finally decided that a one-time payment should be made by those who already held the TUPs before the TUCs were enforced. This delayed the process for years. This is explained in a statement below by an interviewee:

> *"The private sector was not happy with the Timber Rights Fees (TRF). Those who had leased before the passage of the bill at that time had met the requirements for timber rights. Therefore, the fact that the new law required that not all timber rights should be converted to Timber Utilization Contracts (TUC) meant that they had done something illegal since they legally acquired the lease before the passage of the law To the TUC an amount of money called the timber rights fees had to be paid, so something was worked on for them to make it easier for them to transition from the Timber rights permits (TUP) to timber the TUC"* [FCOI-22042022].

In line with the same decision-making, Ghana made a major decision of rolling out its first Wood Tracking System wrong at first instance, as it later realized that the software was not that user-friendly in terms of its compatibility with the Ghana forestry-working environment. It was also not sustainably adaptive enough to consider its countrywide operations. This further delayed the VPA process. A new GWTS had to be worked on, an additional cost and also further delay to the process.

Another reason according to our findings, which has delayed the Ghana VPA FLEGT licence, is corruption, vested interest and artisanal milling. Findings reveal that some politicians and influential people in the country are benefiting financially from the illegal sourcing of timber in the country through domestic timber trade and are therefore not in full support of the VPA FLEGT process which aims at ensuring that there is sanity in the timber industry as it continues to put in place measures to ensure that legal timber is traded both in the local market and the on the international market.

Finally, our findings reveal that China as an alternative market for Ghana's timber is one of the reasons for the delay of the VPA FLEGT license. Emphatically an interviewee made this statement: *"At the beginning of the FLEGT in 2005, Ghana's export to the EU constituted 60% now it has reduced to about 20% due to leakages to China*" [CSOI-20042022].

Fig. 1. Trade overview of forest products from Ghana to China and Europe from 2007 to 2020

Data from resource trade earth further strengthens China as an alternative timber destination observation made by the study. Figure 1 gives a breakdown of the trade of forest products from Ghana to both China and Europe since 2007 after Ghana signed the VPA FLEGT agreement with the EU. In 2007, while Ghana exported 4.3 million value of forest products to China, a value of 162 million forest products were exported to Europe.

The figure further reveals how progressively, forest trade value to Europe depreciates as against the appreciating value of trade of forest products from Ghana to China. For instance, from 2012 to 2020 trade values from Ghana to China have been greater than those from Ghana to Europe. In 2016 and 2019, while Ghana's forest trade value to China was $ 127 million and $121 million respectively, the corresponding trade value to Europe was $ 37 million and $ 58 million respectively.

Therefore, it appears as the EU tightens its regulations to ensure that the right thing is done regarding sourcing timber from a legal source, there is a more flexible market in China, which considers legality issues as a business of the nation in question and as result is ready to trade in its timber.

4.3 Rosewood in the VPA FLEGT processes

The trade of rosewood in Ghana is arguably one of the forest product trades that is saddled with heightened illegalities ever. The demand for rosewood by the Chinese triggered a scramble for the rosewood species across various places in Ghana without recourse to any legal procedure. Coincidentally this happened within the era when the VPA process was underway in Ghana. At best the Ghana-China rosewood trade can be described as flying directly in the face of the VPA process.

In 2011, the enormity of the illegality being peddled in Ghana through the issuance of salvage permits by Ghanaian authorities triggered action from some CSOs. An official complaint was made to the JMRM in 2011. Following these complaints, the Forestry Commission announced that the issuance of a large salvage permit had been stopped. A situation decision that some CSOs later came to report was not obeyed because salvage permits were still issued for rosewood to be either evacuated or fresh ones felled.

In April 2022, the issue of rosewood surfaced again as the European Commission in Ghana had requested that rosewood should not fall under confiscation timber rights, which allowed the forestry commission to auction ceased timber. The Ghanaian side argued the contrary. The European Commission team were still insistent on pressing this demand in the meeting that was eventually postponed. This was how an interviewee narrated the situation:

> "*There should have been a meeting between the Ghana side of the VPA FLEGT processes and their counterpart at the European Commission in Ghana but the meeting was cancelled. European Commission requested that confiscated timber be taken out of the timber rights, (as part of Ghana's new timber regulation) because of rosewood but the Ghanaian side argued that the confiscated timber had just 2% of the rights and was not that significant. For confiscated timber, the Forestry Commission is allowed by the law to cease them and get a court injunction to auction them publicly. Rosewood fell within the categorization of confiscated timber*" [CSOI-20042022].

4.4 Way forward for EU regarding Ghana's VPA FLEGT

After the cancellation of a meeting in April 2022, which was supposed to have been held between the European Commission team in Ghana and the Ghana VPA FLEGT team, no official communication has ensued between the two sides. On commenting on whether the EU remains as committed, as before regarding VPA FLEGT in Ghana, this is what a representative of an international NGO, which has been part of the working process of Ghana's VPA FLEGT, had to admit:

> *The EU is sending a different signal now with the regulation. It will therefore rely more on Ghana to complete the processes since VPA has now parted its law. The signal being sent by the EU may affect what incentives Ghana may receive outside Ghana to complete the processes. This VPA FLEGT involves money, and as a nationally owned process, it will be great if private firms come on board* [INI-12032022].

A senior forestry official in Ghana who has been part of the VPA process since its inception had this to say whether the European Union remained committed to the VPA FLEGT:

> *"We had information about a year ago, that sought to suggest that the EU sees FLEGT as not achieving the results they anticipated because, after more than fifteen years of its introduction, only one country (Indonesia) had been able to deliver the FLEGT license. Therefore, there may be a second thought from the EU side on whether FLEGT is still the way to go but there has not been any official written document from the EU to Ghana in that regard"* [FCOI-22042022].

a. Way forward for Ghana regarding its VPA FLEGT.

Ghana may not have delivered a VPA FLEGT licence yet, but Ghana through VPA has initiated sound forest governance mechanisms which going forward will assist in forest administration in Ghana. The head of the Timber Validation Department on commenting on the future of Ghana's VPA FLEGT had this to say:

"*Concerning the future of VPA FLEGT, If the FLEGT license is not issued in Ghana, it does not in any way invalidate the systems that have been put in place. A lot of work has been done, there is a wood tracking system in place, legal instruments to manage the forest are in place etc The Ghana wood tracking system (GWTS) operates a chain of custody system, which has a pool of data from different arms of Forestry Commission of Ghana (i.e. Forest Service Division (FSD), Timber Industry Development Department (TIDD), Timber Validation Department (TVD) etc. The GWTS is real-time and it is now a working system*

for all staff across the nation of Ghana. This fantastic leap forward cannot be thrown away in case Ghana does not even get to issue a FLEGT license. The GWTS also has an embedded system to audit and track auditing reports" [FCOI-22042022]. Ghana has been able to secure financial support to develop the GWTS can self-sustain its functionality.

5. Discussion

There is a global concern about the rate of deforestation and forest degradation, which has resulted in several initiatives (Singer and Giessen, 2017; Cadman et al., 2017). EU's action plan on FLEGT and its VPA is an additional step aimed at halting illegal logging and ensuring good forest governance through the trade of legal timber. It is equally a positive step in ensuring sustainable forest management (Adams et al. 2020). Seeing the VPA FLEGT through the lens of an incentive to reveals, that VPA FLEGT as an incentive package for forest-rich companies has not worked out perfectly. This is because the issue of deforestation and forest degradation, which is largely through the illegal timber trade, persists (Kansanga et al. 2021; Dumenu 2019).

In a comparative analysis conducted by Adams et al. (2020) on how VPA processes have encouraged principles of good forest governance in Cameroon, The Central African Republic (CAR), Ghana, Liberia, and the Republic of Congo. From their analysis, the VPA process is fraught with political and technical challenges. Issues like weak and inconsistent legal frameworks, insufficient financial resources, and long-term conflicts bedevil the VPA processes (Adams et al. 2020). For most of these African countries, the issue of 'fragility', because of the apparent lack of proper institutional arrangement which results in the enforcement of rules and regulations which is also evident with the VPA FLEGT processes (OECD, 2017; Overdevest and Zeitlin, 2018; Adams et al. 2020). Political disorder in some of these African countries affects the rate of uptake of some of these global environmental initiatives as the state of political unrest affects the effective operations of institutions (Trefon, 2009).

Forests, like other natural resources, are managed by state legal systems. The focus of these systems has largely been on producing goods for export instead of building robust local systems, which ensure the legal acquisition of resources for local trade (Teye 2008, Hirons et al. 2018). Even though customary authorities own most of the land in Ghana, native trees both on farms and on forest reserves are held in trust by the state. The Ghanaian Forestry Commission grants access to timber harvest both on and off reserves through a concession system in an interest-embedded system. This may involve political appointees and/or the use of ministerial decrees, transactions with high-level traditional authorities and various other actors and avenues (Wardell & Lund, 2006).

Local-level actors in timber governance in Ghana have weak and very limited legal rights since the focus of state-based timber governance has been on exports into international markets. In all these, there is a rising domestic demand for timber in Ghana, which continues to expose the frailties of the system towards domestic legality assurance. In 2010, it was estimated that 84% of domestic timber was illegal in Ghana, and most of it was produced by some 97,000 chainsaw operators (Marfo 2010)

There is a high level of illegality in the domestic production and consumption of timber. Ghana's legal timber trade is largely based on relational systems developed among political and public sectors, traditional authorities, industry and local authorities (Acheampong & Maryudi, 2020). This is very typical of fragile states where there is mostly a breakdown of law and order. It is sometimes a chaotic system where

institutions are not empowered to deliver on their mandate; they are mostly tossed around by the 'high and mighty' in society as they work for them instead of working in the interest of the state (Trefon, 2009).

The focus of Ghana's Timber Legality Assurance System (TLAS) has been on high-value timber meant for export and produced from large-scale concessions. The TLAS makes room, however for legality verification of domestic timber but clearly, this is saddled with several difficulties as Hirons et al. (2018) demonstrate how various stakeholders in the Ghana domestic timber sector react to the 'supposed' legality assurance of local timber. The situation as it comes out to be is tied to several Ghanaians' livelihoods dependent on the 'illegal' timber supply chain. Therefore the core aim of VPA FLEGT to halt illegal logging by ensuring that traded timber is legally sourced is not only to be viewed from the exportation of timber but also domestic trade of timber.

Based on this, stakeholders of both the EU Chainsaw milling project and a parallel process led by the Timber Industry Development Division (TIDD) of the Ghana Forestry Commission decided that both sawmills and artisanal millers supply the domestic market with legal timber obtained from sustained yield. Stakeholders have agreed on this as a definition for Artisanal milling "Artisanal milling is small-medium scale milling of timber from specified legal sources by a trained, certified, registered and licensed Ghanaian artisan, using licensed mobile sawmilling equipment that excludes any form of chainsaw machines, capable of recovering at least 50% of dimension lumber from logs, for the domestic market only. This may be processed in-situ or ex-situ" [15]

Under the artisanal milling system, licenses would be granted to former chainsaw millers who have been restrained from operating Bushmills and processing their wood for legal sale. It is envisaged that the already existing rule, which requires all forest concessionaires to deliver 20% of their wood to the domestic market, would help address the issue of supply to these artisanal millers (Marfo et al. 2014). However, according to Lund et al. (2012), this 20% rule has been largely ineffective. If even this rule were effectively enforced, it would only meet less than one-third of the estimated 1.425 million cubic meters of timber consumed by Ghana's domestic timber market.

The VPA includes an article encouraging the government of Ghana to apply the licensing scheme to timber sold on the domestic market (Hajjar 2014). However, according to Overdevest and Zeitlin (2018), the will to include the domestic market within the VPA and the TLAS came from the Ghanaian side, which is an important first step in the promotion of legal wood on the domestic market. Even though the situation is said to have improved concerning illegal logging, the conversion of chainsaw operators to artisanal milling in the formal sector remains an issue. About 80% of the domestic timber market in Ghana is provided by chainsaw milling, which is not captured by official figures (Overdevest and Zeitlin, 2018).

Clearly, in satisfying VPA FLEGT requirements for Ghana to issue a FLEGT license, the concentration of legally sourced timber should not only focus on the exported timber but also locally traded timber, however, the majority of local consumers foresee the full implementation of the VPA FLEGT as a threat to their livelihoods. This is partly the reason why Ghana's VPA FLEGT license has been delayed since it does not have the full backing of stakeholders in the local timber value chain. The inclusion of the informal sector in the TLAS remains a challenge, as outlined in the literature, which notes that the TLAS only encompasses formal operators, so it monitors and affects only a minor share of the annual harvest (Carlsen 2014).

[15] Artisanal Milling Defined - Tropenbos International

6. Conclusion

This study aimed at unravelling the reasons behind Ghana's tardiness in delivering a VPA FLEGT license yet even though forest governance watchers had predicted that all was set for Ghana to do so in 2017 after Indonesia in 2016. What is the current state of Ghana's VPA FLEGT and what are its prospects? The study is guided by two hypotheses, one, Ghana's inability to properly regulate artisanal milling is partly the reason why it has yet to secure a VPA FLEGT licence. Two, the emergence of China as an alternative timber market for Ghana timber has stalled Ghana's momentum in rigorously pursuing the VPA FLEGT.

We demonstrate that Ghana's VPA FLEGT has made some positive strides, as it has been able to lay down some structures to ensure that timber marketed both locally and abroad is from a legal source. However, we also show that Ghana has not been forthright with some of the decisions it had to make concerning the VPA processes which have resulted in the delay in securing a VPA FLEGT license. The issue of political will, corruption and the business interest of some influential actors continue to militate against the VPA process it seems to stand opposed to a certain interest. The issue of the artisanal sector which is largely informal with vested interest by both the political elite and some traditional leaders continues to stand in the way of Ghana ensuring that timber set for local consumption is from legal sources. One respondent also pointed to the difficulty of removing illegal timber from the market because chainsaw millers represent an important electoral mass that politicians would not want to lose and the technical difficulty of enforcing a traceability system given the large number of chainsaw millers [CSOI-20042022]. This is in line with the work of Adams et al. (2021) who through the SWOT analysis of Ghana's VPA process accented to the VPA process in Ghana has brought some changes but still has some weaknesses.

Looking at VPA FLEGT as an incentive for a "fragile" state like Ghana, it is clear that the incentive has not worked completely. One would have thought that with the level of financial support Ghana has enjoyed from the EU and other donor entities in setting up various structures to pass as a FLEGT license issuing country to have the green lane to be able to market its timber products in the EU market, Ghana would have been in a haste to get the whole VPA FLEGT architecture rolled out. Yet, there has been some back and forth with the process. This is a pointer to the fact that the VPA FLEGT being looked at as an incentive has not worked perfectly. The argument can therefore be advanced that a 'state' responds differently to market entities responding differently in incentives due to vested and private interest. In addition, the difficulty to formalize and legalize the artisanal sector is something typical of a "fragile state" While it is clear based on the efforts that have been made regarding Ghana's VPA; it still has not achieved the ultimate goal because of other militating factors.

Throughout Ghana's VPA process, China has been a good alternative for Ghana's timber as rosewood has been a test case. Data from the study reveals that the trade of forest products from Ghana to both China and Europe since 2007, (after Ghana signed the VPA FLEGT agreement with the EU) progressively, the value to Europe has depreciated as against the appreciating value of trade of forest products from Ghana to China. For instance, from 2012 to 2020 trade values from Ghana to China have been greater than those from Ghana to Europe. In 2016 and 2019, while Ghana's forest trade value to China was $ 127 million and $121 million respectively, the corresponding trade value to Europe was $ 37 million and $ 58 million respectively. It is therefore safe to accept the hypothesis that the emergence of China as an alternative market for Ghana timber has stalled Ghana's momentum in rigorously pursuing the VPA FLEGT.

Regarding the future of Ghana VPA FLEGT, the signs are clear that the EU is not as keen on the process as it was before. Karsenty (2022) argues that based on new EU regulations, VPA FLEGT is not the only benchmark to have a green lane in the EU market. He stresses the fact that the current emphasis is on due

diligence and this shall be applied based on the perceived illegality risk from the country from which the timber is from. It will therefore not be out of place for Ghana to start seeking private support to fully implement the VPA FLEGT since it is now part of its laws and is targeted at achieving a good purpose even for internal forest governance.

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Appendix i: Summary of participants in Key informants interview

Category of respondents	Number of respondents	Date of Interview	Interviewee code
International NGO	1	12/03/2022	INI-12032022
Civil Society Organisations (CSOs)	2	1. 20/04/2022 2. 23/04/2022	CSOI-20042022 CSOI-23042022
Forestry Commission Officials	2	22/04/2022 25/04/2022	FCOI-22042022 FCOI-25042022
Ministry of Lands and Natura Resources Representative	1	16/05/2022	MLNRI-16052022
District level Forest Monitors	12	1. 28/05/2022 2. 09/06/2022 3. 13/06/2022 4. 15/06/2022 5. 16/06/2022 6. 21/06/2022 7. 29/06/2022 8. 18/07/2022 9. 22/07/2022 10. 15/08/2022 11. 17/08/2022 12. 07/09/2022	DLMI-28052022 DLMI-09062022 DLMI-13062022 DLMI-15062022 DLMI-16062022 DLMI-21062022 DLMI-09062022 DLMI-18072022 DLMI-22072022 DLMI-15082022 DLMI-17082022 DLMI-07092022
TOTAL	18		

Appendix ii: Summary of Participants in Focus Group Discussions

Name of Focus Group Discussion (FGD)	Type participants	Number of participants	Date of FGD	FDG Codes
Yaakrom FGD	District Chief Executive(DCE), Chief's linguist, community leaders, community members, forest monitor	15	25/09/2022	YFGD-25092022
Diabaa FGD	the Chief, elders of the town, Social Responsibility Agreement (SRA) Chairman, youth leaders, forest monitor for the area and some community members	16	25/09/2022	DFGD-25092022
TOTAL		21		

Appendix iii: GWTS Showing details about forestry management and trade statistics (Source: Ghana Forestry Commission, 2022)

Appendix iv: GWTS showing details about timber rights (Source: Ghana Forestry Commission, 2022)

Appendix v: GWTS Showing details concerning the manager's dashboard (Source: Ghana Forestry Commission, 2022)

GWTS
1.2.1
LIVE
Adelaide Nae Ayeley Amuah
TVD.
DASHBOARDS
Forestry Dashboard
Managers Dashboard
FOREST ADMINISTRATION
Timber Rights
Forests
Registry
Yield Approval
Yield Amendments
Entry Permits
Conveyance Permits
STOCK ENUMERATION
Stock Survey
Prefelling Inspection
Stock Assessment
Seize Reports
HARVESTING
Tree Information (TIF)
Plantation Production (PPC)
7,107
UNAPPROVED TIFS
3,387
FLAGGED TIFS
434
FLAGGED LMCCS
4,357
UNINVOICED TIFS
Plantation Harvesting
3%
Total Allocated
302,928.031 m³
Total Harvested
9,899.359 m³
DOME/4A/4, Dome River
117.7%
MIRI/13A/2, Mirosa Hills
104.2%
PAMB/68/2, Pamu Berekum
102.3%
Active Compartments
Reserve
Compartments
Unknown Reserve
1
Aboma
31, 32
Abrimasu
12, 13, 16, 17, 18
Aboriyere
13
Harvest Trends
Year
Natural Forest
Plantation
On Reserve
Off Reserve
Underwater
180,000
160,000
140,000
120,000
100,000

Chapter Six (6)

GENERAL THESIS CONCLUSION

Key findings of the dissertation

The study revealed that rosewood actors have unequal bargaining power based on the influence they have in engaging different actors. There are therefore dominant actors and marginalized actors. Rosewood actors are broadly categorized into domestic and foreign actors. The latter includes multilateral or international actors such as CITES and transnational private actors such as conservation NGOs and Chinese investors. The domestic rosewood sector consists of the various individuals, groups, and institutions that are involved in the rosewood from its identification and felling to its being sawn, parked onto tracks or vessels, and transported through cities to the harbours where they are finally shipped outside of the respective African country to an Asian import country, mostly China. Throughout the rosewood value chain, there are designated mandatory institutions which are supposed to do due diligence to ensure proper compliance with wood regulations in the various African countries but, most of these officials are compromised.

Rosewood is subject to general legislation and regulation governing land tenure, forestry, and timber trade in the relevant range states. There is a boom in the rosewood trade, notably due to the insatiable demand for rosewood by the Chinese. This has resulted in the indiscriminate felling of rosewood in Africa (Nigeria, Ghana, Gambia, Madagascar, Cote D'Ivoire, Senegal, Togo, Burkina Faso, Sierra Leone, and Mali). In most rosewood-rich African countries, there are imposed felling and export bans seeking more control over the overwhelming tide of exploitation yet China customs report significant imports of rosewood logs from these countries.

The study highlights some factors which affect access to rosewood in Ghana: (1) power over land (2) cultural beliefs (3) finances and (4) government regulations.

The study demonstrates that power over land is a major determinant of who has access to rosewood in Ghana. The chiefs and landlords mostly wield power over lands and, as a result, can access rosewood on the lands to benefit financially through its trade. The study points out that for some rosewood endemic communities in Ghana, people may have access to farm a piece of land but will not have access to the rosewood on the same land as the land customarily belongs to the chief in the area and is leased to community members to farm.

Data from the study revealed that, in certain rosewood endemic areas, cultural beliefs affected the access to lands, thereby affecting access to rosewood. Long-standing folklore set certain boundaries for different tribes regarding the type of lands they could access. With such beliefs, certain tribes were barred from accessing rosewood in certain areas and lands and would never venture to do the opposite. As a result, rosewood in those areas could only be accessed by those who were rightfully permitted by the folklore and cultural beliefs to do so.

Finances play a major role in who can access rosewood in Ghana. Before China's heightened demand for rosewood in Ghana, rosewood did not have substantial commercial value. Therefore, community members' involvement in the rosewood trade was necessitated by the money involved. As demonstrated in the study, it is evident how various community leaders and regulators who received money allowed the problem of

illegal trade to fester. For most of them, the issue of conservation of rosewood as a resource was not in focus so long as there was financial value for the rosewood. The study demonstrates how different stakeholders aligned themselves to obtain financial benefits from the rosewood trade. Various stakeholders alluded to how the Chinese gave money to some key regulators to enable them to access the rosewood.

Analysis from the study shows how different stakeholders had access to rosewood and related benefits using different strategies and practices. It is also clear from the findings that different stakeholders took advantage of the rosewood trade to make financial gains without recourse to proper procedural arrangements to ensure sustainability. Because of the continued interest of China in rosewood, which is projected to increase, Ghana as a rosewood supply nation, must plant and nurture more rosewood and properly regulate the trade to fetch foreign exchange for the nation.

In the Ghana rosewood case, there are instances of a Chinese merchant determining the price to pay for rosewood at the community level due to their relationship with the police commander in each area of their extractive activities. There are various instances of rosewood contractors forging close relational ties with chiefs and some community leaders to enable them to get easy access to rosewood. Ghana's rosewood trade activities are a case of increased illegality and a lack of properly established institutional procedures.

The study demonstrates that no formal arrangement was made at the outset of the rosewood trade as the Chinese who came in search of the rosewood tended to contract individuals to assist in finding the wood for trade. The rosewood trade, therefore, thrived on individual arrangements instead of regulators taking the initiative to properly plan for the rosewood activities with carefully thought-through regulations. Instead of the state stepping in to regulate the rosewood trade, regulation came in the form of bans, which eventually gave access to a privileged few. The latter were aligned with politicians and community leaders who had the power to make decisions in this regard.

Looking at the study through the lens of the socio-ecological system (SES), the analysis presents an interesting scenario. Based on the SES, the Ghana forest becomes the resource system(RS); the rosewood tree specifically becomes the resource unit(RU); the government, Forestry Commission of Ghana and all other related institutions become the governance systems(GS); community members who exploit the rosewood for various purposes becomes the Users (U). The analysis shows that in the advent of the Ghana-China trade, rosewood as a resource unit has been under constant pressure due to the trade interest of the Chinese traders. The issue of how the economic potential of resources affects the sustainability of the resource coupled with both the social settings and political arrangements around the resource as advocated by SES became known in the Ghana-China rosewood trade arrangements.

Analysis from the study showed that the government of Ghana through the Ministry of Lands and Natural Resources deployed the use of bans on the harvesting and export of rosewood as a way to manage the illegal exploitation of rosewood across the nation. In the same vein, rosewood resource users triggered different local arrangements as a way to benefit financially from the rosewood trade. While individuals from various rosewood-rich communities collaborated with rosewood contractors in various rosewood harvesting activities as a way to secure some financial gains others worked as a community group unit to make a case for communal benefits. These different governance arrangements subjected Rosewood to pressure, which drastically reduced the resource base. Thereby affecting its sustainability.

In terms of power relations, the Chinese rosewood investors utilized the (dis-)incentives as a power resource in their trade relations with their Ghanaian counterparts. Based on the financial reward offered by the

Chinese in exchange for rosewood, various trade reactions were initiated across the regions of the nations where the rosewood was located.

The findings of the study revealed the three core elements of actor-centred power, coercion, (dis-)incentives, and dominant information as stated by Krott et al., (2014), were at play in the Ghana-China rosewood trade. Different actors, in different instances, either played the role of potentate (influencing the behaviour of another actor without recognising his will) or subordinate (one whose behaviour is being influenced). The state, through institutions like the Ministry and Lands and Natural Resources and Forestry Commission, used regulations of bans and lifting of bans; salvage permits as a coercive force in trying to manage the trade. The Chinese used monetary incentives in dictating the pace of the rosewood trade. At some point, some local suppliers were just price takers and did not have the power to bargain with the Chinese.

The study demonstrates that Ghana's VPA FLEGT has made some positive strides, as it has been able to lay down some structures to ensure that timber marketed both locally and abroad is from a legal source. However, the study also shows that Ghana has not been forthright with some of the decisions it had to make concerning the VPA processes which have resulted in the delay in securing a VPA FLEGT license. The issue of political will, corruption and the business interest of some influential actors continue to militate against the VPA process it seems to stand opposed to a certain interest. The issue of the artisanal sector which is largely informal with vested interest by both the political elite and some traditional leaders continues to stand in the way of Ghana ensuring that timber set for local consumption is from legal sources.

New research avenues

1. The governance of rosewood in Ghana in the era of China's demand has provided insight into how international trade affects local governance systems. As this becomes a test case for accessing the effectiveness of governance structures at the national and local levels, it also provides the benchmark to consolidate efforts to improve forest governance systems. Future research could probe into the governance issues regarding the trade of other natural resources.
2. Future research could also probe into Chinese involvement in other Ghana natural resource sectors like mining.
3. The dynamics of global China in Africa rosewood trade continue changing; this warrants continued research into how the actors continue to play their roles in sustaining this trade and how they access the rosewood cutting through various regulations and institutional arrangements.
4. Both international and local trade regulations need to be assessed in line with how they continue to promote the trade of rosewood in the African sub-region. It is also important for research to be tailored to how the various and potential benefits local communities expect from rosewood can be made more sustainable without compromising on the regeneration capacity of the rosewood species.

Policy Implications

1. There is a need for a regional and a global approach in dealing with the rosewood trade and its associated challenges instead of the various droplets of country-specific approaches, which have been largely ineffective. That said, it would also be a matter of great relevance for timber-rich countries to strengthen existing timber legislature to achieve its intended purpose.

2. There should be laid down procedures for accessing, processing and trading in rosewood from the community level, regional level and the national level. The role of various institutions and stakeholders should be well defined to foster a more productive collaboration.
3. Benefits from the rosewood trade should be evenly distributed at the community level. The trade of rosewood is a lucrative business that can provide decent employment for Ghanaian citizens,
4. The State through the forestry commission should invest in rosewood plantations to enable the sustainable and regulator supply of rosewood for trade.
5. Regarding the future of Ghana VPA FLEGT, the signs are clear that the EU is not as keen on the process as it was before. It will therefore not be out of place for Ghana to start seeking private support to fully implement the VPA FLEGT since it is now part of its laws and is targeted at achieving a good purpose even for internal forest governance.

Title: Forest politics in the context of Global China: Essays on Chinese presence in Ghana's rosewood sector

Keywords: Power, Forest Politics, Rosewood, Governance, China-Africa

Abstract

Diplomatic relations between Ghana and China date back to the very day the former gained independence from Great Britain. On that occasion, Chinese vice-premier Nieh Jungchen represented his country at Ghana's independence celebrations on 6 March 1957. Recently, the exploitation of natural resources and 'rosewood' in particular, has been one of the main drivers of trade relations between China and Ghana. Rosewood, also known as *hong mu* in Mandarin, refers to a group of thirty-three species of tropical hardwood, many of which are also endangered species. Excessive demand for rosewood in China has led to increased and often illegal logging in many Asian producer countries and more recently in Africa.

Theoretically and conceptually, this thesis draws on access theory, commons theory, incentive theory and the analytical approach to power relations centred on actor strategies. It is based on original empirical research carried out mainly in Ghana, where the first series of data collection took place from April to August 2022, followed by a second series from April to July 2023. The thesis analyses how several players in the rosewood trade chain gain access to this natural resource. It assesses the impact of the growing presence of Chinese actors on the governance of rosewood and the consequences of this presence on the 'commons' in rural Ghana. It also assesses the relative effects of governance structures and power dynamics observed between the main players in the rosewood trade between China and Ghana over a two-decade period (2000-2023).

One of the main conclusions of the thesis is that there is a significant asymmetry of power and negotiating capacity between Ghanaian and Chinese players in the rosewood industry. In most cases, the latter regularly take advantage of the disorder and institutional weaknesses of the former. The thesis specifically highlights certain factors that affect the processes of access to rosewood in Ghana: modes of land appropriation, cultural beliefs, the financial capacities of stakeholders, the quality of government regulations and the degree to which they are implemented. This research makes an original contribution to the determinants and conditions of access by Chinese actors to natural resources in African contexts characterized by the persistence of 'political disorder'. More specifically, it reveals the realities of Ghana's institutional architecture around the exploitation of natural resources and forest governance in Ghana. Finally, this work lays the foundations for fundamental questions about the future of Ghana's sustainable forest management policies in light of China's growing influence in Africa.

Titre : Les politiques forestières dans un contexte de la Chine globale : Essais sur la présence chinoise dans le secteur du bois de rose au Ghana

Mots-clés : Pouvoir, Politique forestière, bois de rose, gouvernance, Chine-Afrique

Résumé

Les relations diplomatiques entre le Ghana et la Chine datent du jour même où le premier a obtenu son indépendance de la Grande-Bretagne. A cette occasion, le vice-premier ministre chinois Nieh Jungchen, représenta son pays lors de la célébration de l'indépendance du Ghana le 6 mars 1957. Récemment, la question de l'exploitation des ressources naturelles, et du 'bois de rose' a été l'un des principaux leviers des relations commerciales entre la Chine et le Ghana. Le bois de rose, également connu sous le nom de *hong mu* en mandarin, désigne un groupe de trente-trois espèces de bois durs tropicaux, dont beaucoup sont également des espèces en voie de disparition. La demande excessive de bois de rose en Chine a conduit à une exploitation accrue et souvent illégale dans de nombreux pays producteurs d'Asie et plus récemment en Afrique.

Sur le plan théorique et conceptuel, cette thèse s'inspire de la théorie de l'accès, de la théorie des biens communs, de la théorie des incitations et de l'approche analytique des relations de de pouvoir centré sur les stratégies d'acteurs. Elle est basée sur une recherche empirique originale menée principalement au Ghana, où la première série de collecte de données s'est déroulée d'avril à août 2022, puis une seconde fut conduite d'avril à juillet 2023. La thèse analyse comment une pluralité d'acteurs de la chaîne commerciale du bois de rose procède pour avoir accès à cette ressource naturelle. Elle évalue l'impact de la présence croissante des acteurs chinois sur la gouvernance du bois de rose et les conséquences induites par cette présence sur les "biens communs" en zone rurale au Ghana. Elle évalue également les effets relatifs structures de gouvernance et les dynamiques de pouvoir observées entre les principaux acteurs du commerce du bois de rose entre la Chine et le Ghana pour une période de deux décennies (2000 – 2023).

L'une des principales conclusions de la thèse est qu'il existe une importante asymétrie de pouvoir et de capacité de négociation entre les acteurs ghanéens et les acteurs chinois de la filière bois de rose. Dans la majorité des cas, les seconds tirent régulièrement profit du désordre et des faiblesses institutionnelles des premiers. La thèse met spécifiquement en évidence certains facteurs qui affectent les processus d'accès au bois de rose au Ghana : les modes d'appropriation foncière, les croyances culturelles, les capacités financières des acteurs, La qualité des réglementations gouvernementales et le degré de leur mise en œuvre. Cette recherche apporte une contribution originale sur les déterminants et conditions d'accès, par les acteurs chinois, aux ressources naturelles dans des contextes africains caractérisés par la persistance d'un "désordre politique". Elle dévoile plus précisément les réalités de l'architecture institutionnelle ghanéenne autour de l'exploitation des ressources naturelles et de la gouvernance forestière au Ghana. Enfin, ce travail pose les bases d'un questionnement fondamental sur l'avenir des politiques de gestion durable des forêts ghanéennes au regard de l'influence croissante de la Chine en Afrique.

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