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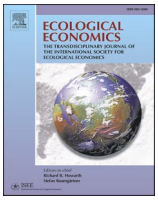

The role of hybrid governance in supporting deforestation-free trade

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ABSTRACT

The effectiveness of commitments to zero-deforestation remains debated. An overlooked aspect is the mixture of private and public policies. We study its potential with the concept of hybrid governance applied to two case studies: mandatory FSC certification for forest concessionaires in Gabon and the National Strategy against Imported Deforestation in France. We find that hybrid governance provides flexibility to adapt to shifting sustainability concerns and can enable public and private features to mutually compensate for their respective weaknesses. Hybrid governance experiments may only be transitory to give way to stronger public policies as illustrated by Gabon. The France case shows that the integration of voluntary private standards in public policies remains sensitive. Overall, we show that hybrid governance should not resort to a mere accumulation of private and public components; a real dialogue between both spheres is required. Such a dialogue can take place before or after hybrid governance materialises as illustrated by the two case studies, which suggests that it should not be taken for granted but can be a positive outcome of the process. The ways through which economic and business aspects, as well as political ones, shape hybrid governance appear to be diverse and not straightforward.

1. Introduction

There is scientific consensus that planet Earth is currently facing a series of severe environmental crises of human origin, commonly referred to as the Anthropocene (Flores and Staal, 2022). Among these crises, climate change and biodiversity loss are prominent and have been spurring an increasing level of policy action to at least abate the scale of impacts and hopefully reverse the trend in the future (IPCC, 2022, Aichi targets for the Convention on Biological Biodiversity and negotiations on the post-2020 Global Biodiversity Framework). Deforestation and forest degradation (thereafter deforestation) are important causes of both carbon emissions and biodiversity loss, particularly in the tropics (Grantham et al., 2020), and have led to negative socio-economic consequences (See findings from the Poverty Environment Nexus project hosted by https://www2.cifor.org/pen/), and other biophysical effects on climate (Lawrence et al., 2022).

With globalisation and the growing volumes of goods traded internationally, even if recent circumstances have put such a trend to a halt, the role of importing countries in tropical forest loss has been assessed as significant around 26% (Pendrill et al., 2019). The terms of the debate have thus progressively shifted and action in forested commodity producing regions was complemented by efforts to enhance the sustainability of forest-risk commodities' supply chains that underpin international trade (Nepstad et al., 2006; Rudel et al., 2009). It also became recognized that products issued from deforestation were often going through multiple processing stages, possibly in several countries, before being marketed as end-products (Meyfroidt and Lambin, 2009).

The growing attention to the role of consuming countries in driving agricultural expansion leading to forest loss has resulted in multiple initiatives in the policy sphere (e.g. Amsterdam Declarations https://ad-partnership.org/) but most prominently, it led to a flurry of corporate commitments to delink their sourcing from deforestation and forest degradation (Lambin et al., 2014). These voluntary zero-deforestation (or deforestation-free) commitments have engaged major corporate actors particularly consumer goods companies, retailers, processors and traders. However, still about 40% of companies with the most influence on deforestation have not yet adopted a single policy on deforestation; in addition, voluntary commitments have failed to involve a larger number of upstream producer companies, particularly those not directly exposed to external markets (Thomson and Fairbairn, 2023).

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The effectiveness of these commitments remains disputed (Garrett et al., 2019; NYDF Assessment Partners, 2019). Moreover, the point is routinely made that private commitments alone, which are a form of private governance, could hardly succeed without support from laws and regulations, and more broadly, of conducive public governance (Pirard et al., 2015). The emerging governmental-led jurisdictional approach for instance, aims at improving public and private governance in producing zones for enhancing sustainable supply at the sub-national level, with the purpose of delivering positive socio-environmental outcomes (Brandão et al., 2020; Seymour et al., 2020; Taylor and Streck, 2018).

Elements of public and private governance have always been present in a multiplicity of ways, some more explicit than others, and the discussions about their respective merits as well as prospects for their association are not new in the environmental policy field (see Lemos and Agrawal, 2006). Yet, it remains essential to find the most appropriate ways to use both types of governance to solve the pressing tropical deforestation issue. This question relates to the concept of hybrid governance, which refers broadly speaking to the use of both public and private governance features - rules, tools, instruments, initiatives, etc. - in ways that explicitly interact and reinforce each other, while maintaining independence and unleashing consequences individually.

Our analysis contributes to efforts to understand the potential of hybrid policy systems (e.g. Vakkuri et al., 2021). Our double research question is: what challenges are associated with hybrid governance to support deforestation-free supply chains and what are the conditions to overcome such challenges? This entry point leads to a secondary research question on the manifestations of hybrid governance's practical implementation. As described in the dedicated section, our methods rely on an analytical framework applied to two hybrid governance case studies that represent both sides of the trade: (i) Gabon as a front-runner in sustainable forest management and proponent of an unprecedented hybrid governance experiment, and (ii) France as an early adopter of a comprehensive set of policies against imported deforestation that includes several ingredients of a hybrid governance framework, in a context where adopting mandatory due diligence will become the norm under the recently agreed EU regulation on deforestation-free supply chains.[1] With these two case studies, we are thus moving out of more high-profile and examined cases such as those taking place in South America and Indonesia and focused on soy, beef or palm oil, and aim to provide new and complementary insights to the role of trade in the fight against deforestation through hybrid governance mechanisms.

The concept of hybrid governance is initially introduced and its growing importance for deforestation-free trade is explained, which then takes us to the description of the methods and analytical framework applied to the case studies. The latter are then presented in the results section, which puts into perspective and describes the pathways leading to hybrid governance in each case, and ends with a recapitulation of the main findings. A discussion is provided to go further on the most strategic aspects that combine elements of both case studies to make comparisons and support more general insights and recommendations.

2. Hybrid governance: theoretical underpinnings

As in many other realms of public policies and organisational development, there is growing confluence and interactions between public and private regulations, commitments, and implementation mechanisms in environmental governance, including a greater engagement of the corporate sector and civil society organisations for advancing deforestation-free supply chains and sustainability. This trend, from a policy regime perspective, involves the emergence and development of "*parallel, overlapping and competing initiatives* [that] *are not combined into a single hierarchical system*" (Overdevest and Zeitlin, 2012:2), and unfolds at different scales. These initiatives have contributed to making such policy regimes more complex as they involve a growing number of private elements and mechanisms to comply with specific sustainability processes and/or achievement of targets, which are linked to specific supply chains (e.g., timber, oil palm) (Pacheco et al., 2018) and/or institutional arrangements in producing landscapes (e.g. jurisdictions) (Brandão et al., 2020).

Public and private interventions are of different types; the former involve combinations of command-and-control and more supportive investments as well as their facilitation, while the latter range from corporate individual codes of conduct and policies to collective commitments (Lambin et al., 2014). When initiatives combine state, market, and local social governance interventions, they are perceived by some as 'hybrid modes of governance' defined as 'institutional arrangements', 'social mechanisms' or 'partnerships' cutting across the state - market - community domains (e.g. co-management, public-private partnerships and social-private partnerships) (Lemos and Agrawal, 2006). This conceptualization of hybrid governance involves multiple types of policy, social interactions and partnerships, and is thus of limited utility from an analytical perspective.

An increasing combination of policy-led and market-based interventions involving private actors that interact with command-and-control interventions have been identified as leading to "hybrid" interventions. But having both public and private regulatory frameworks, policies and instruments interacting among each other as part of a wider policy regime complex is by no means a guarantee of greater effectiveness or equitable outcomes; it could even be interpreted as a signal of policy fragmentation. The public and private policies and mechanisms when combined may see their effects reduced or annihilated, or these could be multiplied depending on the mix of interventions and contextual factors. It has been posited, in the case of land use regulation, that constitutive elements of hybrid governance are either complementarity, substitutive or antagonistic to each other (Lambin et al., 2014). They are complementary when public and private policies, and mechanisms in place are aimed at achieving common targets and achieve synergies in their implementation. Yet, in some cases, private regulations may be substitutive when filling the gap of specific public regulations, or the other way around. Finally, public-private regulations are antagonistic when, for example, public policy, corporate codes of conduct and independent standards pursue different objectives guided by different social, economic and/or financial priorities.

Other factors that need to come into play for effective and durable governance include transparency, legitimacy, participation and accountability. Larsen et al. (2018) question the capacity of hybrid governance forms to contribute to the democratisation of public and private institutions, which could be presented as one condition for its long-term effectiveness. While complementary public-private interventions may offer potential for more effective policy implementation and greater public-private accountability, for the emergence of more democratic, legitimate, and transparent forms of governance under hybrid systems, additional steps might be needed. For example, improved legitimacy could be achieved by supporting consultative processes in the definition of public and private policy targets, and the means to achieve those. In addition, public disclosure of progress, non-compliers, and sanctions imposed on them, could contribute to enhancing transparency.

The notion of 'hybrid modes of governance' is not new, but we understand that such interventions, to the extent that they cut across different policy domains (e.g., land use, trade, finance) are increasingly becoming part of the policy regime complex related to global supply chains spanning regions with contrasted values and objectives. This notion has been explored by those who argue that public-private policy interactions have become a substantive part of transnational policy regimes in response to the need for enhanced governance of entire commodity supply chains – mainly those where significant trade-offs exist between economic, social and environmental impacts – and cutting

[1] https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7444

across different scales from local sourcing landscapes to distant end-consumer markets. This is mainly the case of the transnational governance of timber legality (Overdevest and Zeitlin, 2014) and governance of global palm oil supply (Pacheco et al., 2018).

Such complexity goes in parallel with a high level of diversity for the type of hybrid governance at play with numerous possible combinations. This recognition pleads for an analysis and identification of the most promising features that should be prioritised to guide future attempts to harness public and private forces for the sake of deforestation-free supply chains. While public interventions could usually be perceived as holding more legitimacy and can be applied across entire countries or jurisdictions, private interventions may increase efficiency and be designed and implemented by front-runners in specific cases. Whether their combination leads to a race to the bottom or the top may depend on the recipe.

3. Methods

This article focuses on two experiences of hybrid governance that will be explored using the analytical framework derived from Lambin et al. (2014) and Larsen et al. (2018). The former suggests differentiating between hybrid governance candidates as a function of the relationship between the public and private components (e.g., complementary, antagonist or substituting). Note that in our own policy analysis, we translate complementary by reinforcing in the sense that the public and private features would eventually be more than the sum of their parts; we contend this situation is the desired outcome and the one that fully deserves to be qualified as hybrid governance.

Larsen et al. (2018) adopt a different yet important angle and question the capacity of hybrid governance forms to contribute to the democratisation of public and private institutions and processes. In line with them, we argue that outcomes of hybrid governance depend on the conditions of democratic decision-making especially in the long term, which is in turn reflected by levels of transparency, legitimacy, participation and accountability.

This analytical framework provides us with the criteria that underpin the assessment of two case studies that reflect contrasted and complementary situations (producing and importing sides), and particularly the capacity of public and private features to fill gaps, to have inhibiting effects on political advances, and their alignment with final stated objectives. It guided our data collection, informed the open-ended questionnaires used for interviewees and constituted the lens through which we interpreted the case studies. This assessment is completed by an effort to understand the context and processes of the hybrid governance at play in each case, by a description of the form under which hybrid governance materialises, through identification of the risks associated with each case, and finally via a reflection on the options to boost positive outcomes. Our approach and assessment criteria are reflected by the structure and content of Tables 2 & 3 where main results are presented.

The first case offers the perspective of Gabon, a producer country implementing an 'hybrid intervention' whereby the government (thereafter "GoG" – Government of Gabon) relies on private standards to operationalise forest sustainability objectives. The second case is focused on the French experiment in setting up a policy framework built on hybrid instruments and partnerships, towards halting imported deforestation by advancing a 'hybrid governance system' with a focus on governing forest-risk supply chains. These two case studies offer insights on the supply and demand side of the trade, which makes them complementary especially as they are trading partners for timber, even if often indirectly.

Our policy analysis is supported by up-to date literature review, first-hand experience of the approaches under investigation (first and third authors respectively contributing to and participating in Gabon and France processes such as ad-hoc studies, field visits, and internal meetings with policy makers and other stakeholders), and interviews with key actors involved from public, private and civil society (Table 1). The first author was involved in the national strategy against imported deforestation design process from the outset and participated in the Scientific and Technical Council meetings. The third author was tasked by the GoG to reflect on ways through which lessons from FSC certification adoption could support the development of a National Norms process in Gabon.

Table 1
Interviews per case study and type of interviewee (during period 2021–2022).

Type of interviewee	Case	n
Private sector (including associations, e.g., ATIBT)	Gabon	22
Government (including ODA)		6
Civil society (includes producers)		2
Academia		3
Private sector	France	1
Government		5
Civil society		4
Academia		4

Note: interviewees in Gabon were conducted by first and third authors; interviews in France were conducted by first author only.

We manage risks of biased statements and distorted presentation of facts from interviewees with vested interests by our intimate knowledge of the processes under study and seniority of the investigators. Besides, our experience in conducting interviews in this sphere gives us the means to ask the right questions and orient the (open-ended) interviews so that conveyed information is cross-validated through literature and responses by other key actors. In this process we noticed that some interviewees would share views of caution that could appear to be surprising at first sight and are at odds with publicly available information. These interviews followed high research standards and input received was anonymized accordingly, which enabled the collection of such views of caution.

Finally, we are more interested in exploring the potential, limitations, and risks of such interventions rather than quantifying their effectiveness ex-post. Thus, our analysis focuses on the unfolding processes rather than verified impacts on the ground, fixing attention on the causal pathways instead of quantified aggregate impacts. This is all more so justified as hybrid governance processes in our cases are just emerging and specific effects might not be possible to disentangle at such early stages. Whenever justified, we also mention the level of expectations for these impacts such as the existing evidence base on timber certification.

4. Results

The reader is encouraged to refer to Table 2, which recapitulates how hybrid governance materialises in each case. The Table 3 presents results of the examination of the two case studies through the analytical framework and summarises findings on the interactions between public and private elements (e.g. antagonising or reinforcing) and how hybrid governance contributes to the democratisation of institutions and policies.

4.1. Gabon case study

4.1.1. A consistent pathway leading to mandatory FSC certification…

Gabon represents the case of an ambitious sustainable timber production policy that has proceeded in several steps. This policy culminated with the announcement in October 2018 that from 2022 onwards (later postponed until 2025), all concessionaires must be FSC certified to have the right to continue their operations in the country.[2] In this case,

[2] https://presidence.ga/vers-une-labelisation-fsc-de-toutes-les-concessions-forestieres-du-gabon/

Table 2
How does hybrid governance materialise.

Gabon	France
Government relies on the design and application of criteria and indicators through a private standard (FSC) to operationalise **sustainability objectives.** In a first phase at least, rules and verification are decided and done by FSC. This move does not imply fully surrendering responsibilities from the part of the GoG, but a strategic move to rely on a well-established system while **boosting institutional skills through learning from standard's adoption** with potential to adapt national regulations later on. The GoG provides a **conducive tax-environment** to increase FSC certification adoption. In 2020 **area taxes** were raised from CFA 400/ha to CFA 800/ha for non-certified concessions, and reduced to CFA 300/ha for certified ones. The private actor (FSC) increases coverage (area certified and important indicators of performance for the system), which **magnifies its international recognition**.	**Government negotiates a national strategy** with private and civil society stakeholders that encompasses a broad range of approaches including reliance on private standards **for operationalizing policies**. The Strategy evolves over time by adding new components and acting as a coordinator for related initiatives. **Government supports** the elaboration of a risk assessment methodology by NGOs for soy importers, which is starting to be implemented. Private standards are acknowledged for the **Duty of Vigilance Act** (but not deemed sufficient). Private standards are suggested by the government for **Public Procurement**. Use of a private initiative for supply chain mapping (TRASE) and **issuance of a regulation to improve its quality by allowing the use of customs data** (otherwise confidential). Envisioned use of private standards to identify deforestation-free products and **support the implementation of the Strategy** (rejected for now). **Government provides guidance** to the private sector to identify deforestation-free suppliers.

Note: **Public governance features are in bold** to distinguish from private governance ones.

relying on an already-established system would allow for the GoG to reinforce enforcement capacities while boosting agencies' abilities along the way.

There are three types of FSC certification currently offered in the country and although the certification requirement did not specify the type of FSC certificate targeted by the policy, the goal of sustainable timber production alludes to the need for companies to have Sustainable Forest Management (SFM) certification:

- FSC sustainable forest management (SFM): one area with *only* SFM certified production;
- Chain of custody certification (CoC): note that operations that are vertically integrated obtain combined SFM/CoC certificates (currently 29 combined certificates);
- Controlled wood certification (CW): it can be used by firms without sufficient certified timber allowing them to mix other non-certified material to the final product as long as it does not exceed 30%.

The whole process, which is framed by the national plan *Gabon émergent*, is rooted in the log-export ban that entered into force on the 15th of May 2010.[3] Ever since, forest concessionaires have been forced to transform wood locally or sell their logs on the domestic market. The objectives and merits of this export restriction policy are well-known from development economics studies with the rationale that it stimulates more investments into domestic industries, creates more jobs, and increases the value that is generated in the country. In the specific case of Gabon, some adverse consequences have nevertheless been flagged by Karsenty and Ferron (2017), such as the mounting influence of Asian companies and the growing concentration of large corporate interests.

Gabon stands as a (counter)example (Wunder, 2003) of the usually pointed links between timber production and deforestation that are due to the indirect effects of building roads and the settlements that follow, agriculture production and the like (Angelsen and Kaimowitz, 1999; Geist and Lambin, 2001). Indeed, the country has the highest proportion of forest under concession management (about 70%) in the region, and it is one of the very few countries in the world whose forest cover has increased over the period 2010–2015 due to the expansion of natural forests and not tree plantations (Karsenty, 2019). This situation might be an indicator of the usually praised legal framework and requirements for concessionaires to apply forest management plans, an outcome probably amplified by the limited timber production and increased operation costs (i.e., limited infrastructure).

A breakthrough for both Gabon and the entire region was the decision to create a Special Economic Zone in Nkok (GSEZ) in 2010, east of the coastal capital city Libreville. It consists of an industrial zone mostly for wood processing that provides advantages to the companies, such as access to infrastructure but also fiscal exemptions (e.g. tax free for the first 10 years). Overall, the GSEZ was praised for its capacity to be the engine of growth for the wood sector after the collapse caused by the ban and as a mechanism to partially increase the existing low recovery rates of most commercial species. This efficiency might be due to the pragmatism of the agri-business giant Olam, and initial co-owner of GSEZ[4] that had been in charge of operating the zone that now counts 150 investors from 15 countries. This broad public-private partnership, which could also be seen from the perspective of hybrid governance, is an indication of the plans of the GoG towards an expansion of agricultural production, including palm oil and rubber. This institutional arrangement was also criticised for its lack of transparency and competition as the deal was made behind closed doors (interviews).

The attention to sustainability by the GoG can be illustrated in two ways at least by several parallel processes and initiatives in the field of conservation: a large network of 13 national parks initiated by former President Bongo in 2002 and a leadership role in REDD+.[5] With the new Minister in charge of forests and the environment, biologist Prof. Lee White who was previously in charge of the National Parks Agency, Gabon secured funding (from Norway in 2019) to make considerable progress in the design and implementation of policies to avoid carbon emissions and increase carbon stocks. Such initiatives have made Gabon a leader in the region in the prominent sphere of REDD+ (Karsenty, 2020). This reputation was reaffirmed by the decision from Norway to grant $17 M in 2021 through CAFI for demonstrated avoided deforestation, as the first tranche of a total of $150 M.[6]

While the announcement of mandatory FSC certification was generally welcomed by stakeholders, as also reflected by our interviews and wording such as "*it puts Gabon on the map*" and "*makes it the Costa Rica of Africa*", it was also accompanied by some critiques that expressed doubts on its implementation effectiveness (consensual view among interviewees). This is substantiated by Romero (2021, p. 38): "*FSC certified forest management in its first concession in Gabon in 1996 (Leroy Gabon), but that certificate was terminated soon after […]. Since 2009, the area under FSC certification has remained relatively constant.*" Certification is already a reality in Gabon but it lags behind the official objectives with only about 15% of concession area under any type of FSC certification.[7]

Taking stock of the size of the challenge, an agreement between the Gabonese government and FSC in 2020 launched activities to work on

[3] https://www.jeuneafrique.com/155862/economie/l-interdiction-du-commerce-des-grumes-confirm-e-pour-le-15-mai/

[4] Olam International Ltd. (40.5%), GoG (38.5%) and Africa Finance Corporation (21%); https://african.business/2017/10/economy/success-gabon-special-economic-zone-gsez/

[5] REDD+ is an instrument created in the framework of the Climate Convention UNFCCC to remunerate countries that take effective action to reduce forest degradation and loss.

[6] https://www.bbc.com/news/world-africa-57567829

[7] FSC Public Certificate Search: https://fsc.org/en/fsc-public-certificate-search

Table 3
Hybrid governance through the lens of the analytical framework: reinforcing, antagonist or substitutive elements, and contribution to democratic processes.

		Gabon	France
Do public and private components lead to…	reinforcing impacts	Reliance on FSC private standards **supports previous policies** to increase sustainability and makes them operational by **filling gaps in governance and technical capacities**. This may be a temporary and relatively simple situation (dealing with one standard) while the **GoG 'gains time' and secures sufficient resources and expertise** to strategically invest to operate on its own. The process **strengthens both public** and private actors. Learning from private standard operationalization at scale can lead to **mid- and long-term development of National Norms System**, while starting to develop and position abroad an **own process leading to a Gabon Climate-Smart-Forestry brand** (but see Lescuyer et al., 2021 for perceived limited effects of FSC on governance). So, it is possible for the FSC private element of the hybrid governance system to **improve the public one**, now that FSC is required by the GoG.	The willingness to be comprehensive allows the Strategy to make **public** and private **tools and regulations** mutually reinforcing. There is a stated intention to make **public**, private and civil society contributions complementary to one another, yet with some uncertainties and risks associated with it as noted in Table 4. The **use of government-held customs data** as input into privately developed supply chain mapping will improve traceability for both public (via **public procurement**) and private actors (e.g. retailers or consumers). **Protein Autonomy Plan launched by the government** aims at consolidating the impacts of NGOs-developed methodology to estimate risks for importers.
	antagonism	Exclusive application of a single private standard could prevent short-term efforts to develop own capacities and ownership of sustainability standards. This would be particularly true if FSC certification **supersedes the existing system in practice**. Mandatory FSC certification can be considered as covering for a **lack of supporting policies** (e.g. on community forestry, land tenure or infrastructures). This could create discontent and stakeholders could lose patience for having their issues not well addressed. **GoG's resistance** to FSC's national standard's demand that concessionaires must leave out of production 50% of Intact Forest Landscapes (IFL, 8 Mha in the country) with a study stating that requiring >20% could deter certification and undermine hybrid governance goals[1].	**Attempts by the government to trigger improvements** at private standards level to meet zero-deforestation requirements remains deceptive because of poorly aligned interests and claimed independence. **The polysemic nature of government interests, particularly in the trade and diplomatic spheres**, illustrates some limitations to the approach and has started to exhibit contradictory interests with NGOs that raise the bar and pursue higher ambitions and more stringent policies.
	substitution	There is a possibility that hybrid governance (using a private standard as criterion for **public concession permits**) **takes precedence over previous policies** and encouraging novel potential (yet slower) frameworks. In that sense, it **could preclude innovation and experimentation through own institutions and actors**. **Rules setting can be perceived to be removed from GoG's hands** as FSC has its own indicators and systems of audits/ accreditation. But as the policy suggests that public and private views converge, FSC rules might serve in the future as **inspiration to the design of Gabonese own standard**. Exclusive reliance on one standard creates a monopoly situation that dismisses other similar approaches including public ones. This seems also crucial given that there has been discontent from those behind the PAFC standard (endorsed by PEFC, the second largest global sustainability certification system), developed and managed by the *Association Technique Internationale du Bois* Tropical (ATIBT)[2].	Elements of substitution remain speculative at this stage and are thus addressed in Table 4 on risks and options.
Contribution to democratisation of institutions and policies		The decisions around this hybrid governance scheme did not involve stakeholders and were **perceived as opposed to a process of democratisation of institutions and policies**. On the positive side, **certification is seen as filling a gap** in promoting stakeholder participation and may serve as a vehicle to make stakeholders "own" the policy and the subsequent processes. While FSC certification can be seen as promoting social considerations in concessions, some point to the fact that it **distracts the State from its responsibility in promoting community forestry and resolving land tenure issues more broadly**. FSC certification results are publicly available. This increased transparency may support democratisation processes.	Participative processes have been at the core of the Strategy for its design and implementation through mobilisation of in-country experts and support to multi stakeholder initiatives. For instance, stakeholder consultations were possibly influential in the decision to not create an ad-hoc meta-label. The active and encouraged role of NGOs in the development of tools and measures attests of openness and democratisation of policies; yet the flipside is that final decisions may leave aside most important "details" (e.g. cut-off date) while emphasising participation.

Note: **Public governance features are in bold** to distinguish from private governance ones.

[1] The most recent FSC General Assembly in Bali (October 2022) decided that each country will have leeway to define IFL so we remain attentive to the final take by the GoG

[2] Recent evaluation of both systems found strong and more stringent demands from the comprehensive FSC system. Specific comparisons of FSC and PAFC determined better suitability of FSC-Congo Basin standard over PAFC in terms of System and Standard Strength. Consumer systems gave high and equal ranking to both PAFC and FSC Congo Basin standards (reviewed in Romero, 2021).

two areas. First, supporting firms to acquire certification with, e.g., training to forestry professionals and auditors or the sharing of costs with FSC for High Conservation Value-Forest (HCV-F) assessments. Second, helping manufacturers in the GSEZ to reach international outlets, diversifying markets, and designing activities to train mid- to senior-level officials in governmental agencies on the workings and value of FSC certification. One immediate strategy has also been to boost chain-of-custody certification (33 certificates of which all but one were granted after 2018), with the hopes that this initial step would serve as a precursor of broader FSC adoption, helping to build familiarity with the system.

4.1.2. … but barriers to systemic FSC certification of all forestry operations may be insufficiently addressed

In relation to implementation costs, it was reported that because FSC certification is all-encompassing, the process is highly complicated and generates costs related to management, e.g., with additional workforce required to change management processes and the necessity for training. Indeed, FSC certification goes way beyond *modus operandi* in wood production and requires adherence to many ISO-type procedures at administrative and financial levels. For some, robustness of legal frameworks would not imply the need for substantial changes in practices but more of structural adjustments to reshuffle internal systems (i.e., forest management sustainability is mandatory in the Forest Code from 2001). Overall, up-front costs borne by companies are highest in the process of obtaining certification and benefits can only be reaped over subsequent years. The implication is that companies need to have a long-term vision and plan for a long-term presence or else initial investments would make little economic sense. Certification adoption can thus be viewed as a proof of corporate commitment and as one way to discriminate between well-intentioned companies and others – or according to an economic idiom, to reveal preferences. Certification could, in turn, benefit the country through greater sector stability by addressing the fragmentation of production in small-scale low-productivity operations and prompting a higher level of enforcement of the legal framework.

Up-front investment costs associated with certification would likely not be a major problem for companies with a well established long-term vision if, and only if, healthy profit margins would follow and reward this course of action. However, several interviewees complained that Gabon does not provide efficient logistics with the result that profit margins are squeezed to the minimum with or without certified operations, in spite of the existence of funding by international donors (e.g., PPEFC: *Programme de Promotion de l'Exploitation Certifiée de forèts*) to cover 50% of initial certification costs. In particular the harbour is not fit-for-purpose and does not meet expectations for a country with such high ambitions to reform its economy overall and its forest sector in particular (interviews). This problem might be all the more acute because the various policies in place may encourage less vertical integration, with processing capacities located in one or more special economic zones that are, in principle, far away from many forest operations. This pushes transportation costs (as a share of total production costs) upwards, even for processed goods, in an operational and business landscape already suffering from inadequate infrastructure.

One might assume that the low profit margins and higher costs associated with certification will force some companies to try to bypass some rules and operate on the fringes of legality, possibly also manipulating the auditing processes, already plagued by structural failures (Piketty et al., 2018, Karsenty, 2019, Susilawati and Kanowski, 2020, see below). This is clearly the exact opposite effect to that which is sought and increases the risks of the private standards losing credibility in the face of pressures (including political, as the success of the hybrid governance initiative engages the government) - we go back to this point below.

Another barrier to certification adoption, according to interviewees, is the lack of premium prices granted to certified products and the resulting challenge to compensate for the higher costs of production. Three decades after the founding of the FSC, the market benefits have been consistently scarce and certification adoption continues to be heavily subsidised. In this context, certification is viewed as either an additional constraint on production (equivalent to stricter legal requirements) and/or a mechanism for increasing the market share in lucrative outlets. However, the information collected suggests that the latter might not materialise in practice, and legality might be a better strategy for accessing international and demanding markets as illustrated by the already quite long history of the Forest Law Enforcement, Governance and Trade (FLEGT). Indeed, for all its flaws and disappointing results relative to the substantial politico-economic investments in the process, FLEGT has demonstrated that European markets would welcome legal timber products from producing countries with ambitious regulations and robust law enforcement, rather than some high-grade certified timber products alongside a majority of illegal and unsustainable products.

Overall, barriers can be assumed to be serious enough if one considers the predictions made by interviewees who have extensive experience of the Gabonese context: between a third and one half of current concession areas might be serious candidates for certification, which ultimately equates to about 5 to 8 million hectares. But based on field visits and interviewees, the road to achieve certification goals seems too long for most.

4.1.3. Risks for the processing industry / economy at large and FSC

To understand the possible consequences of the Gabonese decision to follow this hybrid governance path with mandatory FSC certification, and consequently to identify the most suitable form that hybrid governance might take, it is necessary to reflect on the anticipated effects of the log export ban set up in 2010 and that represents the backdrop. Three industrial and economic risks should be mentioned: declining prices and margins for concessionaires, misalignment between processing capacities and supplies, and declining production.

Regarding the first risk, the situation of quasi-oligopsony that was created by the ban tended to push prices downwards. This situation seems to have occurred with an abrupt reduction in timber production (including less species) in the early 2010s followed by a return to pre-ban volumes in 2018, probably once new investments in processing units became effective, but also due to lower quality of trees harvested (interviews). However, the issue of downward trends in prices remains: respondents complained about lower profit margins due to the obligation to sell to processing units based in Gabon.

Regarding the second risk, three facts tend to support the assumption that the current situation is characterised by processing overcapacities rather than a need for more industrial investments: rising timber prices, the closure of some processing units, and some pressure on domestic timber supplies. This assessment is supported by the assumed sustainable level of timber production in Gabonese forests, which is around 4 million m^3/year and very close to the current level of production. It takes place in a context of recomposition of the forestry sector as some firms disappeared and others emerged, often through different ownership and management systems (e.g., transition from European to Asian-based firms). All of this could bring plans to create more special economic zones and to stimulate more industrial investments into question.

Regarding the third risk, Gabon's unprecedented decision to mandate FSC certification should be analysed in light of the changing environment described above. If one assumes (i) industrial processing overcapacities, (ii) a minority of concessions being certified in time, and (iii) upcoming log export bans in other Congo Basin countries, there seems to be a tangible risk that timber production will fall after enforcement of this policy. This in turn could exacerbate processing overcapacities and potentially disrupt the whole sector.

Apart from industrial and economic considerations, a reputational risk is also looming for the GoG if this high-profile policy is not enforced in time or if it is perceived as reflecting on its 'weakness'; but also to FSC,

if pressure on auditors to accelerate the certification-adoption process leads to abuses and mistakes and resulting NGO campaigns.[8] One potential means of avoiding such risks would be to intensify production in existing concessions. The intention here would be to broaden the range of logged species and produce greater volumes per hectare. This might help to shift companies' attention towards second-grade species or lesser-known timber species (LKTS), already being promoted locally by forestry-related actors (e.g., Association Technique Internationale du Bois Tropical - ATIBT). Interviewees noted that because such an approach is compatible with FSC rules, Gabon could have both a fully certified concessions network and increased production.

However, it seems that specific safeguards would also be required to avoid unsustainable intensification. From a hybrid governance perspective, it is interesting to discuss whether this grave concern should fall on the shoulders of the private standard or of the government or what type of coordinated action will be needed to prevent this from happening. For instance, restrictions on commercial volumes could work in tandem with preferential tax conditions for certified concessions or other incentives. (e.g., linking safeguards at the level of operations with others at the level of royalties or trade regulations).

4.2. France case study

4.2.1. General directions of the national strategy against imported deforestation

The deforestation issue has gained political momentum over the last decade and the European Commission report on "The impact of EU consumption on deforestation" (Cuypers et al., 2013) is an important milestone; it was soon followed by several political commitments and most recently the political agreement to issue the EU Regulation on deforestation-free supply chains. This context triggered the creation of an inter-ministerial committee to explore ways to address the issue at the national level. France's participation in the New York and Amsterdam Declarations provided further indications of the country's firm intent to act, and this culminated in the publication of its national strategy against imported deforestation (SNDI[9] - thereafter "the Strategy") in 2018. In addition, it committed as part of its National Climate Plan to end imports of products that contribute to deforestation.

Its scope embraces forest-related and agricultural commodities but a limited number of products were considered a priority such as soy and palm oil. Imported deforestation is defined as "*the importation of raw or processed materials whose production contributed, directly or indirectly, to deforestation, forest degradation or to the conversion of natural ecosystems outside of the national territory*" (MTES, 2018); this leaves open the definition of deforestation and degradation, which is one key aspect for the operationalisation of hybrid governance.

A starting point of the Strategy is to foster a participative approach to gather and build on scientific expertise to help design and implement tools. The strategy then turns to the producing countries and emphasises trust relationships and dialogue to influence the policies. This opens the door to investments by the aid agency in the places where production takes place. It is not only inspired by the principle of reality but also the tense relationship that France (and the European Union) has experienced with Indonesia (and Malaysia to a lesser extent) around the palm oil issue with the implication that carrots should complement sticks in policy.

The Strategy then moves to the consumer side through public and private spheres respectively. The former is about negotiating trade agreements that do not induce more environmental damage; the trade agreement with Mercosur is a good example. Indeed, studies about its expected impacts have yielded negative conclusions and additional conditions have been submitted (in particular to Brazil) because of a very tangible risk of more tropical deforestation caused by preferential trade conditions. The public sphere component also entails public procurement policies (e.g. timber products for furniture and infrastructure purchased by public institutions) among others.

A key direction of the Strategy from a hybrid governance angle lies with the private sector: better reporting and risk analysis are requested from finance to consumer goods companies or importers / retailers. Besides, the Strategy considers enrolling private sustainability standards to serve its own objectives, either by using them to orient its own procurement rules or to raise the bar with the inclusion of specific zero-deforestation requirements for certification. Consumers, companies and civil society alike are targeted by a public platform with data and information about imports and their presumed / estimated impacts in the places of production. For this, the Strategy is collaborating with institutions such as the customs agency in France and the TRASE initiative[10] that has been mapping supply chains for a range of commodities and countries.

The Strategy also relies on better due diligence by private companies to avoid imports of illegal products. While drafted after the due diligence law ("Duty of Vigilance Act"), for which the scope has been formally extended to include zero-deforestation by the Law on Climate and Resilience in 2021 (Article 273), the Strategy incorporates this approach which is at the core of the European Legislation on imported deforestation.

4.2.2. On-going participative processes: what operating definitions to apply for the identification of imported deforestation?

A Scientific and Technical Council (STC) was established under the management of the French Development Agency (AFD) and ultimately under the responsibility of the government to report on key methodological issues. The STC is made up of national experts from various disciplines who undertake assignments on behalf of their own organisations. This system has been up and running since 13 May 2019 and has been addressing several issues of which we describe those of most relevance for hybrid governance: definitions and monitoring tools, and the reliance on certification options for the zero-deforestation objective in value chains.

The definition question is at the core of the whole process as it leads to the identification of the imported goods with acceptable impacts. Characterising deforestation requires a definition of forests and land use activities in the first place, and this debate around definitions has been around in the scientific and operational circles for some time. For example, the seminal forest definition by the FAO considers canopy cover, area and tree height, but also the permanent allocation of land to forestry (e.g. shifting cultivation is eligible); this contrasts with WRI's Global Forest Watch tool that relies on tree cover (hence including tree plantations) and leaves aside the difference between temporary and permanent losses of forest (the variety of existing forest definitions is discussed in Eba'a Atyi et al., 2022, a report published as part of the STC).

The STC goes beyond these well-known basic distinctions to enter the realm of operations by embracing the various methodological options on the table. In particular, the High Carbon Stock (HCS) based on a collaboration between Greenpeace and the oil palm company Golden Agri-Resources (GAR) defines carbon thresholds adapted to various forest ecosystems; and the HCV-F developed within the framework of the FSC to identify no-go areas based on biodiversity, climate, economic, social and cultural parameters. In addition, the STC addresses complementary issues such as whether the future condition of the land should be considered to assess the impact of commodity production (would the land revert to a forest if not disturbed?), and the attribution of causality for deforestation (e.g. how to determine if a plantation established x

[8] FSC denies this risk on the grounds that it is governed by a variety of stakeholders, including civil society (interviews)

[9] https://www.ecologie.gouv.fr/sites/default/files/2018.11.14_SNDI_0.pdf

[10] http://www.Trase.earth

years after deforestation should be held responsible?).

4.2.3. On-going participative processes: what is the role of private sustainability standards?

These key issues of definition and associated monitoring needs are linked to the discussion on the use and choice of certification options to operationalise the Strategy. It was proposed to create an ad-hoc meta-label that would cover a diversity of situations by taking the best (or the lowest common denominator) of the many options on the table. While discussions made progress in this direction, it was eventually abandoned. One main reason is presumably the redundancy with another measure taken by the Strategy for relevant information to be provided on end-products' packaging based on a specific methodology to assess the forest footprint of French imports (interviews). Besides, several interesting approaches exist in addition to existing certification standards - public-private partnerships, landscape approaches, codes of conduct, due diligence, multi-stakeholder platforms, and regulations[11] - and a survey of key stakeholders by the CST showed that the most favoured scenarios are the negotiation of bilateral agreements with producing countries, and the reliance on existing standards to decide which products are allowed in.

Using existing certification schemes to guarantee zero-deforestation standpoint is an option resorting to hybrid governance along the lines of the Gabon case. It was specifically addressed through a working group that investigated the capacity of the main standards to guarantee that imported certified products would not be related to deforestation events for five forest-risk commodities: soy, timber, rubber, cacao and palm oil. Conclusions indicated that the standards are not fit for purpose: lack of clarity in definitions, uncertain application or unreliable auditing processes, lack of traceability, uncertain access by smallholders (interviews).

It is worth noting that this working group was also responsible for interacting with the standards directly to try to raise the bar and elicit appropriate changes to their rules and design. The objective was to try to trigger improvements that would not only benefit the Strategy itself by making them compatible with its own objectives (and hence usable for its implementation), but also to improve their own impacts on forest conservation in general. This can be defined as a public initiative to influence private governance; it did not produce encouraging results as standards generally dismissed the possibility, mostly to retain their independence or for business reasons (higher costs of verification and lack of demand).

This attempt hence demonstrated that the relationship between public sustainability policies and private standards can take different forms and that their combination in a hybrid governance fashion is hazardous. Not only do the standards tend to refuse to adapt but they can also be held by public regulators as one possibility among others with many shortcomings ("*private sustainability standards are not a panacea but one instrument among others*"). Addressing these shortcomings could also prove unfeasible as for the case of traceability because the requirement to have segregated supply chains to ensure imported products meet the zero-deforestation condition would be unaffordable: technical solutions exist but their costs represent too much of a handicap.

The dead-end that such discussions reached is interesting in several ways. First of all, it implicitly clarified the ambiguity of the Strategy by pointing to its orientation towards volunteer measures rather than restrictive and law-abiding ones. Rejecting the option of using standards was formally justified by their incapacity to deliver but no more reliable option was suggested in replacement. In fact, these standards are not even considered sufficient for the Duty of Vigilance Act. But one can legitimately question the respective merits and robustness of due diligence by importers and certification standards. As the Green Lane is thus not an option for certified products, their main field of application in the Strategy is Public procurement as the related guide to the administration and public agencies recommends to give them preference.

4.2.4. Implementation: where do we stand?

The Strategy is an ambitious undertaking that will take years to run at full speed; it may even turn out to become mostly a source of inspiration for the upcoming European legislation and action in other countries. Nevertheless, a few achievements can be mentioned here.[12] The Strategy relies on the private initiative TRASE (supply-chain mapping at the level of countries or regions of production to indicate the risks associated with sourcing areas and traders involved along the chain; https://www.trase.earth/) to gather and display information publicly to inform choices by the private actors. Moreover, an important step forward took place with the expected issuance of a new legislative decree (following an agreement in principle) that provides access to customs data. The plan is to then set up an alert system coupled with satellite imagery and share information confidentially with companies about their risk of exposure to deforestation. This in itself is a perfect case of hybrid governance where a private (but open access) tool harnesses confidential state information (customs data) to reach a higher level of accuracy and more frequent updating.

Another important achievement is the guide for public procurement that contains best practices and should be applied by all civil servants in all sectors for purchases. As the Strategy is not primarily aimed at banning products associated with deforestation, if only because it is likely to be deterred by the rules of the World Trade Organization, it is an important move to disseminate such recommendations within the public sphere. Indeed, the number of public buyers is estimated to be around 130,000 and their buying power represents up to 10% of GDP (MTES, 2021).

An NGO produced a report on the specific case of soy imports (Angerand and Patentreger, 2020[13]). Targeting an emblematic forest-risk commodity with the greatest footprint associated with French and European imports, the authors suggest a system whereby risks are estimated for soy importers as a decision-support tool to facilitate deforestation-free value chains. Taking stock of the obstacles to mandatory deforestation-free imports, the authors of the report insist that such an approach is widely applicable and relevant for regulations associated with Corporate Social and Environmental Responsibility and related due diligence according to the Duty of Vigilance Act. Therefore, even if it is only encouraged on a voluntary basis, the legal framework has a role to play to upscale its adoption and use.

It is important to note here that voluntary and regulatory (as well as private and public) actions and commitments, are bound within the framework of Strategy in a hybrid governance fashion. Indeed, it appears that only a combination of action and goodwill by private and public actors, in their own ways, can lead to solid and sustainable outcomes. This line of reasoning could even be applied to another measure

[11] See the following blog that makes a good case for this combination of approaches in the context of the controversial Greenpeace report against certification standards associated with greenwashing: https://www.linkedin.com/pulse/greenpeaces-controversial-report-destruction-certified-nico-roozen/

[12] For an official view of progress with the SNDI see the press statement following the meeting of the monitoring committee on 18 November 2020: https://www.ecologie.gouv.fr/reunion-du-comite-suivi-sndi-nouvelles-avancees-en-termes-tracabilite-information-du-public-dachat; or the full minutes of the meeting here: https://www.deforestationimportee.fr/sites/default/files/2021-01/2020-11-18_CR-R%C3%A9union%20de%20bilan%20de%20la%20SNDI-1.pdf

[13] The unofficial version is already available online here: https://www.cst-foret.org/ressource/mettre-fin-aux-importations-de-soja-issu-de-la-conversion-decosystemes-naturels-damerique-du-sud/

Table 4
Risks and options associated with hybrid governance.

	Gabon	France
Risks	FSC credibility is under **(political) pressure** to deliver in time. Thus FSC must invest and take decisive actions to create the conditions for firms to achieve certification and/or take shortcuts undermining potential for results. Taking metrics of existing CoC certificates **as sufficient indicators of policy success**, as this type of certification does not reflect on management results in the forests but rather on attributes of the value/supply chains. Only one certificate has both FM/CoC certification and 3 FM/CW (i.e., **policy may more likely partially address illegality** in contrast with SFM certification). Due to the above, FSC can become redundant with **existing legality due diligence systems (including the GoG national traceability system**), creating confusion and remaining unable to demonstrate its added-value. Lower levels of production due to many concessions not getting certified in time with adverse economic consequences and overcapacities at processing level. Over-exploitation/mismanagement before cutting date (anticipatory effects; Brusselaers and Buysse, 2018) **Lack of investments for improvement in governmental capacity to oversee and regulate forestry**	The absence of decisions on the hard components of the Strategy, i.e. the means of identification of deforestation-free products and the types of incentives or outright bans to apply based on such discrimination, **shows limits to public action** in the field and might disappoint high expectations created by a high-profile policy initiative A relative failure – if the process is not carried to completion (see previous point) – could have negative consequences if it sends a signal to the private sector that deforestation-related products would not face punitive measures in a context of **harmless public action** despite unprecedented efforts towards an effective Strategy. The (unlikely) possibility that **France develops its own label to discriminate against imported goods with forest impacts** could undermine the usefulness of private sustainability standards and contribute to their substitution. The involvement of NGOs in the process of defining methodologies and setting the parameters of application might lead to a backlash if their expectations are not deceived.
Options/leads to boost positive outcomes from hybrid governance attempt	**Creating the enabling environment** for certification to move forward at the desired pace by setting shifting goals as a function of realistic capacity for compliance (e.g. extent to which there are/can be created incentives to support firms to make transition to FSC) **Create systems of visibility/transparency to demonstrate progress** made by each member of the sector towards certification adoption. This will facilitate the following point and would contribute to democratisation (above). **Public actors remain in control of the policy agenda (e.g., incentives and sanctions) and maximise capacity** to guarantee that the private actors are delivering expected outcomes. **Public actors learn from the experience** and optimise processes/ resources.(e.g., rents capture) for improved outcomes (e.g., better managed forests, co-benefits).	Going one step further with **concrete incentives or outright ban** with identification of deforestation-free products based on existing standards (possibly with second-best legality verification standards). This would help convert a unique opportunity to promote private governance at scale through recognition of private standards. **Articulating conditions to access domestic market with producing countries** when they develop their own sustainability standards / use existing private standards (e.g. Gabonese policy on FSC) A footprint information requirement on end products' packaging is contemplated and would be **based on a public framework**; its development by NGOs is a step in the right direction that remains to be confirmed.

Note: **Public governance features are in bold** to distinguish from private governance one.

taken by the Ministry of Agriculture in relation to the soy sector, namely the Protein Autonomy Plan ("Plan d'autonomie protéinique"[14]) that aims to reduce dependency on imported vegetable proteins and especially on soy imports from South America for cattle raised in France or, to a lesser extent, for direct consumption. As another illustration of hybrid governance, the monitoring committee of the Strategy announced in 2020 that several big companies[15] signed a manifesto and committed to engage with their suppliers to remove any soy-related deforestation from their supply chains.

5. Discussion

5.1. Breadth versus depth

The two case studies exhibit very different approaches with either a very narrow but radical move in Gabon or a soft but extensive set of policies in France. Yet the seemingly focused hybrid governance at play in Gabon turns out to be more complex and nuanced when interpreted through the lens of our analytical framework. At first sight, having a government in the Congo Basin deciding to rely on a high-profile private standard to regulate and monitor all forest concessions sounds like a positive breakthrough. Firstly, this could be perceived as a case of sheer substitution whereby the government relinquishes its rule-setting role and delegates to an international private standard the right to decide what qualifies as sustainable forest management and its assessment. That is, this policy requirement can be perceived by many as being a 'handing over', even if the GoG remains ultimately responsible for the legislation and enforcement processes regarding forest management. This perception may be problematic.

Secondly, it could prove to be a case of antagonistic hybrid governance if the series of promising public policies pursued in Gabon are jeopardised by this spectacular move, e.g. the 2020 fiscal law that enacted differentiated forest area taxes. Its rationale is that increasing levels of legality and sustainability of forest operators would be accompanied by lower taxes paid to the state; this differentiation is intended to provide incentives to virtuous forest operators (i.e., taxes are set according to whether the firm is CoC, SFM certified, or not certified). As a matter of fact, Gabon is the first country in the region (other previous experiences were made in Peru and Brazil) to have put such a system in place. Three rates were set for the area tax for conventional operations, legality-certified operations, and sustainability-certified production (either FSC or PAFC/PEFC). According to Karsenty (2019), this measure should however be put into perspective because the area tax is low relative to the logging and the export taxes, although some firms manifested this to continue to be an important motivation to embark on certification. In any case, one could argue that such positive developments could be buried by the decision to make a leap towards mandatory FSC certification for all and without any further distinction once all firms are compliant. Others argued they represent a strong motivation given increased production costs so that the differentiated area tax would speed up the process and contribute to more certified operations way ahead of the deadline for mandatory certification (interviewes).

There are at least two ways to approach hybrid governance in the case of the French Strategy, either by looking at specific initiatives that involve public and private governance or by discussing the series of policies and instruments that are included in the whole package. For the latter angle, the rationale has been to cover the range of perceived useful policies to increase the chances of impact, and this broad scope may act as a response to the lack of strong action at the frontiers, such as banning products associated with proven deforestation. There is generally acknowledgment among stakeholders (interviews) that the Strategy has been taken seriously by its proponents and the process has been satisfactory with many of its specific objectives making good progress and well-reported in meetings and public documents (GRF, 2022). It is also undeniable that such an inclusive approach both in terms of action and participation / consultation, with public, private and civil society actors both contributing to the design of policies and their implementation, is positive from a hybrid governance perspective and an asset for impact in the longer term. Our analysis did not point to many cases of substitution or antagonism between public and private governance elements (Table 3), and the two main instances are the polysemic nature of government objectives with superior interests (e.g. diplomatic and international trade agreements) and misalignment with private standards' business models.

5.2. Assessment of democratisation effects must go beyond appearances

As proposed by our analytical framework, hybrid governance should be assessed against its contribution to the democratisation of institutions and processes, which are expected to secure longer term impacts. Participation and transparency have been central tenets in the French approach to deforestation-free trade with the mobilisation of national experts in consultative processes to gather available expertise and the several multi-stakeholder initiatives that took place. Moreover, the limited funding made available by the government for commissioned studies relative to the degree of participation seems to confirm an interest on both sides.

NGOs were appointed within the Strategy framework to develop a methodology to identify soy imports from Brazil that are not associated with deforestation based on a risk assessment tool (Angerand and Patentreger, 2020). Note that this "soy initiative" moved forward in parallel with the endorsement of a Soy Manifesto by twenty private companies in 2020 and officially supported by the government, according to which a higher level of due diligence would be applied with the dedicated methodology (but without compulsory use as part of the Strategy). It also led to a first concrete application with a shipment of soy from Brazil that entered French territory in June 2022 with the technical assistance of Earthworm (a consultancy) to verify that all requirements were met.

Yet further investigations unveiled some limits and a possible drawback of hybrid governance in this specific case. Indeed, a technical but fundamental aspect such as the cut-off date has involved compromises with significant consequences for the expected impacts of the tool. Besides, the decision to involve environmental - and vocal - NGOs in France to put together this tool has been seen as a strategy to gain time and make sure resistance is abated outside of the Strategy and most constraining options would be left aside for some time (interviews). If this turned out to be the correct interpretation of the involvement of stakeholders, it would have consequences for the assessment of the contribution of hybrid governance to the democratisation of processes and one could argue that the more common case of NGOs staying outside and pressing independently for change in policies and corporate practices may be more effective.

The case of Gabon provides very different insights. The starting point is the absence of participation and lack of transparency in the decisions leading to the choice of certification being mandatory and the choice of FSC as the leading scheme, which obviously runs counter to the democratisation of processes. Yet, it is expected that the FSC certification of forest concessionaires will lead to proper consultations of stakeholders as suggested by the standard principles & criteria. This example is interesting in that it shows that a distinction might have to be made when assessing the potential for hybrid governance to at least inadvertently contribute to such democratisation, between the processes leading to the creation of a hybrid governance regime and the consequences of its implementation.

Having said that, it is important to remember that long-standing

[14] https://agriculture.gouv.fr/batir-notre-souverainete-alimentaire-en-proteines-vegetales

[15] Auchan, Leclerc, Carrefour, Groupe Casino, Les Mousquetaires, Système U, Lidl, Métro.

forestry sector problems in Gabon (as in many other countries) are illegality and corruption. FSC has no mechanism to improve either situation on its own, and it is plausible that the hybrid-governance approach implied by the policy will not be able to tackle these issues with the urgency required (e.g. Lescuyer et al., 2021), given their insidious nature (Carodenuto and Ramčilović-Suominen, 2014 in Cameroon). That means that the GoG remains a major and dominant leader in all aspects related to the forestry sector, as it is only through strong action and political will that corruption can be eliminated. Moreover, the GoG is the bearer of the responsibility to the Gabonese constituents to ensure forest assets are maintained in good condition and retain their multiple values, which reinforces the idea that the policy does not imply diminished responsibilities for the State (i.e. substitution between public and private governance).

5.3. The influence of economic considerations on hybrid governance trajectories

Hybrid governance can be assumed to be related to economic interests in principle due to its private governance elements (although this depends on the nature of the latter which can be represented by, e.g., NGOs) but also economic growth considerations, and this is all the more expected in the case of deforestation-free trade due to the commercial element involved. We are interested here in discussing how it shapes hybrid governance, along with the costs involved, and with what possible implications.

One motivation for the GoG may be the potential to deliver faster results in boosting recognition of wood products in consumer markets than national policy frameworks alone. Besides, adoption of FSC certification would deliver results at lower costs for the government compared to a situation where state agencies would struggle to achieve change in the forestry sector. Except perhaps for the foregone rents that the GoG would stop receiving because of tax reductions to FSC-certified companies (but this will also depend on the new tax regime once the certification requirement has come into force, which remains unclear at the time of writing), the new pathway would liberate resources that could be invested into building institutional and individual capacities for effectively and efficiently managing the forestry sector. Furthermore, the GoG may be confident this policy would serve as a powerful incentive for FSC's action, which has a clear business interest in demonstrating its success based on area under certification. With this in mind, it seems natural that FSC would contribute significantly to the implementation of the public policy, and this may indeed have happened considering that FSC offered to cover costs for HCV/ IFL area characterisation, which already represents a hefty expense.

The impact of economic motives and cost considerations was confirmed in the France case with a very different outcome. The use of private standards in the Strategy remains undetermined even though they could be good candidates for the public procurement policies, to detect frauds related to biofuels, as a substitute to due diligence, for CSR reporting by private companies, or to identify deforestation-free imported products with differentiated taxation if not outright bans. Deep investigations have been made in the framework of the STC into all candidate private standards for forest-risk commodities to assess if they meet the Strategy requirements, with disappointing conclusions apart from timber. Furthermore, the costs of segregation to ensure that imported certified products would be the ones meeting zero-deforestation requirements, are considered to be too high for an application across the board. But the Strategy also pursues another task, through dialogue, to raise the bar for these private standards and support their improvement so as to include zero-deforestation requirements. This was received with caution in most cases when private standards consider that "*States should not dictate our rules*", including for business development reasons, hence exhibiting one limit to hybrid governance for this matter.

Gabon continues to be a powerhouse for tropical wood exports (i.e., largest African exporter in 2019, second after Cameroon in 2020; ITC, 2021). Most of Gabonese wood-related products are exported to China (77%) with smaller fractions directly reaching Europe (Belgium 6%, Italy and France, ~3% each). Indirectly, Europe receives a larger fraction of Gabonese timber manufactured in China and India, recognized as "high risk legality" products (TLRD, 2021). Securing FSC certification for all production could help alleviate these concerns in Europe, perhaps with the exception of France, as the French Strategy indicates not to rely on certification (any kind) as a sufficient proof of no-deforestation leaving due diligence systems as requirements. Whether preferential consumer markets in Europe and the UK decide to increase their share of Gabonese imports given the new policy clearly remains to be established, but this shift could have been an expectation from the GoG, particularly given cheaper transportation costs, in spite of the domination of Asian companies (74% of permits) mostly exporting in large volumes to the Asian region (~1 M m3/yr; Bia Zafinikamia, 2017).

Even if sustainable timber procurement policies do not exist in less-discerning Asian markets, the main associations of timber producers in the country[16] signed a commitment in 2019 in Shanghai to support the GoG in its efforts to improve forestry sector performance by backing implementation of *China's Global Green Forest Products Supply Chain Initiative* (GGSC). The commitment implies adoption of at least one legality certification (e.g., OLB, LS) by 2022. GGSC is backed by the Chinese government and resulted from a 2018 dialogue convened by ITTO with twelve major Chinese forest products firms to establish and promote global green timber supply chains for national and foreign materials (http://www.itto-ggsc.org/). The meeting resulted in the amendment in 2019 of Chinese law to prohibit purchase, transformation, and transportation of illegally-sourced materials. Added to the FSC requirement, this move could aim to increase scope for acceptance of Gabonese products abroad. This combination of actions, along with the national traceability system planned to be rolled out early in 2023, may actually bring the hybrid governance system to address legality more decisively.

5.4. Policies can be strengthened by hybrid governance but higher political considerations can also prevail

Hybrid governance involves political considerations by principle due to the role of public policies. In Gabon, it may facilitate a transition towards stronger public policies if it remains only temporarily to contribute to ratchet-up the quality of forestry practice (i.e., regulation, management, enforcement, monitoring, reporting), while capacity at all levels is boosted. In other words, the GoG would be buying time to develop their own "national norms systems", building on the experience of this policy implementation. If this were the case, the current process would represent a golden opportunity for the GoG to address some of the most crucial limitations regarding FSC and its impacts on the ground. Based on its criteria and indicators, FSC is designed to deliver results related to improved governance, continued suitability of forestry practices, and reduction of negative effects related to timber harvesting; perceptions elicited through expert knowledge surveys in Gabon and other countries in the region indicate this may be likely (Lescuyer et al., 2021).

In France, while sanctions are neither the letter nor the spirit of the Strategy, the portfolio of actions and measures are nevertheless precise and hold a relatively high level of ambition. Since the release of the Strategy, it was upheld and strengthened by the Law on Climate and Resilience issued in 2021: Article 270 ratifies the Strategy and gives it force of Law, Article 272 endorses it, Article 273 formally extends the scope of the Duty of Vigilance Act to encompass deforestation, and the Article 275 makes confidential customs data available for the Public Platform that discloses information on imports and their impacts. These

[16] E.g. UFIGA (Union des Forestiers et Industriels du Gabon) and UFIAG (Union des Forestiers Industriels Asiatiques du Gabon).

developments can be interpreted as positive impacts of the hybrid governance experiment which kick-started a process of more ambitious policies for deforestation-free trade.

It is fair to admit that the Strategy, as initially drafted, did not plan to ban deforestation-related products or to incentivise deforestation-free products identified with private standards or other means. Yet it remains important to observe that the hybrid governance approach pursued by the Strategy shows some limits as soon as it comes to making strong and committing decisions. Notwithstanding the technical challenges unveiled during consultations, one could also argue that with sufficient political will, these challenges could be overcome at least partially. We argue that the leadership of the government, while useful to drive an ambitious and multi-stakeholder process, also carries political and diplomatic considerations that can act as an impediment to radical undertakings, in this case the relations with Brazil may have played a role and led to this arbitration (interviews). On the positive side, the Strategy has strongly supported the awareness of many actors and the release of numerous commitments by the private sector, including with the Soy Manifesto in 2020. As such, one can tell that the public governance embodied by the Strategy (pushed by a certain level of political will) has supported an improved private governance by putting political weight in the process.

Another way to look at the political aspects of hybrid governance in this case is the existence of connections between the national and regional levels. While initially conceived at a country level, the process made it clear over time that the target should eventually be the European Union where most impactful decisions would be made; this is due to the size of the market but also to a much higher political influence on international norms. Therefore, everything looks like the French Strategy has become a testing ground that led to the many inputs from well-organised discussions with a variety of stakeholders being conveyed to the European level (especially during the French Presidency of the Council of the European Union in the first half of 2022). For instance, the alert system that was contemplated initially is now left aside because the EU level is deemed more relevant with the EU Observatory. In this context, the future of hybrid governance might depend to a large extent on the turn of the discussions around the EU Regulation on deforestation-free supply chains, which is mainly based on public regulations, enforcement and due diligence systems.

6. Conclusion

We have examined the challenges, and associated conditions to overcome them, in the use of hybrid governance to support deforestation-free trade; this in turn informs the prospects for such an approach to improve public policies but also corporate zero-deforestation commitments in delivering, which remains an objective more than an outcome. Such prospects will only be realised if hybrid governance exhibits an ability to adapt as problems evolve. The alleged complementarity between public and private governance features, especially when filling their respective gaps, could provide such flexibility to reinforce impacts because deforestation is a wicked problem for which solutions cannot be static and permanent.

For example, the GoG could consider the evidence on the limitations for FSC to deliver tangible impacts so that the public elements of governance remain at the helm of the process to tackle issues effectively. We are confident the GoG is strategically taking stock of forestry sector policy developments in the region as well as in consumer markets, and the potential impacts the mandatory certification adoption policy could have in neighbouring countries. But, unless the hybrid governance mechanism either delivers financial benefits to producers beyond market recognition, or provides demonstrated positive impacts in the forest, we remain sceptical about its ability to be a game-changer for the Gabonese forestry sector. This is compounded by the fact that structural problems of governance and corruption are likely to remain unabated. There might also be contradictory incentives and implicit goals for public and private governance sides if FSC is vested in increasing the number of certificates granted (to date the main outcome has been a drastic increase in CoC certificates), while the government would be genuinely motivated by SFM outcomes. Clearly, unless improved management is realised and demonstrated in practice, a surge in CoC certificates may remain a modest and probably insignificant achievement for hybrid governance.

While private standards could have been a common feature between the two experiments and one ideal way to articulate them, if the French Strategy had decided to move forward and give them a formal role in the discrimination of imported products, they remain nonetheless a key feature to address and understand hybrid governance in deforestation-free trade. Indeed, they appear to be both too strong and too weak in the eyes of an importing country, respectively because they would result in controversial decisions to filter imported goods from the WTO perspective are deemed unreliable enough to serve the purpose of zero-deforestation imports. It might thus look counter-intuitive that a producing / exporting country takes a stronger stance than an importing one, and the reasons for such a paradox still escape us to a large extent; one assumption is that the independence and business models of private standards would make them a good candidate for an accommodating high-profile country for tropical timber production without further requirements to refine operating rules and criteria.

The two case studies showed that hybrid governance, although a promising avenue overall, cannot be expected to yield positive results if it resorts to a mere accumulation of private and public components. What is required to make significant changes in practices that result in deforestation-free trade is a real dialogue/interaction between private and public spheres. For Gabon, we argue that it is about a private standard to raise the bar and enable stronger policies to take over after a transitory period, but also about public policies to create an enabling environment for the private governance to deliver in the first place (including with regulations and other mechanisms that could fix the flaws of the auditing process). For France, we argue that the Strategy has pushed for private standards to align with deforestation-free trade objectives (quite unsuccessfully so far) and for NGOs to develop their methodologies then supported by their dissemination among private actors and uptake in public procurement policies; besides, a private supply chain mapping initiative was improved by a special access to government-held customs data owing to a long-standing collaboration.

Therefore, while much more could be expected, these findings tend to plead for more hybrid governance experiments that are flexible and creative enough – owing among others to proper participative processes – to evolve in line with the wicked problems they aim at solving. The question remains to what extent they are reproducible in other contexts, and Gabon may not offer much guarantee as it is unique in many ways due to the high value forest resources that cover most of the territory, its front-runner status and low population density, among others. But even so, this hybrid governance experiment could as well represent a source of inspiration for the region just as these countries had followed suit with the export ban policy on unprocessed timber previously, especially when considering that forest certification is being promoted evenly across Central Africa by donors.

The France case offers different prospects for replication and the European level is pertinent in this regard not only because this country has seen its own experiment as a step in that direction from the outset if significant impacts are to be achieved, but also because of the recent political agreement for the EU Regulation on deforestation-free supply chains. This Regulation relies on due diligence by companies involved in imports of forest-risk commodities and products with obligations that vary with the level of risks for the countries of production. While due diligence is also a central feature of the French Strategy, the latter placed hybrid governance at its core (beyond due diligence only) to the difference of the EU Regulation and both policies may rather be seen as complementary than replicates at different scales.

One last concluding remark refers to the use of public resources as

part of hybrid governance, which may be questioned if it aims at providing private benefits. In Gabon, this would translate in the government creating the enabling conditions for concessionaires to get FSC-certified (e.g., tax regime as discussed above), possibly with training or the creation of HCV maps; in France this could be with tax rebates to certified imported goods or the creation and public delivery of information on the virtuous companies. These measures would thus benefit some private actors, either a private standard like FSC or consumer goods companies. Yet, such a criticism needs to be downplayed as long as the end game is to increase public goods given the long–standing benefits that a healthy forestry sector will have for myriad actors and society at large; furthermore, the expectations are that governance would overall benefit through increased transparency and accountability. It is in this light that we suggest examining the extent to which the relationship between public and private mechanisms could be strategic and justified.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ecolecon.2023.107867.

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