

REPORT

Multistakeholder Governance

Project:	GLOBE – The European Union and the Future of Global Governance
GA:	822654
Call:	H2020-SC6-GOVERNANCE-2018
Funding Scheme:	Collaboration Project



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This project has received funding from the European Union's Horizon 2020 Research & Innovation programme under Grant Agreement no. 822654. The information in this deliverable reflects only the authors' views and the European Union is not liable for any use that may be made of the information contained therein.

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Public

Due date:	28/06/2021
Submission date:	28/06/2021
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Acknowledgements

The authors would like to thank Ruth Vanhaecht for research assistance and one reviewer from the GLOBE project, Elizabeth Bennett, Eva Boonaert, Marion Karmann, Charles Roger and Anakarina Pérez Oropeza for comments on an earlier draft. A draft version of the second part of the deliverable was presented at the European Association of Agricultural Economics (EAAE) Seminar 175 (“The Wind of Change of Sustainability Standards”) on 14 May 2021 and a draft of the whole deliverable at the GLOBE meeting on 9th June 2021.



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Introduction

The GLOBE project is built on the premise that global governance is constituted by many different types of actors, besides traditional formal intergovernmental organizations. One of these actors are so-called multi-stakeholder initiatives which comprises a variety of organizations and institutional designs. Multi-stakeholder governance emerged as a new form of global governance which develops and enforces international rules and commitments. In recent years extensive global governance research has focused on rise and proliferation of different forms of multi-stakeholder governance (Marx & Wouters, 2015a; Scholte, 2020; Westerwinter et al., 2020).

In this GLOBE deliverable we zoom in on multi-stakeholder governance with a specific focus on Voluntary Sustainability Standards (VSS) which aim to govern transnationally for sustainability and play a role in the implementation of the Sustainable Development Goals. Some of these VSS grew out of environmental concerns and mainly focus on tackling environmental challenges while others focus more on social issues such as poverty and the protection of labour rights. The aim is to understand some major trends with regard to multi-stakeholder governance and VSS in particular with a specific focus on growth and adoption dynamics. We focus on growth and adoption since it constitutes a dimension of effectiveness of VSS as global governance tools. An analysis of how VSS develop over time and are adopted can also generate insights into the possibilities and limitations of VSS to contribute to addressing global challenges and to understand better the role they can play in global governance arrangements and public policies. The deliverable is based on the assumption that VSS do contribute to global sustainability governance which is substantiated by research (Evidensia, 2021; Lambin et al., 2014; Oya et al., 2018a) but also hotly debated and contested (Bartley, 2018; Bennett, 2017a, 2018; Glasbergen, 2018).

The deliverable consists of two main parts. The first part provides a general overview and discussion of VSS. In this part we will first briefly situate VSS in the broader literature on multi-stakeholder governance. Next we zoom in on VSS and describe how they operate and differ in design. The next section details the importance of VSS for global governance by focusing on their contribution to the SDGs and how they are



increasingly integrated in other public policy tools. We also touch on some of the implications of COVID19. The following sections focus on distilling some of the trends related to VSS with a focus on the drivers for VSS emergence and the evolution of the total number of VSS. The second part of the deliverable presents a detailed case study of the evolution and adoption dynamics of one specific VSS namely the Forest Stewardship Council (FSC). This part aims to understand adoption dynamics of VSS. The FSC is one of the oldest and most prominent VSS and a detailed analysis of the adoption dynamics can shed light on the potential of VSS to govern globally. This detailed case study is based on a newly created dataset which contains data from 2000 to 2020 and provides a detailed analysis of adoption dynamics across countries. The quantitative analysis is complemented with an analysis of developments in specific countries. The deliverable ends with an overall conclusion and implications for policy.



Part 1: VSS and Multistakeholder governance

Multistakeholder governance

The rapid proliferation of multistakeholder initiatives (MSIs) in global governance since the 1990s has drawn considerable scholarly attention, but due, in part, to the variety of governance areas in which MSIs participate and the diversity of approaches MSIs take (not to mention the range of names and definitions that are used to describe such initiatives), there remain many areas of research that have received little or no scholarly attention. A recent survey of existing scholarship on MSI undertaken by Scholte (2020) takes stock of the various definitions and approaches of multistakeholder arrangements as well as assesses the main gaps in the literature which ought to be addressed in order to fully realize the positive potential of MSI in global governance while reducing shortcomings of the governance model. The review takes into account more than 300 articles and reports that contribute to a set of overarching questions related to defining multistakeholderism, explaining its emergence and spread, and understanding how various elements of MSI institutional design contribute to their ability to solve problems of global governance.

Multistakeholder initiatives have been given a great variety of different names – including public-private partnerships, voluntary sustainability standards, and others – but are generally defined as arrangements that aim to “[meet] global challenges by assembling representatives of various state and nonstate constituencies who have a stake in (i.e. affect and/or are affected by) the problem at hand” (Scholte, 2020, p. 3). Though arrangements and the actors involved vary, MSIs usually bring together, on the one hand, national governments and/or international organizations alongside non-governmental and civil society organizations and business actors, on the other. MSIs might be organized at any level from sub-national to international and can take either what Scholte refers to as an “ancillary” or an “executive” form (Scholte, 2020, p. 4). Ancillary MSIs are those that are initiated by a public actor, such as an international organization, by “bringing nonstate actors into its regulatory processes” and thereby function as “appendages” to the public actor (Scholte, 2020, p. 4). Executive MSIs, on the other hand, are autonomous, possessing and exercising their own decision-making

authority (ibid., 5).

Scholte finds that certain research topics have received relatively robust attention, including general overviews of the emergence of MSI as a form of governance, individual case studies on particular initiatives or issue areas (especially environmental governance, internet governance, corporate social responsibility and health), assessments of the effectiveness of various institutional design or organizational dynamics of MSI as well as the contribution of MSI to democratization in global governance.

The most used conceptualization of the different multi-stakeholder initiatives is provided by Abbott and Snidal (Abbott & Snidal, 2009). They develop a governance triangle which allows for a classification of different types of multi-stakeholder initiatives. They subdivide the multi-stakeholder initiatives on the basis of the actors involved in developing global rules. They distinguish between three major actors, the state, companies and non-governmental organisations, which develop the transnational rules, either separately or together. These three actors form the corners of the 'governance triangle'. Within this triangle, Abbott and Snidal distinguish seven zones, depending on how many parties are involved in defining standards.

They place transnational regulatory initiatives in each of these zones. Three zones contain initiatives in which one actor develops voluntary transnational rules, three zones contain initiatives in which two actors develop standards, and one zone contains standard-setting initiatives which are developed by the three parties. A typical example of zone 1, state-led, initiatives are the OECD Guidelines for Multinational Enterprises, adopted in 1976. Zone 2 is characterised by company-or industrial sector-driven initiatives such as Responsible Care in the chemical sector. Zone 3 comprises NGO-driven initiatives, such as the Clean Clothes Campaign. Zone 4 covers forms of cooperation between firms and states. Zone 5 contains cooperation initiatives between NGOs and states. Zone 6 contains initiatives that result from cooperation between companies and NGOs. Finally, Zone 7 comprises initiatives in which the three parties are involved. Throughout the literature initiatives covered by zone 6 have received significant attention. Initiatives in zone 6 are covered under the general term of voluntary sustainability standards.

Voluntary Sustainability Standards

The United Nations Forum on Sustainability Standards (UNFSS) (UNFSS, 2013) defines VSS as *“standards specifying requirements that producers, traders, manufacturers, retailers or service providers may be asked to meet, relating to a wide range of sustainability metrics, including respect for basic human rights, worker health and safety, the environmental impacts of production, community relations, land use planning and others.”* VSS were welcomed as ‘one of the most innovative and startling institutional designs of the past 50 years’ (B. W. Cashore et al., 2004) and are seen by some as key transnational governance instruments to pursue sustainable development (which is also contested by others). Over the last decades the number of VSS has proliferated. The 4th UNFSS flagship publication details the evolution of the number of VSS over time. Depending on the database used the number of transnational VSS range from 250 to more than 450.

VSS take different forms such as roundtables and certification systems. Examples, covering a range of commodities and sustainability issues (social and environmental) addressed, include Marine Stewardship Council, Fair Wear Foundation, Better Cotton Initiative and the Rainforest Alliance. The Marine Stewardship Council (MSC) was created in 1997 by the WWF and Unilever, a profit-making firm and the largest seafood buyer in the mid-1990s. It emerged as a response to the collapse of Grand Banks cod fishery in Newfoundland in the early 1990s and to the inability of governments to efficiently tackle overfishing practices and protect working conditions in the fishery industry (Gulbrandsen, 2009). The MSC sets standards on fishery practices in order to protect oceans and safeguard seafood supplies. The MSC is a multi-stakeholder organisation, as its council includes representatives from the seafood industry, the environmental NGO community, the market sector, and scientists and academia. These members are divided into two categories, representing public interests on the one hand and commercial and socioeconomic interests on the other hand (Gulbrandsen, 2009; Ponte, 2012). As Ponte notes the “‘public interest’ category has 16 members, many from environmental groups, but also including a few donor representatives, academics and policy makers. The ‘commercial and socio-economic category’ includes 18 members, all from companies and industry associations (thus

representing commercial interests, not broader ‘socio- economic’ concerns).” (Ponte, 2012, p. 306)

The Fair Wear Foundation (FWF) is an independent organisation that works with garment brands, workers, and industry influencers in order to improve labour conditions in the garment industry. It was established in 1999 when a Dutch trade union, the Netherlands Trade Union Confederation (FNV), and the Clean Clothes Campaign, an advocacy group for garment workers, joined together to improve labour conditions in the garment industry. The FWF developed a Code of Labour Practices made up of eight labour standards derived from International Labour Organization (ILO) Conventions and the UN Declaration on Human Rights. Member organisations commit to this code’s principles and are required to take action to fully implement them and to monitor their progress (Marx & Wouters, 2017, 2018). The organisation is governed by a bipartite board composed of business associations and trade unions and NGOs, which share equal power.

The Better Cotton Initiative (BCI) was founded in 2009 following a WWF-led round table initiative, and was supported by major organisations such as Adidas, Gap Inc., H&M, ICCO, IFAP, IFC, IKEA, Organic Exchange, Oxfam, and PAN UK. The BCI aims to make cotton a sustainable mainstream commodity by reducing the environmental impacts of cotton production and by improving the livelihoods and economic development of cotton producing areas (Zulfiqar & Thapa, 2018). The BCI is the largest cotton sustainability programme in the world. In order to be licensed, farmers need to comply with defined minimum standards on pesticide use, water management, decent work, record keeping, training, and other factors, but they are nonetheless encouraged to further improve their practices. To attain its missions, the BCI works with a wide range of stakeholders across the cotton supply chain. Besides, its council includes member organisations ranging from civil society organisations, producers, and retailers, to brands, suppliers and manufacturers as well as independent members (Better Cotton Initiative 2019b).

The Rainforest Alliance was founded in 1987 as a non-governmental organization that promotes responsible business. It provides certifications for sustainable forestry and agriculture, more particularly in the coffee, cocoa, tea, hazelnut, and banana sectors,



but also for sustainable tourism. In 1989, the Rainforest Alliance became the first certification scheme to target forestry practices. It merged with UTZ in 2018 as both VSS were carrying similar work to address deforestation, climate change, systemic poverty, and social inequality. The organisation is active in more than 60 countries and counts over 2 million certified farmers, particularly in South America, Africa, Asia, and the US (Rainforest Alliance 2019). The Rainforest Alliance operates against standards that have been developed by the Sustainable Agriculture Network (SAN), which revolve around ten principles: social and environmental management system; ecosystem conservation; wildlife protection; water conservation; fair treatment and good working conditions for workers; occupational health and safety; community relations; integrated crop management; soil management and conservation; integrated waste management (Ochieng et al., 2013). The Rainforest Alliance General Assembly has a tripartite structure balancing economic, social, and environmental interests in dedicated chambers with equal voting power (Rainforest Alliance 2017). It also promotes collaboration with producers, workers organisations, traders, retailers, governments, NGOs, civil society organisations, academia, and research institutions.

These examples show that VSS have adopted structures that try to balance the input and interests of multiple stakeholder groups. It should be noted that this balancing act in reality does not always lead to balanced representation (see for example Bennett, 2017) due to dynamics internally with how VSS are governed or through the opposition of certain stakeholders.

What are VSS and how do they differ?

VSS as Global Governance Tools

VSS aim to ensure that products and production processes comply with a set of social and environmental requirements on the basis of three distinct steps. First, VSS integrate elements of existing international rules and agreements into their own rules, standards and procedures. Many VSS start with developing a general mission and set of principles on which they are based. These principles often refer to international agreements and conventions. These conventions and agreements are the starting point for developing more precise standards. As such, they hence include public rules



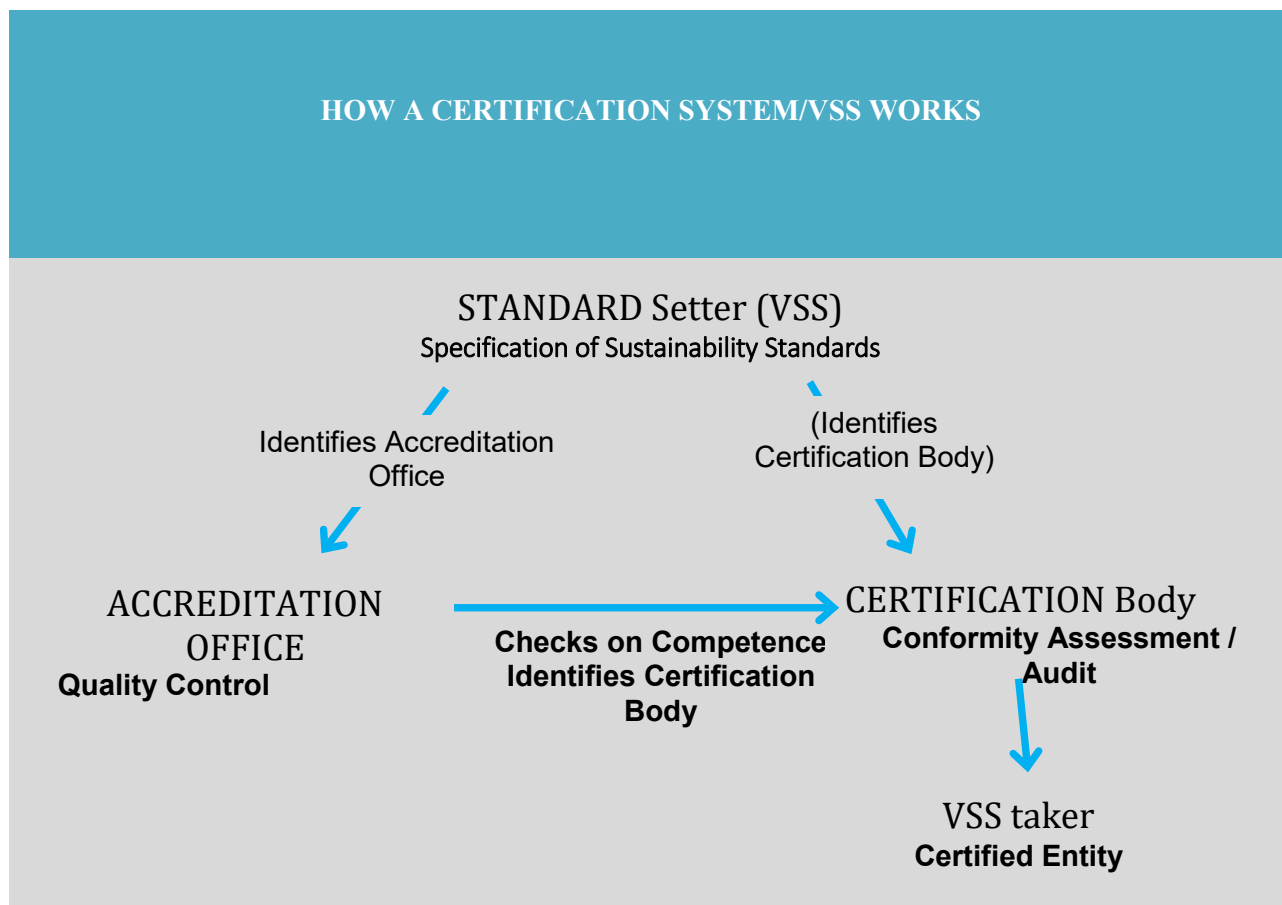
and standards in a private set of procedures. In other words, VSS are connected with public policies by virtue of their embeddedness in public international law; they start off from the same normative basis, in that, to a degree, they refer to the same international agreements and conventions that underpin the notion of sustainable development. Indeed, Collins et al. (Collins et al., 2017), who analysed 45 VSS, found that 78 per cent of them cited international laws or norms in their standards. Marx (Marx, 2019) found that many ISEAL members refer to international conventions in their standard-setting practices. Specifically, several of them refer to the following international conventions: Forced Labour Convention, 1930 (No. 29), Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87), Right to Organise and Collective Bargaining Convention, 1949 (No. 98), Convention concerning Equal Remuneration of Men and Women Workers for Work of Equal Value, 1951 (No. 100), Convention concerning the Abolition of Forced Labour, 1957 (No. 105), Convention concerning Discrimination in Respect of Employment and Occupation, 1958 (No. 111), Convention concerning Minimum Age for Admission to Employment, 1973 (No. 138), Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour, 1999 (No. 182), Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973), Convention on Biological Diversity (1992) and the Stockholm Convention on Persistent Organic Pollutants (2001). Some VSS also refer to human rights conventions or other environmental agreements, such as the Montreal Protocol on Substances that Deplete the Ozone Layer (1987) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989). These conventions are sometimes also integrated into public regulation which facilitates the institutionalisation of VSS in public policies since both VSS and public regulation is based on the same international conventions and agreements (UNFSS, 2020).

Second, VSS translate international norms and principles in specific standards and benchmarks, which makes compliance assessment possible. Often, VSS initiatives start by defining general principles and delegate the formulation of specific standards to working groups or committees which can take local conditions into account. This operationalisation of international conventions into measurable standards is often very precise and allows the assessment of compliance with these standards. Third, VSS

put systems in place to assess conformity with standards and monitor continuous compliance with standards. Conformity assessment is often performed by accredited third bodies (certification bodies). The initial conformity assessment of VSS is achieved via a system based on the development of management plans outlining how conformity with standards will be achieved by the applicant of a certificate and the control on the implementation of these plans by independent certifiers. First of all, the applicant invites an inspector who conducts a pre-audit or feasibility study on whether the entity under consideration can be certified. In a second step, a genuine audit is conducted, which assesses the current management practices against the standards and criteria. This audit also can contain detailed corrective actions requests (CARs), which are necessary in order to gain certification. Step three involves implementing the corrective actions and an assessment of the audit by the applicant. Step four is a new audit, which often contains more corrective actions to be implemented. Step five finalises the process by awarding the certificate. First certificates can have a variable duration from being only valid for one year, which then subsequently can be renewed for multiple years, to being valid for multiple years. After the certification, conformity with standards is assessed via monitoring often based on auditing (by certification bodies) and complaint systems. Monitoring and auditing is outsourced to professional accredited organisations and companies. These monitors work with standardised procedures, which include an analysis of documents and site visits on the basis of surveys and checklists.

The above discussion illustrates that in the certification process several distinct actors play a role. Figure 1 summarizes how certification through VSS works. VSS, as standard-setters, develop standards which form the basis for a VSS certificate. Certificates are being issued upon a compliance assessment carried out by independent third-party auditors. Such auditors form part of a *certification body*. The work done by certification bodies is checked in an *accreditation* process and by an accreditation office which is appointed by a VSS. The accreditation office verifies whether the certification bodies are competent to perform the conformity assessment. The certification body awards the certificate to the standard-taker (producers, owner of natural resources) if the latter complies with all the standards.

Figure 1 Stylized Presentation of Actors involved in Certification



Box 1 COVID-19 and Voluntary Sustainability Standards

The impacts of COVID-19 have been felt across all sectors of business and at every stage of production, as supply chains have been disrupted and markets for final products and services have changed. Many private regulators engaged in sustainability governance, such as voluntary sustainability standards (VSS), have had to respond to these dynamics through adjustments to their own operations and business practices as well as to various commitments that they expect the operators they certify to meet. Because many of these operators are located in the ‘Global South’, pre-existing challenges common to producers in developing and emerging economies are likely to be intensified by the impacts of COVID-19. Moreover, the ability for VSS to carry out audits – the primary mechanism used by VSS to ensure compliance with their standards and to safeguard their own credibility – has been particularly impacted by travel restrictions and social distancing measures (Castka et al., 2020). Research

by Auld and Renckens (2021) and Castka, Searcy and Fischer (2020) into these standard-setting bodies' responses to the COVID-19 pandemic show private regulators have taken a variety of approaches as they attempt to balance flexibility for their members in light of the health crisis with maintaining credibility and trust in their standard. Changes to policies for audits were put into place by more than half of the 84 VSS in the study by Auld and Renckens (2021) and all but one of the 21 assessed by Castka et al. (2020), and most commonly included a temporary suspension or postponement of the audit (which implied an extension of the certification), a switch to conducting audits remotely, or both. Much less commonly, some VSS offered substantive adjustments to audits, including flexibility on reporting requirements or, in a few cases, temporarily easing certain rules or providing for COVID-related exemptions to compliance with certain indicators (Auld & Renckens, 2021, pp. 5–6). In nearly all cases, initial certifications for new applicants were postponed as remote auditing was not deemed suitable in these cases (Castka et al., 2020, p. 8). While some adjustments were applied across the board, in several cases private regulators outlined specific limiting conditions for policy adjustments intended to take into account certain risks, such as an operator's prior instances of non-conformance or even country-level risks.

When remote audits were conducted, the auditing procedure was carried out via teleconferencing tools, audio and video streaming and other forms of digital data sharing. For many VSS, the rapid adoption of new technology in response to the crisis represented a stark contrast from their previous modes of operating, during which VSS were seen as “lagging behind technological trends” (Castka et al., 2020, p. 3). Though the measures for remote monitoring are generally established as temporary, Castka et al. note that the technological capacity developed during this period may be well put to good use in ‘technology-enhanced auditing’ after the crisis, to aid, for instance in verifying and monitoring practices that are hard for an individual to assess via a site visit, such as verifying sustainable timber harvest across a large forest area (2020, pp. 14–15).

Nevertheless, the introduction of remote monitoring brings several potential challenges. For the VSS, challenges including difficulty determining the accuracy of



the information that is presented remotely (even video streaming) and data protection issues (Castka et al., 2020). For the participating operators, there are likely to be additional challenges in meeting the technical requirements of the remote audit, including stable and fast internet access, video cameras and specialized computer equipment (Auld & Renckens, 2021; Castka et al., 2020).

Moreover, Auld and Renckens highlight that the changes introduced by private regulators in response to the outbreak of COVID-19 are likely to exacerbate existing inequalities between operators in the Global South and Global North. First, the conditions that were placed on which operators could avail of temporary adjustments to audit policy (e.g. deadline extensions or submission of incomplete data) based on risk assessments are likely to disproportionately limit their use by operators in the Global South. This is especially true when country-level risk assessments are used; for example, a risk-assessment tool used by the Aquaculture Stewardship Council limited the use of remote audits for operators in countries deemed to be high risk – all of which were in the Global South (Auld and Renckens 2021, p. 6). Second, most regulators' lack of flexibility with regard to performance rules (only seven in the study introduced substantive adjustments to audits) is likely to have a disproportionate effect on producers in the Global South that were hit especially hard by COVID-related disruptions, including decreased demand for their exports. Third, the cost of implementing new technology required for remote audits (outlined above) are likely to be particularly prohibitive for producers in the Global South, and only a small number of VSS addressed this challenge by providing financial assistance. Fourth, because many VSS did not introduce modifications for initial certifications for producers looking to enter a program for the first time, these operators were (temporarily) barred entry, restricting their access to certain markets. Fifth, because in many cases, countries in the Global South were affected by COVID-19 outbreaks later than those in the Global North, it is expected that a similar time-lag will occur in terms of countries' recovery, which could mean that producers in the Global North will be able to resume normal business activities earlier than those in the Global South, exacerbating existing inequalities.

Understanding VSS Diversity

When considering VSS as global governance tools it is relevant to understand that the concept of VSS captures a diversity of initiatives. Several studies have been published on understanding this diversity of VSS including studies which focus on the variation in “institutional” design of VSS with a specific focus on the standard-setting process as well as the enforcement of standards. Five streams of research highlight different aspects of VSS.

A first and early stream of research focused on the legitimacy of VSS as transnational governance instruments. To conceptualise and analyse legitimacy in relation to VSS many researchers have either applied a normative/ prescriptive approach to legitimacy (input- and output- legitimacy) or sociological/constructivist approach to legitimacy. Normative approaches to legitimacy tend to refer to a set of objective standards about what may constitute appropriate institutional processes and outcomes. This approach has been further operationalized based on the distinction between input and output legitimacy which Scharpf introduced (Scharpf, 1999). Input legitimacy pertains to the participatory and representative quality of the rulemaking process and can be assessed by examining whether policy decisions were made according to some set of procedural requirements, such as representation of relevant stakeholders, inclusiveness, transparency and deliberativeness. Output legitimacy relates to the democratic quality of the decisions themselves and asks whether the governance system actually succeeds in delivering goods in ways that effectively respond to collective goals and interests of the community to which it is accountable (Scharpf, 1999, p. 6). In this sense, output-legitimacy echoes in many ways the notion of ‘accountability as responsiveness’ (Gulbrandsen, 2004a, 2008; Koppell, 2008), which, as Gulbrandsen describes it, focuses on the ‘relationship between the standard organisation and various stakeholders’ (Gulbrandsen, 2008, pp. 566-67). This notion helps to capture the degree to which ‘power wielders’ meet ‘the expectation of relevant constituencies’, accept ‘answerability on the disposal of their power,’ and act upon ‘criticisms or demand made of them’ (Gulbrandsen, 2008, p. 567). To analyze output legitimacy researchers have focused on complaint systems as accountability mechanisms (Marx, 2014). Some researchers criticized these approaches to

legitimacy as it tends to leave out questions related to the broader societal acceptance of an organisation's policies, structures and operations (Bernstein & Cashore, 2007). This has been addressed by scholars using a more sociological approach to legitimacy and has led to assessing the attitudes and perceptions of the communities in which the institution in question operates. With respect to VSS this form of legitimacy is considered particularly important since private transnational governance systems do not possess any form of de jure (legal) legitimacy and must in effect more actively seek social support and recognition from a wide variety of members, stakeholders and observers (Beisheim & Dingwerth, 2008; Bernstein & Cashore, 2007; B. Cashore, 2002). These approaches have been applied to several VSS most notably the Forest Stewardship Council which we analyze in detail in part 2 (Auld et al., 2008; Gulbrandsen, 2004b).

A second stream focuses on the substance of standards and analyses on what social, economic and environmental aspects standards are set and how stringent these standards are. (Holvoet & Muys, 2004) This line of research also focuses on which international norms, conventions and agreements these standards are based on. Concerning the latter, some authors argue that VSS are firmly rooted in existing international law and in this way do not create any new rules or commitments but operationalise existing commitments to economic operators. (Marx, 2017) This stream of research also focuses on the debate which forces result in standards dilution or weakening on the one hand and standards strengthening on the other hand with a specific focus on corporate co-option leading to greenwashing (Auld, 2014; Bennett, 2018; Grabs, 2020).

A third stream looks into who is involved in the standard-setting process. Some authors argue that VSS are remarkably democratic and inclusive in standard-setting (Dingwerth, 2007), while others are more sceptical and critical; and highlight that key-actors in the standard-setting process like producers are hardly represented in the standard-setting process. (Bennett, 2017a) The importance of inclusiveness in the standard-setting process is recognized by several VSS. Some initiatives have developed procedures to guarantee that the standard-setting process is inclusive following the guidelines developed by the ISEAL Alliance, which is a membership

organization of some VSS which adhere to a set of principles, codes and standards of the ISEAL Alliance. The ISEAL Alliance proposes that *“The standard-setting organisation shall carry out a stakeholder mapping exercise [...] at the beginning of a standard development or revision process to identify major interest sectors and key interested parties, based on the standard’s objectives”* (ISEAL Alliance, 2010, p. 7). In addition, the ISEAL recommends that *‘key stakeholders shall be proactively approached to contribute to the consultations’* (ISEAL Alliance, 2010, p. 7)

A fourth stream of research focuses on how standards are enforced. Here, a significant body of literature discusses the use of independent third-party auditing, highlighting the many deficiencies with the audit approach. (Locke, 2013; Marx & Wouters, 2016; Sabel et al., 2000) Other scholars have complemented this line of research by focusing on another enforcement tool, namely the use of complaint and grievance mechanisms by VSS to continuously monitor compliance with standards. (Marx, 2014; Marx & Wouters, 2016) Concerning audits, studies focused on different aspects. First, the quality of information in auditing has been questioned. Several issues come into play here. Effective auditing requires a well-developed auditing protocol. Auditing relies mostly on a checklist approach. However, the checklist-approach approach has been heavily criticized for not capturing the full picture and being incomplete. First of all, it was argued that this approach does not take sufficiently the voice of local stakeholders into account (Maquila Solidarity Network, 2005). Secondly, it was argued that standardisation leads to routinisation resulting in auditors doing a ‘quick’ job and missing crucial information (Esbenshade, 2004; Sabel et al., 2000) Thirdly, concerning the quality of information, some observers (Locke, 2013) argue that due to an inherent conflict of interests (auditors are paid by the business enterprises) auditors have strong incentives to ‘underreport’ practices and give in on the stringency of their audit reports in order to please the ones who order the audits. Finally, audits are only performed sporadic. Several authors argue that due to the dynamics in value chains it is sheer impossible to comply with all requirements and standards. Locke (2013) provides several case studies and examples of business enterprises which are extremely demanding in the flexibility they request. This flexibility is in part a result of current day consumer markets which allow consumers to ‘assemble’ their own products according to their own preferences, leading to many different types of products which need to be

produced. This directly impacts different standards which are embedded in VSS. The flexibility also implies that workplace practices change very quickly, which is difficult to capture in an annual audit.

The deficiencies of the audit system led to the development of additional forms of monitoring and conformity assessment with a specific focus on complaint and grievance mechanisms. In order to provide continuous monitoring, one needs multiple 'eyes' or auditors which are constantly available to monitor on-the-ground conditions. One way to achieve this is to involve workers and relevant stakeholders in the continuous monitoring of the workplace conditions through complaint systems. Hachez and Wouters (Hachez & Wouters, 2011) refer in this context to 'retrospective accountability', which provides involved and affected parties the means to challenge decisions made by accredited certifiers or conformity assessors (Gulbrandsen, 2008). Hence, several authors have argued that dispute or complaint systems provide for 'second-order monitoring' (Mark Barenberg, 2008) and could strengthen the enforcement potential of private standards (Ascoly & Zeldenrust, 2003; Barrientos, 2003; Marx, 2014). This is also recognized by several leading VSS and the ISEAL Alliance, which develops guiding principles, codes and standards for VSS. One set of principles are the so-called credibility principles, which refer to the presence of complaint systems.¹

A fifth stream of research seeks to bring these elements together and looks at how different components of institutional design combine in the context of specific VSS or provide a comparative analysis of several VSS on their institutional design. (Collins et al., 2017; Fiorini et al., 2019; Marx, 2013) This line of research highlights five findings. First, there is significant variation in how VSS are designed. Second, most VSS have open and consensus-based standard-setting procedures, which involve several stakeholders. Third, many systems have open and consensus-based standard-setting procedures and third-party conformity assessment through auditing, but lack ex post verification tools such as complaint systems. Fourth, several VSS have open and consensus-based standard-setting procedures but no credible ex ante (auditing) and ex post (complaint-based systems) enforcement mechanisms. Finally, relatively few

¹ <http://www.isealliance.org/our-work/defining-credibility/credibility-principles>

VSS have a well elaborated standard-setting and enforcement design. This diversity clearly shows that not all VSS are equal in terms of design and, ultimately, effectiveness. A recent report published in 2020 by the Institute for Multi-Stakeholder Initiative Integrity (MSI Integrity) presents insights drawn from ten years of research (2010-2020) into VSS and the protection of human rights, with specific attention to institutional design. The report evaluates 40 MSIs on the extent to which they meet seven criteria: appropriate human rights scope and mandate; sufficient standards; inclusive and comprehensive internal governance; effective implementation mechanisms; ongoing development and review of the MSI; the level of involvement of affected community; the level of transparency and accessibility of the MSI. Also this report highlights the diversity in design of VSS.

VSS and Global Governance

From a global governance perspective VSS are obviously important global governance instruments in their own right since they aim to regulate global value chains. However, they also have a wider relevance for global governance debates since (1) they potentially play a role in the achievement of the SDGs and (2) they are increasingly institutionalised in wider policy arrangements and public policies. The latter is especially relevant for the EU and the discussions on adoption dynamics. We detail each development.

VSS and SDG Agenda

In September 2015, the United Nations Member States adopted the 2030 Agenda for Sustainable Development which comprised a new set of sustainable development goals (SDGs). The Agenda stipulates that the SDGs “are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental”. Accordingly governments, businesses and civil society are encouraged to promote synergies between their actions towards its implementation. VSS may be expected to play an increasingly important role in complementing

governments' efforts towards achieving the SDGs.² VSS can be, among other instruments, particularly relevant in contributing to the realization of the SDGs, since they operate globally and connect developing countries to developed countries through values chains (Ponte, 2019). The focus on the contribution of VSS to the SDGs results from their potential transformative effect on the ground. There is a very large body of literature on the effects of VSS on the ground and this evidence is not conclusive in the sense that it shows that VSS consistently and always generate positive impacts. However, there is quite some evidence to suggest that VSS do generate a significant impact on the ground. This evidence was recently brought together on the website of Evidensia. Evidensia is an online platform founded in 2019 by ISEAL, Rainforest Alliance and WWF, gathering reliable evidence on the impact of VSS.

It is evident that VSS can directly contribute to achieving SDG 12 on sustainable consumption and production. In essence, they aim to foster more sustainable and transparent practices among actors at all levels of global value chains to help make global production more sustainable (DIE, 2015; WWF & ISEAL, 2017). However, VSS can also contribute to other SDGs. A broad study by the UNFSS (2018) compared the requirements of 122 VSS with 10 pre-selected SDGs, and their targets and indicators. Results showed strong complementarities between VSS requirements and SDG 8 on decent work and economic growth in particular, with 102 VSS requirements being relevant to this SDG. Among these 102 relevant requirements, the ones with the highest coverage all relate to decent work. Half of those are directly linked to International Labour Organization (ILO) standards, meaning that VSS have complementarities not only with SDG 8, particularly with target 8 on labour rights and safe working conditions, but also with the international labour rights regime more broadly. Secondly, the study found that 78 VSS requirements match with SDG 12 on sustainable consumption and production, particularly with targets 4, 5 and 6 on issues of waste management, use of chemicals, training of staff on sustainability issues, and development of environmental and social management systems. Thirdly, 60 VSS requirements were found to be relevant to SDG 15 on life on land, mostly in relation to

² For a general introduction on the SDGs, see the open online course on the SDGs at: <https://www.edx.org/course/the-un-sustainable-development-goals-an-interdisci>.

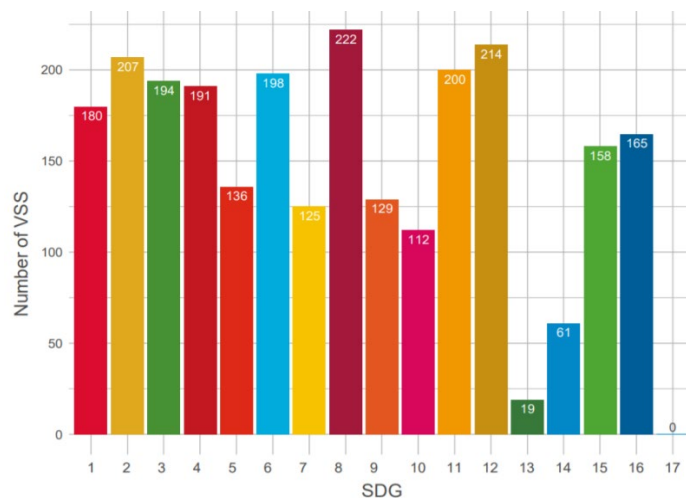
targets 2, 3, 5 and 7, which deal with biodiversity, quality, contamination and erosion of soils, sustainable use and management of forests and nature resources or ecosystems, and protection of wildlife, respectively.

Moreover, in some cases VSS can even be indicators of progress on some SDGs. This is the case for SDG 15 – life on land – target 2 on sustainable management of forests, for example. This target is monitored by the Food and Agriculture Organization of the United Nations (FAO), which uses, among other indicators, the area of certified forests as a measure of progress on SDG 15.2 (FAO, 2019). Although research shows that VSS have the most complementarities with SDGs 8, 12 and 15, they also share similar requirements with other SDGs, including SDG 2 on zero hunger, food security and sustainable agriculture, SDG 5 on gender equality, SDG 6 on clean water and sanitation, SDG 13 on climate action, and SDG 14 on life below water. Lastly, VSS can also help achieve SDG 17 on partnerships for the goals, since they promote multi-stakeholder participation, transparency, knowledge exchange, public-private partnerships and sustainable investments (WWF & ISEAL, 2017). These similarities between the requirements of VSS and the SDGs, their targets and indicators suggest that an increased uptake of and compliance with VSS would contribute to progress in achieving the SDGs.

A recent study by the International Trade Center (ITC), the United Nations Conference on Trade and Development (UNCTAD), the European University Institute (EUI), the University of Amsterdam, and the German Development Institute (DIE), tried to consolidate the research findings on the link between VSS and SDGs and finds a significant overlap between voluntary sustainability standards (VSS) and the Sustainable Development Goals (SDGs). It showed that there is a large number of relevant VSS available for policy makers aiming to create synergies in the SDGs related areas. Using data from the ITC Sustainability Map, a systematic analysis of the interlinkages between 232 VSS and the 17 SDGs and their targets was carried out. The result (see Figure 2) indicates that the three SDGs most widely covered by VSS are SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production) and SDG 2 (Zero Hunger). There are more than 200 VSS linked with each of these goals. The standards are also relevant for other SDGs as outline above.



Figure 2 Link VSS and SDGs



Source: ITC et al. 2020

Institutionalization of VSS and relevance for EU Policy-Making

The potential relevant role VSS can play in global governance to pursue sustainability is also recognized in policy circles. Since VSS aim to govern entire global value chains it enables policy makers to govern behind borders. The way this is applied by the European Union is detailed in a recent book by Anu Bradford (2020) on the ‘Brussels Effect’. She highlights the importance of multi-national corporations and global value chains to spread stricter social and environmental standards across the globe. Through global value chains and VSS the EU and other states and international actors can pursue certain global governance objectives linked to sustainable development. This has led to an increased institutionalization of VSS in public policies (Judge-Lord et al., 2020; Lambin et al., 2014; Marques & Eberlein, 2020; Wyatt & Teitelbaum, 2020). This institutionalisation occurs through the integration of VSS in public policies. This is happening in the context of public procurement, trade policy and specific regulatory initiatives.

Given its size, public procurement can play a significant role in fostering sustainable development. A growing body of evidence suggests that, in recent years, sustainable procurement has developed and been widely adopted by public authorities throughout the world (Andrecka, 2017). The term “sustainable public procurement” (SPP) is used to refer to socially and environmentally friendly public procurement policies. SPP is a

means to ensure that public contracts contribute to governments' broader environmental and social policy goals (Sjåfjell & Wiesbrock, 2015). It grew out of initiatives that focused on Green Public Procurement and, later, on Social Public Procurement in different countries (D'Hollander & Marx, 2014). Initially, several countries started to develop and adopt Green Public Procurement in a desire to green their economies (UNEP, 2017). Later, there was a growing trend to integrate social dimensions into public procurement policies (McCrudden, 2004), along with attention to fair trade elements, which are increasingly promoted by (local) public authorities as a sign of their commitment towards sustainability (UNFSS, 2020). In this development towards SPP, VSS play a specific and increasingly significant role since they are often integrated into the operationalization of SPP practices (D'Hollander & Marx, 2014; Marx, 2019). In public procurement, VSS currently operate on the basis of an elaborate set of rules and procedures to ensure that producers and all actors in the supply chain conform with a given set of social and environmental standards. D'Hollander and Marx (D'Hollander & Marx, 2014) have shown that VSS play a role in sustainable public procurement. However, the development of SPP policies does not imply a straightforward recognition of VSS by governments. In the majority of legal frameworks for public procurement, the principle of equal treatment and non-discrimination prevents contracting authorities from referring to one specific VSS in public procurement tenders, except when there are enough certifiers in the market to assure equal treatment, non-discrimination and fair competition. However, VSS may be referred to indirectly in SPP through the inclusion in public tenders of sustainability criteria that are similar to standards set by VSS, or by making reference to VSS as a form of proof of compliance with the criteria stipulated in tenders, for instance in buying guides.³ As a result, in daily procurement practice, VSS serve as indicators of social

³ See for example, the Buying Green Handbook of the European Commission, available at: <http://ec.europa.eu/environment/gpp/pdf/Buying-Green-Handbook-3rd-Edition.pdf> or the Buying Social guide available at: <https://op.europa.eu/en/publication-detail/-/publication/cb70c481-0e29-4040-9be2-c408cddf081f>. For a full overview of relevant documents, see the Public Procurement Guidance of the European Commission available at: http://ec.europa.eu/regional_policy/sources/docgener/guides/public_procurement/2018/guidance_public_procure

and environmental performance, and may be used as a convenient means of assessing a bidder's credentials.

Moreover, the use of VSS in SPP is present, de facto, at least in some European and Asian countries, since other means of reliable verification of compliance with environmental or social standards are not always available or achievable. In theory, contracting authorities always have to accept other means of reliable verification, and several of these exist, such as bidder declarations that underline commitment towards social responsibility, or a list of relevant measures in the procurement contract itself (UNFSS, 2020). However, while contracting authorities are experimenting with new ways to verify social responsibility and sustainability (Martin-Ortega & O'Brien, 2019), it seems that strong alternatives to VSS remain limited; many contracting authorities lack the expertise and capacity to verify compliance with different sustainability requirements (D'Hollander & Marx, 2014), especially when they buy transnationally. In the case of fair trade public procurement, for example, public buyers rely almost entirely on existing "ethical" VSS to provide the basis for verification of social responsibility and sustainability of suppliers' goods or services (UNFSS, 2020). For certain product groups, such as fair trade coffee or fruits, VSS are likely to be the only proof of compliance available to verify ethical or social criteria. In other words, there are few, if any other, compliance mechanisms that effectively monitor fair-trade criteria across national borders.

Also in trade policy VSS play a role. They are increasingly mentioned in bilateral trade agreements (UNFSS, 2020). They play a role in some market access regulation. There is no general overview available on how many regulations exist which include VSS in market access requirements, but some recent examples show how this is currently done. One example where VSS play a role, albeit indirectly, is the European Union Timber Regulation (EUTR) which was developed in the context of the bloc's 2003 Action Plan on Forest Law Enforcement, Governance and Trade (FLEGT). It aims to tackle illegal timber and the associated trade by using a combination of demand- and supply-side measures, focusing respectively on the banning of illegal timber from the European Union market, and supporting forest governance reforms and law

[ment_2018_en.pdf](#)



enforcement in timber-producing countries. The EUTR requires operators (from non-VPA countries⁴) to comply with a number of stringent due diligence requirements. These obligations apply to timber and timber-based products originating from both inside and outside the Union, in order to avoid discrimination among supplier countries. To verify such compliance, EUTR requires forest operators to exercise due diligence, which means European Union operators are to minimize the risk of illegal timber entering the value chain, and they can be held accountable if they fail to do so. To fulfil these obligations, operators can either develop their own due diligence system or use one designed by a monitoring organization recognized by the EU. Monitoring organizations are private, European-based companies which can be contracted by operators to provide them with the guidance and monitoring required to verify timber legality. Operators can also use their own due diligence systems which should consist of three components: (1) information about the operator's supply of timber; (2) risk-assessment procedures; and (3) risk-mitigation procedures. Under the risk-assessment procedures of due diligence systems, the EUTR encourages the use of VSS, or "certification or other third party verified schemes which cover compliance with applicable legislation". To be recognized in this context VSS need to conduct regular checks, including field visits, have the means to trace timber across the value chain before it reaches the market, and provide controls to ensure that non-verified or illegal timber does not enter the supply chain. Another example from the EU concerns Renewable Energy Directive (RED) which was adopted in 2009. It aims to achieve a number of mandatory targets to promote the use of renewable energy sources, including biofuels. In order to ensure that the EU imports sustainable biofuels, the RED has established a set of sustainability criteria for biofuels, including environmental and social criteria. Recognized VSS provide proof of compliance with those criteria. They certify most of the sustainable biofuels available in the EU market, both those derived from biomass produced in the bloc, and those imported from third countries (European Court of Auditors, 2016, p. 17).

⁴ VPAs are voluntary partnership agreements which the European Union has with some timber-producing countries and which guarantee "green lane access" to the European market for timber originating from those countries.

VSS are also used as export promoting tools. UNFSS (UNFSS, 2020) provides some examples of how VSS are used in export promotion. The report identifies three different types of government engagement in export promotion in relation to VSS. First, governments can make certification a necessary requirement for obtaining an export licence. Second, they can provide financial incentives for certification in order to promote certain export-oriented sectors and products. Third, they can engage with VSS to provide training and capacity-building to producers in order to help them increase their exports.

Finally, VSS play increasingly a role in the operationalisation of due diligence requirements which are included in an increasing number of regulatory initiatives related to food safety, health issues and business and human rights issues. The latter has led to the emergence and development of new Human Rights Due Diligence regulations which will impact producers all over the world (Bright et al., 2020). The importance of VSS for Human Rights Due Diligence is also increasingly being discussed. More in general, as the 4th UNFSS Flagship report details, VSS are increasingly integrated in public policies, sometimes as conditions for market access, to enable governments to regulate ‘behind their borders’ or to operationalize a government’s sustainability policy as is the case in sustainable public procurement.

In each case of integrating VSS in public policy public policy-makers develop recognition systems to decide which VSS will be recognized in the context of a specific policy or regulatory initiative. We return to the importance of recognition systems in the conclusion.

Emergence and Evolution of VSS

When examining trends with regard to VSS we focus on the emergence and drivers for the use of VSS, the evolution of the total number of VSS and the evolution of the use of a specific VSS, namely the FSC.

Emergence of and drivers for VSS development

Marx and Wouters (Marx & Wouters, 2015a) track the emergence of VSS and show that the seeds for VSS and the certification model can be traced back more than 100



years ago. However, the real take-off and proliferation of VSS is of much more recent nature (around the 1990s) and is triggered by distinct factors and pathways. Studies focusing on the emergence of VSS is sparked by many interrelated factors, and that the story about their emergence is partially different depending on the commodities covered and the type of VSS. These factors also constitute current drivers for VSS adoption. We identify five major drives for VSS adoption. Change in any of these drivers will influence adoption of VSS and future trends.

First of all, consumers have grown more conscious of sustainability issues and may adjust their purchasing behaviour in relation to the perceived sustainability of products (Loconto & Dankers, 2014; O'Rourke, 2012). VSS provide information, through the use of labels on the sustainability of products. This consumer consciousness has grown in stages. Early manifestations relate to the wish of consumers to address global inequality and empower local communities in the Global South. Fair Trade certificates are the prime example of VSS which emerged in response to this demand. Later on with the emergence and 'mainstreaming' of sustainable development, consumer demand for sustainable products grew. This was also fuelled by increasing concerns on quality of mainly food products following many different food crises in Europe and US in the 1990s (Ansell & Vogel, 2006). Consumers grew more conscious of food safety risks and adjusted their purchasing behaviour also as a function of the perceived reliability of food. As a consequence, supermarket chains and large producer groups have made food safety a key concern and a differentiating factor in the marketing of food products. For this market differentiation they use labels/certificates. More recently one can observe some degree of label fatigue with consumers potentially leading to less consumer demand for labelled products.

Second, strategies of NGOs, which directly targeted firms through the use of media campaigns and boycotts, have forced firms to take civil society concerns into account, and led them to engage with NGOs and set up VSS. This was especially true in the garment and textiles sectors. From the 1950s onwards, the apparel and footwear industry globalized at an impressive speed (Rosen, 2002). As a result, the industry became organized in global value chains and started outsourcing production to export-driven industrializing countries such as South Korea and Taiwan. In these production



facilities workers often had to work under harsh conditions and labour rights were violated. This led, mainly from the 1980s onwards, to social protest in Europe. Coalitions such as the Clean Clothes Campaign emerged, effectively pressuring companies through public campaigning. Throughout the early 1990s, public awareness on the issue of labour rights also sharpened in the US. In a long sequence of media reports (Bartley, 2003), business enterprises were directly targeted for not upholding labour standards throughout their value chain (Bartley, 2003). They reacted quickly, initially by adopting codes of conduct in which they announced to address labour issues throughout the supply chain. However, instead of silencing protests, these actions generated more inquiry and confronted business enterprises with the fact that they were not living up to their code of conduct. NGOs were particularly distrusting corporations' self-proclaimed adherence to codes of conduct, objecting that such initiatives were *"merely symbolic documents, completely detached from realities 'on the ground' in factories"* (Bartley, 2003). Gereffi, Garcia-Johnson and Sasser note for example that protests and direct actions against brand-name retailers are only 15 years old, but are regarded as extremely powerful tools to force retailers to take environmental, social and safety issues into consideration (Gereffi et al., 2001, p. 64). Marx (Marx, 2008) shows how brand-protection is a major factor in using VSS, especially for firms and brands who are publicly listed on a stock-exchange. The need to protect a brand resulted in increased consultations between business enterprises and several stakeholders and the emergence of multi-stakeholder platforms. For NGOs, this collaboration also offered benefits. Rather than being confrontational towards firms or try to influence firm behaviour via lobbying governments, NGOs are using a co-operative strategy towards firms of which VSS are prominent example. As long as VSS are considered to be a protection of a brand they will be adopted, at least by some firms. Moreover, Van der Ven (2019) argues that the use of VSS by large consumer-oriented retailers actually influences the design and credibility of VSS since VSS targeting these firms specifically want to insulate these large firms from critical scrutiny. Hence, they develop stringent systems to provide more re-assurance to firms that they are complying with sustainability commitments through their value chains.

Thirdly, in some cases, government regulation has been and is a major driver of VSS development and adoption. As food markets, for example, became globalized and food



products circulate extensively from one geographic zone to another the tracing of the origins of such products has become more difficult. Hence, it became more difficult for single governments to keep track of the range of products present on their domestic markets, and to keep up with the assessment of all the risks associated therewith. States therefore tended to place a kind of default responsibility on the food chain actors and required them to develop due diligence systems. An early example of such a due diligence requirement can be found in the UK Food Safety Act of 1990, which provides that food retailers can escape liability for non-compliance with food safety laws if they can demonstrate that they have taken all precautions in this regard. This liability provision arguably prompted a response from the food industry, resulting in the development of VSS (Wouters et al., 2012). This early due diligence approach in the food sector is now spilling over to other sectors and with regard to issues of key importance for VSS such as the protection of human rights. We expanded on the importance of government-VSS interactions in the previous section on the institutionalization of VSS.

Fourthly, VSS have emerged as a reaction to failure of multilateral efforts to address environmental issues such as the failure to reach a consensus on action to be taken to tackle deforestation. As Bartley and Child (2011, p. 445) note, “private efforts have also been perceived by many NGO’s as a way to bypass political roadblocks”. The Brundtland report ‘Our Common Future’ as well as 1992 United Nations Commission on Environment and Development (UNCED) summit in Rio de Janeiro identified deforestation as a key environmental issue. However, the UNCED summit failed to result in a binding commitment to address deforestation. As a result, private forest certification emerged as a tool to address sustainability issues related to forestry. The making and conceptualizing of forest certification pre-dates the UNCED conference (Auld, 2014; Bartley, 2007), but the conference triggered the further development of forest certification which then took off as one the key global governance tools for forest management (Cashore et al., 2004).

Fifthly, many VSS emerged as a reaction to other VSS. For example, NGO-driven VSS are sometimes countered by industry-driven VSS or vice versa, especially as different VSS often compete in the same markets. This has resulted in the emergence of several



VSS focusing on the same commodities. There has been some consolidation in terms of mergers between VSS but there also remains some dynamics in terms of new VSS emerging to certify commodities for which there are already other VSS available. Besides competition between different stakeholders in VSS (NGO versus industry VSS) there are also VSS emerging in different parts of the world which try to accommodate more local or regional sensitivities. However, overall, VSS remain more a Global North phenomenon than a Global South one in terms of development and use of VSS (Schleifer et al., 2019).

All these factors drive the development of the number of VSS as well as the adoption of specific VSS. Concerning the adoption of VSS several studies have focused on describing and analysing where VSS are active (Auld et al., 2008; Marx & Wouters, 2015b; Tayleur et al., 2018a; UNFSS, 2020) Five observations can be made from these studies. First, it appears that VSS are found in all countries, but that there is considerable variation between countries, which can be expected mainly on the basis of the size of the economy. Brazil, China, India, Indonesia, Mexico the United States, for example, are leading in VSS adoption, with more than 40 per cent of all existing VSS active in their respective territories. However, countries with only few VSS active are mostly small island developing States, where lower adoption scores are to be expected, as smaller economies provide fewer opportunities for different VSS to operate. Second, variation in adoption scores appears to more or less align with income levels. Indeed, low-income countries – and, to some extent, lower-middle-income countries – tend to count fewer VSS than high- or upper- middle-income countries. Nonetheless, and as a third observation, variation in adoption scores does not always align with income level or size of economy as is evidence in a ranking made by the UNFSS (2020). Japan, for example, despite being the third largest economy in the world, only ranks 35th in the VSS adoption score, after Honduras and Sri Lanka. The Russian Federation, as the 12th largest economy in the world, ranks only 62nd. The size or income level of an economy is therefore not the only determinant of the extent of VSS adoption within a country. More so, and fourth, some lower-middle-income countries score high, such as Viet Nam (10th position), Indonesia (5th position) and India (4th position). Income level therefore does not necessarily predict the VSS adoption ranking. Rather, the well-scoring lower-middle-income countries are typically

countries that pursue an export-oriented industrialization policy. Fourthly, even some low-income countries score fairly high, such as the United Republic of Tanzania, as aforementioned, and Ethiopia (37th) – just below Japan and above Sweden. It is worth noting that these low-income countries that score relatively high export commodities, such as coffee, which can be certified by multiple certificates. However, and fifthly, some studies identify a ‘stuck at the bottom’ problem for producers in least developed countries leaning that several least developed countries are mostly excluded from VSS dynamics. (Loconto & Dankers, 2014; Marx & Cuypers, 2010; Marx & Wouters, 2015b). We will return to this stuck at the bottom problem in part 2 (FSC case study).

What are some of explanations for this differentiated adoption of VSS? Throughout the literature one can identify several barriers to VSS uptake which might inhibit producers and economic actors, mainly in developing countries, of engaging with VSS. A first barrier is constituted by the costs involved in receiving certification. A second barrier relates to a lack of incentives. A third barrier results from a governance gap. A final barrier refers to political dynamics and possible opposition towards VSS.

A first major hurdle relates to the costs involved in getting certified (Auld & Renckens, 2021; Carter et al., 2018; Marx & Cuypers, 2010). Obtaining VSS can be costly, especially when producers need to undertake major changes in day-to-day management practices in order to comply with standards and requirements. The costs of certification are a function of size, complexity, and whether first-time certification or re-certification is concerned. First-time certification is often substantially more expensive because it often requires an extensive certification process that, in general, consists of several steps. First, the applicant invites an inspector, who conducts a pre-audit or feasibility study on whether the entity under consideration can be certified. This pre-audit is data and time intensive and often involves the making of management plans which outline how the entity will comply with the standards. Therefore, the applicant needs to provide data on all relevant standards. These data are often not readily available, especially in developing countries. Second, a genuine audit is conducted, which assesses the management of the entity against the standards and criteria. This audit also contains detailed non-compliances (NCs) and corrective actions requests (CARs) that are necessary to achieve certification. The third step

involves implementing the corrective actions as well as an assessment of the audit by the applicant. Step four is a new audit, which often contains further corrective actions that need to be implemented. Step five finalizes the process by awarding the certificate for a number of years. One of the major bottlenecks between steps two and five is the lack of technical knowledge to address major deficiencies. The auditor does not play the role of a consultant and audits typically do not contain information on how non-compliances should be addressed. These roles are strictly divided to prevent any conflict of interest. In other words, the auditor points to the deficiencies that need to be addressed by corrective actions, but does not say *how* they can be addressed. Hence, producers interested in certification often have to invest additionally to obtain this technical expertise. Consequently, first-time certification (i) requires an upfront investment that can be expensive (audit fees, corrective actions, etc.), and (ii) requires technical and informational expertise which need to be hired in order comply. Besides the costs of achieving certification there are also costs related to changed production process to adhere to the standards. Second, the costs incurred to obtain certification need, to a degree, be covered by additional revenue. In other words, there needs to be a return on investment. This is not to argue that producers only engage in VSS certification because of economic reasons. Other social and cultural reasons might determine the choice for certification or more sustainable production processes. However, economic return provides an incentive of becoming certified for producers. This incentive can take two forms; either through a price premium or access to (export) markets. When expected economic impacts are uncertain incentives for VSS use decrease (Auld & Renckens, 2021; Grabs, 2020).

Third, several studies have started to highlight the importance of the political and institutional context in which VSS are being used pointing to the possible importance of governance gaps for VSS adoption. In a case study of Indonesia, Bartley (Bartley, 2018) argues that understanding the political context of a country is relevant for understanding the dynamics of forest certification practice. Similarly, a recent literature review of more than 100 studies argued that a necessary but insufficient condition for the use of VSS is national institutions which provide a supporting environment for compliance with standards and regulatory compliance ((Loconto & Dankers, 2014). The idea is that countries which have developed effective and well-functioning

governance structures constitute a better institutional context for the use of VSS. In other words, countries which score well on good governance indicators are hypothesized to have higher degrees of VSS use. The operationalization of what exactly is understood under political institutional context and governance structure remains quite vague but it is clear that in countries where there in general is more rule-compliance the likelihood of the use of VSS increases. A study by Marx and Wouters (2015b), who analyzed the relationship between governance indicators and the occurrence of VSS, show that VSS are more widely used in countries which already have a strong and effective regulatory government system. Entities based in these countries are probably more used to comply with (public/ mandatory) standards and rules. Hence, the 'governance gap' they need to close in order to conform with VSS standards is much less in comparison with those entities situated in countries with weaker regulatory state (i.e., governance structure).

Finally, some authors also identify political resistance as a barrier for VSS adoption. They report that VSS are sometimes viewed as mechanisms that enforce existing power relations, especially by lead firms in global value chains which are often located in developed countries. These firms define sustainability according to their perspective and interests and apply this approach to all suppliers which can generate resistance to the use of VSS (Auld & Renckens, 2021, p. 3; Levy et al., 2016). This re-enforcing of existing power relations might lead to asymmetric adoption dynamics in developing countries which favor large economic operators over small-scale community based operations, has been described in several case studies (see for example Klooster (2005). It might also further intensify developing and developed countries imbalances in VSS dynamics because firms in developed countries are more experienced in complying with such (developed) countries standards or because governments provide financial assistance to their domestic operators to comply (Renckens & Auld, 2019). This developed, developing countries tension or divide might lead to disincentives to certify. Starobin (2021), for example, describes the phenomenon of uncertified producers in Nicaragua, of otherwise certifiable organic food embedded in value chains whose farm products conform to elevated environmental standards. According to how they produce commodities these producers would be eligible for certification. However, they remain either unable (because of costs involved) but also unwilling (because of

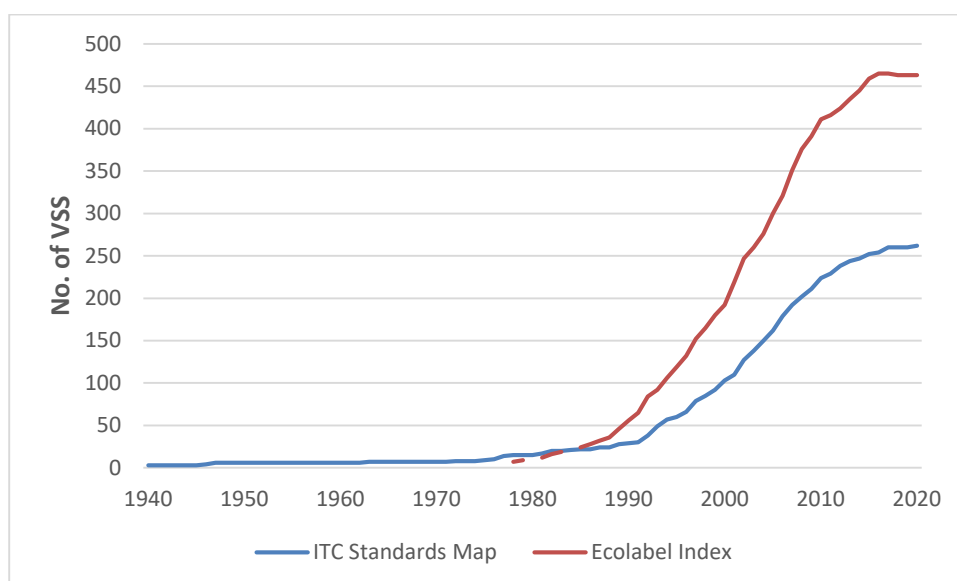
political resistance reasons) to obtain certification. She shows how, as a reaction to certification, these producers advance alternative, more localized, institutional arrangements.



Evolution of number of VSS over time

Trend dynamics of VSS schemes can first be analysed by examining the evolution of their total number globally between 1940 and 2020 (Figure 3). Two VSS databases – the ITC Standards Map and the Ecolabel Index of the European Union – were used, which map out all existing VSS schemes and compile data on their requirements and procedures. The figure is based on the reported establishment date of VSS schemes, and only includes those that were still in existence at the time of making the graph. Therefore, the figure does not reflect the dynamics of establishment and failures of VSS, as analysed by Bloomfield and Schleifer (2017) and as analysed in ecological approaches towards organisational change and development (Abbott et al., 2016). We return to this below.

Figure 3 Evolution in the number of VSS active worldwide, 1940–2020



Source: Authors' calculations based on ITC Standards Map⁵ and Ecolabel Index.⁶

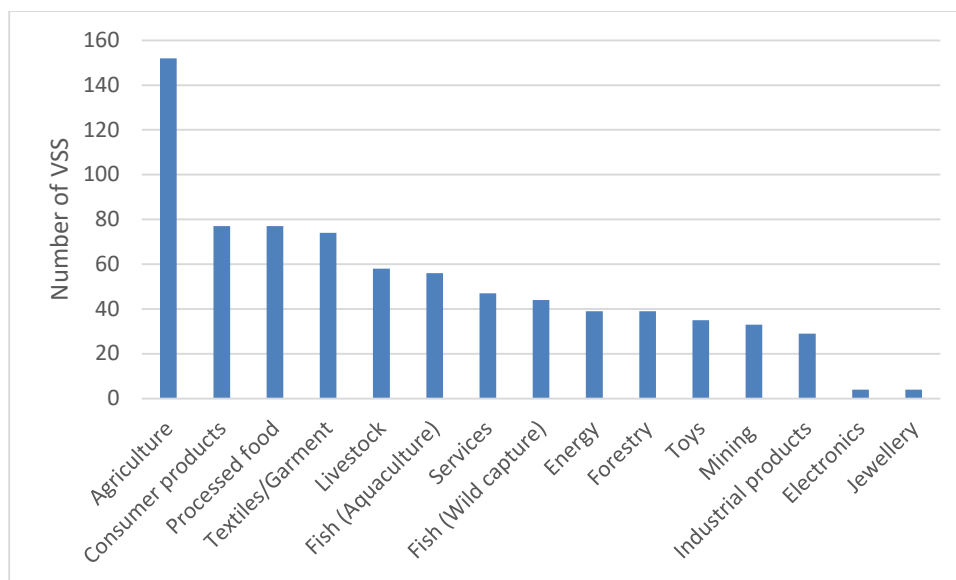
⁵ ITC (n.d.). *ITC Standards Map*. Available at: <https://sustainabilitymap.org/standards?q=eyJzZWxlY3RIZENsaWVudCI6Ik5PIEFGRklMSUFUSU9OIj0%3D> (accessed, March 2020).

⁶ Ecolabel Index (n.d.). *Ecolabel Index*. Available at: <http://www.ecolabelindex.com/ecolabels/> (accessed, March 2020).

Despite the divergence in numbers between the ITC Standards Map and the Ecolabel Index,⁷ two interesting trends can be discerned. First, although the idea of voluntary standards is quite old (Marx & Wouters, 2015a), their proliferation is more recent: VSS truly emerged in the 1990s, and their number grew consistently until the early 2010s. Second, growth in the number of active VSS has been slowing down in recent years, and has even stagnated since 2017, though it is unclear why this has happened. We explore some possible arguments for stagnation.

Growth was driven by the diffusion of the ‘certification model’ across different economic sectors and commodities by the different drivers identified in above. It could be argued that this diffusion of the certification model has reached to a degree its limits and is not applicable to all commodities and sectors. This argument is based on two observations. First, the current population of VSS is concentrated in a rather small number of sectors. Figure 4 describes the number of sectors and shows that most VSS focus on agricultural commodities, textiles and in forestry products.

Figure 4 Distribution of VSS across sectors



⁷ This divergence is explained by different methodologies in the construction of the databases. The ITC Standards Map is typically more restrictive, as it relies on data quality review from independent experts as well as from standards organizations themselves. The Ecolabel Index is more comprehensive, as it aims to map out all existing VSS schemes without review requirements. Hereinafter, data from the ITC Standards Map is used.

Second, based on an analysis of the underlying dynamics of the trend we observe that very few new VSS are created and those which are created fit within the economic sectors in which VSS are already operational. To gain more insight in the evolution in numbers of VSS and on which product categories they focus, a database was created based on the ecolabel index database which mapped the entries, exits and persistence of VSS. The data was collected through ecolabelindex.com with assistance of the Waybackmachine (web.archive.org). All ecolabels present on the latest snapshot made of each year from the end of 2010 till the end of 2020 were listed. A timeseries of presence and absence of the labels was created based on the 11 snapshots in time from 2010 to 2020. This was used as a basis to identify the entries and exits of all VSS on the market. Table 1 gives a summary of the results for each year. It presents the number of VSS which persisted over time, the number of entries in each year and the number of exits in each year. Overall these this evolution shows that the population of VSS is very stable with few exits and entries.

Table 1 Summary of the number of VSS on ecolabelindex.com in each year, the number of entries in each year and the number of exits in each year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
N° VSS	366	423	431	441	458	463	465	464	462	462	456
N° entries	24	7	4	8	1	1	1	0	1	0	0
N° exits		17	2	3	3	1	1	1	2	0	7

The new VSS which did emerge mostly emerged within existing economic sectors such as food products and textiles. We do observe the emergence of carbon and emission VSS which cut across different sectors. This confirms that VSS are mostly confined to specific economic sectors and commodities. This might have several explanations. For some sectors and commodities it might take more time or is very difficult to set up. An example in point is the sustainable management of natural latex cultivation for the production of rubber. There are several environmental advantages to natural latex cultivation: it is a renewable resource, the trees from which the sap is extracted have a relatively high capacity for carbon sequestration, and rubber produced from natural latex is biodegradable (Aidenvironment, 2016; Otten et al., 2020). Nevertheless, natural latex cultivation is prone to many serious and complex sustainability problems,

including deforestation, loss of biodiversity, low wages for rubber tappers and smallholders, poor working conditions, land conflicts and land grabbing, and even the use of child labour (Aidenvironment, 2016; Kenney-Lazar et al., 2018; Otten et al., 2020), which give rise to a need for sustainable rubber governance. Yet, certifying rubber as sustainable remains difficult. Part of this difficulty appears to stem from the extremely unstable price of rubber. When the price of rubber ‘booms’, smallholder farmers rush to clear land to make way for rubber trees. However, the slow growth rate of the trees does not match with the price fluctuations, and smallholders are often stuck with a rubber plantation even when the prices drop and the farmers are forced to operate at a loss (Kenney-Lazar et al., 2018; Otten et al., 2020). The lack of economic feasibility of rubber in these cases sometimes leads to further deforestation to make way for other crops, like palm, or to agroforests being replaced by monoculture plantations (Kenney-Lazar et al., 2018). Another problem is that the production of natural latex sap into rubber typically involves many processing stages and actors, including the farmers who tap the latex, a local sap processing factory to stabilize and process the latex, brokers to sell the processed latex to rubber manufacturers, and finally rubber manufacturers which turn the processed latex into natural rubber goods. This chain of steps and actors can pose challenges for ensuring environmental and social sustainability at every stage, making certification more difficult (Fair Rubber, n.d.). Finally, there is a low global demand for fair rubber. Tire manufacturers purchase nearly three-quarters of the world’s cultivated natural latex and are not interested in paying a premium for rubber that is sustainable produced (Aidenvironment, 2016). Multistakeholder or VSS attempts to alleviate the sustainability challenges associated with natural latex cultivation appear unsuccessful or limited in reach so far. Fair Rubber only certifies a very small number of producers (only 4 in 2016) in order to not dilute benefits until demand increases (Aidenvironment, 2016). Another VSS – the Sustainable natural Rubber Initiative – purported to create a model for sustainable rubber with considerable fanfare and backing from prominent NGOs like the World Wildlife Foundation, yet realities on the ground tell a different story – one that involves deforestation, bitter and sometimes violent land conflicts, coercion and forced relinquishment of farms, and “miserable” local wage levels (Otten et al. 2020, 319).

For those sectors in which VSS are active, growth is slowed down due to a certain



degree of consolidation of VSS in certain sectors. This makes it difficult for new VSS to emerge. This consolidation is driven by two dynamics. First, in certain sectors such as forestry, some VSS have become the dominant VSS, such as the Forest Stewardship Council and PEFC. Second, some leading VSS are merging and collaborating. An example in this respect is the merger of UTZ and Rainforest Alliance which resulted in one of the largest VSS currently operational.

These trends result in the stagnation and consolidation of VSS as multi-stakeholder global governance institutions. This analysis has a few implications for VSS as global governance tools.

First, the use of VSS as global governance tools will be limited to a number of commodities. With regard to these specific commodities VSS do play a role as a global governance tool governing global value chains. Table 2 details the relative importance for a selected number of commodities. For these commodities, VSS constitute a global governance tool to address sustainability issues assuming they generate a significant sustainability impact.

Table 2 Evolution of certification in selected agricultural commodities and forestry

Commodity	Share of certified production volume in total production, 2017 (Per cent)	Growth in share of certified production volume in total production, 2013-2017 (Per cent)	Share of certified production land in total production land, 2017 (Per cent)	Growth in share of certified production land in total production land, 2013-2017 (Per cent)
Bananas	5.6	+88.7	6.0	+28.6
Cocoa	29.4	+58.2	24.8	+114.7
Coffee	26.1	-7.8	23.4	+8.7
Cotton	NA	NA	16.2	+172.4
Palm oil	NA	NA	11.9	+26.1
Soybeans	1.5	+34.3	1.5	-5.9
Sugarcane	NA	NA	7.6	+80.2
Tea	20.9	+71.0	16.4	+77.3
Forestry	NA	NA	10.8	+27.9 ^a

Source: (Willer et al., 2019).

^a For wood, the reference period is 2010–2017

NA= data not available

Second, within these commodities there are many VSS active. As discussed in the section on diversity of VSS, not all VSS are equal in terms of design, credibility and in the end effectiveness. Given, that VSS are increasingly integrated in public policies with regard to the governance of specific commodities it becomes important that actors using VSS in public policy develop recognition systems to recognize credible from non-credible VSS. These recognition systems can take different forms but should put forward criteria on which to recognize credible from non-credible standards based on substantive and procedural grounds. (see UNFSS, 2020)



Part 2: Adoption Dynamics of VSS: A Case Study of the FSC

In order to provide an in-depth analysis of trends in the use and adoption of VSS we conduct a detailed case study and analysis of the Forest Stewardship Council (FSC), the first and prominent certification scheme set up for the sustainable management of forests. Several states have institutionalised the FSC. The increasing institutionalization of FSC is expected to boost its adoption by economic actors (UNFSS, 2020). However, the rate of adoption of FSC certification, here defined as the area in hectares (ha) of forests certified by the FSC, has been stagnating in recent years (2013-2019), despite the increasing institutionalization of the scheme. This contrasts with its earlier sustained rate of growth, and creates an interesting research puzzle. It raises the question as to whether forest certification in general, and the FSC in particular, has reached its limits, or whether there is still potential to expand its coverage and foster sustainable management of forests worldwide. While there are various initiatives governing forest management globally, here we focus on the FSC as a prominent private transnational instrument for sustainability.

A significant deal of the literature on VSS has explored their effectiveness in terms of impact on different sustainability parameters and shows overall positive although limited and context-specific evidence of VSS's contribution to various sustainability issues (e.g., Blackman & Rivera, 2010; DeFries et al., 2010; Oya et al., 2018). Other studies have explored the motivations for VSS adoption (e.g., Galati et al., 2017; Marx et al., 2015; Schepers, 2010) and highlight that adoption is another important dimension of VSS effectiveness, as it is a means to an end to achieve sustainability. However, few studies have analyzed the *dynamics* of adoption of VSS despite their importance for understanding the factors that drive or hamper adoption. We aim to fill this gap by analyzing the adoption dynamics of FSC certification (i.e. the evolution of certified forest area in hectares) at the global level, at the level of countries grouped by income level, and at country level over a 20-year period (2000-2019) based on a newly created dataset. More particularly, we explore the determinants of the adoption dynamics of FSC certification during the period 2013-2019 in order to understand possible reasons for its recent stagnation, and to hypothesize on its potential for further

growth based on selected country case studies. The part of the deliverable finds that the stagnation in adoption observed at the global level hides very distinct dynamics and determinants of adoption at country level, and calls for additional in-depth case studies.

This part is organized as follows. First, the next section grounds the discussion in the literature on VSS and their effectiveness, institutionalization and adoption. Second, we present our case study on the FSC, and the methodology used. Third, we document the stagnation in adoption of FSC certification observed at the global level, and highlight trends across country groups classified by income level. Fourth, we focus on country-level adoption dynamics, and explore their determinants based on selected country case studies. Fifth, we discuss factors influencing the adoption dynamics of FSC certification, and hypothesize on its potential for further growth. The conclusion discusses whether the FSC has reached its limits.

VSS effectiveness, institutionalization and adoption

The FSC is one of the leading VSS globally. Although the effectiveness of the FSC and of VSS in general on a range of sustainability parameters is widely debated, there is some evidence of the positive impact of FSC certification on sustainable development. Evidensia, an online knowledge platform and database that gathers statistical evidence on the sustainability impacts of VSS, contains 40 results on possible sustainability impacts of the FSC across 11 studies. It documents 18 positive impacts (mainly on environmental parameters), 22 neutral impacts, and no negative impacts (Evidensia, n.d.). The results are confirmed by another, similar database, the Conservation Effectiveness platform, which adopts a similar methodology to Evidensia's but focuses only on the sustainability impacts of forest certification. It documents 116 positive results on the impact of the FSC on various environmental, social and economic parameters, 42 neutral results, and 38 negative ones based on 46 studies (Conservation Effectiveness, n.d.). Overall, the literature shows positive, although limited and context-specific, impacts of the FSC on various sustainability parameters.

The potentially positive impact of forest certification has conferred legitimacy on the FSC, which has, arguably, enabled the scheme to be increasingly institutionalized in

public policy. More broadly, this dynamic is captured in VSS research on public-private interactions. It highlights the fact that the FSC operates in different regulatory environments that can range from fully supportive to conflictual, with various hybrid types of interactions in-between. Lambin et al. (2014) characterize public-private interactions as being either complementary, substitutive, or antagonistic. “Complementary” involves states offering an enabling regulatory environment for VSS operations, and VSS reinforcing public regulations or filling policy gaps; “substitutive” refers to governments absorbing existing VSS into public policies or laws by transforming private rules into public ones; and “antagonistic” refers to public and private rules prescribing conflicting practices. Marques & Eberlein (2020) distinguish five types of public-private interactions of which three foster higher adoption rates of VSS. First, VSS can act as “substitutes” for public rules on matters which states are unable or unwilling to regulate, similar to Lambin et al.’s (2014) “complementary” role. Second, states can “adopt and support” VSS by acting as clients of certification for state-led production operations, providing administrative or financial support to domestic firms to comply with VSS, politically endorsing VSS, or enacting policies that recognize VSS as proof of compliance with public requirements (see also Marx, 2018). Third, states can build on existing VSS and “repurpose” them to better fulfil public objectives, similar to Lambin et al.’s (2014) “substitutive” role. Overall, the literature highlights the diversity of potential interactions between public and private rules, and assumes that state support for VSS can drive their adoption (UNFSS, 2020).

Some concrete examples further illustrate the institutionalization of VSS, and of the FSC in particular. An increasing number of free trade agreements promote cooperation and information sharing about VSS (UNFSS, 2020). The EU Timber Regulation (EUTR) (2010), which aims to tackle illegal logging by banning imports of illegal timber on the EU market, imposes due diligence requirements on suppliers. In a due diligence system developed by forestry operators, VSS (such as the FSC) can be used to meet requirements on risk-assessment procedures. The Republic of Korea’s Act on the Sustainable Use of Timbers (revised in 2017), which aims to ban imports of illegal timber, also recognizes VSS as credible proof of compliance with its due diligence and legality requirements, and explicitly refers *inter alia* to the FSC. In 2018, the Government of Gabon made the issuance of all forestry concession permits conditional

on FSC certification by 2022 in order to promote its timber exports (FSC, 2020). A considerable area of state-owned forests is also certified by the FSC. In Croatia, the state owns 71 percent of domestic forests, of which 95 percent has FSC certification (FAO & UNECE, 2020, p. 97).

Consequently, it might be expected that this institutionalization, especially in recent years, would have boosted the adoption of FSC certification. Adoption studies have explored both the motivations for adoption and the degree to which VSS in general, and FSC certification in particular, are taken up across countries in terms of hectares and entities certified. Motivations for forest managers to adopt the FSC include: increased access to high-value markets, price premiums, improved reputation, social benefits, knowledge and skills transfer, more efficient forest management practices, greater consumer demand, improved competitiveness, willingness to contribute to sustainability, and increased capacity to comply with public regulations (Galati et al., 2017; Marx et al., 2015; Schepers, 2010). In particular, studies highlight the prevalence of economic motives for VSS adoption (Galati et al., 2017). In terms of degree of adoption, the literature shows that FSC coverage varies across regions. About 200 million ha of forests across 80 countries from all regions of the world are certified as being managed in conformity with FSC standards. However, most of them are boreal forests in northern countries, which creates a North-South divide (Marx & Wouters, 2015b; Savilaakso et al., 2017; Tayleur et al., 2018b). Marx & Cuypers (2010) link forest certification to development level, and highlight the “stuck at the bottom problem”: forest managers in countries at lower levels of development are less likely to engage in certification than those in more developed countries due to a lack of financial and technical capacity to comply with standards. Moreover, the density of FSC certification (i.e. percentage of certified forest in total domestic forest cover) varies greatly across countries. In particular, forest certification is associated with the primary function of forests, and is concentrated in forests allocated for production (mainly of timber), which also highlights the contribution of export orientation to certification adoption (Auld et al., 2008).

However, studies on the adoption of FSC certification have mostly taken a static approach, and have tended to overlook the dynamics of adoption and their

determinants. Some case studies have explored the impact of specific social, economic and/or political developments, such as the entry into force of new forestry regulations, on the scheme's adoption. Wyatt & Teitelbaum (2020) focus on Quebec's Sustainable Forest Development Act (2010), which transferred forest management from private entities to the Ministry of Forests, Fauna and Parks, and committed to engage with the FSC. The Act's entry into force was expected to foster adoption of FSC certification, but this was hampered by conflicts related to the involvement of indigenous communities. Espinoza & Dockry (2014) focus on the FSC in Bolivia and observe a shift from growing adoption of the scheme between 1996 and 2005 to a decline from 2006 onwards. They ascribe this shift to the withdrawal of support for certification by the Bolivian government and international actors, and to the drop in demand for certified products following the 2008 global financial crisis (see also Ebeling & Yasué, 2009). Beyond these case studies, the literature has generally assumed that FSC coverage is increasing globally and has not systematically assessed different dynamics — and their determinants — that can unfold at country level. This part of the deliverable aims to fill the gap in understanding the dynamics of adoption of the FSC at country level, and to make sense of the recent stagnation in the scheme's coverage, despite its increasing institutionalization.

Case selection and methodology

Case selection. The FSC was founded in 1993 by several environmental non-governmental organizations (NGOs), along with profit-making firms, as a response to rising public concerns about deforestation and repeated failures of intergovernmental efforts to regulate the management of global forests (B. Cashore et al., 2007; Gulbrandsen, 2004a; Klooster, 2010; Pattberg, 2005). Initially dedicated to tackling environmental issues linked to forest management, the scheme has gradually adopted a sustainability approach by including social objectives as well. The FSC is often considered to be the most advanced example of VSS in terms of scope and governance structure, which are important features for VSS to deliver positive sustainability impacts. In scope, more than 200 million ha of forests across 80 countries are certified as sustainably managed according to FSC standards, which represents about 5 percent of the world's forests. Regarding its governance structure, the FSC's

General Assembly has balanced and independent representation of social, economic and environmental, as well as of North and South, interests. In addition, the scheme is characterized by transparent procedures and an open, consensus-based decision-making process, although the actual distribution of bargaining power between different actors is debatable (Bennett, 2017b). Conformity assessments are performed by independent, accredited organizations (i.e. third-party certification), and the scheme includes complaint and dispute settlement mechanisms (Marx et al., 2015). The FSC has also introduced group certification to help small-scale forest managers obtain certification. This makes the FSC one of the most credible and well-established VSS schemes.

The FSC issues two types of certificates. Forest management certificates (FSC-FM) attest that a forest area is sustainably and responsibly managed in line with FSC standards. Chain of custody certificates (FSC-CoC) trace the path of products emanating from certified forests throughout their supply chain, and verify that FSC-certified material is identified or kept separate from non-certified material. Here, we focus on FSC-FM certificates. The certification process of the FSC starts with a forest manager seeking to obtain an FSC-FM certificate. An accredited independent third-party conducts a pre-assessment to verify the eligibility of the applicant. A forest management plan in line with FSC standards is then issued, which the forest manager needs to implement. Subsequently, a first audit is conducted and possible corrective action requests (CARs) are issued that require the forest manager to address specified deficiencies. Next, a certification audit is conducted to decide whether the certificate can be granted. Once the certificate is issued, compliance with FSC standards is verified on an annual basis through surveillance audits. Certificates are valid for a duration of five years, and are renewable based on a re-certification audit.

We look into the adoption dynamics of the FSC's forest management certification (FSC-FM) over a 20-year period (2000-2019). We first describe the evolution of its adoption at the global level and compare it to that of its main competitor, the Programme for the Endorsement of Forest Certification (PEFC), an international umbrella organization founded in 1999 that endorses national forest certification schemes. For the FSC, we disaggregate adoption trends across country income

groups. We then focus on country-level data. To understand the dynamics of FSC adoption, we first focus on countries where the FSC is absent (or has very limited coverage), explore reasons for such absence, and analyze the potential for its establishment in those countries. We then examine countries where the FSC is present and show that the stagnation observed at the global level does not necessarily hold at country level, but hides distinct adoption dynamics. We explore determinants for these dynamics based on selected country case studies.

Data sources. First, quantitative data were gathered on the area certified by the FSC for each country for the period 2000-2019, and on the number of FSC-FM certificates issued during that period. Data for the period prior to 2012 were obtained from the “Wayback Machine”, which has software that can “replay” specifically requested URLs and the contents of ISO-standard Web ARChive (WARC) file containers. Two websites were used: www.fscoax.org (for the period 2000-2007) and www.fsc.org (for the period 2008-2012). The data retrieved took the form of PDFs, graphs, maps and PowerPoint documents. The second source of data for the pre-2012 period was an Excel file received directly from the FSC (FSC, personal communication, March 30, 2020). For post-2012 data, “Facts and Figures” reports were retrieved from the FSC’s website (www.fsc.org). As the FSC reports data on a monthly basis, two sets of data per year were selected (June and December reports). A new database was constructed for the 2000-2019 period, and time series were created to study the evolution of the adoption of FSC certificates. Quantitative data on total forest area per country were also retrieved from the Food and Agriculture Organization of the United Nations (FAO) to calculate certification density (FAO, 2021). In addition, data on the coverage of the PEFC in terms of hectares of forests certified were collected from the PEFC Annual Reviews, available on the PEFC website (PEFC, 2020b). This included data for the month of December of each year between 2005 and 2019 (no data were available prior to 2005) in order to distinguish scheme-specific determinants of adoption dynamics. Second, different data sources were used to interpret the observed country-level dynamics. For each type of adoption dynamics, specific country cases were selected and further explored to identify possible determinants based on different sources such as FSC and PEFC documents, secondary literature and publicly available audit reports. While the identified explanations hold for the selected countries, we

hypothesize that they hold true for others as well, though we stress that further in-depth research is needed.

Global trends in adoption of FSC certification

Forest certification arguably holds significant potential for further growth at the global level. While the FSC and the PEFC together certify around 40 percent of the world's production forests, they also target forests intended for other purposes. Accordingly, together, they certify barely 10 percent of the world's forests (5 percent and 8 percent respectively, with 3 percent jointly through double certification). Hence, one might assume that forest certification is still in its early stages, and will continue to grow, especially as it is increasingly institutionalized.

Global trends represented in figure 5 show that, whereas the PEFC's coverage has continued to grow, that of the FSC has been stagnating since 2013 in terms of hectares of forests certified. While the FSC experienced an almost tenfold increase in its global coverage, from 21 million ha in 2000 to 200 million ha in 2019, such growth mainly occurred between 2000 and 2013 and slowed down thereafter. Figure 6 presents annual growth rates in hectares of certification by the FSC and the PEFC, as well as double certification rates (i.e. areas certified by both schemes). It shows that the annual growth rate of FSC certification saw a significant decline, from an average of 18 percent during the 2000-2013 period to an average of 1.7 percent after 2013, with negative growth rates in 2015 and 2019. By comparison, PEFC coverage grew by an average of 3.8 percent in the 2005-2013 period, and by an average of 4.3 percent after 2013, although it too saw negative growth in 2018. Besides, the number of countries in which FSC-FM certificates are issued grew from 37 countries in 2000 to 80 in 2019, but most of this increase took place between 2000 and 2010. It peaked at 87 countries in 2010 but has stagnated at around 80 since 2011.

Figure 5 Forest certification coverage (ha)

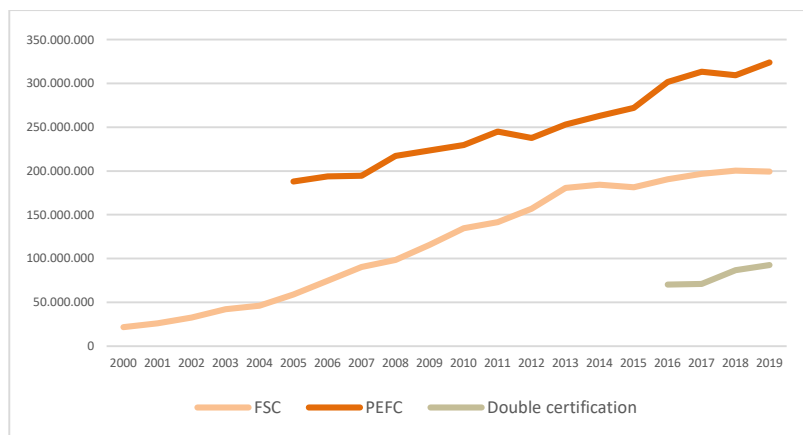
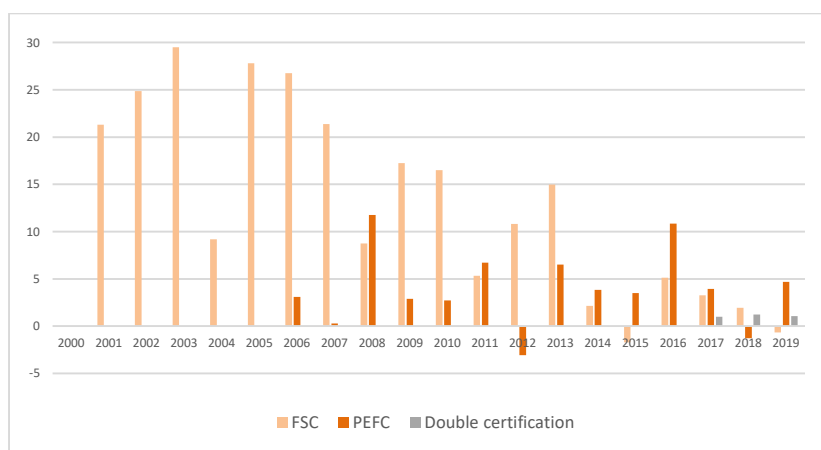


Figure 6 Annual growth rates of certified ha (%)



Beyond the global dynamics of adoption, we explore disaggregated data to understand the evolution of FSC coverage in different types of countries. The literature on VSS in general, and the FSC in particular, points to a “stuck at the bottom problem” (Marx & Cuyppers, 2010), meaning that adoption levels in lower income countries typically tend to be lower largely due to their lack of financial and technical capacity to comply with standards. As a result, those countries remain excluded from high-value markets. The regulatory gap between public regulations and VSS requirements is also typically larger in developing countries than in developed countries. This makes it more difficult for forest managers in the former countries to comply with FSC requirements as they would need to make more significant changes in practices than forest managers in the latter countries (Marx & Wouters, 2015b). To further analyse this, we disaggregate the FSC coverage data by four sets of countries grouped by their income levels (low income, lower-middle income, upper-middle income, high income) (World Bank, 2020)

(figure 7). Two observations can be made from figure 7. First, while the increase in FSC global coverage since 2000 has been driven by mainly high and upper-middle income countries, there has been no significant increase in FSC coverage in high income countries since 2013, whereas it has continued to grow in upper-middle income countries. Figure 8 supports this observation: whereas in the early 2000s, high income countries accounted for most (85 percent) of the FSC's global coverage, upper-middle income countries began catching up, accounting for 42 percent of the total area certified by the FSC globally in 2019. Second, FSC coverage in lower-middle and low income countries seems negligible, as the two income groups together account for barely 4 percent of the total FSC coverage. This potentially feeds into the “stuck at the bottom” problem.

Figure 7 FSC-certified forest area in each income group (ha)

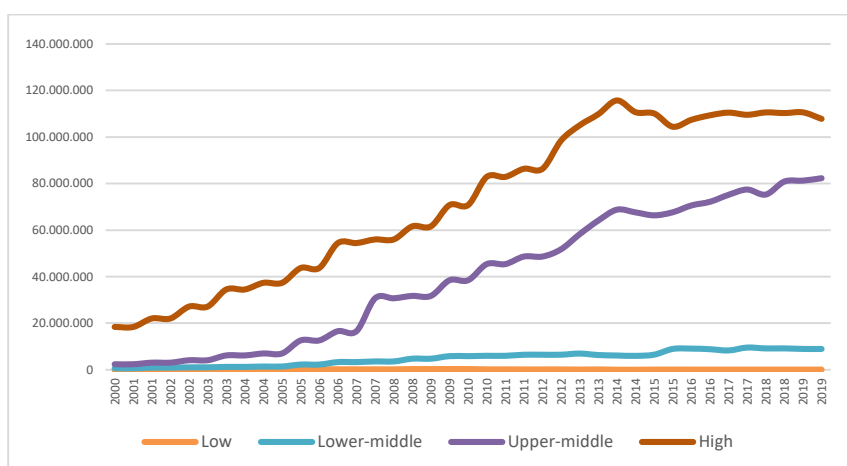
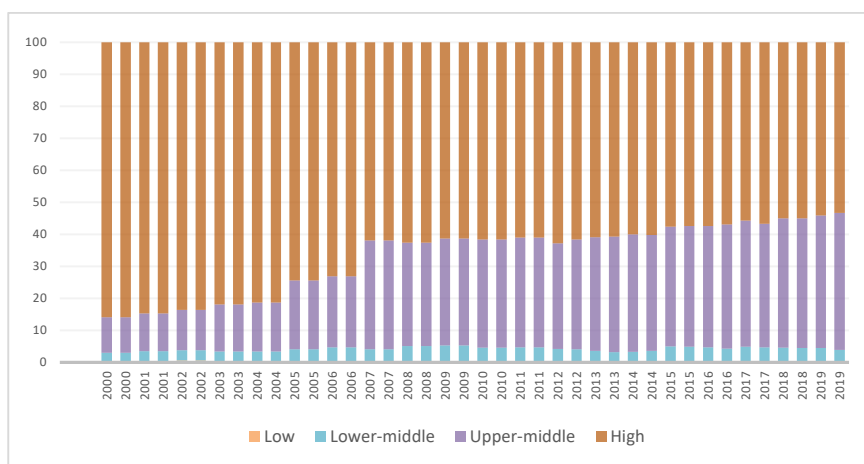
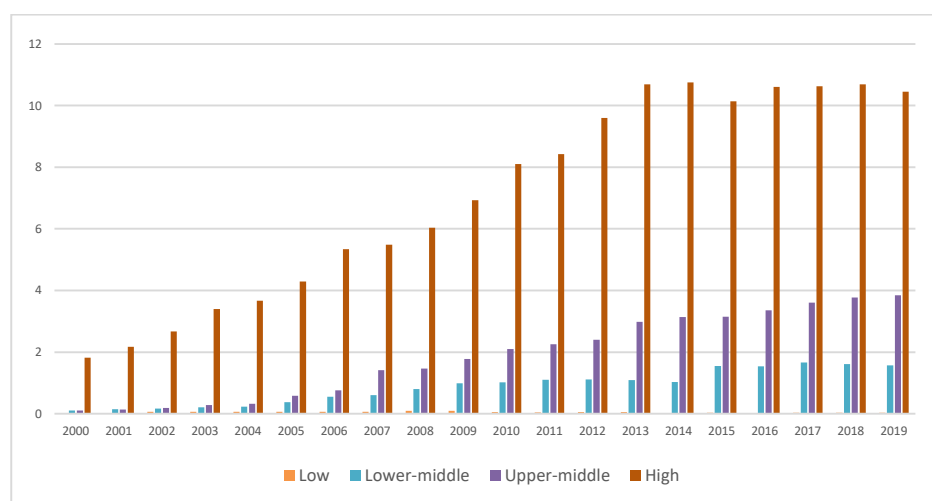


Figure 8 Share of income group in total FSC coverage (%)



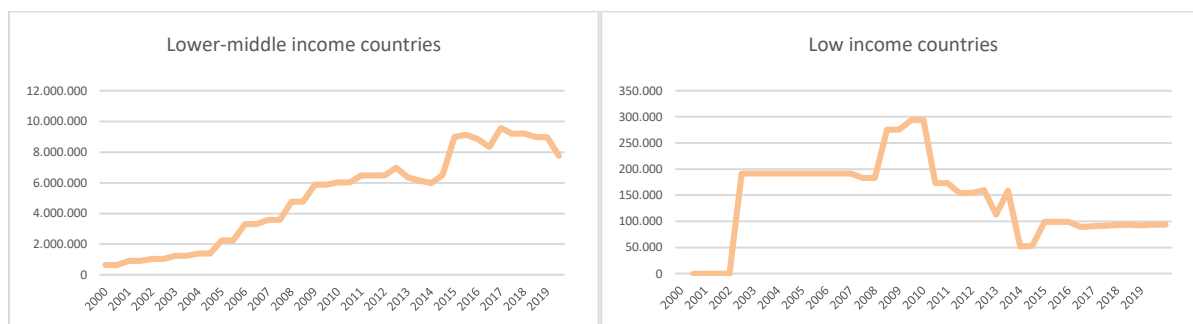
Further documenting the “stuck at the bottom” problem, figure 9 shows density of FSC certification (i.e. share of forest area certified by the FSC in total forest area) in each income group to account for differences in their respective forest cover, which partly determines their potential for forest certification. It shows significant differences between higher and lower income countries. Between 2000 and 2019, the density of FSC certification in high income countries progressed from less than 2 percent to more than 10 percent, but there was no significant increase after 2013. For upper-middle income countries, it evolved from 0.1 percent to 3.8 percent in the same period and continued to show an upward trend. For lower-middle income countries, it grew from 0.1 to 1.6 percent, but in low income countries, the proportion remains negligible, with only 0.02 percent of forests, which shows that low income countries engage only marginally with the FSC.

Figure 9 Share of FSC-certified forest area in total forest cover, by income group (%)



Although the FSC remains active predominantly in upper-middle and high income countries, it has also been expanding in lower-middle income countries. Figure 10 shows that FSC coverage in lower-middle income countries increased tenfold between 2000 and 2019, and that growth continued after 2013, although not after 2015. In low income countries, FSC presence remains very marginal, being active in only three countries: Madagascar, Mozambique, and Uganda. The adoption dynamics unfolding for this income group are mostly driven by Uganda.

Figure 10 FSC-certified forest areas in lower-middle income and low income countries (ha)



While the stagnation in adoption of FSC certification observed at the global level hides different dynamics across income groups, to assume that these trends hold true at country level would be an ecological fallacy. First, many countries in each income group still do not engage (or engage very little) with the FSC. Second, countries from the same income group that do engage may experience very different adoption dynamics, as adoption is influenced by various factors. We disaggregate trends at country level and explore why the FSC remains absent from some countries, and how and why it is being taken up in others.

Trends in adoption of FSC certification at country level

In this section, we analyze the adoption dynamics of FSC certification and their determinants at country level, and hypothesize on the potential for further growth. We first focus on countries where FSC certification has not (or barely) been adopted, and then examine the dynamics of adoption in countries where the FSC is present.

Absence of FSC

A first element contributing to the overall stagnation in the uptake of the FSC in recent years is the lack of involvement of forest managers in forest certification in some countries. The FSC issues about 1,600 FSC-FM certificates across only 80 countries out of a total of 218 (World Bank, 2020). In some countries, the absence of FSC certification is due to the negligible size of their forests. Nonetheless, some forest managers in countries with relatively small forest areas did apply for FSC certification to demonstrate sustainable forest management, but the FSC redirected them to the

International Union for Conservation of Nature (IUCN), which is arguably more adapted for certification of small forest areas for conservation purposes (FSC, personal communication, June 11, 2021). However, forest managers in several countries with significant forest areas (in absolute terms or relative to country size) still do not engage with the FSC, such as in Angola, the Central African Republic, the Democratic Republic of the Congo, Ethiopia, Myanmar, the Sudan, and Zambia. None of them engage with the PEFC either, which excludes competition as a determinant of non-engagement with the FSC. UN Comtrade data on exports of wood products (HS codes 4403, 4407 and 4409) show that these countries are not significant players in international trade in wood, ranking, respectively, 56th, 91st, 102nd, 51st, 72nd, 211th, and 115th out of 218 countries. Involvement in such trade can influence a country's engagement in certification, especially as certification is increasingly becoming *de facto* mandatory on international timber markets. This also raises questions about the voluntary nature of VSS. The export value of wood products from countries with FSC-certified forests is, on average, fifty times higher than that of countries with non-certified forests (Marx & Wouters, 2015b; UN Comtrade, 2021). Moreover, countries that are not engaged with the FSC but have significant forest areas are all low or lower-middle income countries, which feeds into the “stuck at the bottom” problem.

While there is an association between development level and FSC adoption, it does not follow that a low-income country is automatically excluded from certification. Uganda, for example, has been engaging with the FSC since 2002, although it has experienced significant fluctuations in the share of domestic forests certified (from 6.2 percent in 2002 up to 8 percent in 2009, and down to 1.5 percent in 2019). Rwanda also started engaging with the FSC in 2019, and has 3.6 percent of its forests certified. A few lower-middle income countries have also certified a significant proportion of their respective forest areas as of 2019, such as Cameroon (1.7 percent), Eswatini (25.3 percent), Republic of the Congo (11 percent), and Ukraine (44.8 percent). Several factors determine the adoption of FSC certification in some developing countries (i.e. low and lower-middle income countries). First, in some countries, the FSC benefits from support from the government as a large forest owner. The Uganda Wildlife Authority (UWA) (Ministry of Tourism and Wildlife) had certified two of its national parks, covering over 190,000 ha or 6.8 percent of domestic forests (FSC, n.d.),

although the certificates were terminated respectively in 2010 and 2013. The UWA has, however, reiterated its desire to achieve FSC certification for three of its national parks, mainly as a tool to promote ecotourism (FSC, 2018). This example shows not only that forest ownership structure, combined with state support for certification, can drive the adoption of FSC certification, but also that, while certification schemes have traditionally relied on timber markets as incentives for adoption, there is an increasing perceived value of other ecosystem services as drivers for certification as well. Second, the presence of a significant wood export sector can drive the adoption of FSC certification, particularly in countries that export to sustainability-sensitive markets. In such cases, consumer demand for certified sustainable products influences certification adoption on the supply side. For example, the EU is the leading export market for Cameroon timber (UN Comtrade, 2021), and the uptake of FSC certification in Cameroon corresponds to the conclusion of a Voluntary Partnership Agreement (VPA) with the EU in the context of the EU Forest Law Enforcement Governance and Trade (FLEGT) regulation (see also UNFSS, 2020, p.42). Under this regulation, countries can use FSC certificates as proof of compliance with due diligence requirements in order to export timber to the EU market. Hence, a developing country is not necessarily prevented from engaging in certification; other factors may be strong drivers, such as public forest ownership and support for certification, as well as the presence of significant sustainability-sensitive timber export markets.

A second element contributing to the FSC's recent stagnation is the drop-out of some countries from the scheme. In 2019, the FSC was active in only 80 countries, down from 87 in 2010. Countries that were once certified but have dropped out of the FSC as of 2019 include Greece, Kenya, Liechtenstein, Madagascar, Morocco, the Philippines, Venezuela and Zimbabwe, with Madagascar and Venezuela having dropped out of the scheme in the 2013-2019 stagnation period (both in 2018). In these countries, the presence of the FSC involved only a single or a couple of FSC-FM certificates, covering only a marginal proportion (less than 1 percent) of the domestic forest area (except for Liechtenstein). The few certified forest managers might have dropped out due to the cost of adapting practices, the lack of a financial incentive or price premium, a lack of government support, or domestic political instability (as in Venezuela). We exclude the possibility that they might have preferred engaging with



the PEFC, since it was not present in any of those countries (and has never been). An analysis of the FSC's public assessment reports seems to indicate that for Kenya, Madagascar, Morocco and Zimbabwe, certification was not renewed due to non-resolution of major corrective action requests (CARs), possibly because of the costs involved (FSC, n.d.). This would re-confirm the "stuck at the bottom" problem. The future of FSC-FM certification might depend on the scheme's ability to support and create incentives for forest managers in developing countries to engage in and maintain certification.

A third element contributing to the FSC's stagnation involves the marginal coverage and lack of expansion of FSC-FM certification in some countries, such as Austria and France, as well as Mozambique, Nicaragua, Papua New Guinea, Peru and Sri Lanka. In the latter group of developing countries, the marginal presence and stagnation of FSC coverage may be linked to a lack of government support, lack of access to markets or to price premiums, the forest ownership structure, the unwillingness of traditional foresters to engage in certification, or to the "stuck at the bottom" problem. In those countries, FSC-FM certification could disappear due to drop-out cases mentioned earlier, but it might also expand if support and incentives for certification are strengthened. In contrast, in developed countries such as Austria and France, the reason why the FSC is not taking off is mainly due to the forest ownership structure. Those countries do engage in forest certification, but prefer the PEFC: in France, the PEFC certifies 30 percent of forests compared to 0.2 percent by the FSC; in Austria, it certifies 83 percent of forests compared to 0.01 percent by the FSC. This can be explained by the fact that three quarters of these countries' forests are owned by small, private forest owners (FAO & UNECE, 2020). Typically, the PEFC, as an industry-led and more business-friendly scheme, is prevalent in countries where forest ownership is mostly private and fragmented, whereas the FSC is favoured in countries where the share of publicly-owned forests is higher (Auld et al., 2008; Bernstein et al., 2010; FAO & UNECE, 2020, p. 98; Judge-Lord et al., 2020). The future evolution of the FSC in those countries will therefore depend on its comparative attractiveness to small private forest owners. This might induce the FSC to offer additional incentives for adoption, or to make compliance easier by lowering its standards or loosening its compliance assessments. While the latter would foster higher adoption rates, it would render FSC

certification useless in tackling sustainability issues when evidence of the scheme's positive impact is already limited.

FSC presence

In countries where the FSC issues FSC-FM certificates, we have identified six types of adoption dynamics in the 2013-2019 period, which are reported in table 3. However, these six types only account for the direction in the evolution of FSC coverage, and not for its scale (i.e. density of certification). In some countries similar dynamics might occur, but not in the same proportions. Taking into account both the direction and scale of the evolution of FSC coverage we find three types of adoption dynamics: saturation, potential for growth, and risk of decline.

Table 3 Classification of countries based on their dynamics of adoption of FSC certification

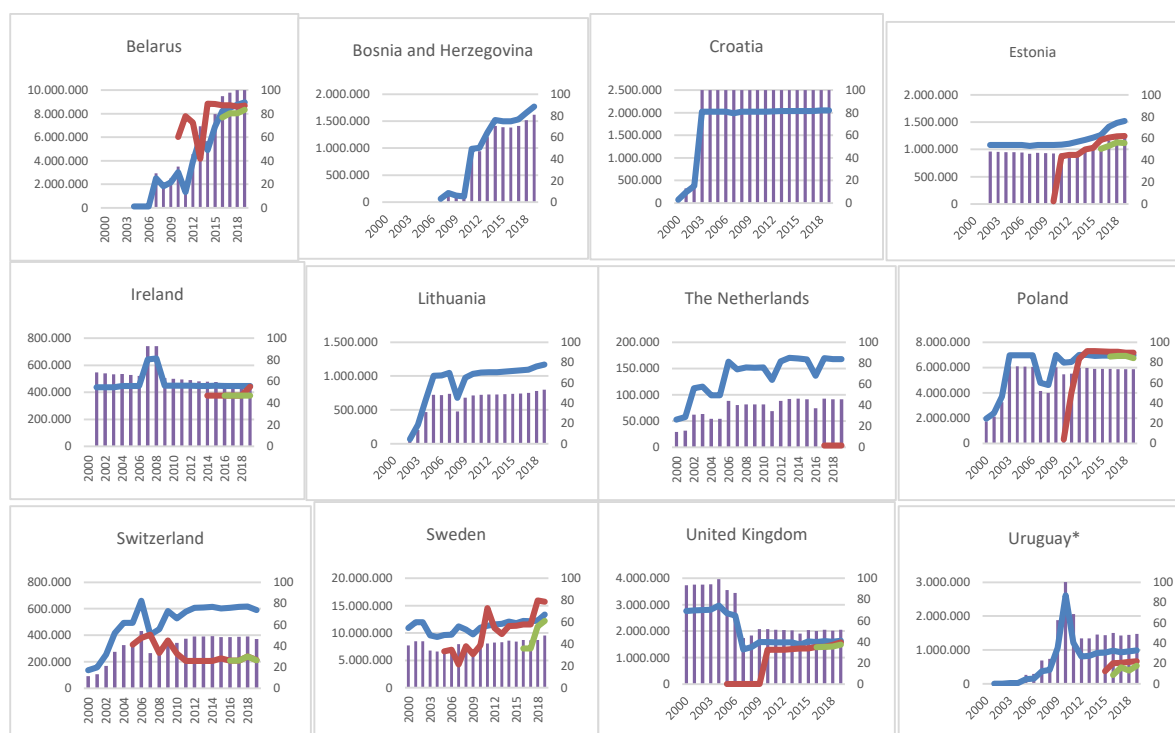
FSC adoption dynamics (2013-2019)	Countries
Steadily growing	Argentina, Australia, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Colombia, Estonia, Finland, France, Germany, Ghana, Indonesia, Malaysia, Mexico, Namibia, Norway, Paraguay, Portugal, Russia, Spain, Tanzania, Ukraine, Viet Nam
Suddenly growing	Chile, Czechia, Guyana, Romania, Slovakia, Turkey
Steadily decreasing	Bolivia
Suddenly decreasing	Austria, Cameroon, China, Honduras, Korea (Republic of), Latvia, Nepal, Papua New Guinea, Solomon Islands, Venezuela
Stagnating	Belize, Ecuador, Guatemala, Hungary, Canada, Costa Rica, Croatia, Denmark, Fiji, Gabon, Ireland, Japan, Lithuania, Luxembourg, Mozambique, the Netherlands, New Zealand, Nicaragua, Peru, Poland, Serbia, Slovenia, South Africa, Swaziland, Sweden, Switzerland, Uganda, United Kingdom, United States, Uruguay
Fluctuating	Cambodia, Rep. of the Congo, Dominican Republic, India, Italy, Lao People's Democratic Republic, Madagascar,

Panama, Sri Lanka, Suriname, Thailand

Saturation in FSC coverage

In 12 countries with either *stagnating* or *steadily growing* dynamics, the FSC might have reached its limits, because a very significant proportion of forests are already certified, in some cases for a long time (see figure 11). This includes Belarus, Bosnia and Herzegovina, Croatia, Estonia, Ireland, Lithuania, the Netherlands, Poland, Switzerland, Sweden, the United Kingdom, and Uruguay, which all have between 45 and 100 percent of their forests certified by the FSC. In those countries, further growth in FSC coverage is unlikely.

Figure 11 Saturation in FSC coverage



Primary vertical axis (lines) = ha certified (Blue = FSC; red = PEFC; green = double certification)
Secondary vertical axis (purple bars) = percentage of forest area FSC-certified. *Uruguay: 2010 data showing 150 percent of forests certified is probably an error in the FSC documents.

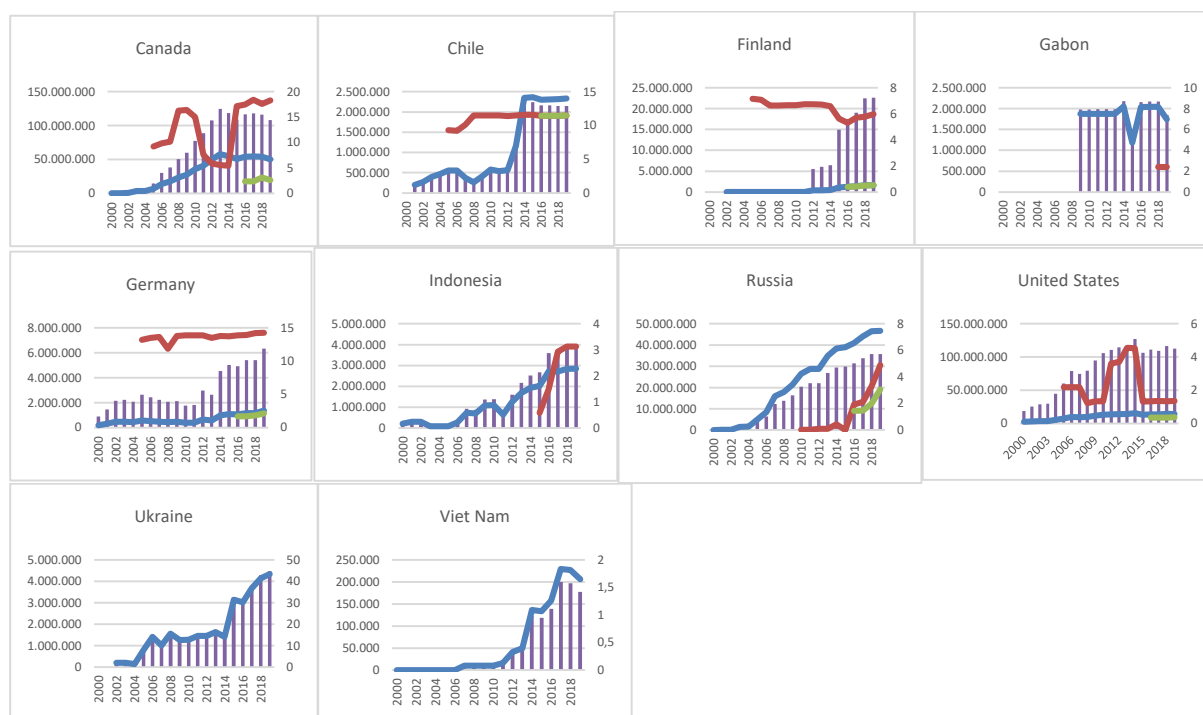
The FSC may experience a decline in those countries if competing schemes, and the PEFC in particular, start gaining ground at the expense of the FSC (a zero-sum game). However, figure 11 shows that in a majority of countries that have a high density of

FSC certification, most of the certified forests have double certification (except for Croatia, Bosnia and Herzegovina, Lithuania and the Netherlands, where the PEFC is absent or marginally present), with the PEFC having appeared when the FSC was already well established and not having replaced the latter. In those countries, FSC certification seems to have little potential for further growth, but is also unlikely to decline in favour of the PEFC.

Potential for growth of FSC coverage

Several countries present opportunities for an expansion of FSC certification (figure 12). These include countries where *steadily* or *suddenly growing* dynamics for the FSC can be observed, as well as some countries with a *stagnating* dynamic that do not present a potential saturation of FSC coverage, as set out in the previous section. We explore different cases below.

Figure 12 Growth in FSC coverage



Primary vertical axis (lines) = ha certified (Blue = FSC; red = PEFC; green = double certification)
Secondary vertical axis (purple bars) = percentage of forest area FSC-certified.

A number of countries have experienced sudden or steady growth of FSC certification, covering an increasingly significant proportion of domestic forests. In Ukraine, for

example, there has been consistent growth and an even more sustained increase since 2014, with about 45 percent of the forests certified in 2019, and there is scope for further expansion of the FSC's coverage. Similarly, although on a smaller scale, in Indonesia, the scheme's coverage has increased steadily, from 204,000 ha in 2000 (0.2 percent of forests) to about 2,950,000 ha in 2019 (more than 3 percent). However, the PEFC is also increasingly active in the country, covering about 4 percent of forests, without double certification. While FSC certification has potential for further growth in Indonesia, it might face competition from the PEFC, and market forces will be a determinant for the diffusion of both schemes.

There is potential for further growth of FSC certification even in countries where the PEFC has historically been predominant. In Finland, for example, the PEFC covered almost 100 percent of the forests in the early 2000s when the FSC was virtually absent. However, FSC certification has been picking up since 2012, and now covers about 7 percent of the forests, mostly through double certification with the PEFC. Similarly, in Chile, the PEFC certified 3 to 4 times more forests than the FSC between 2005 and 2012. However, FSC certification expanded rapidly in 2013 and 2014, covering about 13 percent of Chilean forests in 2019 (70 percent of which involves double certification) and exceeding PEFC coverage. These trends show that the predominance of the PEFC in a country does not prevent the adoption of FSC certification. They also show that some forest managers are interested in obtaining double certification.

In some countries, governments have adopted measures that support certification, thereby enabling the FSC to expand its reach. In 2011, the Government of Viet Nam adopted a decision to grant a lump sum to support (VND100,000 or approx. USD4.3 per ha) forest managers who agree to sustainable forest certification, which entered into force in 2012 (Viet Nam Law & Legal Forum, 2011). Following this, FSC coverage in Viet Nam increased from about 15,000 ha in 2011 to more than 200,000 ha in 2019 (or about 1.4 percent of Vietnamese forests). Similarly, in Gabon, the President announced in September 2018 that forestry permits would be withdrawn from all forestry operators that are not certified by the FSC by 2022, but the impact on FSC coverage is not yet apparent.

Lastly, there is considerable scope for growth of FSC coverage in countries with



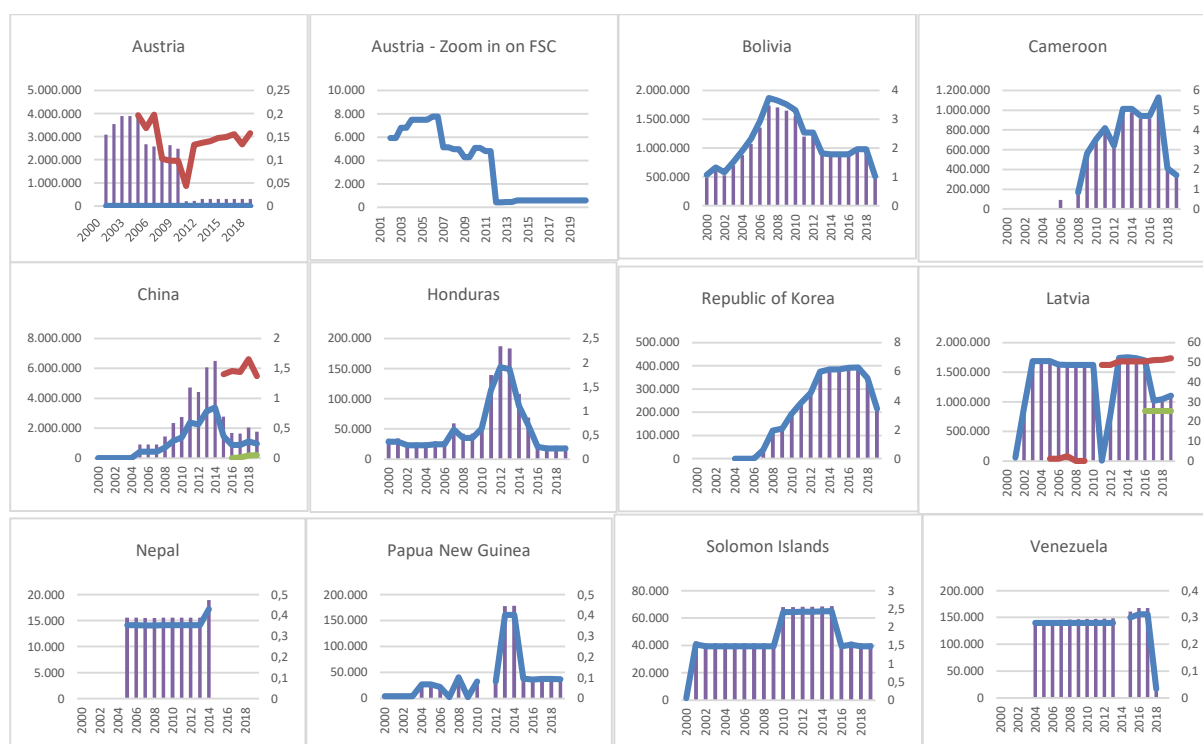
significant forest areas, and more specifically in major wood producing countries such as Canada, Germany, Russia and the United States. While some forest managers may seek FSC certification for non-trade-related reasons, such as biodiversity conservation, most forests currently certified by the FSC are production forests dedicated to wood trade (FSC, personal communication, June 11, 2021). In Russia, FSC certification has been growing steadily since 2002, and now covers about 5.7 percent of the domestic forest area, with potential for further growth. Similarly, in Germany, the scheme's coverage has steadily increased since 2011 extending to 11.9 percent of the forests in 2019. In the United States and Canada, the two largest wood producers globally, the FSC certifies 4.7 percent and 14.4 percent of forests respectively. Although there is potential for further growth, FSC coverage has been stagnating in both countries since 2015. Considering the share of both these countries in the total number of hectares that the FSC certifies worldwide (together accounting for 33 percent of FSC global coverage), their stagnation is a strong determinant of the stagnation observed in FSC coverage in high income countries (figure 7) as well as at the global level (figure 5). In Canada, the stagnation might be explained by an increase in the PEFC's coverage, possibly competing with the FSC. In the United States, both the FSC and the PEFC have seen coverage stagnate since 2015, probably because United States exports of timber are not highly dependent on sustainability-sensitive markets. Rather, its main export market is China, which accounts for one third of the total export value of United States wood products (HS codes 4403, 4407 and 4409) (UN Comtrade, 2021). Further in-depth research is needed to understand the reasons for stagnation of FSC certification in both these countries. In major wood producing countries, FSC coverage might expand if there is support from their governments and if demand for sustainable products grows in their main export markets.

Data published by the FSC for 2020 and 2021 show that following the 2013-2019 stagnation period, the FSC's coverage has been increasing once again. Its global coverage amounted to 226 million ha in mid-2021, compared with 200 million ha in 2019. Russia's increased adoption accounted for half of this growth (13 million ha), which supports the hypothesis that FSC certification has further potential for growth in major wood producing countries.

Risk of decline of FSC coverage

Since 2013, FSC certification has been declining in 11 countries (figure 13): Austria, Bolivia, Cameroon, China, Honduras, the Republic of Korea, Latvia, Papua New Guinea, Solomon Islands and Venezuela, as well as Nepal, which eventually dropped out. We look into some of those countries' dynamics to identify potential factors undermining growth in FSC certification.

Figure 13 Decline in FSC coverage



Primary vertical axis (lines) = ha certified (Blue = FSC; red = PEFC; green = double certification)
Secondary vertical axis (purple bars) = percentage of forest area FSC-certified.

One reason for the decline in FSC coverage is competition from the PEFC. The Republic of Korea, for example, engaged with the FSC in 2006, and the scheme experienced significant growth until 2013, when it stagnated (to about 6 percent of domestic forest cover) before declining in 2018 and 2019, from almost 400,000 ha to barely 36,000 ha in the second half of 2019. This massive decrease in 2018 and 2019 was mainly due to 6 forest managers (out of 8 in total) dropping out of the scheme. In parallel, the PEFC entered the country in 2019, directly certifying 450,000 ha without double certification with the FSC. We observe that the certificate holders who dropped

out of the FSC were mostly public agencies that chose to certify their forests against the PEFC's standards instead (FSC, n.d.; PEFC, 2020a). China is a second example of the FSC declining, possibly also due to competition. Between 2004 and 2014, the FSC's coverage grew steadily in China, reaching 3.4 million ha (1.6 percent of forest cover), before dropping to about 1 million ha (0.5 percent). The decline in 2015 and 2016 corresponds to a fall in the number of certificates issued in China from 70 to 63, and can be attributed to the drop-out of a few certificate holders who manage large forest areas. Meanwhile, the PEFC appeared in China in 2015 and certified about 6 million ha of forests. Large forest owners, which we can easily assume to be public actors, since 59 percent of forests in China are state-owned (FAO, 2020), may have shifted from the FSC to the PEFC. A third example of the FSC's declining coverage due to competition and insufficient support from the government is Austria. There, the FSC issued its first forest management certificates in 2002 as some forest managers sought to respond to increasing consumer demand for sustainable wood products. However, the FSC was perceived as interfering in Austrian forest management and the country developed its own public certification scheme that was later endorsed by the PEFC (FSC, personal communication, March 30, 2020). As a result, the FSC's coverage dropped from about 5,000 ha in 2012 to a mere 500 ha from 2013 onwards. The cases of the Republic of Korea, China and Austria show that adoption or enlargement of certification schemes, such as those of the FSC, can be affected by competition from other schemes, but also by forest ownership structure and by interactions with governments. Reasons for shifting from the FSC to the PEFC may include lower costs of certification, less demanding requirements, or better lobbying of governments by the PEFC. With regard to this latter, VSS may be viewed as interest groups that compete in accessing and lobbying public policymakers (Renckens, 2020). In the Republic of Korea, the Act on the Sustainable Use of Timbers recognizes both the FSC and the PEFC as proof of compliance, along with due diligence and legality requirements for timber imports. Given the significant drop in FSC coverage in 2018 and 2019 and the simultaneous emergence of the PEFC, the PEFC may arguably have lobbied the Korean government to switch from the FSC to the PEFC to certify the management of public forests.

A second reason for the decline in FSC coverage in some countries involves political



and economic developments unfolding both domestically and internationally, as the case of Bolivia illustrates. In 1996, the Bolivian government enacted Ley 1700 — a progressive forest law that promotes sustainable management of forests with standards similar to those of the FSC. It also established Forestry Superintendence as an independent body to approve forest management plans. Following that, and with the support of international development agencies and NGOs (Nebel et al., 2005), the FSC was adopted and grew steadily until 2007, covering over 1.8 million ha (3.5 percent) of forests. Certified timber was mostly exported to Western sustainability-sensitive markets, where the demand for certified products was increasing. After 2007, however, FSC coverage declined steadily, and accounted for barely 1 percent of the country's forests in 2019. This decline can be explained by several political and economic factors at the domestic and international level. Politically, from 2006 onwards, there were changes in government policies relating to the management and use of forests. Evo Morales came into power in 2006 and enacted agrarian reforms that ran counter to the diffusion of the FSC (Pacheco et al., 2016). He replaced the independent Forestry Superintendence by the government-led Forest and Land Authority, which lacked enforcement capacity. In such a weak regulatory environment, forest managers were not encouraged to upgrade their practices. Economically, at the international level, the 2008 financial crisis caused a reduction in Western demand for certified products, undermining the added value for Bolivian forest managers of being certified (Espinoza & Dockry, 2014). Simultaneously, demand for timber from less ecologically sensitive countries, in particular from China, grew significantly. This, combined with domestic economic factors such as the latent issue of illegal logging, which creates market distortion, deterred forest managers from engaging in certification. In short, the decline in the adoption of the FSC can be driven by political factors, including non-supportive policies and a weak regulatory environment, and by economic factors such as the loss of export markets, growing demand from non-sustainability-sensitive trade partners, and market distortions that weaken the incentive for forest managers to maintain certification. In addition, the adoption of the FSC in one country can deter its adoption in another country if the two countries are rivals (e.g. United States–China trade war).

A third reason for the decline in the FSC's coverage might be its increasingly stringent



standards and enforcement mechanisms. Judge-Lord et al. (2020) studied the evolution in the stringency of forest certification schemes in the United States during the 2008-2016 period, and found that the FSC had become more stringent in terms of prescriptiveness (i.e. presence of substantive and mandatory features such as performance thresholds) and policy settings (i.e. substance of mandatory features). Increased stringency potentially undermines the ability and/or willingness of certified forest managers to maintain certification, yet it is essential to reach sustainability goals. From our dataset, we do not observe a decrease in FSC coverage in the United States for the 2008-2016 period despite its documented increased stringency, which might signal a commitment to a stronger sustainability pathway. Other scholars such as Cerutti et al. (2011) who studied the FSC's operations in Cameroon observed less stringent standards, leading to expectations of an increase in FSC certification. Indeed, our data shows an increase in FSC coverage in Cameroon between 2006, when the FSC issued its first FSC-FM certificates, and mid-2009, the end of the case study period. Increased stringency of the FSC's standards and enforcement mechanisms is necessary to achieve sustainability goals but its impact on the scheme's adoption most likely vary across countries. Besides, forest managers in lower income countries are likely to be more sensitive to changes in the scheme's stringency than those in higher income countries. Further research on this hypothesis is warranted.

Discussion

The country-level analysis of the adoption of FSC certification shows that, although the scheme seems to have reached its limits at the global level, very different dynamics are unfolding across countries. In some, the FSC is likely to have reached its limits, whereas in others, there is still potential for growth. In yet others, the FSC's reach has been decreasing and risks a further decline. Based on our analysis of several specific cases, three underlying forces were found to influence the adoption of FSC schemes at country level : competitive forces, government forces and market forces.

First, competition, mostly from the PEFC, can limit the further adoption of FSC certification. In some countries, a zero-sum game between the FSC and the PEFC has been unfolding, whereby one scheme wins and the other loses, as in the Republic of Korea, where holders of non-renewed FSC certificates shifted to PEFC certification.



Whether the FSC or the PEFC takes the lead in zero-sum games depends on their recognition by governments, their ability to lobby public agencies, the net benefits they provide to standards adopters (e.g. price premium, market access, support and training), and the relative ease of compliance with their standards. With regard to this latter, the competitive pressure from the PEFC might, theoretically, induce the FSC to lower its standards and relax its conformity assessments, thereby fostering a race-to-the-bottom in forest certification which would render the schemes useless to achieve sustainability goals. However, Judge-Lord et al. (2020) show opposite developments, which might lead to a bifurcation in the forest certification market, whereby the PEFC has wider coverage but is less stringent and the FSC has more narrow coverage but acts as a gold standard. Thus, the stagnation observed in the FSC's global coverage in the 2013-2019 period might be an indication of commitment to a stronger sustainability pathway. However, the presence of competitive forces does not necessarily constrain the FSC's potential for growth. In some countries, such as Finland and Chile, the FSC and the PEFC are complementary, and have been evolving together through double certification, fostering a positive-sum game. This shows that there is an interest in double certification, which might provide access to more markets. However, there is a risk of exclusion of forest managers in developing countries who lack the capacity to obtain double certification. In Indonesia and Malaysia, both the FSC and the PEFC are active, but there is little or no double certification, possibly because of the additional costs involved, the extra administrative burden, and/or difficulties in complying with two different schemes. Accordingly, in developing countries, competition between the FSC and the PEFC is expected to be stronger than in developed countries, with access to markets remaining more constrained than with double certification. The absence of double certification in some countries may also stem from the preference of export markets for one scheme or the other. One way to increase double certification and ensure broader access to markets is for mutual recognition between both schemes and by international markets.

Second, government forces may either support or undermine the adoption of FSC certification. The cases of Austria and Bolivia clearly show that the withdrawal of public support for the FSC significantly undermined its adoption. In Viet Nam, on the other hand, the government's financial support for FSC certification resulted in its increased

adoption. Indeed, government intervention can be a driver for VSS adoption, as the state itself can be a client of certification, or it can directly support certification. In addition, governments' wider regulatory conditions in which VSS operate may constrain or facilitate VSS operations. However, the institutionalization of VSS alone falls short in explaining the dynamics of adoption, as illustrated in the Korean case; as noted, interactions with other forces, such as competition, are also a determinant.

Lastly, market forces may also influence adoption of FSC schemes. Even in countries where the government is hostile to or non-supportive of forest certification, the FSC might expand, depending on the demand for certified products (mainly timber, but also other tradeable forest products, such as carbon). If certification effectively provides increased access to sustainability-sensitive markets, and possibly to price premiums, forest managers might engage with the FSC as a means of gaining greater market access. The impact of market forces depends on the degree of dependence of a country's exports on sustainability-sensitive markets. For example, one reason why FSC coverage has been stagnating in the United States may be because its major timber export market is China, which, arguably, is not a sustainability-sensitive market. In contrast, the FSC established a presence in Cameroon following the entry into force of a VPA with the EU — its main export market — in the context of the EU FLEGT Regulation, which seeks to promote sustainable forest management. This demonstrates that major players, both exporters and importers, in international wood trade hold significant power to drive the adoption of forest certification.

Overall conclusion

VSS have emerged as one of the most researched multi-stakeholder global governance instruments. In this deliverable we detailed how they emerged and developed with the aim of understanding some of the major developments. We showed that the number of VSS has increased rapidly over the last decades but now is stagnating. As a result we see a consolidation of the number of VSS. This consolidation takes place with regard to specific commodities. For these commodities they constitute a global governance tool which is also increasingly integrated in public policies. We expect this trend to continue over the coming years.

However, this consolidation in certain commodity sectors and institutionalisation in public policy does not necessarily imply that VSS in these areas will become the most significant global governance tools. We explored this issue via a detailed analysis of the adoption of the FSC across the world and across time. Understanding the adoption of VSS in general and the FSC more specifically is an important component of analyzing the overall effectiveness of VSS as a global governance tool. One could argue that the effectiveness of VSS is determined by the impact of VSS on the ground as well as by the uptake or adoption of VSS. VSS that create positive impacts but are barely adopted do not significantly contribute to increased sustainability.

Considering the recent stagnation observed at the global level in the adoption of the FSC in terms of hectares of forests certified, we investigated whether the FSC has reached its limits. It finds that this global trend hides distinct dynamics across countries' income groups: while the stagnation in global FSC coverage holds true for high income countries, the FSC is gaining grounds in upper-middle income countries. In lower-middle income countries, there are also positive signs of evolution for the FSC. Low income countries remain however "stuck at the bottom" as they engage only very marginally with the FSC.

Second, analysing FSC's adoption dynamics at country-level, we distinguished between countries in which the FSC is (largely) absent and those in which it is present. In the former set, the FSC still has potential for growth in some countries. In particular, if financial and technical support for certification is strengthened in low developed

countries, the “stuck at the bottom” problem might be overcome and the FSC could expand. In other cases, the FSC might not expand further, such as in high developed countries with private and fragmented forest ownership. In the latter set of countries, where the FSC is present, we also find different possible future evolutions. In twelve countries, the FSC has probably reached its limits as a significant share of domestic forests are already certified. In other countries, the FSC is showing upward trends in its coverage, showing potential for further growth, especially where governments adopt supportive measures as well as in major wood producer countries despite the predominance of the PEFC. Lastly, in several countries, the adoption of the FSC is showing a downward trend and risks further decline due to competition from the PEFC, undermining political and economic factors, loss of export markets, and changes in the stringency of standards.

Overall, three types of forces influence the dynamics of adoption of the FSC and of VSS more generally: competitive forces, government forces and market forces. The interactions between these forces determine the potential for future growth in VSS adoption at country-level. For the FSC in particular, future growth can be expected in high and upper-middle income countries that are strongly involved in wood trade and that benefit from a supportive regulatory environment if certification presents increased benefits for forest owners, or if export markets become more demanding in terms of sustainability requirements. In lower income countries, some barriers for engaging with forest certification remain. These can be overcome if technical, administrative, regulatory and/or financial support from the FSC and from governments is improved. Further research should explore more in-depth case studies where the FSC has been successful in low developed countries in order to understand enabling factors for forest certification to reach most relevant areas.

In sum, this deliverable points to a few relevant findings with regard to multi-stakeholder initiatives and VSS as global governance tools. First, they constitute a relevant global governance tool for the governance of global value chains for specific commodities. Second, we observe some stagnation in the number of VSS but also a consolidation which probably means that some VSS will continue to grow and become significant global governance institutions. Third, their integration in a range of public



policies and other global governance instruments targeting global value chains and economic actors will most probably contribute to a further consolidation of VSS as global governance tools. This is, fourthly, confirmed by our case study of the FSC which provides some evidence that the way in which governments interact with VSS influences their adoption. Fifth, our in-depth study of the FSC also reveals that although VSS operate truly globally there are distributional differences across the globe. Some countries are less involved in global VSS dynamics. This is a point of concern from a distributional perspective but can also be addressed to a degree by providing support for VSS adoption.

These findings hold some relevant policy-implications and implications for further research.

First of all, we observed that VSS are increasingly integrated in public policies, especially in the European Union. This integration is based on the assumption that VSS deliver on their stated objectives. This is subject to debate and further research is necessary to provide more clarity on this. In this deliverable we did not engage in a full fledged meta-analysis on different types of impact studies. Such meta-reviews are available and they show some positive impact on some relevant sustainability parameters but more research is needed to further substantiate the assumption especially also in relation to the question of which VSS perform better in terms of sustainability impacts.

Second, the integration of VSS in public policy requires policy-makers to select a number of VSS which are relevant for a specific policy initiative. In this report we showed that there are many VSS and that they differ significantly in design. The mechanisms through which policy initiatives and instruments recognize will become increasingly important. Currently, there are several recognition systems in place. Investigating possible convergence and strengthening of recognition systems should be a policy priority. These recognition systems should take into account several aspects including the institutional design of VSS, evidence on their sustainability impact, costs related to obtaining specific VSS and potential negative externalities.

Third, assuming VSS contribute to achieving sustainable development and it is

important to increase their use or adoption this deliverable showed that there are significant barriers related to the adoption of VSS and that the adoption of VSS is uneven across the globe. Addressing these barriers with a specific focus on providing technical and financial assistance would constitute a policy priority.



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