



Regulatory Tools, Effective Markets, and Private Sector Participation in the Forestry and Wood Products Processing Sectors

Issues and solutions for developing countries

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This report was prepared by a team of analysts from the World Bank Group including Stephen Rimmer, Senior Private Sector Specialist (GMTBR) and Petter Lundkvist, Regulatory Specialist (GMTBR). The team is grateful for guidance and advice from Stephen Davenport, Senior Governance Specialist and Task Team Leader (TTL) (GGOPG); Catherine Masinde, Practice Manager (GMTBR); Peter Ladegaard, Lead Private Sector Development Specialist (GMTBR); Tuukka Castren, Senior Forestry Specialist (GENEC); Aichida Ul-Aflaha, Public Sector Specialist and co-TTL (GGOPG); Garo Batmanian, Lead Environment Specialist and co-TTL (GENGE); Werner Kornxl, Senior Natural Resources Management Specialist and co-TTL (GENE2); and Nalin Kishor, Consultant (GENGE).

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Table of Contents

<i>Acknowledgements</i>	iii
<i>Table of Contents</i>	iv
<i>Abbreviations</i>	vi
<i>Executive Summary</i>	viii
1. FORESTRY MARKET AND REGULATORY FAILURES	1
1.1 Key regulatory initiatives to reduce deforestation and illegal logging ..	6
3.2.1 Key demand-side measures	8
3.2.2 Key supply-side measures.....	11
2. FORESTRY MARKETS AND REGULATION—POLICY AND INSTITUTIONAL CONTEXT AND CHALLENGES FOR THE PRIVATE SECTOR	17
2.1 The importance of good regulatory practices	17
2.2 A complex and growing regulatory framework	20
2.3 Opportunities for strengthening regulatory governance in the sector	25
3. POTENTIAL SOLUTIONS FOR FURTHER INVESTIGATION AND PILOTING	27
3.1 Improving regulatory quality	28
3.1.1 Make use of Regulatory Impact Analysis (RIA)	28
3.1.2 Improve the quality of existing regulations.....	30
3.1.3 Assist sectoral regulators in developing a culture and specific instruments that can help ensuring greater consideration to the impacts of proposed regulations on SMEs.....	32
3.1.4 Ensure that new and existing regulations encourage healthy competition and innovation, while discouraging the development and misuse of market power.....	34
3.1.5 Place greater emphasis on output-based regulations and eschew the use of highly prescriptive input-based approaches that are commonly used in the forestry sector	36
3.1.6 Resolve conflicts between existing regulations, including through mutual recognition	38
3.1.7 Make greater use of negative licensing for lower risk activities	41
3.1.8 Self and co-regulation	41
3.1.9 Risk-based approaches to the design of regulation and compliance strategies	42
3.2 Strengthening the effectiveness of regulatory administration and oversight	44
3.2.1 Knowledge about how to comply with rules.....	44

3.2.2	Make greater use of independent/private auditing where appropriate.....	45
3.3	Insure appeals and grievance mechanisms are effective	46
3.4	Achieving greater transparency and inclusion in regulation making and administration through consultation.....	47
3.5	Potential outputs and next steps arising from this report.....	49
3.5.1	Design and sequencing of a reform program	49
3.5.2	Time and cost of applying for approvals for forestry permits and licenses	51
3.5.3	Project beneficiaries.....	52
3.5.4	Project level indicators.....	52

APPENDIX: GUIDELINES FOR REDUCING THE TIME AND COST OF FORESTRY REGULATORY TRANSACTIONS THROUGH PROCESS REENGINEERING.....	55
SOURCES	62

List of boxes

BOX 1. What is required for Chain of Custody (CoC) certification?	13
BOX 2. Australian government RIA on illegally logged timber.....	29
BOX 3. Colombia’s forestry one-stop shop	32
BOX 4. Encouraging the growth of SMEs in the forestry sector in China.....	33
BOX 5. Use by PEFC of mutual recognition for forest products certification.....	40
BOX 6. Role of independent auditors in forestry in Ontario, Canada	46
BOX 7. Measuring administrative costs in the Swedish forestry sector.....	58

List of figures

FIGURE 1. Comparison of approaches taken by government for managing revenue, spending, and regulation.....	19
FIGURE 2. Factors influencing foreign investment decisions, 2017/2018	20
FIGURE 3. Four phases of process reengineering reforms.....	56

List of tables

TABLE 1. Programs for controlling legality of imported wood.....	10
TABLE 2. Mechanisms for fostering healthy competition in markets.....	36
TABLE 3. Potential benefits of mutual recognition.....	40

Abbreviations

BMO	business membership organizations
BPR	business processing reengineering
CAS	Country Assistance Strategy
CO ₂	carbon dioxide
COC	chain of custody certification
EPA	Economic Partnership Agreements
EU	European Union
EUTR	EU Timber Regulation
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
FLEGT	Forest Law Enforcement, Governance and Trade
FRPA	Forest and Range Practice Act (Canada)
FSC	Forest Stewardship Council
FTA	free trade area
GDP	gross domestic product
GGP	Governance Global Practice
GoS	Government of Sweden
GRP	good regulatory practice
G2B	government to business
IFC	International Finance Corporation
ICT	information and communication technologies
IPF	Intergovernmental Panel on Forests
INTERPOL	International Criminal Police Organization
IDA	International Development Association
IRC	international regulatory cooperation
ISO	International Standards Organisation
ITO	International Timber Organization
LDC	least developed countries
MTI	Markets, Trade and Investment
MoU	memorandum of understanding
MDG	Millennium Development Goals
NGO	nongovernmental organization
OECD	Organisation for Economic Co-operation and Development
PEFC	Programme for the Endorsement of Forest Certification (previously Pan European Forest Certification)
PROFOR	Program on Forests
PSD	private sector development
REDD	Reducing Emissions from Deforestation in Developing countries (UN Forest Carbon Partnership Facility)

REDD+	Reducing Emissions from Deforestation and Forest Degradation in Developing countries, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries
RIA	Regulatory Impact Analysis
RPDR	Regulatory Policy and Delivery Review
RUP	Resource Use Permit
SAP	Structural Adjustment Programs
SCM	Standard Cost Model
SFA	State Forestry Administration (China)
SME	small and medium sized enterprise
SOE	state owned enterprises
TFAP	Tropical Forestry Action Plan
TTL	Task Team Leader
UN	United Nations
UNCED	United Nations World Commission on Environment and Development
UNECE	United Nations Economic Commission for Europe
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
US\$	United States Dollar
VAT	value added tax
VPA	voluntary partnership agreement
WBG	World Bank Group
WIPO	World Intellectual Property Organization
WRI	World Resources Institute
WTO	World Trade Organization

Executive Summary

Forestry sector activities include creating, managing, using, conserving, and repairing forests, woodlands, and associated resources for human, animal, and environmental benefits. Forestry is also integrated with related sectors such as management of forest reserves and parks through conservation and land management, provision of environmental and recreational services, soil conservation, and carbon sinks (and related greenhouse gas mitigation activities). Management and use of forests have important environmental, social, and economic dimensions, which generate a range of complex development challenges and opportunities.

This report aims to deepen knowledge and build capacity for developing practical approaches to strengthening forest governance. While acknowledging the important social and environmental dimensions of forestry, this work focuses more specifically on regulatory and private sector dimensions of the forestry and related sectors. This report is one component of a broader project that aims to create new joint knowledge products by integrating in the WBG forest administration and management portfolio insights and capabilities from several areas of the World Bank Group (WBG), including the Governance Global Practice (GGP); the Program on Forests (PROFOR); and the Macroeconomics, Trade and Investment (MTI) Global Practice.

Five key regulatory issues related to forestry and explored here, including:

- What are the main types of market failure in forestry sectors (including transformation of forests for agricultural use and timber and wood products) and their costs?
- What are the main causes and consequences of government regulatory failure in addressing market failures and achieving other broader public policy goals?
- What are the main knowledge gaps regarding the impact of government regulations and regulatory systems on the operation of forestry markets?
- What are potential solutions to identified market and regulatory failures?
- How can governments improve the business enabling environment (while meeting environmental and social objectives), notably by reducing the day-to-day burdens and compliance costs for small and medium-sized enterprises (SMEs)?

This report is based on desk research of available literature to establish key regulatory trends and a broader framework for strengthening markets, regulatory governance, and private sector participation. While forestry, timber, and related sectors are a broad and well-studied area, they are also incredibly diverse across different countries and regions. This report is the first to assess the forestry sector from a cross-cutting global regulatory governance perspective. It draws upon and synthesizes key thematic issues and lessons from available materials on forestry, and notably on systemic regulatory characteristics of the forestry sector. It develops practical solutions based on problem-driven adaption and good practices documented in regulatory governance literature. This report also creates a framework and toolkit using a selected and appropriate regulatory governance reform

tools for application and further development through country pilot studies. The term “regulations” in this report means all legal rules including primary and subordinate laws, instruments, and administrative decisions where there is an expectation of compliance by individuals, government regulators, and the private sector.

This report presents a framework for strengthening the effectiveness and efficiency of regulation of forestry and related sectors. It strives to identify and reduce regulatory burdens on private firms active in the forestry sector, while not compromising the objectives of government regulation. The starting point is that illegal logging and deforestation, especially in developing countries, has significant adverse impacts on the operation of national and global forestry product markets. This development, and associated problems of climate change and potential loss of environmental and social amenities, has led to increasingly heavy regulation of forestry sectors—including downstream markets and processing industries. Heavy regulation, often of questionable quality, places a disproportionate burden on SMEs and frequently leads to regulatory failures, including corruption and reduced competition. As a result, many small-scale forestry and downstream private sector operators are not able to comply with regulatory requirements, and instead operate illegally in the informal sector. Reduced regulatory compliance leads to a failure to achieve intended and important social, economic, and environmental outcomes.

Chapter 1 considers forestry market failures in the public sector and assesses the characteristics and effectiveness of regulatory responses. The rapid extent and rate of deforestation is discussed, along with a commentary on its implications for climate change. Importantly, forestry contributes around 1 percent of global gross domestic product (GDP), and directly employs between 53 and 73 million people in the formal and informal sectors. Investment in the forestry sector is generally determined by land appreciation, biological growth rates, real timber prices and forest product market growth. However, forestry exhibits several types of market failures that are wide-ranging and complex. These failures include public goods such as common property, markets not internalizing externalities (both positive and negative), excessive concentration and misuse of market power, lack of healthy markets, and distortions in markets (such as lack of information). For instance, forestry markets often lack clear and strong property rights, which are essential for the proper functioning of markets. Furthermore, the forestry sector is often characterized by excessive concentration and misuse of market power by private or public sector businesses (including state-owned enterprises—SOEs), alongside widespread illegality and corruption. Other distortions in markets (such as a lack of information) are also documented.

Many regulatory responses have failed to address market failures. In response, a wide range of international organizations and governments have added new laws and regulatory responses to the existing body of often ineffective national and subnational regulations. While some recent regulatory reforms in the forestry sector and downstream processing value chain have achieved success in addressing market failures and show potential for further use, they have also in many cases greatly increased regulatory complexity and burdens. This report draws upon and synthesizes a robust body of available data and reports on aspects of regulation of the forestry and downstream processing sectors. This includes a discussion of the political economy of the forestry sector and evolving global debate about how to better manage forestry resources. **It is**

important to note that the problem of deforestation is complex and improved regulatory governance is only part of the solution to deforestation, by better addressing market failures and improving the commercial potential of sustainable forest and downstream processing sectors.

A wide range of regulatory global and national initiatives and related programs have been launched over the last few decades to reduce deforestation and illegal logging. These include measures designed to better align demand for timber products with sustainable use, such as modifying procurement legislation, bans on illegal timber, and national laws to better manage and control global trade in timber. Various supply-side measures have also been enacted to influence the production, transportation, sale, and use of forestry-related products. These include private certification schemes; international standards administered by the Forest Stewardship Council (FSC) of the International Standards Organization (ISO); the Programme for Endorsement of Forest Certification (PEFC); the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan of the European Union (EU); and voluntary partnership agreements. The effectiveness of many of these schemes is unclear because few have been evaluated. International initiatives and responses build on existing national and subnational regulatory systems for forestry, resulting in a very complex and evolving regulatory environment. Note that this report does not focus on the broader policy question of deforestation, which is allowed under existing legal systems and in some cases encouraged by government.

Chapter 2 considers forestry policy and institutional context and challenges from the perspective of the private sector. There are clearly a range of economic, social, and environmental benefits from better regulating the forestry sector. Likewise, the costs of not effectively managing forestry are enormous and include continued loss of environmental amenity; weakening the capacity of forests to act as a carbon sink, which is so important for mitigating greenhouse gases; and economic activity forgone because of weak markets and ineffective regulatory systems.

Many countries have weak processes for managing and strengthening their regulatory systems. Poor-quality regulations simply contribute to the already complex array of existing regulations. In many cases, recent initiatives to add new regulatory solutions have simply adding to the stock of poor quality and ineffectual rules, leading to a regulatory burden that overwhelms most private sector firms. Such problems are compounded by regulators' inability to effectively administer regulations they are responsible for. Indeed, although most countries with forests have developed comprehensive regulatory frameworks for the forestry sector, it seems increasingly clear that "the most stringent forest regulations are normally found in countries that have the least capacity to enforce them" (Gregersen and Contreras 2010).

Ineffective regulation of the forestry sector creates a range of problems. These include the high cost of complying with regulations impacting disproportionately on SMEs, forcing many to operate in the informal sector. The existing regulatory system also supports the development and misuse of market power, including large, politically well-connected firms often dominating key segments of the forestry sector. Failed regulatory institutions have allowed regulations to serve as levers for endemic corruption while simultaneously placing heavy burdens on public institutions. According to the International Criminal Police Organisation (INTERPOL), the global cost of corruption

in the forestry sector alone is in the order of US\$29 billion. The challenges faced by the private sector, especially SMEs, are significant. Specific hurdles include excessively complex regulatory procedures, conflicting regulations, regulations not adapted to policy objectives, long lead times for regulators to provide approvals, regulations focused on paperwork rather than changing behavior on the ground, and confusing institutional governance and institutional frameworks.

In short, global and national regulatory responses to address market failures in the forestry sector have largely failed to achieve their objectives, while generating a wide range of unintended social, environmental, and economic costs including for the private sector.

Chapter 3 discusses possible reforms to better address the market, institutional, and regulatory failures discussed in the previous chapters. Tools are identified to help public authorities in developing countries design and administer regulations to achieve policy objectives, while also fostering vibrant markets and the private public sector. The forestry sector is typically regulated by line ministry—which is also often responsible for broader environmental and agricultural policy and regulation. That said, a range of other regulatory ministries and agencies also have an interest in this sector, including those responsible for business operations, transport, health, and safety both the national and subnational levels of government. Finally, private sector and nongovernmental organizations are increasingly involved in developing and administering regulatory systems and rules for the forestry sector. Moving forward, forestry reform diagnostics should give greater weight to regulatory governance issues and potential solutions.

This report adapts well-tested reform tools and instruments from the regulatory governance area—from both the public and private sector—to strengthen regulatory practices in the forestry and related sectors. These tools aim to improve the quality and effectiveness of new regulations (such as Regulatory Impact Analysis), and others to review and reform the stock of existing regulations. A further suite of tools focusses on improving the performance of regulatory institutions. These potential solutions are based on good practices and lessons from the regulatory governance literature and practical experiences and outcomes in developing country contexts.

Several regulatory governance tools and approaches are available that could significantly improve the regulatory environment for the forestry sector. For example, policy makers and regulatory agencies should be more aware of the important potential of SMEs and supporting their participation in the formal forestry sector. Moreover, the proper functioning of forestry markets requires greater attention to policies that encourage healthy competition and discourage the development and misuse of market power. This includes ensuring that SOEs compete on an equal footing with the private sector. There is merit in focusing more on the use of output- and performance-based regulations for private firms, rather than using highly prescriptive and inflexible input-based regulations that control inputs used, production processes employed, and so forth. Some countries such as Canada have already successfully experimented with a performance-based approaches for regulating the sector. There are also ways to resolve conflicts between existing regulations, such as making greater use of mutual recognition of regulations. For low-risk forestry activities, alternative ‘light touch’ regulatory options can include negative licensing, self and co-regulation, and risk-based approaches to the design of regulations and compliance programs.

Worldwide, many forestry regulators struggle to effectively administer forestry regulations, but there are proven ways to improve administrative effectiveness. Many participants in the sector, including SMEs, lack knowledge about the regulations governing forestry. Better communication with stakeholders through the provision of clear and accessible information is very important and getting easier and less costly with the growing use of Internet-based systems for knowledge dissemination. Many forestry regulators also experience difficulties in monitoring and auditing compliance, especially in isolated and remote regions. Inspections are frequently used to encouraging enforcement and compliance. “Inspections” typically involve a visit or check conducted by authorized officials on products or business premises, activities, documents, and so forth. One potential solution in developing countries is to make greater use of independent private auditors and inspectors to complement the inspections and related works of government regulators, especially where existing public sector enforcement strategies are failing.

Appeals and grievance mechanisms should be made more effective and accessible. This will help build trust and confidence of participants and better monitor and measure the performance of regulators over time. Firms should be able to challenge regulatory oversight decisions or actions that are illegal, corrupt or infringe on principles related to transparency and procedural fairness. Indeed, improving transparency and inclusion in regulation making and administration through better consultation would go a long way in addressing many of the problems documented in this report.

This report creates a more robust framework for future country studies and pilots to address identified problems by documenting and discussing tailored regulatory governance solutions.

One way forward with significant potential could be application of process reengineering using the Standard Cost Model (SCM) for important but routine and commonly used transactions in forestry regulation. Reforming and strengthening the administration of existing regulations could proceed by: (1) preparing process maps for key regulatory transactions in the forestry sector; (2) establishing legality and measure administrative costs incurred by business complying with regulations; and (3) developing improvement scenarios—including by drawing on global good practice examples—and proposing options to improve business friendliness and effectiveness by simplifying regulatory transactions. The process reengineering approach and methodology is described in more detail in the toolkit provided in the Appendix. This process and toolkit could deliver tangible benefits in the short and medium term. The toolkit could also support long-term reforms to strengthen regulatory governance in the forestry sector, including addressing areas of greatest risk and encouraging technological innovation.

The primary audience for this report includes regulators and other government officials in the area of forest management and private sector development. The report can also be used by donors and other practitioners working on reforms in the forestry and timber sectors. Chapters 2 and 3 of the report primarily target officials with limited previous experience in the sector. Chapter 3 can be used as a resource both for those with specialized sector knowledge and others involved in reforms in this area.

Forestry Market and Regulatory Failures

People have been removing and using forest products for thousands of years.

Currently, around 30 percent of the world's land surface is covered by forests, with around half of the total remaining forests being in tropical areas and countries. The deforestation rate accelerated sharply in the mid-nineteenth century and continued to increase throughout the twentieth century. From 2000 to 2010 there was a net loss of 7 million hectares of tropical forests a year (FAO 2016). The world's forests are one of the most significant pillars in mitigating climate change, as they absorb and store carbon dioxide. A recent NASA study found that the world's tropical forests 'absorb 1.4 billion metric tons of carbon dioxide out of a total global absorption of 2.5 billion (INTERPOL 2016). The loss of an estimated two thirds of the world's forests has already had a negative impact in terms of declining biodiversity (FAO 2015), climate change, desertification (Guardian 2014), and loss of fresh water (Raintree 2012). Deforestation has also been disastrous to rural populations' livelihood, notably contributing to poverty and forced migration.

Forestry sector activities include creating, managing, using, conserving, and repairing forests, woodlands, and associated resources for human, animal, and environmental benefits. Forestry is practiced in plantations as well as natural forests. Economic uses of forestry focus on trees, which provide numerous environmental and social as well as economic benefits. In many countries and regions forests have major ecological, economic, and social significance.

While economic and commercial dimensions of forestry include multiple sectors and activities, a key focus of this report is forest and wood products. These integrate the value chain of forests and wood resource use through several industry sectors, including:

- forest growing and management
- harvesting and haulage
- sawmilling and processing
- timber manufactured products
- wood panel and board production
- timber merchandising
- energy generation through bio-fuels (including charcoal) and wind farming

The forest and wood products sectors are closely related to other economic sectors, activities, and markets. These can include management of forest reserves and parks through conservation and land management, provision of environmental and recreational services, creation of bio-products, agriculture (for example, bee keeping), animal production (including grazing), soil and water conservation, and carbon sinks (and related greenhouse gas mitigation activities).

This report considers regulation primarily pertaining to wood sourced from tropical forests, notably that is exported to rich countries. However, this market only corresponds to a small share of deforestation. As an example, in the Democratic Republic of the Congo it is estimated that 84 percent of all harvested wood is used for locally consumed charcoal and firewood. Completely solving the issue of deforestation would thus require major efforts far beyond regulation, possibly including various financial instruments, identification of alternative fuel sources and methods for fuel efficient cooking, and so forth. Nevertheless, the tools presented in this report can contribute to addressing broader regulatory issues by helping to improve efficiency and implementation of regulation.

The economic contribution of the global forestry sector is difficult to measure, in part because of the significant role played by informal businesses operating in the sector. A range of studies have sought to estimate its economic size and contribution. For instance, in 2013 a UN forum on forests discussed estimates of the forestry sector contributing around 1 percent of global output (in excess of US\$600 billion). Formal forestry sector employment was estimated at more than 13 million people in 2013, with an additional 40–60 million informally employed. Estimates of the number of people deriving direct and indirect benefits from forests—in the form of employment, forest products, and contributions to livelihoods and incomes—range from between 1 and 1.5 billion (Agrawal et al. 2013; INTERPOL 2016). Private investment in the forestry sector in developing and transition countries was estimated in 2008 at US\$15 billion per year (World Bank 2008).

Returns from investing in forests are generally lower than other alternative investment options such as palm oil, beef and soy, resulting in deforestation and a lack of investment in plantations. Investment in the forestry sector is generally determined by land appreciation, biological growth rates, real timber prices, forest product market growth and the commercial potential of alternative uses, such as soy, beef, oil palm and other commodities. In recent decades other alternative uses for forestry have generated higher returns in investment compared to forestry. This has been a major factor in deforestation, as forests are converted to the other commercial uses. Furthermore, investment in forest plantations is insufficient to address significant declines in net tree cover resulting from the loss of natural forests. Ultimately, forests—both natural and plantation—should not be assessed commercially as “stand-alone” investment options, but rather as part of a value chain that includes processing of forest products. The core problem of deforestation will not be solved only by improving regulatory governance—other policy responses will also be required. That said, this report argues that given deforestation is a result of market failures, better regulatory responses are part of the solution to the global problem of deforestation and the challenge of making the forestry sector—including downstream processing—more attractive as an investment option.

Efficient, effective, and well-regulated markets are required to underpin private sector investment and activity that facilitates sustainable use of forest products. There is ample evidence that markets can also contribute in several ways to sustainable forestry, including through better protected-area management, productive forest management, and processing of forest and wood products.

However, forestry markets often perform poorly because of the presence of several types of market and institutional failures. Forests can be seen both as public and private goods. On the one hand they can be harvested and provide a range of products to society and local communities, such as timber, rubber, or food. This suggests forests are a private good, as consumption by one party make it inaccessible to others. On the other hand, like the air or the ozone layer, forests are public goods that provide benefits to society without having to be consumed. Forests provide goods that benefit the world, for instance, by supporting global climate stabilization, and in more subtle ways, such as providing habitat for flora and fauna and preserving biodiversity for future generations.

The tension between the view of forests as a global common good or a private good is clear in the debate on forestry policies. Demands for protection and preservation of forests clash with ownership claims and typically shorter-term economic and commercial interests. The notion of forests as a global public good has not been explicitly reflected in any international law (Humphreys 2012). However, awareness of the consequences of deforestation, globally and locally, has had immense impact on global initiatives around deforestation (Nielsen 2015).

The forestry sector often lacks clear and strong property rights, which are essential for the effective functioning of markets. It is important that property rights are clearly defined and allocated, secure, and legally enforceable. Ideally, once clear property rights are established markets can function more effectively and governments can intervene where needed to address other types of market failures. In the forestry sector, property rights are often poorly defined including in areas such as land tenure, use of surface and ground water, harvesting of trees, and other resources such as plants and animals. Furthermore, in practice many governments are unable to operate systems with clearly defined property rights, due to weak laws and institutions, competing claims, and so forth. Creating clear property rights does not solve all market failures but is one important way to help markets operate effectively and address other types of market failures.

The forestry sector is characterized by a range of often complex externalities where consumption of forestry products generates uncompensated costs for others. For example, deforestation can generate a range of social and environmental costs such as pollution, loss of habitat and soils, and increased flooding. Governments have a clear role in combating such negative externalities. They should also encourage activities that generate positive externalities, such as investment in new forests to mitigate greenhouse gases and providing new habitat for plants and animals. All types of government action should include steps to internalize the costs or benefits of externalities, for example by making a polluter pay for the damaged they have created.

Government interventions can take several forms. Budgetary tools include taxes and charges to combat negative externalities and subsidies for positive activities like planting new forests. Regulatory responses can include restrictions or conditions on certain activities, use of minimum standards, licensing and permits, and so forth.

However, in practice addressing externalities can be complex and difficult. This is especially the case in sectors such as forestry, where a wide range of interrelated social, economic, and environmental externalities are evident, and where institutions are often weak (Industry Commission 1998).

An important market failure in forestry is the lack of information on the part of governments and market participants. Informed decision making requires accurate information. However, in the forestry sector market participants often do not have a full understanding of the impacts of their actions. For instance, those involved in cutting timber may not be aware of the wide range of problems and costs this activity creates for others. Moreover, government may lack enough good-quality data to inform regulation-making and the decisions of regulatory agencies. For example, a regulator may not be aware of illegal logging in a national park or conservation area and therefore takes no remedial action. In such cases government can support their own decision-making and that of private firms by actively encouraging the provision of information regarding the operation and impacts of forestry sector activities. This can include undertaking and disseminating research directly, or encouraging NGOs and indigenous groups to monitor and report on forestry-related issues and concerns.

The discussion around forests involves overlapping and often competing policy objectives. Protection of forests can be thought of as a way to promote economic development, improving livelihoods of the local population, protecting biodiversity, mitigating climate change and provide protection against disasters. However, logging and other degrading activities also have benefits that are usually very attractive commercially in the short term, not least to stakeholders in poorer countries. Any study of the success and failure of policies and regulations to stop deforestation and forest degradation needs to be studied through the lens of competing forms of usage.

Existing regulatory interventions are often ad hoc, of poor quality, and have weak governance, and thus fail to meet broader policy objectives. Therefore, private sector investment and activity often occurs in a context of weak or dysfunctional markets characterized by both market and government failures. Indeed, a range of interrelated systemic problems are evident in the forestry sector, including:

- Limited public sector capacity for designing high-quality regulation and enforcement
- Endemic corruption in accessing, harvesting, and processing timber
- Illegal logging of old growth and publicly owned forests
- Widespread use of concessions to allocate rights to access forests
- Loss of forests contributing to the increase in CO₂ and degradation of the forestry carbon sink, thus contributing to global climate change
- Loss of habitat and biodiversity
- Displacement and marginalization of indigenous communities
- Excessive consumption and absence of investment in new forests
- Regional, national and international trade in forest products involving significant quantities of illegally harvested wood
- Markets saturated with cheap, illegal timber products making it very difficult for market participants to operate legally in the formal sector and in a sustainable manner

- Operating context of communal forests and plantations generating a range of issues, opportunities, and challenges that are not effectively addressed in existing regulatory systems
- Significant impediments to SMEs formally participating in the sector, resulting in many SMEs operating in the informal sector
- Markets for legal products dominated by larger firms or statutory monopolies such as SOEs, with limited competition
- Lack of data about the forestry sector, the most significant risks associated with forestry activities, and the scope and potential for technological innovation in the sector

Governments and communities recognize these problems—they are well documented and understood—but effective solutions remain elusive.

In response to identified market and regulatory failures, the forestry sector has been subject to an increasing amount of regulation. This includes agreements, conventions, regulations, and private accreditation schemes at the international, national, and subnational levels. The 1980s saw the birth of both the International Timber Organization (ITTO) and the Tropical Forestry Action Plan (TFAP), notably to limit trade in endangered species and protection of sensitive areas. However, despite these somewhat promising initiatives, the deforestation rate remained strong throughout the 1980s (Nielsen 2015). Although NGOs had tried to push ITTO to introduce a system for labelling of tropical timber, this initiative failed at the hands of exporting countries in the south that worried about the potential economic impacts and costs on timber exports. The 1992 Rio Earth Summit brought deforestation to the global agenda and has been followed by initiatives such as 1993 Convention on Biological Diversity and 1994 UN Framework Convention on Climate Change. Intergovernmental programs have been complemented by private sector and third-party initiatives such as the Forest Stewardship Council certification program.

While the focus of the 1980s initiatives had been to ensure more sustainable timber yields, the 1990s saw an increased focus on sustainable forest management (SFM). The 1987 publication of the *Brundtland Report* (UNCED 1987) helped popularize the notion of sustainable development, and through SFM, forests were viewed as having broader values than just timber. In short, SFM entails the managing of forests in ways that meet a range of purposes, including livelihoods, cultural needs, and environment. It includes reducing impacts of logging for instance through thresholds of clearcutting, preserving integrity of ecosystems by avoiding monocultural practices, and respect for the inherent values of forests as carbon sinks and recreational bases (Wang 2004).

From the 1990s onward, the various global programs have also been reflected in a significant strengthening of timber producing countries' national laws. Several recent studies point out that tropical countries possessing some of the largest rainforests now have the most stringent forestry regulations (McDermott, Cashore, and Kanowski 2009; McGinley et al. 2012). At the same time, countries accounting for at least 90 percent of global timber imports have introduced or are implementing laws requiring evidence that timber imports are legally sourced (Norman and Saunders 2017).

The 1990s saw NGOs stepping up in the forestry debate. NGOs influenced the 1992 Convention on Biological Diversity, including by promoting the inclusion of public participation, the role of indigenous knowledge in forest biodiversity conservation, the

role of women in forestry, and the sharing of the benefits that arise from utilizing indigenous or traditional knowledge with local indigenous people. Preparations for the 1993 Rio Summit involved fierce negotiations between developed countries and exporting countries. Developed countries often considered forests a global common in need of protection, whereas exporting countries emphasized their autonomy regarding forests through a reluctance to participate in any commitment that would harm their forestry-related economy. The outcome consequently ended in a compromise, and participating nations came up with Forest Principles of a nonbinding character (Humphreys 2004). The conflict in international negotiations on reductions of tropical deforestation continued for decades, producing more compromise. For example, the UN's Intergovernmental Panel on Forests (IPF) and its successor, the Intergovernmental Forum on Forests (IFF), were mainly considered forums for dialogues with no binding output. As mentioned above, NGOs had in vain pushed for the ITTO to label legal sales of timber. This failure, together with the disappointing outcome of the Rio Summit, led a group of NGOs to jointly form the Forest Stewardship Council (FSC) in 1993, which today is one of the two major accreditation and labelling mechanism for forest and wood products.

In the 2000s, global forest policies became a key part of the climate change agenda. Influential reports such as the *Stern Review*, IPCC reports, and the *Eliasch Review* all pointed to the role of forests policy in climate change mitigation. In 2005, the incentive-based program Reducing Emissions from Deforestation and Forest Degradation (REDD/REDD+) was introduced by the United Nations Framework Convention on Climate Change (UNFCCC) (Nielsen 2015). REDD+ offers principles for quantifying and valuing forests' carbon storage, and thereby tries to overcome some of the conflicts between the view of forests as local economic resources and global demands to consider forests global public goods in need of protection.

1.1 KEY REGULATORY INITIATIVES TO REDUCE DEFORESTATION AND ILLEGAL LOGGING

One key challenge in the forestry sector is illegal logging and deforestation. Such issues arise across the sector, including for publicly, communally, and privately owned forests. The World Bank Group estimated financial losses in 2006 to the global market from illegal logging of more than US\$10 billion a year and losses of government revenues of about US\$5 billion a year. Furthermore, production costs associated with the supply of wood derived from illegal logging operations are far lower than those for legal logging because many of the cost components required in legal and sustainable activities are not accounted for. For instance, analysis of the trade impact of the Voluntary Partnership Agreement for Indonesia estimates the costs of legal logging production at US\$63-76 per cubic meter, compared to costs of US\$19-29 per cubic meter for illegal logging (Department of Agriculture, Government of Australia (GoA) 2010). Such problems are compounded by the loss of forest land to plantation (often palm oil) and agriculture. Deforestation for plantations is usually illegal, but in many cases deforestation for a variety of purposes is encouraged by governments and is legal. This report focuses

primarily on illegal logging and does not explicitly address the broader policy question of deforestation, which is encouraged by governments and protected by laws and regulations.

Accurate measurement of the extent of illegal logging is difficult in practice, but the economic costs of illegal logging are likely to be significant. For instance, a number of reports claim that 50 percent of Cameroon’s timber harvest is derived from illegal logging. However, more detailed research has shown that although forests are illegally harvested, much of this timber is actually cut in areas already set aside for conversion to nonforest uses. Some logging is deemed illegal because operators fail to formalize, or it is conducted by operators with permits to harvest timber but who fail to comply in other regulatory requirements.¹ Hence, rather than 50 percent, a more accurate figure of environmentally harmful illegal logging in Cameroon can be as low as 10 percent (Tacconi 2012). The more “formal” types of illegal logging may not necessarily have negative environmental consequences (although it cannot be ruled out). It is however strongly plausible that this has negative economic consequences, in terms of lost revenues from forests, concessions, and taxation. In total, it is estimated that over US\$10 billion is lost in revenue each year around the world as a result of the illegal trading of timber products, particularly in developing countries in Africa, Asia, and Latin America (Jackson 2015)

Illegal forestry activities also impose several direct and indirect social, environmental, and economic costs. These include erosion of sustainable livelihoods, destruction of value of forest-dependent communities, human rights abuses, corruption, loss of recreational and tourism opportunities, exploitation of illegal foreign workers, and reduction in the quality of the forest environment, including contamination of food and water sources.

Over the last few decades a number of programs have emerged with the objective of controlling logging and thereby reducing the deforestation rate. Many of these programs have not led to binding regulatory commitments, notably due to diverging views between those considering forests global common goods, and those benefiting from shorter-term economic gains. The typical geographic and jurisdictional distances between the source of the timber and the end user have added to the regulatory complexity, thus driving the continued search for a well-functioning regulatory system. Since wood typically passes through a range of countries from forest to consumer, any regime intended to guarantee the legality of finished products must be built on controls at every step of the value chain. The following section provides an overview of global programs put in place over the last few decades.

This report aims to provide an overview of regulatory governance tools applicable across different sub-sectors of the forest and timber industry, notably in regard to tropical forests. It is acknowledged that the forest, timber and wood industry is multifaceted and complex, and includes a range of subsectors which could all require different regulatory solutions. The objective of the report is however not to identify proposals on how to address issues that are limited to specific segments of the market, but to present a toolkit that can help address broad and commonly occurring regulatory failures across the industry. Hence, the report presents a menu of tools that can be applied to a range of

¹ The term “regulations” in this report means all legal rules including primary and subordinate laws, instruments and administrative decisions.

forest and timber related regulatory activities. Many of the tools in this report are generic and of relevance across numerous segments of the wood and forestry sector.

Chapters 1 and 2 discuss the sectoral background, market and regulatory failures, and policy and institutional context. They primarily focus on the impact of issues such as including illegal logging, deforestation, and exports of tropical wood. However, the findings of these chapters (including overregulation, corruption, and low capacity in regulatory agencies) will likely be applicable to segments of the industry that are not explicitly mentioned, including pulp, charcoal, timber for construction, tourism, and so forth.

3.2.1 Key demand-side measures

Supply side and demand side refer to the two fundamental drivers of price and production. The "demand side" refers to aspects of the economy relating to the purchase and use (consumption) of the goods and services produced. Government regulation is used to influence the level and characteristics of demand for forest-related products such as wood. This section discusses and describes public and private sector regulatory schemes designed to influence demand for forest products.

Procurement legislation

According to estimates ((Gulbrandsen 2014) public procurement accounts for between 3 and 20 percent of total timber consumption. Governments' rules and requirements for their timber purchases can consequently have important impacts on the global timber market. Such regulations can also have multiplier effects when firms wishing to sell to the government decide to convert entire production lines in order to streamline their product range. Even before the 2010 EU Timber Regulation (EUTR) banned imports of illegally sourced timber to the EU, several EU member states had laws in place that prohibited illegally logged timber to be acquired through their national public procurement processes. Similar policies were also found in non-EU countries such as Japan, New Zealand, and Norway. Some countries, including Denmark, the Netherlands and the United Kingdom have developed their own criteria for legally and sustainably sourced timber. However, most countries accept certification schemes such as the Forest Stewardship Council (FSC) as proof of legal sourcing. In 2007, Norway decided to ban all tropical timber in public sector buildings and other construction works (Gulbrandsen 2014).

Import bans on illegal timber

In 2008, the United States became the first country in the world to ban imports of illegal timber, through the amendment of the 100-year old Lacey Act. This means that timber, plants, and wood products such as flooring or paper cannot be brought to the US if it does not fulfil requirements for legality in its country of origin. Products covered by the Lacey Act must be accompanied by a certificate of origin. However, it also places on importers the obligation to observe principles of "due care", which means that it is evidence based rather than document based. This means that it is not necessarily enough to show a document of origin proving that products meet criteria of legality, should there

be signs that the wood products had been sourced illegally. The law imposes on firms in the US dealing with imported wood products a responsibility to monitor not only the exporter, but the entire supply-chain as no third-party certification or verification schemes can be used to "prove" legality under the Act (see WRI). Although the ban received strong sponsorship from civil society, notably environmental groups, it should be acknowledged that important support came from American wood sector businesses felt threatened by competition from low-cost countries (Tanczos 2010).

Similar to the Lacey Act, the 2010 EUTR prohibits the first placing of illegal timber and wood products on the EU market. Additionally, the two laws are similar in the way they require importers (first placers on the EU market) to assure that the timber is legally harvested at the country of origin and that products have not been contaminated at any point during the supply chain. As opposed to the Lacey Act, the EUTR specifies in detail the steps required to ensure legality. Licenses issued under the Forest Law Enforcement, Governance and Trade (FLEGT, see below) are automatically considered to comply with EUTR, while the two main certification schemes, the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC), have updated chain of custody standards and directives to facilitate FLEGT compliance (FSC 2015; PEFC 2015). Additionally, EU importers need to keep records when reselling the products on EU markets to allow for traceability. Australia introduced in 2012 its Illegal Logging Prohibition Act, while the 2014 Illegal Logging Prohibition Regulation specifies specific steps that need to be taken.

More recently, countries including Japan, the Republic of Korea, China, Vietnam, Indonesia, and Malaysia have implemented similar bans on illegal timber imports, while China is well underway. This is groundbreaking, since these countries account for much of the world's wood production and together with Australia, the EU, and the United States they represent over 90 percent of the world's wood imports. Much of the reason for these bans is that producer-country import restrictions are also based on the need for their industry to be considered legal under the regulations applicable on end-markets (Norman and Saunders 2017). Table 1 includes an overview of the main timber import regulations in place.

TABLE 1. Programs for controlling legality of imported wood

	SCOPE OF REGULATED ACTORS	SCOPE OF REGULATED PRODUCTS	REQUIREMENTS ON ACTORS	SCOPE OF ACCEPTED COMPLIANCE	CHECKS	ENFORCEMENT PENALTIES
Japan	Whole supply chain	Broad scope	Due diligence	Unknown compliance options are likely to be broad. There may be variation in the scope of legality verified by different compliance options.	Pre-import. Not linked to customs clearance	Penalties linked to noncompliance with the regulation
Korea, Rep. of	Whole supply chain unconfirmed	Intermediate scope—15 products	Document legality	Unknown compliance options are likely to be broad. There may be variation in the scope of legality actually verified.	Pre-import and linked to customs clearance	Penalties linked to noncompliance with the regulation
China (forthcoming)	Whole supply chain unconfirmed	Broad scope	Due diligence	In the short term, China's State Forestry Administration (SFA) seeks to issue measures to manage the legality of imported timber. In the longer term, a wider legal framework is being considered.	Unknown	Unknown
Malaysia	First placer + exporters to EU	Narrow scope	Document legality	Broad set of compliance options with only one type of document required. There may be variation in the scope of legality actually verified.	Pre-import and linked to customs clearance	No penalties. As checks take place pre-import, timber without sufficient evidence of legality would not be allowed onto the market.
Vietnam	All companies (organizations & households)	All imports of timber and rubber wood	Due diligence	Broad compliance options covering full scope of legality (harvest, taxes and fees, harvesting activities, third party rights, and trade and transport).	Pre-import and linked to customs clearance	Penalties under development. Depending on severity, administrative sanctions, suspension of activities and/or prosecution. Proportional and dissuasive, with harsher penalties for repeated non-compliance.
Indonesia	All companies	Broad scope	Due diligence	Compliance options are broad. Most are not operational yet. There may be variation in the scope of legality actually verified.	Pre-import and linked to customs clearance	As checks take place pre-import, timber without sufficient evidence of legality would not be allowed onto the market. Some limited penalties linked to noncompliance
United States	Whole supply chain	Broad scope	Prohibition-due care	Broad compliance options covering full scope of legality (harvest, taxes and fees, harvesting activities, third party rights, and trade and transport).	Post import. Suspicion and evidence of illegality	Penalties higher when aware about trading in illegal materials. If firm was unaware, penalties vary depending on degree of effort to determine legality.
European Union	First placers	Broad scope	Prohibition-due diligence	Broad compliance options covering full scope of legality (harvest, taxes and fees, harvesting activities, third party rights, and trade and transport).	Post import based on risk	EU member states lay down the penalties applicable to infringements of the EUTR.
Australia	First placers	Broad scope	Due diligence	Broad compliance options covering full scope of legality (harvest, taxes and fees, harvesting activities, third party rights, and trade and transport)	Post import based on risk	Penalties for serious and deliberate breaches of the illegal logging laws are ultimately at the discretion of a court, however they can now include heavy fines.

Source: Norman and Saunders (2017).

3.2.2 Key supply-side measures

Supply-side measures refer to government regulations that influence the production, distribution, or sale of goods and services, including forest-related products such as timber supplied to markets. This section describes and discusses a range of public and private sector schemes designed to influence the supply of forest-related products.

Private certification schemes

Certification programs have rapidly evolved since the 1990s, and are today available in a multitude of sectors, covering dimensions including labor, environment, safety, and efficiency throughout production chain. Certification programs consist of bodies setting standards for a certain industry, and regulated entities typically audited by third-party organizations that are entitled to measure compliance with standards. A common reason for standards to be developed is the lack of effective government regulation in the sector. In some cases, standards are required by law, but generally firms decide to obtain certification on voluntary basis. A key motivation for firms to go through the certification process, notably in the case of consumer products, is the option of giving the product a recognizable label that allows consumers to identify products meeting certain criteria. Examples of well-known labels are Fair Trade (various commodities), Energy Star (appliances and electric products), and LEED (buildings). Accreditation is the process that can validate certification.

Private certification programs encourage sustainable forest management primarily by leveraging consumer demand. Certification refers to the confirmation that an object, person, or organization meets specified standards. Typically, certification is provided through some form of external review, education, assessment, or audit. Accreditation is a specific organization's process of gaining certification. Certification programs in the forestry sector have their roots in the 1993 Rio Summit's failure of participating nations to agree to legally binding standards to regulate illegal logging of tropical timber, which led a number of NGOs and Northern countries to create the Forest Stewardship Council (Overdevest and Zeitlin 2014). The dissemination and later success of the private certification programs is seen as a response to the absence or malfunction of state regulation (Cashore and Vertinsky 2000). In short, under the FSC approach, forests are subject to independent third-party audits to ensure that the products are prepared in line with ecological, economic, and social principles of sustainable forest management. In addition, another certification is available for the value chain (labelled "Chain of Custody", CoC), where each step along value and supply chains needs to comply with rigorous tracking to prevent contamination of the final product. Such monitoring of wood from forest to end user has for long been paper based, but new monitoring technology has developed, such as DNA fingerprinting (Auld et al. 2010). **Box 1** describes control points in a CoC certification. Certified producers are granted the right to mark their product with a label that can be identified by consumers.

Being managed mainly by NGOs or business associations, certification programs are considered voluntary and nongovernmental. Despite this, they have become legally mandatory in certain jurisdictions including in the United States and Canada (Lister 2005), and can be used as proof of legal participation in green procurement programs.

There are over 50 certification programs worldwide (McMullan 2016), but the only ones with global coverage are ISO 14001 (Environmental Management), the FSC, and the PEFC (Schepers 2010). The Organization for Economic Cooperation and Development (OECD) has also developed a voluntary Forest Scheme that recommends use of rules and regulations, including use of certification, for production and trade of certain forest products.²

ISO 14001—Environmental management

The International Standards Organization (ISO) system accredits management practices, and as such it can certify the processes and management of environmental management systems, but it does not cover the content (or forestry outputs) of the management system. In other words, it maps out a framework to set up and operate an effective environmental management system that any company or organization can follow, regardless of activity or sector. Consequently, the ISO framework provides limited legitimacy from a specifically forest-friendly point of view and many firms that use ISO 14001 governance are complementing it with standards such as the Sustainable Forestry Initiative (SFI). A main competitive strength of ISO 14001 is recognition by World Trade Organization (WTO) as a legitimate public standard, and as such firms can be deterred from going beyond ISO requirements for fear of violating WTO rules (Schepers 2010).

Forest Stewardship Council (FSC)

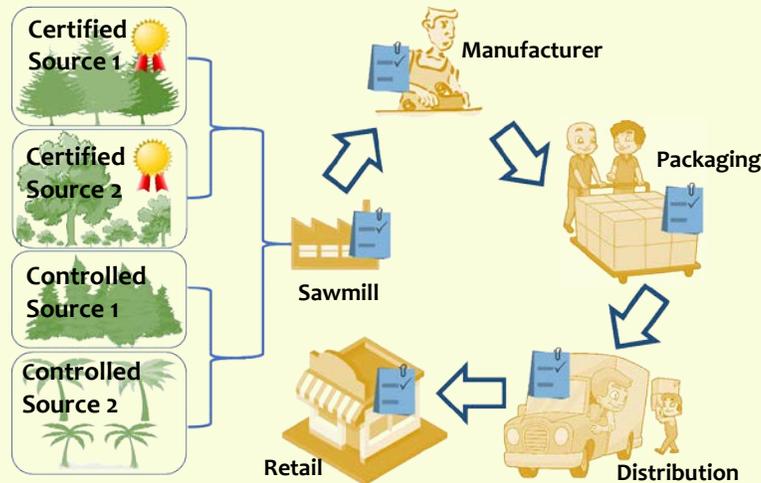
As mentioned previously, the FSC was founded by NGOs as an independent initiative to certify forests following the disappointing outcome of the 1993 Rio Summit. FSC oversees a system of independent certifiers, as well as networks at regional and national levels. Certifiers accredited by the FSC will certify that forest management and logging is carried out in accordance with FSC criteria, and issue forest management certificates. A second type of certificates deals with the CoC of businesses manufacturing or trading forest products, and certifies that the wood has been handled correctly at every step of the production chain (FSC 2018). FSC principles and criteria address: compliance with laws, international treaties, and agreements where applicable; land tenure and usage rights; indigenous people's rights; benefits from the forest, including such elements as watersheds and fisheries; environmental impact; management plans; monitoring and assessment; maintenance of forests with high conservation value; and plantations (Schepers 2010).

² <https://search.oecd.org/agriculture/forest/>

BOX 1. What is required for Chain of Custody (CoC) certification?

Chain of custody (CoC) systems gather, record, and verify information on quantities and volumes of materials involved, and link and cross-check quantities at subsequent stages of the supply chain.

Certification labels affixed to logs or other forest products are keyed to documentation so that information on wood volume, species, quality, and other attributes is available to managers of the CoC system.



At critical control points, systems should allow for identification, segregation, and documentation of the materials to prevent output from certified or controlled sources to be mixed with uncertified or uncontrolled outputs. FSC labels “controlled products” as not being from FSC-certified forests, but which meet the requirements for inclusion with FSC certified products

Source: SGS (2012).

Programme for the Endorsement of Forest Certification (PEFC)

The Programme for Endorsement of Forest Certification (PEFC) was created in 1999 by the forestry and timber industry associations of central Europe. Rather than impose standards, the PEFC introduced a framework for mutual recognition of credible national forest certification standards. The objective was the creation of a more flexible on-the-ground certification program (Cashore et al. 2005), which at the time primarily targeted the European market (hence the previous meaning of the PEFC acronym—the Pan European Forest Certification). It is not surprising to see that, at least in Europe, the private sector-driven PEFC is dominant in countries with majority private ownership of forests, whereas FSC dominates in countries with large public forest ownership (Gómez-Zamalloa et al. 2011). It has been estimated that by 2012 the PEFC had certified 11 percent of eligible land in central Europe (Bartley 2018: 10).

The Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan

The FLEGT action plan was approved in October 2003 by the European Council as a response to a decade-long experimentation with private certification systems. These systems had successes in many developed nations, but take-up in tropical countries for which the systems were originally intended remained limited. This led the G8 to include illegal logging in its 1998 Action Programme on Forests, and later to a series of World Bank–sponsored regional stakeholder dialogues on Forest Law Enforcement and Governance (FLEG). Since none of these initiatives managed to create binding commitments among participating countries, EU unilaterally proceeded with FLEGT (adding a “T” for trade to the FLEG) as an import licensing scheme, initially on a voluntary basis and later mandated through the 2010 EUTR. The FLEGT Action Plan appears to be more accepted by exporting countries than previous transnational efforts to curb illegal logging (which are often criticized as disguised forms of protectionism), since it involves a stronger role for exporting countries in the governance of the system (Overdevest and Zeitlin 2014).

In response to recognized regulatory and market challenges, the EU has also developed Voluntary Partnership Agreements (VPAs) with exporting countries. These are bilateral trade agreements between the EU and timber exporting countries. VPAs involve the development of a timber licensing scheme in the exporting country that is mandatory for all timber exports to the EU. VPA requirements include strengthening governance mechanisms and putting in place timber legality assurance systems with a transparent legality scope, supply chain control and verification of timber legality, and independent audits of compliance. Further, the European Council (2003) “Conclusions on FLEGT” stipulate that VPAs must instigate forest sector governance reforms. More specifically they should:

- strengthen land tenure and access rights especially for marginalized, rural communities and indigenous peoples;
- strengthen effective participation of all stakeholders, notably of non-state actors and indigenous peoples, in policy-making and implementation;
- increase transparency in association with forest exploitation operations, including through the introduction of independent monitoring; and
- reduce corruption in association with the award of forest exploitations concessions, and the harvesting and trade in timber.

European Council (2003)

Regulatory responses to illegal logging and trade in illegal forest products—an assessment

Despite a slowing rate of deforestation, illegal logging remains a pertinent problem in many parts of the world. Estimates have put the share of illegally sourced timber at 10 percent of the total global timber trade (Brack 2007). The situation is particularly severe in developing countries, with the share of illegal logging in forest products comprising an estimated 80 percent in Peru, 85 percent in Myanmar, and 65 percent in the Democratic Republic of Congo (World Wildlife Fund 2017). Chatham House showed in 2015 that progress in combatting illegal logging has slowed, despite

increased efforts both on the demand side (EUTR, U.S. Lacey Act, and Australia's illegal logging laws) and stronger supply market regulation through the EU FLEGT, REDD+, and other initiatives (Hoare 2015).

Private certification schemes have large potential, but do not appear to have been effective in reducing illegal forestry trade. Forest and wood product certification programs have been introduced to reduce deforestation and forest degradation, notably in tropical regions, by providing instruments that could help guarantee that wood was sourced from legal forests. However, very few evaluations have been conducted that assess the efficiency of certification programs in the forestry sector, and a majority of such evaluations are desk studies (Visseren-Hamakers and Pattberg 2013).

Some consider low adoption rates in developing countries as illustrating a failure for private certification programs. The original purpose of private certification programs was to help reduce deforestation and forest degradation in tropical areas. While certification of forests worldwide increased from 10 million hectares in 1998 (Lister 2012) to around 500 million hectares in mid-2017, developments in the tropical forest segment has been less positive. Only 2 percent of the world's certified forests are found in Africa, 3 percent in Latin America, and 4 percent in Asia. Most certified forests are found in North America (49 percent) and Europe (22 percent) (UNECE/FAO 2017).

Several explanations are possible for the limited success of current deforestation initiatives in tropical countries. Measures in import markets, such as the Lacey Act and the EUTR, require legality verification throughout the value chain. They cannot by themselves regulate all the factors affecting the operation of the forestry sector in developing countries. For instance, most deforestation products in tropical countries are not exported. Roughly 90 percent of African wood removal is used for domestic heating and cooking (GFA 2014). Moreover, in most cases the costs of certification are absorbed by private firms, and such costs may be greater than price premiums provided for certified products. One study suggested that the cost of certification is between 100 to 1,000 percent higher than any typical price premiums in the market (Dauvergne and Lister 2010). Furthermore, smaller forestry firms including community-based forestry ventures typically produce timber of lower quality than large firms (De Jong et al. 2016), which reduces revenues, notwithstanding higher prices available because of certification. There is also a wide gap between current governance structures in developing countries and the level required in order to meet minimum criteria for certification. This problem is exacerbated by insufficient financial and human resources, which makes it difficult to raise performance and standards. The Democratic Republic of Congo, for instance, has the second-largest swath of rainforests in the world, but was reported to have only about 100 forest managers a decade ago (Durst et al. 2006).

Forestry Markets and Regulation—Policy and Institutional Context and Challenges for The Private Sector

2.1 THE IMPORTANCE OF GOOD REGULATORY PRACTICES

In recent years governments have focused on improving regulatory governance, including for sectors such as forestry. The regulatory governance agenda encompasses a variety of goals important to economic, social, and environmental development. The most common goals of regulatory governance are achieving a regulatory system that has the following strengths:

- **Effective:** The relationship between the goals of public policy and the results of the regulation. The closer the results of the regulation to identified goals, the more effective is the regulation.
- **Efficient:** Regulation achieves objectives at least cost to stakeholders. Regulation that is efficient one day can be inefficient the next as effectiveness, valuation of benefits, and opportunity costs change. Any reform that increases benefits while holding costs constant, or that reduces costs while holding benefits constant, increases efficiency.
- **Transparent and accessible:** Stakeholders should be able to understand the entire cycle of regulation through problem and goal definition, development, adoption, implementation, and adjudication. The more easily and thoroughly a stakeholder can get information about the regulatory activities of a government, the more transparent are those activities.

The central goal of regulatory governance reforms is to ensure that regulations efficiently produce economic, social, and environmental benefits; that costs are the minimum needed to produce any level of benefits; and that resources are allocated to

their highest values. Achieving regulatory governance objectives requires actions on many different levels. The main challenge is one of institutions and incentives. Good regulatory governance rests on a system of institutions, driven by supporting incentives, that set transparent goals for regulation; apply, advocate, and monitor regulatory quality; and implement a host of better regulation tools.

A well-functioning national regulatory governance system is composed of four building blocks that are mutually reinforcing and interactive (World Bank 2010):

- Regulatory policy—an overarching political statement about how a government will use its regulatory powers. Modern policies include statements about the quality of regulation and regulatory procedures.
- Regulatory institutions—the administrative and political bodies through which regulations are made, implemented, and adjudicated.
- Regulatory quality tools and processes—the administrative and political procedures through which regulations are developed, adopted, implemented, monitored, and reviewed.
- Regulatory policy instruments and outputs—the legal instruments through which regulatory policy objectives are reached. They are found in the stock of existing regulations and the flow of new regulations adopted each year, and can include regulatory as well as alternative, nonregulatory policy instruments used to reach regulatory policy objectives. The policy instruments are outputs of the policies, institutions, and procedures.

Effectively addressing existing problems in the forestry sector has the potential to generate very significant benefits across several economic, social, and environmental dimensions. However, in designing regulatory approaches governments need to strike a balance between the obligation to protect the environment or public interest, and not imposing unnecessary costs on the regulated subjects. Efficient and effective markets that are well regulated are required to underpin private sector investment, which facilitates sustainable management and use of forests and downstream product markets.

In addressing forestry related market and regulatory failures governments are typically constrained across several dimensions. Effective, transparent, and predictable regulations are applied in a global context where governments are fiscally constrained by limits on the capacity to tax and spend. Governments are therefore increasingly relying on regulation to achieve economic, social, equity, and environmental policy objectives. However, in many countries, systemic tools for managing regulatory issues and systems are less developed than tools used for spending and taxing. Global trends regarding the importance of revenue, spending, and regulation approaches to government policy varies, as summarized in Figure 1 (Source: unpublished World Bank Group).

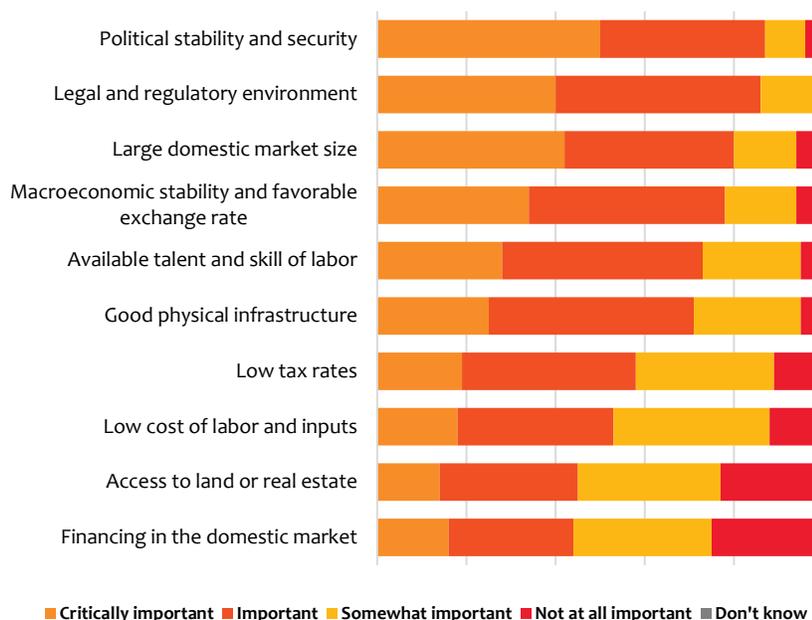
FIGURE 1. Comparison of approaches taken by government for managing revenue, spending, and regulation

STRATEGY AND APPROACH TAKEN BY GOVERNMENTS	REVENUE	SPENDING	REGULATION
Whole-of-government policy	☑ ☑	☑ ☑	Sometimes
Minister	☑ ☑		Rarely
Dedicated institutions to provide oversight	☑ ☑	☑ ☑	Sometimes
Use of impact assessment	☑ ☑	☑ ☑	Sometimes
Publish reporting	☑ ☑	☑ ☑	Rarely
Coordination mechanisms and coherence between levels of governments, bilaterally and internationally	☑ ☑	☑ ☑	Rarely at international level
Implementation across levels of government	☑ ☑	☑ ☑	Sometimes
WBG diagnostics and indicators	☑ ☑	☑ ☑	☑ ☑

Source: Unpublished World Bank Group

The absence in many countries of the use of effective regulatory management tools is occurring in a global context where predictable regulatory systems are becoming increasingly important to global investors and the private sector. For example, as illustrated in Figure 2, global surveys suggest that executives in multinational corporations consider a stable legal and regulatory environment as the second most important factor influencing their foreign investment decisions. Legal and regulatory issues are considered more important than market size, labor skills, and tax rates (World Bank 2017). Although the most important factor for foreign investors is “political stability and security,” this category includes a range of regulatory issues, such as:

- lack of transparency and predictability in dealing with public agencies
- sudden changes in laws and regulation with a negative impact on the company
- delaying in obtaining necessary government permits and approvals to start or operate a business
- restrictions in the ability to transfer and convert currency
- breach of contract by the government and expropriation or taking of property or assets by the government

FIGURE 2. Factors influencing foreign investment decisions, 2017/2018

Source: World Bank (2017).

2.2 A COMPLEX AND GROWING REGULATORY FRAMEWORK

As discussed in Chapter 1, the last few decades have seen a strong increase in a wide range of public and private initiatives to reduce the problem of illegal logging. This has also come with expanding regulatory frameworks, and additional layers of laws and other types of rules, affecting stakeholders throughout value chains. However, there is limited evidence suggesting that the continued deforestation and forest degradation stem from the fact that tropical forests are geographically located at an “unregulated frontier,” as has been claimed by some (McGinley et al. 2012). Indeed, a 2009 study by McDermott, Cashore, and Kanowski illustrates that countries having some of the largest tropical forests, including Brazil, Democratic Republic of the Congo, Indonesia, as well as South Africa and states in India, have among the most stringent forest regulations. A study of forestry regulation in the Americas shows that many countries in South America have more rigorous and comprehensive forestry laws than much of the United States (McGinley et al. 2012).

The forestry and downstream processing sectors are characterized by competition between different local, national, and international regulatory systems, generating scope and risks of further “regulatory inflation.” As was seen in Chapter 1, importer countries often impose strict rules and requirements that are typically pushed all the way down to producer. National and local authorities also have their own sets of rules, complemented as needed by transport permits from police and sometimes the military. Identified market failures require effective government intervention, but policy responses are often ad hoc and fail to meet broader objectives because of poor design and weak regulatory governance and administration. Indeed, governments typically respond to identified problems by adding new laws and regulations to the existing body of laws.

Key challenges resulting from the growing regulatory framework in the forestry and related sectors are discussed below.

Weak regulatory agencies

International regulatory initiatives can help countries with tropical forests strengthen their legal frameworks for forestry protection, but such initiatives are of limited use unless accompanied by institutions and administrative capacity that can efficiently manage those regulations. As pointed out by the World Bank (2006), “forest crime largely results from weak governance and subsequent poor law enforcement in the forest sector.” Research has shown that although the regulatory frameworks related to forestry can be rather comprehensive in tropical countries, many governments have low capacity and there is often a wide gap between rules on paper and regulation as felt on the ground.

Forestry regulatory agencies often struggle to perform effectively. In developing country contexts, forestry regulators frequently have insufficient resources and capacities to effectively administer existing laws and regulations, or develop high-quality regulations. For instance, it was reported in 2006 that the Democratic Republic Congo only had 100 professional foresters to monitor an area three times the size of France (Durst et al, 2006). Trade-offs are often made between enforcing a wide range of laws and regulations that seek to achieve a wide range of economic, social, and environmental outcomes. There is frequently a lack of capacity, consensus, and clarity regarding how such trade-offs should be made. A study by McGinley and Cabbage (2011) shows that while some Latin American countries have a more comprehensive regulatory framework than many richer countries, this framework has not been accompanied by sufficient human, financial, and material resources for implementation. Similar findings are found in a range of studies, prompting Gregersen and Contreras (2010) to conclude that “the most stringent forest regulations are normally found in countries that have the least capacity to enforce them.” Enforcement of regulations is particularly weak and usually focuses on problems most easily identified and solved, rather than problems that generate the most significant risks and costs.

From an implementation efficiency point of view, a more comprehensive regulatory framework may actually be less efficient and effective than simpler ones. Loopholes in the legislative framework and gaps or failures in the judicial system—common in many developing countries—further weaken capacity to implement forestry regulations. In fact, more comprehensive regulatory frameworks may have adverse effects if the necessary governance frameworks fail. As pointed out by Larson and Pulhin (2010), “[t]hrough it is broadly recognized that some kind of regulation is needed to guarantee the future of the world's forests, it is apparent that many regulations serve less noble purposes, including maintaining government jobs and authority, and favoring elite actors, or rent-seeking and corruption.” This is not a forestry specific problem, since governance and enforcement issues are endemic in many sectors. Hence, such adverse impacts may have been augmented and possibly reinforced by the large number of international initiatives to reduce deforestation and forest degradation. Indeed, a large number of studies have shown that comprehensive and prescriptive regulation is associated with adverse effects

on economic growth (Djankov et al. 2006; Messaoud and Teheni 2014) unless supported by strong, effective, and efficient institutions (Loayza et al. 2005a,b).

Overregulation, combined with unclear roles and capacity within regulatory institutions and low governance quality, contribute to higher levels of corruption. Corruption can be defined as misuse of trusted power (including violation of a duty or obligation under law) for private gain. Corruption can be found in either the public or private sectors and can vary from high-level corruption involving key decision-makers, through to petty corruption often involving low-level officials. Corruption in the forestry sector is evident in activities such as illegal logging and timber smuggling; avoiding payment or taxes, fees, and charges; and illegal timber processing (Callister 1999). Forestry sector corruption is highly correlated with deforestation and creates a wide range of social, economic, and environmental costs. The International Criminal Police Organisation (INTERPOL) estimates the annual global cost of corruption in the forestry sector to be around US\$29 billion. Illegal logging facilitated by corruption is estimated to cost the private sector US\$19-47 billion in lost profits (INTERPOL 2016). According to the INTERPOL study, the persons most likely to be involved in corruption in the forestry sector are government officials from forestry agencies. Bribery is reported as the most common form of corruption in the forestry sector, followed by (in order from most to least common) fraud, abuse of office, extortion, cronyism, and nepotism. Government officials from other agencies, law enforcement officers, and logging company officials are also found to be extensively involved (INTERPOL 2016).

Impact on private sector

A high level of regulatory complexity is a characteristic of the forestry sector. A study in Honduras found that obtaining a logging permit involved 20 actors, 53 procedures, and 71 steps, and took an average of three to four months. Similarly, in Costa Rica, the process involved 11 actors, 31 procedures, and 34 steps, and could take up to 18 months (Larson and Pulhin 2012). A case study of the timber value chain in the Philippines shows how government procedures are tedious and costly, and how public officials and middlemen take payments throughout the process. In some instances, long lead times in public agencies made compliance impossible. In addition to regulation, note that smallholders are suffering from a range of other difficulties such as obtaining information about current timber prices (Pulhin and Ramirez 2016).

The amount and nature of regulation in the forestry and downstream sectors can prevent effective and efficient policy outcomes. A lack of strategic planning in the design and implementation of regulation can easily lead to situations where regulation does not work as intended, and where regulated subjects have difficulty complying even in cases where they lack criminal intentions. Highly regulated environments may fail to achieve their policy objectives for a range of reasons, including high compliance costs, compounding further identified problems such as corruption. For example, there are a range of factors that can provide disincentives for wood production on private land, including difficulties in separating ownership of land and trees, potential for double taxation, uncertainty about harvesting rights, noncommercial operations of government forestry agencies, and controls on the transport and export of wood (Industry

Commission 1998: 213–229). While regulations and activities in these areas are well intentioned and designed to address specific problems, they can also unintentionally create barriers to achieving other objectives such as the development of timber production on private land.

Poorly designed regulation lowers compliance. Factors such as difficulty obtaining information, complexity, and ambiguity lead to noncompliance and can encourage corruption (OECD 2000). Such challenges are well known and documented in the forestry sector, including in both developed and developing countries. For instance, in the Australian state of Tasmania, research shows that only 15 percent of noncompliance cases were intentional; the rest were due to deficient management systems, lack of knowledge about regulations, and human errors (Wilkinson et al. 2014).

A growing body of evidence suggests that poorly designed and implemented regulations affect small firms more than the large operators in the forestry sector. Many countries inappropriately apply large-scale industrial regulation to small companies and communities. Moreover, large companies often have staff and resources to comply with regulatory requirements, whereas small operators may lack resources, knowledge, and literacy levels to comply. This is not only a bureaucratic issue. Many regulations and private certification programs require large compliance investments, including the introduction of comprehensive timber tracking systems. This is often unattainable for small-scale operators. Research shows that by reinforcing the market advantages of multinational forestry corporations in developed countries rather than helping smaller-scale producers achieve competitive gains, certification may be contributing to increased global market inequities (Dauvergne and Lister 2010).

The forestry sector consists of a heterogenous set of actors, often with quite different interests and objectives. Following the 1990s sustainable development trajectory, many countries started making their regulatory frameworks more suited to smallholders and traditional indigenous groups. Notably, the focus has been on community forests, defined as “authority granted to communities to manage areas of forests, the purpose of which is to derive socio-economic benefits but constrained by the condition that forests must be conserved in order to provide ecosystem services and benefits to non-local users” (De Jong et al. 2016). Unfortunately, such initiatives did not always result in a simplified framework, but added instead a new set of bureaucratic processes and hurdles. Many small-scale operators and forest communities are located far from capitals and larger cities, which may hamper opportunities to keep in contact with authorities and apply for necessary approvals, permits, and licenses. Smaller operators often have lower levels of education than large firm representatives, which further impedes their opportunities to comply or even understand complex regulatory requirements. That said, there are positive examples. In Ecuador, a simplified forestry management plan for logging has been introduced; and in Peru, new legislation provides for simplified licensing for indigenous communities. However, in many Latin American countries procedures remain overly complex, and governments are generally not ready to delegate responsibility to local communities. For instance, in Peru and Bolivia chainsaws are not allowed to be used for preprocessing logs in the forest, meaning that smallholders need to rely on commercial loggers to transport timber from the forest (Pokorny et al. 2013).

Sometimes new forestry reforms lead to further regulatory failures, as harmonization between different regulatory instruments is not considered in the regulatory process. In Indonesia, the Regional Governance Law and the Forestry Law granted more authority over natural resources management, including forestry, to local governments, and decisions are made at local level. However, a study from the Jambi province showed that this led to inconsistencies and conflicts between regulations on oversight of forestry, and subsequent further degradation of natural resources (Nurrochmat et al. 2006). Contradictions are prevalent in the sector. They can be found when customary rights are conflicting with state policies (Clarke 2010), and when different and sometimes conflicting policy objectives are pursued by various state institutions (Cardona et al. 2014).

Complex and evolving regulations mean that for many small-scale operators, compliance with regulatory requirements is impossible, or extremely difficult. Operators in small-scale forestry often lack higher education, and may not have resources required to invest in external support. For example, community forests in Cameroon have to comply with more complex rules than large firms and have startup rules that are considered almost impossible to comply with. So far, no community forest has been established without extensive external assistance (Larson and Pulhin 2012). Other examples show how small-scale operators need to commit a majority of upcoming harvesting revenues to paying bribes and hiring intermediaries to handle the permit application process, before they even receive their harvesting permits (Pulhin and Ramirez 2016). Other examples show how operators pay large sums in obtaining permits, only to receive the permit shortly before its validity has expires, meaning that harvesting has to be carried out illegally.

As discussed in Chapter 1, a growing number of private sector organizations administer bodies of quasi-regulation in the forestry sector where there is an expectation of compliance by regulated enterprises and occupations.³ These can include codes of conduct, standards, and rules developed by NGOs and often larger, transnational private firms. But again, these standards are often too expensive to be adopted by many firms in developing countries, and compliance can be patchy. Furthermore, these schemes are significantly constrained or modified in some countries and supply chains, thus negating their consistency and effectiveness (Bartley 2018). There are challenges where existing laws, regulations, and quasi-regulations require conflicting actions by business, or generate unnecessarily cumbersome requirements and costs on business. In some regions of India, for instance, 10 separate permits are required for community forest producers to complete a timber sale. Gritten et al (2015) show how communities in Cambodia, Nepal, Vietnam are required to submit complex forest management plans that they cannot develop themselves and lack financial resources to pay for. Forest administration offices provide insufficient incentives, motivation, and technical and financial support for communities to overcome this constraint. Well-intentioned quasi-regulation and interventions risk increasing the burdens and complexity of existing regulatory systems—especially for SMEs.

³ Quasi-regulation includes a wide range of rules or arrangements with which governments encourage businesses and individuals to comply, but which do not form part of explicit government regulation. Quasi-regulation can include codes of practice, advisory notes, guidelines, and rules of conduct, issued by either nongovernment or government bodies.

2.3 OPPORTUNITIES FOR STRENGTHENING REGULATORY GOVERNANCE IN THE SECTOR

There is significant momentum globally for enhanced regulatory cooperation and coordination. A positive development is that large certification programs, such as FSC, have upgraded their standards to support compliance by developed countries, including standards of the European Union Timber Regulation and the U.S. Lacey Act. Meanwhile, Australia has approved the Indonesian national timber certification as proof that timber is legally sourced. Due to the large number of certification schemes, some 10–15 countries are involved in an “international mutual recognition framework” process undertaken by the International Forest Industry Roundtable (IFIR), aiming to establish a high threshold for recognizing credible certification standards and provide a critical mass of credibly certified forest products to the market. Such reforms have the potential to improve the enabling environment for the private sector.

Private sector investment and activity in the forestry and downstream markets often occurs in a context of often weak or dysfunctional markets. Both market and government failures exist, potentially compounding failures to achieve broader policy objectives such as sustainable harvesting and use of wood products. Moving forward, a major challenge for governments and international organizations is to ensure that policy does not inhibit healthy market exchanges but promotes them where practical, and where policy is consistent with achieving broader policy objectives. A further challenge is getting communities to forgo short-term material advantage in return for longer-term commercial and environmental benefits for themselves and future generations. Well-regulated markets can play an important facilitating role in such trade-offs. The initial priority should be to address ongoing market-related causes of unsustainable harvesting and use of harvested wood products, particularly market problems that can be solved at little or no cost.

Based on the previous sections, we identify below a specific set of regulatory failures in need of solution.

- **Complex regulatory procedures.** Many studies have pointed out how operators in the forestry sector need to comply with a large number of requirements, almost making it impossible to comply. Studies in Honduras and Costa Rica document the many actors, procedures, steps, and delays involved in compliance (Larson et al. 2010).
- **Conflicting regulations.** Some studies have documented conflicting regulatory frameworks (e.g. Nurfatriani et al 2015) in the forestry sector. Conflicts are found within the forestry regulation and between forestry regulations and other legal instruments, and make legal compliance challenging and even risky.
- **Regulations not aligned with overall policy objectives.** A study in the Philippines concluded that onerous policies and regulations designed for industrial forestry are used for communities and smallholders. This should not

be the case since the objective of industrial forestry is the maximization of profit while that of communities and smallholders is primarily directed to social, environmental, and economic objectives through continued forest protection, rehabilitation efforts, and creation of income-generating livelihood (Pulhin and Ramirez 2016).

- **Long lead times in public agencies.** Complex regulations make it difficult for authorities to respond to applications for permits and other approvals in a timely manner. In the Bolivian site of Cururu, it took over two years for a forest management plan to be approved (Larson et al. 2010). In the Philippines, a “Resource Use Permit” (RUP) can only be used for one year from the conclusion of its previous RUP. However, obtaining the RUP takes so long that there are typically only a few months left of its validity when obtained (Pulhin and Ramirez 2016).
- **Regulations more focused on paperwork than on actual change in behavior and results on the ground.** A study in Indonesia concluded that a huge regulatory inflation led forest managers focus more on bureaucratic procedures than changing the way their forests were handled (Bennet 2002). This shows a strong bias toward procedural regulation rather than output-based control of the work.
- **Confusing institutional framework.** In many countries a number of actors are involved, resulting in overlaps and confusing institutional frameworks. For instance, in Nicaragua there are often conflicts between central and regional “autonomous” governments over rights to assign harvesting permits. Similarly, there are overlaps in enforcement, with forestry agencies, military, police, customs, and judiciary typically being involved.

The specific hurdles faced by firms operating in the forestry sector are discussed in greater detail in Chapter 3, along with a range of more effective, efficient, and transparent regulatory responses to strengthen regulatory governance in the forestry sector.

Potential Solutions for Further Investigation and Piloting

This chapter discusses a range of potential solutions to the market and regulatory failures and their causes presented in Chapters 1 and 2. These potential solutions could be piloted in selected developing countries to test their potential impacts and, if successful, replicated at a later stage in other projects and in a wider range of countries. Practical implementation modalities could also be considered as part of country pilots. It is important to note that this chapter does not discuss all regulatory reform tools and modalities. Rather, it focuses on approaches that may be most appropriate and relevant to the forestry sector. Furthermore, greater emphasis is given to tools that may be particularly relevant and useful to improving regulatory governance in the forestry sector.

The forestry sector is typically regulated by a line ministry—which is also often responsible for broader environmental and agricultural policy and regulation. However, a range of other regulatory ministries and agencies also have an interest in developing policy and regulation for this sector, including regulatory bodies responsible for business operations, transport, and health and safety. The forestry sector is also typically regulated at both national and subnational levels of government. Therefore, there are potentially a number of government counterparts that can help deliver solutions to forestry sector problems. The government organization best placed to deliver solutions will depend on the specific system of government, roles of government bodies, and capacity of regulators in each country.

In response to growing expectations and pressures, governments globally over the last few decades have experimented with and developed knowledge about a wide range of regulatory governance tools. These potential solutions cover the entire regulatory cycle and are clustered around three thematic areas:

- 1) Improving regulatory quality for existing and new regulations (including better addressing regulatory competition, inflation, and duplication, as well as using alternatives to traditional law-based regulation)
- 2) Strengthening the effectiveness of regulatory administration and oversight
- 3) Achieving greater transparency, inclusion, and predictability in regulation-making and administration

These thematic areas and the various reform solutions associated with them are discussed in more detail in the following sections. The choice and mix of solutions and best implementation practices in sectors such as forestry requires consideration of a

number of key issues. These include: identifying the most significant problems and desired policy outcomes; demand for and feasibility of using various regulatory reform tools; and the most appropriate sequencing of reforms, so that outcomes are sustainable and build on (and reinforce) previous reforms. Importantly, as noted above, a more business-friendly regulatory environment can both lead to more investment and jobs in the forestry sector, and help foster greater compliance and improved environmental and social benefits.

3.1 IMPROVING REGULATORY QUALITY

Greater focus and transparency are needed when assessing trade-offs among multiple economic, social, and environmental objectives and outcomes, in the short, medium, and long terms. Such assessments should be made in the context of growing requirements on business to implement local and national regulations alongside increasingly stringent international obligations. A further context to consider is quasi-regulations, where governments and business collaborate to develop and/or implement regulatory regimes.

3.1.1 Make use of Regulatory Impact Analysis (RIA)

Regulatory Impact Analysis (RIA) is widely recognized as a key tool to improve the quality of new regulations by strengthening the efficiency, transparency, and accountability of regulatory decision-making. By providing a systematic, evidence-based, and consultative framework for regulatory policy making, RIA systems incorporate important ‘good governance’ features and contribute to good regulation.

RIA is both a process of government for regulatory decision making and a document. The document is typically prepared by the regulatory agency that sponsors new regulation. The RIA process and document are intended generate better quality and more transparent information about regulatory issues, options, and impacts. Better information will help decision makers produce better regulation and improve regulatory administration.

A successful RIA process is about creating effective incentives for all participants involved in regulatory policy development. These participants include decision makers such as cabinet officers, ministers, and officials; policy advisors and experts within and outside government; and regulatory institutions. RIA documents vary enormously, from relatively short documents of about 10 pages in length to much larger documents.

RIA documents usually contain seven key elements:

1. Definition of the problem and context
2. Identification of a feasible objective to address the identified problem
3. Identification of regulatory and nonregulatory options to achieve the objective
4. Assessment of the impacts, costs, benefits, and risks of each option, including who is affected and how
5. Documentation of consultations undertaken with stakeholders and their views
6. Comparison of the pros and cons of each option and a recommended option
7. Analysis of how the recommended options will be implemented—how, when, and by whom (including when the regulation will be reviewed)

RIA supports evidence-based decision making by generating better quality proposals that consider a range of options and their impacts—including consistency with existing regulations. Choices in the forestry sector often include making trade-offs between a wide range of social, economic, and environmental variables, as well as trade-offs between short-term gains and desirable longer-term outcomes. Therefore, consideration of alternative solutions should routinely make use of appropriate methodological tools such as discounting rates to further explore and inform how to best manage such trade-offs over time. RIA should also include a comprehensive process of public participation.

Over 90 percent of OECD countries and about 20 developing and transition countries have RIA processes in place. Indonesia (at the subnational level), the Republic of Korea, Malaysia, Mexico, Poland, and Turkey all have RIA processes. A further 20 developing countries are implementing RIA or actively exploring scope to establish this process (including Kenya, Bangladesh, Serbia, Sri Lanka, Uzbekistan, and Vietnam). RIA processes vary enormously between different countries. The WBG has extensive experience in supporting the establishment of RIA processes in developing countries, including in providing training, capacity building, and support for RIA pilots. **Box 2** illustrates key issues identified in an Australian RIA that focused on sustainable forestry and the problem of illegally logged timber. RIA pilots could be useful in the forestry sector where governments are already operating RIA systems, or intending to establish and operate RIA systems. Conversely, a stand-alone forestry RIA pilot without a broader supporting policy and institutional framework and system may generate limited little value added. It is important to note that establishing and operating an effective RIA system typically takes several years. Developing an RIA system requires ongoing high-level political support and sufficient resources to support operation and an oversight body for quality control of draft RIA documents.

BOX 2. Australian government RIA on illegally logged timber

This RIA assesses the costs and benefits of viable regulatory and nonregulatory policy options to encourage the sourcing of timber products from sustainable forest practices, and to seek to ban the sale of illegally logged timber products. Measures to achieve these objectives include:

1. Building capacity within regional governments to prevent illegal harvesting
2. Developing and supporting certification schemes for timber and timber products sold in Australia
3. Identifying illegally logged timber and restrict its import into Australia
4. Requiring disclosure at point of sale of species, country of origin, and any certification
5. Arguing that market-based incentives aimed at reducing emissions from deforestation and forest degradation should be included in a future international climate change agreement

The RIA focuses especially on measures 3 and 4, which involve potential regulation. It recommended that the government utilize a due diligence (co-regulation) approach for identifying illegally logged timber and restricting its importation into Australia. The co-regulation option would include targeted investment in capacity building and maintaining Australia's bilateral and multilateral engagement with other countries in the Asia-Pacific region. This conclusion is supported by the findings of the cost-benefit analysis and a consideration of the intangible costs and benefits and potential effectiveness of the policy options available to the government.

Source: Department of Agriculture, GoA (2010).

3.1.2 Improve the quality of existing regulations

The forestry sector is already governed by a myriad of existing laws, regulations, and administrative processes, making full compliance by the private sector difficult or impossible. Therefore, a key challenge moving forward is to place greater emphasis on reviewing existing regulations to ensure they remain relevant, effective, and integrated with other existing regulatory requirements. Furthermore, there are a range of proven regulatory governance tools for improving the stock of existing regulation. Such tools can also be used in different combinations depending on the main problems that needs to be addressed and capacities on the ground to review and reform existing regulations.

Proven tools for improving the stock of existing regulations are discussed in the following paragraphs.

Codification. This involves the collection and systematic identification, usually by subject, of the regulations of a state, sector, or ministry/regulatory agency. Existing regulations are then consolidated and often made available electronically. The codified regulations rearrange and displace prior regulations. This is often a necessary first step for understand what regulations actually exist in the regulatory system or body of regulation. After codification, systematic review and reform can then be conducted. Codification reforms typically require at least 2–3 years to be conducted and implemented.

One commonly used approach is to conduct a staged review of sectoral regulations coordinated with other national and international participants. This approach involves identification of the body of existing regulations impacting on forestry and reviewing and reforming them in a staged and sequential manner. Regulations can be reviewed by jurisdiction (international, national, and local, etc.), by ministry/agency, by the form of the regulation (primary, subordinate, administrative, etc.) or by the age of regulations.⁴ Such reforms require high-level political support and a capacity to sustain momentum in the face of powerful vested interests, which often oppose reforms that expose them to greater transparency and competition.

Scrap and build. To produce real and sustainable change, a comprehensive review and rebuilding of entire regulatory regimes is often necessary. This is called “scrap and build” in Japan, and “reinventing regulation” in the United States. It permits prioritization of reviews for specific sectors and thorough rethinking of the principles underlying the regulatory regime. This can include generalized reviews (listing). Generalized reviews are policies that instruct regulatory bodies to review their regulations (self-review) against general criteria such as need and efficiency.⁵ Use of “scrap and build” in sectors such as forestry has been limited.

Automatic review, sunseting, and staged repeal. Automatic review requires that existing regulation be periodically reviewed, say every 10 years, to ensure that they remain effective and efficient in meeting their objectives. “Sunsetting” is a process by which new laws or existing regulations are given automatic expiry dates upon adoption. This

⁴ Review by age of regulation: stage 1 reviews all regulations made before 1980; stage 2 regulations made from 1981-2000; stage 3 regulation made after 2001; and so forth.

⁵ However, note that generalized reviews often absorb the energies of governments and deliver only minor results.

approach is often used for subordinate regulations. A closely related regulatory reform tool is staged repeal. Under staged repeal, existing regulations are given “sunset” dates via ex post policy action.

Regulatory guillotine. The guillotine is a systematic and transparent process across the government for simplifying large-scale bodies of existing regulations. Large numbers of regulations are counted and reviewed against clear criteria. Regulations that do not meet the criteria and therefore are no longer needed are eliminated, usually using extensive stakeholder input. While the criteria for review vary between jurisdiction, they often ask three key questions: Is the regulation legal? Is it needed? Is it business friendly? The guillotine approach uses the principle of the “reversal of burden of proof”: that is, ministries/regulators need to justify why a license or regulation is needed, otherwise it will be removed. Those regulations that are retained are often made available via an online registry, to enhance access and certainty regarding regulatory requirements and obligations. This tool is generally not applied to particular economic sectors such as forestry, but rather focuses on types of laws or regulatory processes, such as licensing, that affect the operation of the private sector. It is whole-government reform that can be transformational when implemented successfully. However, the guillotine often generates disappointing results as recommended reforms are not implemented by the legislative and executive arms of government.

Process reengineering. Process reengineering is accomplished through redesign of administrative procedures to significantly reduce the time and cost for businesses in applying for and receiving approval for licenses, permits, and so forth. The procedure involves identification of existing administrative processes via a legal inventory and process maps, and the elimination (or merging) of steps associated with granting of an approval or right. This approach should be implemented alongside the review and reform of information technology systems (for example, digitization and automation). This is important because information technology solutions can replace antiquated paper-based administrative processes and significantly increase the speed of decision-making, while also reducing scope for corruption. In addition, such reforms are also usually integrated with improvements in the interface between governments, citizens, and business—such as one-stop shops, citizen/business-centric service delivery offices, and online portals. One example of a sectoral single window is Colombia’s forestry one-stop shop (Ventanilla Única Forestal) in [Box 3](#). This approach requires strong coordination mechanisms within and among institutions to make sure that requirements are effectively streamlined and implemented. Such reforms typically result in reduced costs for the private sector, achieved through a range of integrated legal and administrative reforms. Process reengineering can be applied to sectors such as forestry, including regulatory and administrative processes used by individual forestry regulatory agencies. Such reforms typically take a minimum of two years to be successfully implemented.

Standard Cost Model (SCM). This is a method to estimate the time and cost needed to complete administrative or red tape requirements. Costs include information costs (finding out what are the regulatory requirements and getting necessary documentation), the time and cost associated with interacting with regulatory agencies, and the time taken for regulatory agencies to process applications or transactions and advise the enterprise of the outcome. Administrative costs can also include in some cases the time and cost of appealing decisions of regulatory agencies. Alternatively, SCM can take a narrower focus

and measure the time taken by businesses to obtain necessary regulatory approvals. While counting only a subset of actual regulatory costs (that is, administrative or regulatory compliance costs of enterprises), the SCM methodology often generates reform interest and momentum, as well as helping government identify the regulatory transactions that most burden enterprises.

SCM typically involves mapping, describing, and inventorying existing business licensing or permit processes and the activities carried out by the private sector. Applying the SCM quantifies the time and cost incurred by enterprises, thus providing a tool for measuring potential time and cost savings from reform options and outcomes. This tool is often used in conjunction with process reengineering by informing decisions about which reforms should be implemented and how to monitor and evaluate the impacts of reforms over time. It can be used to measure costs for regulatory transactions or processes associated with specific regulatory agencies or types of regulations such as licenses and permits. SCM diagnostics can be undertaken relatively quickly—often within a few weeks of relevant data being made available.

BOX 3. Colombia's forestry one-stop shop

Colombia's electronic forestry single window (Ventanilla Única Forestal) was introduced in 2012 by then president Juan Manuel Santos, as part of a government-wide initiative to reduce corruption and streamline interaction with the public sector. The portal is operated by the Ministry of Agriculture and Rural Development and offers a centralized point of contact for a range of government interactions with companies in the forestry sector.

In addition to providing information on rules and processes pertaining to the sector, it also receives and processes online applications for registration of forest plantations; registration for movement of wood products; Forest Incentive Certificates; and other authorizations, permits, or certifications introduced in the sector of commercial forestry. The facility centralizes services that are under the responsibility of, among others, the environment, trade, and the traffic police ministries.

Sources: <https://vuf.minagricultura.gov.co/>;
<https://www.elheraldo.co/noticias/agropecuaria/ventanilla-unica-forestal-brindara-atencion-oportuna-a-los-tramites-del-sector>.

3.1.3 Assist sectoral regulators in developing a culture and specific instruments that can help ensuring greater consideration to the impacts of proposed regulations on SMEs

Lack of information, regulatory complexity, and high compliance costs act as a significant disincentive to SME participation in the forestry sector, or to transition from an informal to a formal enterprise. Therefore, one of the main challenges in the forestry sector is to encourage the growth of formal SMEs that comply with regulations that aim to achieve a range of private sector development, environmental, and social outcomes. Note that

regulatory compliance burdens fall disproportionately on SMEs, not only in the forestry sector, but also more broadly in other sectors. Such regulatory burdens compound other challenges often faced by smaller enterprises, such as fulfilling information obligations or accessing finance, markets, and information about the sector they are operating-in.

MEs are typically a very important creator of jobs, including in remote and rural areas where forestry products are sources and used. Considerable potential exists to increase the involvements of farmers, small forest owners, local communities, and indigenous peoples via SMEs. Hence, SMEs play a disproportionate role in facilitating inclusive investment, growth, and jobs, including for disadvantaged groups.

BOX 4. Encouraging the growth of SMEs in the forestry sector in China

Small and medium-sized enterprises (SMEs) in China have contributed significantly to economic livelihood and local employment in China. They have come to form an integral part of the Chinese economy under a series of supporting policies and a rising market economy since the 1980s. Although small and medium-sized forest enterprises (SMFEs) share many features with nonforest SMEs, they also face peculiar challenges in terms of the complexity of government support, finance and market access, specialized associations, and labor issues.

In 2009 a detailed diagnostic study was undertaken by the Food and Agriculture Organization of the United Nations (FAO) and the State Forestry Administration (SFA) of the Chinese government. This study found that approximately 87 percent of the forestry enterprises in China are classified as small and that government regulations were one of the most important barriers to greater SME participation and growth in the forestry sector. This study recommended a range of regulatory and institutional reforms to support forestry SMEs in China including:

- creating an enabling legislative and policy environment for SMFEs;
- improving the capacity of industrial associations; and
- enhancing competitiveness and cooperation among SMFEs.

Source: Luo et al. 2009.

There are a range of regulatory tools and approaches that can be used to make it easier for SMEs to participate in the forestry sector. These typically aim to increase returns, reduce risks, and reduce compliance costs. Reforms supportive of forestry SMEs can include:

- Specifically addressing impacts and burdens on forestry SMEs when designing and administering regulations. This can include a range of measures, including providing partial exemptions for SMEs from more complex and burdensome regulatory requirements, and simplified recording-keeping and reporting requirements aligned with good practices followed by SMEs.
- Develop new regulations that support SME's access to critical financial services. Poor access to finance is one of the bottlenecks for SMEs. Existing financing mechanisms are often not adequate for forestry management projects with

rotations of 20-30 years, because they have a limited or no grace period to start repayments. Forestry SMEs may have insufficient revenues to service loans until the trees are mature and can be harvested.

- New fees and taxes can be tailored to not have a disproportionate impact on SMEs, including use of thresholds, and simpler and easier record-keeping and reporting requirements for SMEs.

Improved regulation and lowered burdens for firm entry will reduce informality in the private sector. Several studies show how reforms of entry-level regulation (incorporation and other procedures) can significantly increase the number of firms that register, survive and grow, and efficiently operate (see Motta, Oviedo, and Santini (2010) for an overview of research).

However, entry regulation is not the only type of regulation impacting the level of informality. Loayza, Oviedo, and Servén (2005a,b) find a positive and statistically significant correlation between informality on the one hand, and a broader product market index combining density of regulation pertaining to labor, entry, trade, financial markets, bankruptcy, and contract enforcement on the other. Moreover, a number of studies have shown the relationship between regulation and corruption (see overview in Madani and Licetti (2010)), technology adaptation in firms (Riordan 1992), foreign direct investment (Busse and Groizard 2008), international trade (Crozet and Mirza 2016), innovation (Marcos and Santaló 2010), productivity (Crafts 2006), and employment (Noe 2011).

3.1.4 Ensure that new and existing regulations encourage healthy competition and innovation, while discouraging the development and misuse of market power

Many markets in developing countries do not yet benefit fully from healthy and effective competition, and government interventions often fail to provide firms with the right incentives to enter and compete fairly in markets such as forestry. At the regional, national, and subnational levels, sector-specific rules and regulations frequently limit market entry or reinforce the dominance of a few, often larger, politically connected incumbent firms. Although more than 100 countries have enacted competition laws, anticompetitive practices continue especially in developing countries. NGOs such as the World Wildlife Fund have noted significant market concentration, with for instance 100 companies reportedly controlling 25 percent of global trade (Bartley 2018: 6). Regulatory frameworks often fail to ensure that more efficient market players can compete on a level playing field. State-owned enterprises (SoEs) tend to be significant market participants in developing countries, and to often benefit from competitive advantages solely because of their close connections with governments.

Anticompetitive business practices have significant spillover effects in terms of less economic activity, poverty alleviation, investment, job creation, and productivity growth. For instance, cartels can increase prices in markets where they operate, including in transportation services. Bid rigging in public procurement is also prevalent in many sectors.

When developing new regulations for forestry it is important to consider competition policy issues and impacts in the following dimensions:⁶

- **Design pro-competition market regulation.** Open specific markets to competition. Reduce government interventions that may shelter less efficient firms, protect incumbents, or facilitate collusion, including forestry sector-specific regulatory design.
- **Reform the competition framework and its implementation.** Ensure new forestry regulations do not encourage and protect cartels, encourage anticompetitive conduct, or misuse of market power, and control mergers that could impede healthy competition.
- **Foster competitive neutrality in forestry markets with direct state participation.** Design mechanisms that minimize the distortive effects of incentives and state aid support and promote competitive neutrality among market players in the forestry sector.

In the forestry sector globally, key competition policy challenges include the effect of state aid (including SOEs); licensing that restricts entry; and encouraging private sector activities that achieve broader environmental outcomes. The objective of new regulations, including for licenses and permits, should be to encourage broader policy outcomes in a manner that does not discriminate in favor of, or against, particular types of businesses based on their size or ownership. For example, where forestry resources are made accessible to private sector enterprises, access should be nondiscriminatory and transparent and should focus on permitting access and use by enterprises best able to achieve broader economic, environmental, and social objectives. **TABLE 2** illustrates a range of mechanisms to encourage healthy competition in markets such as forestry.

Competition policy should apply to forestry only to the extent that its use is consistent with the achievement of identified social, environmental and economic objectives, including the need to protect environmental amenities. Where appropriate, exemptions and exceptions can be applied to the use of competition policy mechanisms. Competition policy is not about removing restrictions that protect the environment, rather it is about making markets work better.

⁶ <http://www.worldbank.org/en/topic/competition-policy>

TABLE 2. Mechanisms for fostering healthy competition in markets

FOSTERING COMPETITION IN MARKETS		
Pro-competition regulations and government interventions: Opening markets and removing anticompetitive sectoral regulation	Competitive neutrality and non-distortive public aid support	Effective competition law and antitrust enforcement
Reform policies and regulations that strengthen dominance: restrictions to the number of firms, statutory monopolies, bans toward private investment, lack of access regulation for essential facilities	Control state aid to avoid favoritism, ensure competitive neutrality, and minimize distortions on competition	Tackle cartel agreements that raise the costs of key inputs and final products and reduce access to a broader variety of products
Eliminate government interventions that are conducive to collusive outcomes or increase the costs of competing: controls on prices and other market variables that increase business risk	Ensure competitive neutrality including regarding SOEs	Prevent anticompetitive mergers
Reform government interventions that discriminate and harm competition on the merits: frameworks that distort the level playing field or grant high levels of discretion		Strengthen the general antitrust framework to combat anticompetitive conduct and abuse of dominance

Source: The World Bank Group Markets and Competition Policy Cluster.

<http://www.worldbank.org/en/topic/competition-policy>

3.1.5 Place greater emphasis on output-based regulations and eschew the use of highly prescriptive input-based approaches that are commonly used in the forestry sector

Regulations are often described as either prescriptive or performance-based. All regulation falls somewhere along a spectrum in terms of how much detail is specified and what is left to interpretation by users or the courts, or dependent upon external factors such as having specified occupational licenses or market forces. **Prescriptive regulation**—sometimes called “command and control” regulation—defines what activities should be undertaken and how they are to be done (for example, what techniques or materials to use, what qualifications must be held, how and where a specified activity may and may not be undertaken). This approach emphasizes risk mitigation rather than innovation, and cost control and minimization. By contrast, **performance-based**, or outcome based, regulation puts more emphasis on specifying meaningful and measurable performance standards to achieve a desired outcome and does not unnecessarily constrain how compliance by business is achieved. Firms and individuals are able to choose the process by which they will comply with the law to meet performance standards. This allows them to identify internal systems and processes that are more efficient and cost effective in relation to their circumstances. Process choice also promotes innovation and broader adoption of new technology and productivity-enhancing approaches. Thus, the performance-based regulatory approach supports compliance, innovation, and efficiency. It also encourages innovation by providing firms with greater scope to change the inputs used in productive activities. This encourages greater research and development, which is significant in the forestry sectors of some countries, such as Austria. It also gives firms greater freedom to deliver to markets new and innovative services and products.

Over the last 20 years there has been a global shift toward making greater use of performance-based regulation, including in sectors such as forestry. This shift is based on concerns that prescriptive regulations are inflexible, difficult to comply with, generate unnecessary costs, and ultimately encourage businesses to evade rather than comply with regulations. For example, prescriptive regulations could penalize a forestry manager for adapting practices to fit the local ecosystem of a given forest, while technically breaching an inflexible and poorly conceived regulation. In such cases, new laws should allow flexibility in how regulations are complied with, as long as the underlying compliance can be verified, and the broader policy objectives of the regulation are achieved. A description of the application of performance-based regulations to the forestry sector in British Columbia, Canada, is provided in [Box 4](#).

In all regulation there is an inevitable dependence on external factors and factors internal to enterprises to make the regulation effective in achieving its objectives. These can include regulators and dispute resolution processes such as courts. Whatever approach to regulation is taken, it will only succeed if the necessary supporting governance, information, monitoring, and reporting structures are in place. In particular, performance-based regulations can be difficult to develop as they require measurement or specification of desired outcomes. Moreover, the very fact that performance-based approaches allow for a range of different compliance strategies means that the verification of compliance can be more difficult, and that administrative and monitoring costs may be increase. Similarly, they require the dissemination of sufficient operational guidance to provide adequate understanding and knowledge of the requirements to ensure compliance. This can be a particular challenge for SMEs. As a consequence, many countries have adopted “deemed to comply” provisions in conjunction with performance-based regulations. They are intended to allow the benefits of certainty of compliance associated with prescriptive regulation to be attained, while also allowing more innovative firms to take advantage of the benefits of performance-based regulation.

Box 5. Use of performance-based regulations in British Columbia (Canada)

The forestry industry in the Canadian province of British Columbia is very important to the province's economy. However, pressure from environmental groups resulted in the province enacting a complex and demanding regulatory regime on forestry enterprises, including the "Forest Practices Code." This code was very prescriptive and gave the forestry industry little flexibility in how to interpret and apply its requirements. In the 1990s, the code proved to be excessively complex and economically costly. The province responded to these concerns by introducing the Forest and Range Practices Act (FRPA) in the early 2000s.

The FRPA framework was intended to be a results-based regulation, but it became a mixed system. A key challenge to results-based regulation is identifying measurable performance standards. This is particularly difficult in the forestry industry where the process of achieving environmental values is often poorly understood. Another challenge is identifying performance standards that are specific enough to be meaningful and enforceable but not so specific that they eliminate any flexibility. The forestry industry of British Columbia relied on a mix of quantitative and qualitative performance standards that varied in the flexibility they provided.

The FRPA includes mandatory requirements for the development of Forest Stewardship Plans and site-level plans that are consistent with a management-based approach to regulation. Management-based regulations require the preparation of a management plan but do not specify any particular practices or results that must be achieved. The framework also includes some inflexible mandatory practice requirements that specify particular forest practices that must be used.

British Columbia's revised forestry regulation relies on forestry professionals for decisions and advice. These forestry professionals are held accountable for the decisions they make and advice they give. This relieves the burden on the government and places accountability on the industry, which is consistent with a results-based regulation.

The experience of British Columbia's forest industry illustrates the importance of identifying clear and measurable performance standards. If it is not possible to identify measurable outcomes, then a results-based regulation is unlikely to be successful. However, it is very common to use a variety of different regulatory tools in order to provide the desired flexibility while also being able to properly monitor and enforce regulations.

Source: NRCan 2013.

3.1.6 Resolve conflicts between existing regulations, including through mutual recognition

Existing forestry regulations often conflict with laws from other sectors and levels of government or with existing administrative procedures. For example, a timber harvesting permit issued by the central forestry authority has questionable legality if it conflicts with the land-use planning policy of the local government. There can also be conflicts between unwritten customary law and formal laws. For example, in a community with property

rights that derive from traditional law, it may or may not be legal to harvest timber in a logging concession in a manner that fails to recognize these rights.

In many jurisdictions, rationalization and clarification of conflicting rules is clearly needed to enable compliance with legal requirements by the private sector and for effective law enforcement. Governments can harmonize rules by actively creating consistency of laws, regulations, standards, and practices. The goal of harmonization is that the same rules will apply to businesses, and that businesses using one interpretation of regulatory requirements do not obtain an economic advantage over businesses subjected to a different interpretation. This is a time-consuming process that requires identification of important conflicts and reforming regulations, but with a sustained effort the process can help eliminate duplication and inconsistency.

Where forestry laws are unclear, sourcing organizations, suppliers, and auditors often note the regulatory flaws and state clearly the basis on which compliance has been assessed, including, where possible, the rationale for the interpretation by the verifier. In some cases, standards, criteria, and checklists relating to legal compliance have been developed for forest certification purposes. These can serve as useful reference points to interpret the forestry laws of a given country.

Mutual recognition is another response that many governments globally have employed to help mitigate compliance burdens on the private sector generated by differing or conflicting regulatory requirements. Mutual recognition typically allows goods to be legally sold in all jurisdictions that participate in a mutual recognition agreement. For example, a producer of timber products can export to two jurisdictions that are party to the agreement, but will not have to comply with two different sets of regulatory requirements. Similarly, people registered to practice an occupation in one jurisdiction are entitled to be registered for an equivalent occupation in other participating jurisdictions after notifying the local registration authority. Deemed registration is usually granted initially, pending verification of the person's registration in their origin jurisdiction. Mutual recognition agreements also typically include provisions that jurisdictions can disregard the agreement under defined circumstances, such as where public health, the environment, or consumer safety are at risk, and where the measures taken can be shown to be disproportionate.

There are several hundred examples of mutual recognition agreements internationally. Mutual recognition is often used in regional organizations such as the EU and in countries where regulatory powers affecting forestry are allocated to different levels of government. The potential benefits of mutual recognition are summarized in [TABLE 3](#) and an example of the mutual recognition approach in the global forestry sector is provided in [BOX 5](#). Use by PEFC of mutual recognition for forest products certification

TABLE 3. Potential benefits of mutual recognition

FIRMS	WORKERS	CONSUMERS
<ul style="list-style-type: none"> Increased profits due to retaining some of the reduction in compliance costs Increased sales where some of the fall in compliance costs is passed on to consumers as lower prices Reduced costs where workers share with employer's part of the fall in their cross-border registration costs 	<ul style="list-style-type: none"> Increased savings from their lower registration costs Increased employment as firms increase their sales volumes Higher wages as employers share part of their reduction in compliance costs with workers 	<ul style="list-style-type: none"> Lower prices as firms and workers share part of the reduction in the compliance/registratio costs with consumers Increased consumption (including deferred consumption in the form of savings) in response to lower prices and greater earnings from employment and the ownership of firms

Source: Productivity Commission, Australian Government 2015.

BOX 5. Use by PEFC of mutual recognition for forest products certification

The Programme for the Endorsement of Forest Certification (PEFC) is an international, non-profit, nongovernmental organization dedicated to promoting sustainable forest management; it provides certification services including for SMEs. PEFC is an umbrella organization that endorses national forest certification systems. National certification systems that have developed standards in line with PEFC requirements can apply for endorsement and mutual recognition to gain access to global recognition and market access through PEFC International.

To achieve endorsement, certification systems need to meet PEFC's rigorous Sustainability Benchmark. The endorsement and mutual recognition process ensures that all systems under the PEFC umbrella comply with PEFC International's Sustainability Benchmarks and that all requirements are rigorously and consistently applied across all national certification systems. This includes regional, national, and subnational levels of government. The PEFC umbrella provides stakeholders with accurate and verifiable information on the reliability of PEFC-endorsed systems anywhere in the world. This approach provides a high degree of independence of national processes, and allows for the development of standards tailored to the political, economic, social, environmental, and cultural realities of respective countries, while being compliant with rigorous international benchmarks. This process is governed by PEFC's procedural document, "Endorsement and Mutual Recognition of National Schemes and their Revision" (PEFC GD 1007:2017).

Source: PEFC 2017.

3.1.7 Make greater use of negative licensing for lower risk activities

Forestry occupations, enterprises, and activities are often regulated by licenses that are obtained by meeting stipulated requirements. In some cases, the rationale for such licenses is to address significant economic, environmental, or social risks. In other cases, risks are lower and the rationale for licensing is less clear. Indeed, some jurisdictions employ licenses that are not required in other jurisdictions and there are no measurable differences in performance and risk. This raises the question of whether such licenses are needed.

To manage relatively low-level risks, jurisdictions sometimes employ negative licensing; that is, licensing is only required where individuals, businesses, or activities breach existing regulatory requirements. Negative licensing is a light-handed form of occupational and business regulation, and differs from the traditional forms of licensing in that it does not involve the establishment of an accreditation process to obtain a license. A key feature is that any individual or business may practice an activity without first being accredited. In such cases, the compliance of individuals, enterprises, and activities still needs to be measured and monitored, through codes of conduct and other legislative and administrative measures. The negative licensing model typically provides sanctions for unsatisfactory conduct, including additional or new requirements—such as a requirement to obtain a license—and to manage identified risks associated with noncompliance by individual occupations or enterprises.

3.1.8 Self and co-regulation

Self-regulation typically involves an organization, such as private enterprises in a particular industry or a professional group, voluntarily developing rules or codes of conduct that regulate or guide the behavior, actions, and standards of those within the group. The group can be responsible for developing the self-regulatory instruments, monitoring compliance, and ensuring enforcement. Examples of self-regulation include voluntary use of codes of practice, industry-based accreditation arrangements, and voluntary adoption of standards. In the forestry sector self-regulation can include practices related to forestry worker health and safety above minimum standards set by the government, as well as voluntary codes of practice for forestry operations, forestry plantations, forest management, protection of the environment or animals, and so forth.

Co-regulation entails the private sector creating or administering a regulatory framework in active collaboration with governments. It requires a private sector that is either organized (or capable of becoming organized) and that has sufficient resources to allow for a regulatory scheme to be developed and/or administered in an effective, transparent, and inclusive manner. Because co-regulation can take many forms it can sometimes be difficult to make a clear distinction between self-regulation and co-regulation. It is generally considered that co-regulation involves explicit government backing for regulatory arrangements developed and/or administered by the private sector. The specific types of instruments or mechanisms, such as codes of practices, voluntary agreements, and dispute resolution procedures that may be created under a self-regulatory regime are similar under a co-regulatory framework. It is the degree of government involvement and legislative backing that determines the difference between

the two. Hence, if a group of enterprises develop codes of practice to regulate the behavior or actions of members, this would be a self-regulatory mechanism. If these codes were supported by legal backing requiring members to abide by them and imposing penalties in the case of noncompliance, it would be a co-regulatory regime. Co-regulatory schemes can operate for a range of forestry-related activities and operations, including protecting workers, the environment, and animals, as well as forestry sectors such as plantations, tropical timbers, and so forth.

Effective self- or co-regulatory regimes should be well integrated and consistent with existing regulation and institutional arrangements. The effectiveness of such an arrangement will be impaired if it is at odds with existing regulation, or is not well integrated and consistent, and therefore adds to the complexity of the overall regulatory system. Such complexity in regulatory arrangements increases uncertainty affects business planning and investment and increases the costs of regulation. Where such arrangements are well integrated with existing laws and institutions, they can complement and, in some cases, replace the existing regulatory framework. Traditional regulation may, for example, specify the minimum standard or objective required, but a self-regulatory regime can “lift the bar” higher by putting in place requirements that are more stringent than the minimum required by legislation. For instance, occupational health and safety laws covering safety in the workplace may set out limits for worker exposure to hazardous chemicals or noise, but an industry-developed code of practice may establish higher standards.

3.1.9 Risk-based approaches to the design of regulation and compliance strategies

Ensuring effective compliance with rules and regulations is an important factor in a well-functioning regulatory system. It helps safeguard health and safety, protects the environment, secures stable state revenue, and helps deliver other public policy objectives. Therefore, ensuring effective compliance is critically important from a social and environmental perspectives and as a foundation for economic growth and progress. The challenge for governments is to develop and apply enforcement strategies that achieve the best possible outcomes by achieving appropriate levels of compliance, while keeping the costs and burdens on government and other stakeholders as low as possible.

It is generally agreed that optimal results in terms of compliance can best be achieved by combining broad compliance-promotion efforts with well-targeted controls, along with the availability of deterrent sanctions for serious violations. Effective compliance can only be achieved if regulations are realistic and adequate for a given country. Enforcement programs will not make unrealistic rules work. At the same time, in order for enforcement activities to deliver expected results, they need to be properly resourced—which means that risk-based approaches should be used to ensure that sufficient resources are available to address key risks, and that overambitious or unfocused aims are not ascribed to enforcement agencies. Knowledge regarding the most significant risks and prioritization is therefore essential to ensure that results are achieved where they are most needed (OECD 2014).

A risk-based approach to ensuring compliance explicitly acknowledges that the government cannot regulate away or remove all risks and that regulatory action should be proportionate, targeted, and based on an assessment of risks and of the likelihood that regulation will effectively mitigate such risks. “Risk” is essentially the likely impacts of adverse events multiplied by the probability of such events. Risk-based approaches can inform the formulation of regulatory proposals and the development of compliance strategies to enforce regulation. That said, forestry sector risks are particularly complex, difficult to identify precisely, and relate to broader systemic environmental risks. Therefore, moving toward a more risk-based approach to forestry regulation would require further investments in creating the necessary knowledge and skills.

Governments increasingly turn to the regulatory system to meet growing demands to react to adverse events and reduce or eradicate risks. Governments typically respond to such pressures by making regulations to mitigate and better manager identified risks. Furthermore increasingly, regulators are routinely using risk-based strategies and approaches for enforcement and inspections.

Inspections are a key instrument in ensuring adherence to regulatory requirements and in regulatory enforcement. Unsurprisingly, a study from Peru showed that the number of forestry inspections has a statistically significant and robust correlation with the number of detected violations of forest laws (Solis and Sills 2016). However, as is the issue in many sectors, many developing countries lack the capacity for proper inspections. It is not uncommon for governments to lack inspectors, for inspectors to be undertrained and underequipped, and for inspectors to have low salaries that make them prone to corruption. Moreover, lack of cars and fuel often leaves inspectors in the hand of concessionaries’ means of transport, thereby ceding some control of areas subject to inspections (Gray 2002). Many cases of noncompliance are however a result of limited knowledge, and some developed countries have introduced models for regulatory compliance relying to a higher degree on training, education, and cooperation, where punishment is seen as a last resort (Wilkinson et al. 2014).

Inspections and enforcement actions are also generally the primary way through which businesses, in particular micro, small, and medium enterprises (MSMEs), experience regulations and interact with regulators. Adequate enforcement and inspections that are compliance-focused, supportive, and risk-based can lead to real and significant improvements in compliance. Reform of enforcement and inspections is as much about changing methods and culture as it is about reforming institutions’ organizational mechanisms and legislation. For example, regulators could first identify proven good practices in related sectors such the forestry and downstream processing sectors. Subsequently, they could focus enforcement activity—including inspections—on those enterprises operating in areas of greatest risk, or enterprises with a track record of poor regulatory compliance.

No matter how well designed, a regulation will not achieve its risk management objectives if regulated enterprises do not comply. An important element of compliance is monitoring. The aim should be to achieve a level of compliance that balances effectiveness of the instrument and monitoring and enforcement costs. Many jurisdictions have found that the use of self- and co-regulatory approaches can also help support high levels of compliance by enterprises.

In many cases regulatory enforcement is not guided by risk-based approaches, but by other criteria, such as trying to inspect all known enterprises regardless of risk. Risk-based approaches to regulation are employed extensively in some sectors, such as financial services. However, its use in the forestry sector appears to be limited primarily to occupational health and safety and environmental regulations. There may be considerable potential for the forestry sector to make greater use of risk-based approaches for both the design and application of compliance strategies.

Better managing risks across a wide range of health, safety, environment, security, finance, and other areas is clearly a major challenge for governments, but a range of reform options are available. There are clearly significant challenges for managing multiple evolving risks in an increasing interconnected multi-risk world. These include the need to assess the nature and effects of simultaneous exposure to multiple risks, and making decisions about the best trade-offs between different types of known risks. A range of institutional responses can be used. These include RIA to document and assess risks and potential risk reduction options; integrating risk assessments in reviews of existing regulations; making greater use of economic incentive instruments; and better coordination and oversight of risk regulation policies across agencies within the forestry sector, within jurisdictions, and across governments internationally.

New and emerging digital platforms, such as those relating to social media and tourist travel, can provide new opportunities for regulatory agencies to better identify and address emerging risks. For example, Internet-based tourist travel sites could include reports of damage to forestry resources or illegal forestry activity in publicly owned forest reserves. This information can help inform decisions regarding how to best use the scarce resources of regulatory agencies to ensure compliance with regulations and mitigate significant risks.

3.2 STRENGTHENING THE EFFECTIVENESS OF REGULATORY ADMINISTRATION AND OVERSIGHT

3.2.1 Knowledge about how to comply with rules

Especially in developing countries, enterprises often find it difficult to understand which regulatory requirements apply to them and how to correctly comply. Such lack of knowledge generates significant risks for enterprises across several dimensions, including in the forestry sector. For instance, opaque or unclear regulatory requirements create additional risks for investment and greater scope for corruption.

There can be multiple reasons why enterprises have difficulty understanding regulatory requirements than apply to them. There are often multiple regulatory agencies with oversight in the forestry sector and the enterprise may not be aware of them. Regulations may not be published and available. Regulations may be available but written in complex legal jargon, resulting in confusion and a lack of understanding of how to meet regulatory obligations. Such problems are likely to be more severe in countries with lower overall education and skills levels, and for remote communities and businesses without access to forestry regulatory agencies.

Governments globally are improving their capacity to clearly communicate regulatory requirements applying to enterprises. Governments are addressing the problem of a lack of understanding of regulatory requirements by focusing on communicating more effectively. A range of strategies can be employed, including making all regulatory requirements available on web portals; operating one stop shops as a single entry point for business; ensuring requirements are written in plain and easily understood language (including clear design of forms, manuals, and other guidance material); and conducting regular and structured dialogue with forestry sector businesses to better understand their needs and better communicate with them regarding regulatory issues and requirements.

3.2.2 Make greater use of independent/private auditing where appropriate

An independent auditor is a private individual, or private or nonprofit organization, recognized (and often certified) to examine compliance with regulatory requirements of enterprises with which the auditor is not affiliated. An independent auditor is typically used to avoid conflicts of interest and to ensure the integrity of performing an audit. An independent auditor can examine the operation of enterprises, including financial and other statements, records and related data, and business operations and processes. The auditor then usually develops an opinion asserting the reliability and fairness of enterprises conduct and compliance with requirements specified by regulations and communicates that to enterprises and relevant government organizations.

Independent auditors are often used in the forestry sector and can be engaged by governments, private enterprises, or NGOs to monitor and report on regulatory compliance. They are frequently used by self and co-regulation schemes, and by international agencies focused on forestry related issues. Auditors can provide credibility and specialist expertise to support both enterprises and governments. An example of the role of auditors in the forestry sector is provided in [Box 6](#).

BOX 6. Role of independent auditors in forestry in Ontario, Canada

The State Government of Ontario, Canada, has issued Guidelines to independent auditors to support them in ensuring that forestry-related audits comply with relevant laws and regulations. The requirements of the independent forest audit include:

- a) assess to what extent forest management planning activities comply with the Forest Management Planning Manual and the Act;
- b) assess to what extent forest management activities comply with the Act and with the forest management plans, the manuals approved under the Act, and the applicable guides;
- c) assess the effectiveness of forest management activities in meeting the forest management objectives set out in the forest management plan, as measured in relation to the criteria established for the audit;
- d) compare the forest management activities carried out with those that were planned;
- e) assess the effectiveness of any action plans implemented to remedy shortcomings revealed by a previous audit;
- f) review and assess a licensee's compliance with the terms and conditions of the forest resources licence;
- g) provide a conclusion regarding sustainability of the Crown forest.

Source: Ontario Ministry of Natural Resources and Forestry 2015.

3.3 INSURE APPEALS AND GRIEVANCE MECHANISMS ARE EFFECTIVE

Accountability and transparency support good behavior and performance of regulators, because they allow regulator's performance to be measured and assessed over time. Accountability and transparency can increase trust and confidence of enterprises in the regulatory system, which in turn improves compliance with regulatory obligations. While there are several dimensions of accountability and transparency, regulators are typically accountable to the legislature (such as parliament) and government ministers through regular reporting in line with their legal responsibilities and mandates. Furthermore, regulators are accountable to the judiciary. Their actions and decisions can be subject to judicial review by the courts and alternative bodies such as an Administrative Review Tribunal or Ombudsman. In recent years, there has also been a growing trend for regulators to be more accountable to regulated entities, such as enterprises, as well as the broader community.

Enterprises and citizens that are subject to decisions of regulators should have access to internal systems and processes for appeal and grievance resolution. Enterprises and citizens should have ways to challenge regulators that they believe may be acting contrary to their mandate, regulations, and broader judicial principles, including procedural

fairness and justice. Increasingly, regulatory agencies themselves operate internal complaints and review processes, as well as relying on external review through the legislature, executive, and judiciary. Delegating decision making to regulators and their staff, including interface with enterprises and inspectors, can have a material impact on the performance of enterprises and should be subject to timely and transparent internal review on request. The internal review process should be transparent and operate separately from those staff responsible for initial decisions and subject to a complaint. The decisions of an internal review process should be provided to the complainant and the results of internal compliance processes should also be published. Appeals processes should allow for regulators to rescind or amend previous decision where appropriate.

Some regulatory disputes can be best resolved through alternative dispute resolution processes. When traditional means of resolution are costly, time consuming, and unpredictable, alternative means of dispute resolution can include:

- Negotiation, which is a voluntary process of discussion without a third party to facilitate.
- Mediation and conciliation, where a third party or mediator facilitates the process and may suggest a resolution, but may not impose one.
- Arbitration, where the parties voluntarily place in the hands of a third party or arbiter the solution to their dispute, committing themselves to abide by its decision. The arbiter is often a recognized organization or collegiate body of persons, with expertise in the matter being disputed.

Another approach is to have an explicit policy on disputed or controversial decisions by officials—for example, alleged corrupt or improper allocation of forestry concessions. An explicit policy would allow for the reality that many developing countries lack effective administrative law mechanisms such as complaints procedures, lack tribunals to review official decisions, have nontransparent mechanisms for the allocation of permits, weak freedom-of-information provisions, and lack independent watchdog institutions (such as an ombudsman). Where such systems are weak or absent, aggrieved parties cannot easily challenge official decisions made improperly or at odds with legal requirements or procedural fairness.

Effective, predictable, transparent, and timely review and appeals processes can strengthen trust and confidence in the performance of the regulator and provide useful feedback to the regulator about how to improve its performance. For instance, complaints can be a useful way of identifying problem regulations and areas where there is weak or inconsistent regulatory administration and enforcement. Greater use of Internet-based platforms also increase scope to provide broad and detailed information, including regarding appeals and complaints processes.

3.4 ACHIEVING GREATER TRANSPARENCY AND INCLUSION IN REGULATION

MAKING AND ADMINISTRATION THROUGH CONSULTATION

Effective and transparent inclusion of external parties is important both at the policy development and implementation stages of regulation. Effective engagement with

stakeholders can relate to individual decisions of a regulator, operational policies, setting objectives, and policy outcomes, and improve the quality and effectiveness of regulations.

There are different types of engagement. *Consultation* involves exchange of information between decision-maker to citizens, business and other organization's— involving active and direct notification, consultation and participation of interested parties. The *provision of information* involves a one-way flow of information, typically from the decision-maker to citizens, business and other NGOs. *Negotiation* describes a process where agreement is reached between decision-maker, business and other organizations, leading in most cases to an agreement or decision. All three approaches are typically important to achieving effective and inclusive stakeholder engagement.

There a wide range of benefits associated with effective engagement, including:

- Increased access to information—share and collect new information from stakeholders regarding key issues (such as potential impacts, alternatives, and unintended consequences)
- Often the only way to obtain important information and data, including the nature of the problem, possible alternatives, and their impacts
- Improved understanding of key issues, impacts, priorities, and potential trade-offs
- Managing expectations—what is feasible and possible, what is not
- Greater transparency and nondiscrimination in decision making
- Increased accountability of institutions and their processes
- Better informed decision making
- Greater trust, cooperation, and compliance by regulated parties

However, there are often factors that make effective engagement difficult to achieve, including:

- Resistance in many countries to consultation from ministries and political stakeholders
- Resistance from influential business and other private sector stakeholders (such as monopolies or businesses misusing market power or involved in collusion)
- Regulatory capture by powerful (often private sector) interests
- Secretive regulation-making processes
- Inadequate time available
- Insufficient resources
- Poorly organized or difficult to reach stakeholders
- Poorly managed consultation processes (creating, for example, stakeholder fatigue)

There are different ways to organize consultation processes, including active (advisory groups, public presentations, panels, focus groups, surveys) or passive (circulation for comment, public notice and comment, public hearing). Forms of consultation can include:

- Informal consultation with stakeholders

- Public notice and comment, where draft laws or decisions are made available and feedback invited, before final decisions are made
- Circulation for comment, where draft documents are circulated for input and comment
- Public hearing and meetings
- Focus groups of stakeholder groups to obtain qualitative information
- Semi-structured interviews
- Panels of experts or representatives
- Surveys, where results are shared with stakeholders and discussed

Decisions regarding how to consult depend on several factors, including the purpose and significance of the regulatory change or problem under consideration, amount of time available, number of interested stakeholders, and available resources. It is important to make sure that even those without sufficient resources, such as disadvantaged groups, can participate in consultation. It is important to actively encourage industry and business associations and other community stakeholders to participate in problem solving using transparent and inclusive forums, further encouraging cooperative rather than adversarial interactions. This can include increased use of “freedom of information” requirements in the forestry sector and other transparency measures to better inform dialogue and discussions.

3.5 POTENTIAL OUTPUTS AND NEXT STEPS ARISING FROM THIS REPORT

3.5.1 Design and sequencing of a reform program

This report has listed a number of tools that can be applied both to the already existing regulations (stock) and in the design of new regulations (flow). When designing a reform program, the selection of tools will necessarily depend on pertinent problems, opportunities, and risks in the jurisdiction in question. Many countries have widespread and endemic issues throughout their regulatory system. There is also a need to prioritize among the available tools. Consultation with stakeholders should be used throughout the reform process to identify priority areas in need of reform, as well as to ensure the buy-in of stakeholders in the reform process.

It is common to initiate a reform program with a simplification of existing regulatory procedures, for instance using the Standard Cost Model (SCM). This type reform has relatively low requirements of time and resources, and results can be achieved in the short term. Simplification of procedures is a suitable approach for sectoral reforms. In many cases, impact can be achieved with no major regulatory amendments (for instance through digitization and one-stop shops). Simplification also has the potential for high impact. This is because regulatory compliance costs are a key hurdle for new investments and routine regulatory approvals, and typically have nontrivial impacts on job creation, private sector innovation, and GDP levels. Some countries have reported that short-term reforms of the regulatory stock have strengthened the constituency and capacity for future long-term reforms.

Reforms of the regulatory stock can also include the application of other tools mentioned in this report. It is for instance common to review regulation to ensure its

legality, consistency, and efficiency as part of a stock review. There may also be a need to redraft existing regulation to introduce specific regulatory tools such as negative licensing or self-regulation practices.

Initial reforms of regulatory stock may lead to more comprehensive reform programs. It is common to proceed from the initial reform of stock to building of capacity on more advanced regulatory management tools, such as RIA. This is because poor-quality regulations tend to return to the books over time, and also because simplification of procedures may not address more profound issues in the regulatory system, such as regulation's alignment with policy objectives and identified areas of greatest risk. Broader regulatory governance reforms will require extensive time and resources, since a sustained strengthening of regulatory system requires years of investment and dedication. It takes time to foster cultural change in regulatory agencies, and to build trust among stakeholders and to build a culture of cooperation. In most countries, regulatory governance reforms at the agency level are part of a regulatory governance system being rolled out across government.

Therefore, there are a number of possible ways forward to significantly strengthen regulatory governance in the forestry sector. The choice of which tools and sequencing in the use of tools should be made on a case-by-case basis where local conditions are likely to result in successful use.

One key conclusion of this report is that in many countries, forestry regulations have been enforced for years or decades without periodic review and, where needed, reform. Forestry regulators often employ antiquated processes for receiving and processing applications for government approvals. Areas of risk can also evolve and change over time, so existing systems can be misaligned with the level of risk associated with forestry-related activities. These systems and processes are also often slow, inflexible, opaque, prone to corruption, and often geographically a long way from forests and related businesses.

The reengineering of government forestry services and regulatory functions in some countries may suggest a useful starting point for application of regulatory governance tools to the forestry sector. Process reengineering could be used where a better alternative entry point for reforms has not been identified. This approach has in most cases resulted in significant reductions in the time and cost incurred by businesses to obtain approvals for services, licenses, and permits. The costs of these regulations are significant and economy-wide across all sectors, often equal to several percentage points of GDP. Therefore, reforms to improve the efficiency of service delivery generate important benefits for the broader economy and society.

Reengineering involves the analysis and design of work flows and processes within and between organizations to achieve dramatic improvements in organizational performance. Correct problem identification and alignment on processes for reviewing and reforming the operation of an organization is a key to process reengineering. Organizational and reform issues that need to be addressed in a successful reengineering process include: identifying business needs and performance problems, reassessing strategic goals, defining reengineering opportunities, managing reengineering projects, controlling risks and maximizing benefits, managing organizational changes, and successfully implementing new regulations and processes. Furthermore, reforming regulatory and other services provides an opportunity for ministries to review their

internal systems and processes. Ministries can use this opportunity to modernize, reduce burdens on staff, leverage off new opportunities arising from enhanced information and communication technologies, improve performance management systems, and improve the skill levels and working environments of government officials. Importantly, the reengineering process generates a lot of useful information (about the regulatory system, impacts of regulations, and so forth). It builds capacities within regulatory agencies to review and reform regulations and improve dialogue with stakeholders. Therefore, process reengineering provides a powerful platform for subsequent forestry-related regulatory governance reforms. As noted above, the use of process reengineering as an initial “default” regulatory governance tool in the forestry sector does not preclude the use of other tools discussed in this report. Indeed, use of other tools may be appropriate in specific contexts and where specific preconditions exist.

3.5.2 Time and cost of applying for approvals for forestry permits and licenses

For a forestry pilot using process reengineering, it is proposed to identify a group of related regulatory transactions needed by enterprises to get approvals to operate in the forestry sector. The first step would be to identify and map the administrative steps that enterprises take to get a regulatory approval, including understanding regulatory requirements, obtaining necessary documents and applying for a service, license, or permit. The next step is to identify and map administrative processes within the regulator to receive application, review and make a final decision about an application, and then inform the applicant about the outcome of their application. The legal basis of each step is then verified and documented. The time and cost incurred by enterprises or individuals of applying for government approvals can then be obtained for the three core sequential activities:

- 1) Time and costs spent gathering information on a service, including necessary documents and forms
- 2) Time and costs spent submitting an application to the relevant government ministry, agency, or office
- 3) Time spent waiting for an application to be approved and costs to government of processing applications and advising business of the outcome of their applications

The methodological basis for undertaking these time and cost estimates is the Standard Cost Model (SCM). As noted in the previous chapter, the SCM is a method for determining the administrative burdens imposed by government administrative requirements or regulation. It is a quantitative methodology that can be applied in all countries and at different levels for various activities. The method can be used to measure a single law, process of government service, selected areas of legislation, or services to perform a baseline measurement for identified regulatory transactions. Furthermore, the SCM is suitable for measuring the impacts and benefits of simplification. There are different versions of SCM, which is currently used regularly in around 40 countries. Some countries have used complex versions of SCM using electronic and web-based platforms, while other countries—including many developing countries—employ more simplified approaches.

The recommended approach for this pilot involves collecting quantitative and qualitative data generated from regulatory agencies and at workshops with business. Process maps and legal inventory can then be prepared, along with recommendations to simplify and streamline regulatory decision making and transactions (sometimes referred to as “To-Be” maps). These maps typically include a list of regulatory and administrative changes to improve the flow of information in a service and reduce processing times, thereby reducing the time and cost compliance burdens on business.

3.5.3 Project beneficiaries

Business operating in the forestry sector and government regulators are the intended beneficiaries of this approach. Businesses involved in forestry can benefit from improved access to administrative services, greater efficiency in the delivery of these services, reduced transactions costs, and a reduction in petty corruption. This will translate into time and monetary savings for service users. All businesses participating in identified forestry markets are expected to potentially benefit from the project. However, particular care should be taken to identify the needs of SMEs and also informal businesses wanting to migrate from the informal to the formal sector. Regulators can use the diagnostics and subsequent reforms to modernize and improve the internal systems and processes, validate the legal basis of these systems, and leverage off efficiency gains offered by new information and communication technologies. Importantly, as noted above, the project approach can also provide a sound platform for further subsequent reform options discussed in this report, which will benefit both business and regulators.

3.5.4 Project level indicators

The key outcomes to be achieved by this suggested approach correspond to PDO indicators as follows:

PDO Indicator 1: Preparation of a report documenting existing approvals and recommending scope to increase efficiency in delivering regulatory approvals through reduction in processing times, as measured by the reduction in time required for businesses to obtain selected approvals or licenses.

PDO Indicator 2: Identification of reforms that increase access for SMEs and informal businesses.

APPENDIX: Guidelines for Reducing the Time and Cost of Forestry Regulatory Transactions Through Process Reengineering

Process reengineering provides a tool for reform of a wide range of government services, including in sectors such as forestry. Key regulatory services such as business entry, licensing, permits, and inspections can be significantly improved through process reengineering reforms, which involve the analysis, redesign, and reform of administrative processes for the delivery of regulatory services. Process reengineering is closely related to—and integrated with—information and communication technology (ICT) capacities and solutions. Process reengineering also includes better managing the interface between governments, business, and citizens through improved communication, dialogue, and (where needed) person-to-person interactions. One-stop shops and related citizen-centric service offices can facilitate a better citizen-service interface.

Providing better services for regulatory transactions in sectors such as forestry improves the private sector's overall business environment and productivity, by reducing time spent getting approvals and interacting with regulators, thus reducing business costs and risks. In providing better services, the goal of government is to reduce administrative burdens and improve the business environment through easy access to information, clear standards requirements, minimal interactions with service providers, and transparent, predictable, and fair approval and complaints processes.

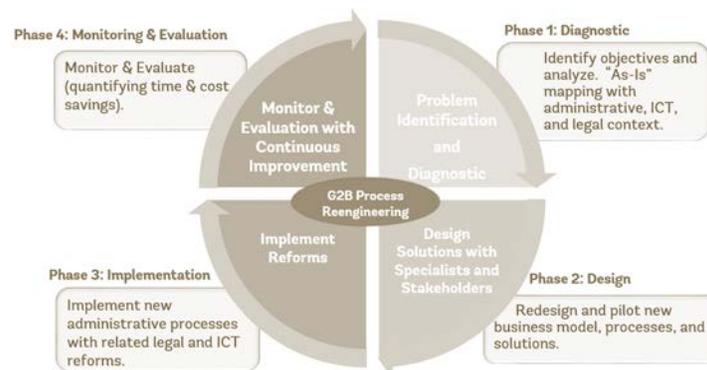
Improvements to government services via process reengineering conveys multiple benefits. For business, benefits include increased ease and reduced time and cost requirements for obtaining information, following licensing or inspection procedures, and obtaining approvals across multiple services and platforms. Risks associated with regulatory transactions, such as an approval taking a very long time or officials soliciting bribes, can be largely mitigated through successful reengineering reforms. Such reforms can also be a powerful catalyst in encouraging firms operating in the informal sector to migrate to the formal sector.

Government to business (G2B) process reengineering is implemented through four sequential stages, which are illustrated in Figure 3. These include:

- Phase 1, the diagnostic phase, requires understanding existing service processes and preparing an inventory of legal and ICT capacities and intentions for improvements in the years ahead. Stakeholder consultations can support diagnostic assessments by providing feedback of critical issues, problems, and user experiences. This phase involves preparing “As-Is” process maps for services along with a legal and ICT inventory.

- Phase 2, the redesign phase, involves determining ways to significantly improve the regulatory service. Improvements are achieved by reengineering the administrative steps involved in providing necessary information to firms; reducing or rationalizing documentation requirements; and improving processes for receiving applications (such as through the use of online portals and One-Stop-Shops where several related regulatory transactions and approvals can be obtained in one place, usually a government office). Once applications are received they are processed, resulting in decisions being made and transmitted to firms, receiving feedback and complaints, and handling of appeals against regulatory decisions. In practice, this reengineering can involve making it easier for firms to access information that is communicated in a clear way; improving the interface and interactions between firms and governments; and reforming unnecessary, duplicative, or inefficient administrative processes. Effective redesigns are often associated with emerging ICT solutions such as digitization and automation of processes, complemented by improved feedback, complaints, and appeals mechanisms. The planned improvements are then reflected in “To-Be” process maps, showing specific reforms to administrative processes, along with documentation of necessary legal and ICT reforms.
- Phase 3, the implementation phase, involves implementing sequenced regulatory and institutional reforms needed to reengineer regulatory services and transactions.

FIGURE 3. Four phases of process reengineering reforms



- Phase 4, the monitoring and evaluation phase, comprises monitoring, evaluation of, and reporting on the results achieved. This often includes receiving feedback from citizens and businesses about the services, including the time and costs incurred by them, whether they were asked to provide a bribe, and so forth. Such monitoring can be used to measure changes in user experiences, along with identifying time and cost savings incurred by firms and governments. In most countries implementing such reforms, time and cost savings for firms of around 25 percent are achieved. The duration of such reforms is often in the vicinity of two years, but can be shorter or longer in duration depending on the level of commitment, resources available to support

reforms, and complexity of the reform process. Such reforms can be focused on particular services, services provided by individual regulators, or sectoral regulation such as forestry and in some cases across most or all government services for business and citizens. For instance, between 2014 and 2020 around 400 Albanian government services are being reengineered with support from WBG, with expected time savings for citizens and business averaging around 80 percent.

Successful process reengineering requires a clear vision to improve significantly regulatory services while still retaining and meeting the objectives of regulation. Successful process reengineering reforms require high levels of sustained support from ministers and senior officials, as well as technical experts and consultants to undertake the analysis and prepared recommended reforms in “To-Be” process maps. Lessons from previous process reengineering reform programs illustrate the importance of establishing clear targets (such as a 50 percent reduction in administrative burdens), ongoing high-level support and leadership, and flexible and easily understood methodologies tailored to the contexts and challenges of each country and sector.

Drawing on WBG experience, successful process reengineering should include:

- **Effective stakeholder consultation and communication** to identify key opportunities and challenges, as well as building a constituency in favor of reform. Active involvement of stakeholders, and clear messaging and transparency, are important for maintaining reform momentum through the four key stages of reengineering reforms.
- **An effective institutional set-up** that facilitates coordination and communication among key ministries and officials, as well as key stakeholders. Where possible, such reforms should be linked to broader policy objectives and commitments of the governments. Reforms should also be integrated with related reforms to ICT and citizen-business-government interface enhancements.
- **The scope of reforms must prioritize assessment of burdens imposed on businesses** and should not be too ambitious. The benefits to firms must also be considered along with the potential benefits, costs, and risks to government of implementing reforms. These considerations should be weighed carefully to ensure that likely impacts are known and can be measured, and that the reforms generate clear net benefits.
- **Process reengineering should precede automation or implementation of other ICT solutions.** Processes can be more effectively automated after they have been reengineered and simplified. In cases where existing administrative processes are automated but not reengineered, potential benefits of reforms are likely to be much smaller.

Mapping procedures and measuring administrative burdens

When it comes to the actual work of simplifying, a diagnostic or mapping of procedures provides a natural starting point for any reform. Very often, a majority of burdensome regulatory requirements can be found in a few licensing processes or other requirements.

Any reforms to such procedures can have an immense impact on the business environment.⁷ There are different ways to identify costly requirements and procedures, including surveys and consultations with affected firms. A simple and low-cost method used by many countries is the Standard Cost Model (SCM), which helps estimate the administrative cost of individual document requirements, and quantify their impact on the economy by extrapolating them to the number of times they are being conducted on an annual basis. The use of the SCM in the Swedish forestry sector to identify sources of costs for business is described in [Box 7](#).

BOX 7. Measuring administrative costs in the Swedish forestry sector

Sweden, a country largely covered by forests, provides some 10 percent of the sawn timber, pulp, and paper traded on the global market. In 2006, the Swedish government conducted a baseline measurement of administrative burdens in the forestry sector, using the Standard Cost Model (SCM). The measurement estimated that firms were spending SEK 386,3 million (US\$30 million) on compliance with administrative requirements in the laws. Almost 60 percent of this cost was caused by a requirement for forestry owners to document the characteristics of each forestry unit, including age, production capacity, any cultural or environmental features, key habitats, and so forth. This report was supposed to be updated every five years (Nutek 2006). Through the SCM baseline measurement's identification of this requirement as being overly costly, this requirement was abolished and was replaced by a simpler procedure integrated with the forest management plan (GoS 2008).

The starting point of SCM is a breakdown of regulation into manageable components called information obligations (IO). The IOs make up the core analytical components of SCM, which are analyzed to identify the activities required within the firms to comply. A regulation may contain one or several information obligations. Each IO results in at least one activity in the private sector. An IO can be identified through its requirements on firms to:

- **Collect information:** for example, the requirement for a bureau de change to collect personal information on the people changing money.
- **Store/make information available:** for example, information that companies are required to store for regulatory and auditing purposes.
- **Submit information:** for example, all requirements to submit applications for different licenses and permits before engaging in particular activities.

While the IOs in the legal text require the firms to collect, make available, and store the information, other requirements commonly explain how the firm is supposed to carry out the task. For a forest management plan, the IO may be complex, requiring the recruitment of a consultant. If the IO is an application for a license, the data requirements may include submitting a particular application form, a tax clearance certificate, and a copy of the company registration. Depending on the particular country context, data

⁷ Many reformers use also the “Pareto Principle,” assuming that the 20 percent most costly requirements would account for roughly 80 percent of firms’ costs.

requirements may be found in a primary law, but also in secondary legislation and other instructions by the regulator.

Each of these data requirements will cause one or several administrative activities in the firms. The administrative activities are the activities required in the firm in order to comply with a specific data requirement, and hence also the information obligation. A data requirement that requests the applicant to submit a particular application form may cause administrative activities such as going to the regulator to pick up the form, retrieve required information, fill out the forms, bring it to the director for signature, and bring the completed application to the regulator.

When the IOs are identified, information is collected from firms on how they work in complying with the IO, how much time they spend complying with the obligation, and how much it costs. This data can be collected through focus groups with a small group of firms, through interviews with firms, or from sector experts. The idea is not to arrive at an exact number that can be scientifically proven, but to get a benchmark that can be used to identify areas for reforms, measure impact, and communicate results.

A next step is to convert time measurement to monetary figures. This is done by multiplying the required working time with the salary costs (including an overhead percentage, covering general office costs) for the employee who is dealing with the process. Additional costs incurred by the company that are directly related to the application—such as hiring a consultant to finalize the application, and paying license fees, as well as acquisitions that can be directly related to the application (such as an envelope for the submission)—are thereafter added to arrive at the total cost for the individual firm for each IO under review. Acquisitions not directly related to the application, such as computers and office rent, are not added as a separate cost but are included as part of the overhead percentage.

The cost for one individual firm may be of certain interest, but in order to study the total compliance cost and effects of simplification of a legal text it is also critical to look at the total annual cost imposed on all affected firms for each IO under review. This extrapolation is done by simply multiplying the cost of the typical (that is, normally efficient) firm by the population (the annual number of occurrences for the relevant IO in the jurisdiction). This means that if a particular legal obligation is highly time-consuming for the individual company it may not come across as expensive to the overall private sector unless there are a sufficient number of firms affected by the regulation each year. Similarly, the total administrative costs can appear relatively low in countries where salary costs are low, although they are heavily regulated.

If more data is available on the number of annual occurrences of the procedure, it should also be used to determine the size of different segments. Different segments of firms are affected by the same IO in a different way. If for instance an application form is available online that reduces the application procedure significantly, while only a few firms have access to computers, then the population can be divided in one segment of firms submitting online and another submitting through other means. Segmenting should not be done excessively; for example, an endless number of segments would be created if every individual factor affecting the compliance cost were taken into account. Generally, variations in application for different types of firms mentioned in the law should always be taken into account, as well as factors with significant impact—such as

firms in the countryside versus those in the city if the former have to visit the city to complete their application.

Proposing areas for improvement

All regulatory requirements should be subject to a two-pronged analysis. First, an assessment should identify whether requirements are legal (many requirements are requested from firms with no explicit legal basis) and necessary (in many cases in developing countries, regulatory requirements such as licenses are issued without any regulatory rationale, for instance only as a revenue-raising tool).

Provided that the regulatory requirements are legal and necessary, there is still almost always scope for simplification. Many ways to simplify are described at length in previous sections of this the report, but in addition the International SCM Manual gives a set of examples for simplification of regulations, as described below.

Burden reduction potential can be identified by considering whether:

- an information obligation can be removed altogether or, if not, whether the number of enterprises affected by a regulation can be reduced by targeting businesses of a certain size or in a particular sector. This may be achieved by removing the need for a form, or reducing it in size (you should look at the form-filling requirements you currently impose by calculating the total number of forms and looking to rationalize requirements);
- the intervals between information requests can be increased, or whether information can be provided on an exceptional rather than a regular basis;
- all of the information requested is necessary, or whether it can be obtained from another department or regulator as part of a data-sharing initiative;
- there are better ways information from business can be delivered, e.g. by improving form design, making them simpler to complete and easier to understand, pre-populating forms, and making forms more user friendly, for instance, by allowing information to be delivered in the way businesses would compile it for their own purposes;
- more resources could be directed to provision of advice and guidance in order to reduce the time taken to understand regulations, and any associated data requirements;

reducing the need for senior staff or specialist consultant involvement with information obligation requirements. The greatest benefits of this type of administrative burdens reduction would be felt where a business is no longer forced to bring in a specialist contractor or consultant (such as a legal expert or accountant) to comply with the information obligation.

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