



Demand-side interventions to reduce deforestation and forest degradation

Nathalie Walker, Sabrina Patel, Frances Davies, Simon Milledge and James Hulse



Acknowledgements

Increasing recognition of the role that commodity demand-side measures can play to address deforestation has resulted in a recent surge in efforts to assess progress and chart ways forward. As an initial step towards taking a holistic look at the range of available commodity demand-side measures, this paper was the result of a collaboration between the International Institute of Environment and Development (IIED), Global Canopy Programme (GCP), CDP Forests (formerly Forest Footprint Disclosure Project) and The Prince's Rainforests Project (PRP). In this regard special thanks are due to Andrew Mitchell (GCP), James Hulse (CDP Forests), Frances Davis (GCP), Nathalie Walker (FFD), Edward Davey (PRP), Irene Klepinine (PRP), Georgia Edwards (PRP), Duncan Macqueen (IIED), Simon Milledge (IIED), Leianne Rolington (IIED) and Lucile Robinson (IIED).

The paper builds on an international workshop held in February 2013, also co-convened by the International Institute of Environment and Development, Global Canopy Programme, CDP Forests and The Prince's Rainforests Project. The active inputs from presenters and participants representing private sector, civil society and government are sincerely appreciated, and The Royal Society is acknowledged for providing an atmospheric venue setting within the City of London rooms. Barbara Bramble (National Wildlife Federation and also Chair of the Roundtable on Sustainable Biofuels) deserves special mention for having chaired the event to ensure a day of informative and provocative discussions. Lastly, Duncan Brack and Alison Hoare (Chatham House) are acknowledged for their efforts to enable coordinated preparations and follow-up to this work.

This research was funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the views of the UK government



The International Institute for Environment and Development (IIED) is an independent, non-profit research institute working in the field of sustainable development. IIED provides expertise and leadership in researching and achieving sustainable development at local, national, regional and global levels.



The Global Canopy Programme (GCP) works to demonstrate the scientific, political and financial case for safeguarding tropical forests as natural capital essential to lasting human wellbeing and economic prosperity.



CDP is an international, not-for-profit organization providing the only global system for companies and cities to measure, disclose, manage and share vital environmental information.



The Prince's Rainforests Project was set up in October 2007 by The Prince of Wales to find practical solutions to slow tropical deforestation and combat climate change. The Prince's Rainforests Project is now part of the International Sustainability Unit, which was created by The Prince of Wales. The ultimate goal of the ISU is to help build consensus on how to develop the durable solutions required to meet the challenges of climate change and natural resource depletion, with a focus on sustainable agriculture and fisheries management.

Design: Andy Wilkinson andy@wilko5.co.uk

Cover photo: Mike Goldwater www.mikegoldwater.com

Layout: Regent Typesetting www.regent-typesetting.co.uk

Printing: Oldacres Printers www.oldacres.co.uk

Printed on 100% recycled paper

Table of contents

Executive summary	5
Introduction	6
I Types of demand-side measures, benefits and challenges	8
1 Legislation	10
USA's Lacey Act	10
Australian Illegal Logging Prohibition Bill	10
EU Timber Regulation (EU TR)	10
Benefits	10
Challenges	11
2 Public sector measures	12
Action Plan for Forest Law Enforcement Governance and Trade / Voluntary Partnership Agreements	12
EU Renewable Energy Directive (EU RED)	12
Procurement policies	13
Benefits	13
Challenges	13
3 Private sector measures	14
Forest certification	14
Commodity roundtables and certification of agricultural products	14
Industry-developed standards, policies and codes of conduct	15
Voluntary moratoria	16
Voluntary disclosure initiatives	16
Investor activism	17
Benefits	17
Challenges	18

4 Consumer measures	19
Consumer campaigns	19
Boycotts	19
Social media	20
Benefits	20
Challenges	21
II Wider questions on demand-side interventions	22
What generic and/or major challenges do those attempting to implement demand-side interventions experience?	22
What tools or innovations are needed to address these challenges?	22
How can best practices be encouraged?	23
What disincentives exist for demand-side measures?	23
What is the distribution of costs and benefits of demand-side measures?	23
Are there critical gaps in knowledge?	24
What collaborations or partnerships are needed?	24
III Key lessons and recommendations	25
Achieving cost savings to increase demand for deforestation-free commodities	25
Understanding sustainability from the opportunity-based perspective of securing supply, markets and tenure is more likely to gain broader support	25
Demand-side initiatives cannot in practice be delinked from supply-side initiatives	25
Assess opportunities for engaging emerging markets	25

Executive summary

Global demand for food, wood products, biofuels and other agricultural products drives the majority of deforestation and forest degradation. The importance of trade and the increasing dominance of a relatively small number of multinational traders and retailers suggest a role for demand-side interventions to reduce incentives for deforestation driven by the expansion of commodity production.

A variety of demand-side measures have been developed and implemented over the last decade or more by government, private sector and civil society. Examples include legislation, public procurement policies, voluntary bilateral arrangements, multi-stakeholder roundtables, independent certification, moratoria, voluntary disclosure, investor activism and consumer campaigns.

This paper reviews demand-side measures affecting five types of 'forest risk commodity', namely timber, soy, palm oil, beef/leather and biofuels. Information was collected from literature, interviews and an international meeting to identify challenges and opportunities.

Key findings

- Addressing demand for commodities driving deforestation is critical to the long-term success of measures to slow or stop deforestation.
- Demand-side initiatives cannot in practice be delinked from supply-side initiatives.
- Public sector interventions have focused almost exclusively on the timber sector while failing to address agricultural commodities as the major drivers of deforestation.
- Campaigns have been crucial in stimulating the implementation of interventions.
- Limited data exist to capture actions or the effectiveness of demand-side interventions – more robust analyses could help demonstrate success and improve uptake.
- Lack of demand because of consumers' unwillingness to pay a premium for certified or 'deforestation free' products affects the market share of interventions.
- Focusing on specific areas of production, through moratoria or certification, leads to a risk of leakage, so that while forest may be saved in one area, it may be lost in another.
- Understanding sustainability from the opportunity-based perspective of securing supply, markets and tenure is likely to secure broader support of key actors.
- Lack of synergy between demand-side measures requires the strategic application of a mix of demand-side measures and coordinated involvement of actors along supply chains.
- Given their size and growth projections, there is a need to more fully engage emerging markets (particularly in Asia) in developing and implementing demand-side measures.

To address these challenges, new stakeholder networks should improve the lines of communication by reaching out to actors who may have previously been excluded. The financial sector needs to be meaningfully involved in addressing the skills or financial gaps that may prevent some producers from adhering to certain standards or demonstrating traceability, and in the search for appropriate incentives in support of deforestation-free commodity production. NGOs, civil society groups, certification schemes, governments, forest producers and managers, and investors should collaborate to investigate the risks and impacts throughout supply chains and at a landscape level. There is momentum towards new collaborations but the details of how these could work to best advantage need to be examined.

Introduction

Global demand for food, wood products, biofuels and other agricultural products drives the majority of deforestation and forest degradation.¹ Agriculture is the driver of an estimated 80 per cent of tropical deforestation,² with population growth and diet shifts increasing demand for products which are driving forest clearance.³ The volume and value of these 'forest risk commodities' are extremely large. In 2011, the annual value of the global timber trade was USD 246 billion,⁴ while commodity production in the tropics was valued at USD 47 billion for soy, USD 15 billion for cattle and USD 31 billion for palm oil⁵.

International trade plays an increasing role in matching supply and demand for such biomass-related products.⁶ The importance of trade and the increasing dominance of a relatively small number of multinational traders and retailers suggest a role for demand-side interventions to reduce incentives for deforestation driven by the expansion of commodity production.

Experience in many tropical countries has shown that measures to curb or halt deforestation that do not address demand face serious complications. High demand for forest risk commodities may frustrate attempts to improve forest governance and impede the creation of policy and law to regulate forest assets.⁷

Demand-side interventions come in many forms, from loosely organised consumer campaigns and voluntary certification systems, through to legislation and government policies. For sustained effectiveness, these measures involve coordinating

or influencing a large number of actors, including at an international level, using coercive enforcement (if by a state), or simply through information or publicity from civil society or the government.

Demand-side measures have been developed to promote legality, environmental sustainability and social responsibility. There is a growing awareness of the need for these measures to also help develop economic incentives, such as competitiveness and resilience, so that they can become self-sustaining and widely adopted.

While demand-side mechanisms are not able to directly improve forest governance, market signals do have an indirect impact on demand and can limit harvesting, production or trade in forest risk commodities. In addition, the process of developing effective demand-side measures (see below on public sector measures regarding timber) can support existing, or catalyse new, forest governance reforms. However, the impacts on the ground will depend heavily on the scope of the measures and on enforceable mechanisms against illegal or undesired goods, their cost, the nature of the supply chain and their ability to generate demand in the market.

Applying different approaches in combination may have greater success, since coercion (law) and persuasion (campaigns) are often complementary,⁸ and can also close loopholes and prevent opportunities for leakage. The resulting opportunities for public-private alliances are increasingly recognised by both sides, with several governments and industry groups seeking ways to work together.⁹

1 Lambin, E. F. & Meyfroidt, P. 2011. Global land use change, economic globalization, and the looming land scarcity. *Proc. Natl Acad. Sci. USA* 108, 3465–3472.

2 *Drivers of Deforestation and Forest Degradation*; Gabrielle Kissinger, Principal, Lexeme Consulting, Vancouver, Canada, Martin Herold and Veronique De Sy of Wageningen University, The Netherlands.

3 Searchinger et al. 2011. *The Food, Forest and Carbon Challenge*. National Wildlife Federation. http://www.nwf.org/~/media/PDFs/Global-Warming/Reports/TheFoodForestandCarbon_Challenge.pdf?dmc=1&ts=20130121T111321630; Foley, J. A. et al., 2011: *Solutions for a cultivated planet*. *Nature* 478, 337–342.

4 FAOSTAT-Forestry database - Timber

5 Oakes, N., Leggett, M., Cranford, M., Vickers, H. (eds.) 2012. *The Little Forest Finance Book*, Global Canopy Programme: Oxford <http://www.globalcanopy.org/materials/little-forest-finance-book>

6 Erb KH, Krausmann F, Lucht W, Haberl H. 2009. Embodied HANPP: Mapping the spatial disconnect between global biomass production and consumption. *Ecol Econ* 69:328–334.

7 Pfaff, A., E.O. Sills, G.S. Amacher, M.J. Coren, K. Lawlor, and C. Streck. 2010. *Policy impacts on deforestation: Lessons learned from past experiences to inform new initiatives*. Durham, nc: The Nicholas Institute for Environmental Policy Solutions, Duke University

8 Pfaff, A., Sills, E.O., Amache, G.S., Coren, M.J., Lawlor, K., Streck, C. 2010. *Policy Impacts on Deforestation: Lessons Learned from Past Experiences to Inform New Initiatives*. Nicholas Institute for Environmental Policy Solutions, Duke University, NI R 10-02

9 USAID 2012: *Reducing Deforestation Through Sustainable Supply Chains*, available online at: <http://www.usaid.gov/news-information/press-releases/reducing-deforestation-through-sustainable-supply-chains>; DECC 2012: *Joint Statement of the United Kingdom, Norway, United States, Germany and Australia on Tackling Deforestation and Forest Degradation*, available online at: <http://www.decc.gov.uk/assets/decc/11/tackling-climate-change/international-climate-change/7126-joint-statement-tackling-deforestation.pdf>

Demand-side initiatives are not without their challenges. For example, they can take many years to implement and the market may be unwilling to pay for the additional costs associated with improved environmental and social standards. Furthermore, if there is leakage, the demand-side initiatives may not help protect forests.

This paper assesses a variety of demand-side interventions to reduce commodity-driven deforestation. A review of the grey literature was used to: 1) identify the commodities that are the major drivers of deforestation; 2) the commodities for which demand-side interventions have been implemented; and 3) the different types of interventions. The major commodities implicated in driving deforestation are beef and leather, palm oil, biofuels, soy and timber products. The impacts of the various interventions are then discussed, alongside consideration of the challenges they face, the gaps, opportunities and future directions. Information presented was based initially upon structured interviews with seventeen civil society and industry representatives with expertise covering the different commodities and demand-side measures. Subsequently, a one-day workshop was held in London on 21 February 2013 with 35 representatives from industry, standards-setting associations, civil society and government.

I Types of demand-side measures, benefits and challenges

A variety of demand-side measures have been developed and implemented over the last decade or more. **Legislative measures** are those which involve the enactment, or the revision, of legislation and largely focus on legality, in comparison to sustainability. **Public sector measures** are those implemented by a state but which have the effect of setting policy, agreements, directives or guidance, as opposed to creating a specific law. **Private sector measures** are those put into effect or undertaken by the private sector, while **consumer measures** are put into effect to push or pull demand from consumers using awareness-raising campaigns or other forms of action-based campaigning. The different measures are summarised by commodity in Table 1.

There are a number of benefits to demand-side measures as a whole. They can redistribute the risk-benefit equation along the supply chain to shift the balance in favour of producing or procuring products with higher environmental and social standards. They can also realign incentives in producer countries and change the political economy of the forest or agricultural production sector in favour of certification or avoidance of areas with recent deforestation. These measures can stimulate markets, create new markets and challenge existing ones. They are also able to help establish internationally agreed standards on what constitutes sustainability. They can create new levers and pressure points for civil society to effect change and they can reduce 'leakage concerns' with respect to deforestation. Lastly, they can help promote international cooperation on research and technology transfer.

Table 1. Demand-side interventions for addressing the major commodity drivers of deforestation

	Legislation	Public sector measures	Private sector measures	Consumer measures
Timber	US Lacey Act; Australian Illegal Logging Prohibition Bill; EU Timber Regulation (EU TR).	EU's Forest Law Enforcement Governance and Trade (FLEGT) and Voluntary Partnership Agreements (VPAs)	<p>Certification: Forest Stewardship Council (FSC); Programme for the Endorsement of Forest Certification (PEFC).</p> <p>Industry-developed standards, policies and codes of conduct: Consumer Goods Forum (CGF) zero net deforestation pledge; investor activism</p> <p>Voluntary disclosure initiatives: CDP Forests</p>	Consumer campaigns Rainforest Action Network's (RAN) Rainforest-Safe Kids Books
Soy			<p>Certification: Roundtable on Responsible Soy (RTRS); Sustainable Agriculture Network (SAN)</p> <p>Voluntary moratoria: Soy Moratorium</p> <p>Industry-developed standards, policies and codes of conduct: Consumer Goods Forum (CGF) zero net deforestation pledge; investor activism</p> <p>Voluntary disclosure initiatives: CDP Forests</p>	
Palm Oil			<p>Certification: Roundtable on Sustainable Palm Oil (RSPO)</p> <p>Industry-developed standards, policies and codes of conduct: Consumer Goods Forum (CGF) zero net deforestation pledge; investor activism; Dutch and Belgian Industry 2015 ban on non-RSPO certified palm oil.</p> <p>Voluntary disclosure initiatives: CDP Forests</p>	Consumer campaigns Rainforest Foundation Norway's Palm Oil Campaign; Greenpeace's Palm Oil Campaign, subsequent commitments by GAR and Nestlé.
Beef/Leather			<p>Certification: Sustainable Agriculture Network (SAN)</p> <p>Industry-developed standards, policies and codes of conduct: Consumer Goods Forum (CGF) zero net deforestation pledge; investor activism</p> <p>Voluntary moratoria: G4 Cattle Agreement</p> <p>Voluntary disclosure initiatives: CDP Forests</p>	
Biofuels		EU Renewable Energy Directive	<p>Certification: Roundtable on Sustainable Biofuels (RSB)</p> <p>Industry-developed standards, policies and codes of conduct: investor activism</p> <p>Voluntary disclosure initiatives: CDP Forests</p>	

1 Legislation

The aim of legislative provisions is to create a binding agreement between countries and within a country, which can directly regulate the trade of legal forest products (and could be applied to any forest risk commodity) and is legally enforceable and actionable.

USA's Lacey Act

In 2008, the USA extended the scope of the Lacey Act to include plants, becoming the first country to ban the import, sale or trade of wood and wood products harvested in violation of an underlying law in the country of origin. With the intent of targeting the problem of illegal timber, the Lacey Act was the first demand-side government ban on the *trade* of illegal wood. It is notable in not only prohibiting all trade in plant and plant products that are illegally sourced from any US state or foreign country but also requiring importers to declare the country of harvest and the species name of all plants contained in their products.

The Lacey Act has clear penalties for violation ranging from forfeiture of goods and vessels, to fines and, potentially, imprisonment. While the Act does not support or sanction any particular solution, it has resulted in the promotion of certification as an effective, and in some cases the only available, way of ensuring legality.¹⁰ The Lacey Act does not engage in a dialogue for possible legal reform within a country, in contrast to other measures described below, such as the Forest Law Enforcement Governance and Trade, Voluntary Partnership Agreements and potentially the EU Timber Regulation.

Australian Illegal Logging Prohibition Bill

In 2012, the Australian Illegal Logging Prohibition Bill was passed, which, modelled on the US Lacey Act, prohibits the importation of illegally logged timber.¹¹ It requires importers

of regulated timber products and processors of raw logs to conduct due diligence in order to reduce the risk that illegally logged timber is imported or processed.

EU Timber Regulation (EU TR)

The EU TR prohibits the sale of timber logged illegally according to the law of the country of origin. Furthermore, the legislation places a requirement on operators putting timber and timber products on the EU market to exercise due diligence to ensure that the timber they sell in the EU was not harvested illegally. The EU TR came into effect in March 2013,¹² and applies to all timber products (with a few notable exceptions, such as instruments and chains) from all sources, both within and outside the EU. Legality is defined by the harvesting country's national legislation. While an operator does not have to prove legality, there are due diligence elements that must accompany the timber products, such as key details on the wood's source, volume, supplier details, and information demonstrating compliance with the legislation of the country of harvest.

It is intended that the EU TR will work alongside the EU's Forest Law Enforcement Governance and Trade (FLEGT) licensing system, since it attempts to address one of the key weaknesses of FLEGT licenses and Voluntary Partnership Agreements (VPAs), which is that these licenses only exist between the EU and the partner countries, therefore illegal products could easily be routed through non-VPA countries to the EU, thereby evading the licensing requirements set.

¹⁰ Elias, P. 2012. *Logging and the Law. How the U.S. Lacey Act Helps Reduce Illegal Logging in the Tropics*. Union of Concerned Scientists. http://www.ucsusa.org/global_warming/solutions/forest_solutions/lacey-act-illegal-logging-tropics.html

¹¹ The Parliament of the Commonwealth of Australia. *Illegal Logging Prohibition Bill 2012* http://parlinfo.aph.gov.au/parlInfo/download/legislation/bills/r4740_aspassed/toc_pdf/1131b01.pdf;fileType=application%2Fpdf

¹² Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010. <http://www.illegal-logging.info/uploads/I29520101112en00230034.pdf>

Benefits

Legislation can encourage the incremental improvement of forest governance and alter the role and significance of national laws and processes. It can deliver faster results, in terms of changing national or local sustainability. An example is that outreach over the FLEGT Action Plan, mediated by civil society, helped secure the announcement of a log export ban from Liberia in November 2012.

Another benefit of legislation is that it creates a more predictable environment for finance, investments and aid. Government funding can back such legislative reform programmes, increasing the likelihood of their continued existence, and therefore they may be sustained for longer than other types of measures. The private sector can benefit from regulatory certainty and a levelling of the playing field, which particularly benefits the early adopters, who may already be reaching or exceeding regulatory requirements.

In past cases involving the US Lacey Act, such as that involving the illegal export of South African lobster, there can be large fines for damages, in this case US\$56 million. The US government has the authority to share this money with companies who assisted in the prosecution of these activities, which can play an important role in facilitating implementation.

Challenges

Being a political instrument, there is a risk that politics comes into the negotiating and the actual enforcement of legislative instruments. Negotiations and enforcement could be held hostage to agreement on other issues, while legislation is subject to political change.

Many legislative measures are new and have yet to prove their worth. It can be difficult to ensure that measures are compatible with the aspirations of actors within producer countries. For example, it is important to ensure that initiatives are supportive of locally controlled forestry, good governance and climate-smart land use, but demand-side legislation that focuses too narrowly on legality cannot take into account other important factors on the ground. In addition, if these measures are too difficult or costly to comply with (for example, because of challenges with providing proof of traceability), forest producers may come under pressure to convert their forested land. Further, decisions made as a result of foreign legislation may not be in the best interests of local communities or forests. For example, they could favour larger, industrial-scale producers and as a result negatively impact local communities or producers who may be practising lower impact logging, but are not able to become certified or otherwise prove due diligence in complying with foreign legislation.

Resources and capacity are important challenges for the implementation and enforcement of legislation, and this appears to be a major concern among some EU member states in relation to the EU TR.

To date, legislation efforts have focused on timber products, which may be because of their direct connection to forests and ability to identify species. In contrast, it is usually not possible to tell where an agricultural product originates. Further, proposed legislation may face difficulties because the concentration of the agricultural commodity industry means there are a few very large, powerful, multinational trading companies which control a significant proportion of the global trade. Food imports into the EU do have traceability requirements for food safety reasons but these are not based on any requirements regarding the environmental impacts of their cultivation.

Demand-side legislation to date has been led by governments of the EU, USA and Australia. Governments in Asia have adopted reciprocal supply-side approaches, such as log-export bans. The importance of the size of Asian markets in driving global demand for products such as palm oil and timber and their relative lack of engagement (of market actors as well as government) is perhaps the largest challenge to the reduction of commodity-driven deforestation. Many producers and traders are aware that if Europe or North America acts to prevent imports of certain products, there is a ready and growing market in Asia which would be willing to purchase these products.

2 Public sector measures

Action Plan for Forest Law Enforcement Governance and Trade / Voluntary Partnership Agreements

The Action Plan for Forest Law Enforcement Governance and Trade (FLEGT) was published in 2003 and it remains “the most ambitious set of measures aimed at illegal logging and forest governance adopted by any consumer country or bloc to date.”¹³ The VPAs are designed to provide capacity-building assistance to set up national licensing schemes, improve enforcement, and where necessary, reform relevant timber laws in producer countries. When implemented fully within a partner country, it will create a licensing system which will identify legal timber products and license them to be imported into the EU.

For various reasons, some countries may decide not to enter into a VPA with the EU. Furthermore, it is possible to circumvent these agreements by routing illegal products through non-VPA countries to the EU. This has led to the development of the EU TR (see above) in order to exclude illegal timber products from the EU market. To date, however, no VPA partner countries have established an operational FLEGT/VPA licensing system.

Where the VPAs do seem to have succeeded, however, is improving the standards of forest governance, particularly increasing transparency and opening up decision-making processes to participation from civil society.

EU Renewable Energy Directive (EU RED)

In 2009, the EU adopted EU RED, setting a common EU framework for the promotion of energy from renewable sources. The aim of this legislative act is to achieve by 2020 a 20 per cent share of energy from renewable sources in the EU’s final consumption of energy and a 10 per cent share of energy from renewable sources in each Member State’s transport energy consumption.¹⁴ In 2012, proposed changes to the Directive were announced to limit the use of crop-based biofuels to five per cent of total EU transport energy by 2020. This was in light of growing concerns that emissions from indirect land-use change could negate the greenhouse gas savings of biofuels compared to the fossil fuels they replace.

In order to count towards mandatory national renewable energy targets, all biofuels used in the EU must comply with sustainability criteria. Sustainability needs to either be checked by Member States or through voluntary schemes that have been approved by the European Commission.¹⁵ There are currently thirteen approved voluntary schemes, including those of the biofuels, palm oil, soy and sugar Roundtables (see below). This is an example of a direct synergy between public and private demand-side measures, whereby governments have sanctioned voluntary standards to be an acceptable system for legal compliance.

¹³ Brack, D. 2010. *Controlling Illegal Logging: Consumer-Country Measures*. London, UK: Chatham House.

¹⁴ EU 2009. *Directive 2009/28/EC on the promotion of the use of energy from renewable sources*. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF>

¹⁵ European Commission 2012. *Renewable Energy. Biofuels - Sustainability Schemes*. http://ec.europa.eu/energy/renewables/biofuels/sustainability_schemes_en.htm

Procurement policies

Several countries now have government procurement policies, which aim to ensure public purchasers source solely legal or sustainable wood products. Examples include France, Germany, Finland, Denmark, Austria, Mexico, the Netherlands, New Zealand and the UK. Many local and regional governments in these and other countries also possess some form of timber procurement policy.¹⁶

There are generally two models for the design of procurement policies. The first is exemplified by Germany, which asks for the timber it procures to be certified by the Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC), or an equivalent. The second model is more complicated, and the government is tasked with giving buyers guidance to ensure they are purchasing products that are meeting specific criteria. This is usually satisfied through the certification schemes, although countries such as the Netherlands and the UK have also created systems that rely on independent advisory bodies to assess if the certification schemes have met national criteria for legality and sustainability.

Benefits

These measures can be very ambitious, as seen with FLEGT and VPAs, but they typically have capacity-building assistance included, which assists not only domestic participants but also those in the partner state. They also allow for better participation of civil society and other stakeholder groups in the development of these measures. They are of national application, so their uniformity, as with legislation, creates a sound and predictable financial environment for investment and business decisions. They provide a measure of regulatory certainty for companies and help level the playing field.

While not entirely attributable to public sector measures alone, an assessment of illegal logging found a global reduction of at least 22 per cent since 2002, and a study of seven countries showed a reduction in illegal imports by 30 per cent since 2004.¹⁷ However, it noted that illegal logging remains a problem throughout the tropics.

Depending on the scale and influence of public procurement within a given country, public procurement policies are highly influential and can set the standards for sustainable businesses.

Challenges

Many public sector measures are new and have not yet been put into action on a wide scale. For example, the EU RED sets rules for 2020 and the EU TR has only recently come into force. The process of negotiation and development of these standards can be prolonged, as seen with the VPAs. There are concerns with loopholes, such as conversion timber that does not fall under the remit of VPAs, and implementation difficulties. It will be difficult to measure the effective uptake of measures such as government guidance on procurement, let alone any impact on forests.

¹⁶ Brack, D. and Saunders, J. 2004. *Public Procurement of Timber: EU Member state initiatives for sourcing legal and sustainable timber. Discussion paper for workshop on public procurement of timber.* London, UK: Chatham House.

¹⁷ Lawson, S. and MacFaul, L. 2010. *Illegal Logging and Related Trade. Indicators of the Global Response.* London, UK: Chatham House.

3 Private sector measures

The range of measures undertaken by the private sector (often in concert with or with the guidance of civil society) includes: multi-stakeholder-developed sustainability standards; the greening of supply chains through careful sourcing; shortening supply chains through acquisitions; voluntary disclosure initiatives; and improving the efficiency of operations, roundtables and trade networks. A selection of private sector measures is shown in Table 2. Private sector measures tend to work outside a legal framework and are therefore more flexible in their requirements and application. They tend to encourage engagement up and down the supply chain, to bring a range of actors together.

Forest certification

Forest certification systems are typically designed with the aim of boosting relative profitability through reduced marketing costs, ensuring lower risks associated with forest-friendly goods, and providing preferential access to buyers and periodic price premiums.¹⁸

Private forest certification schemes were first developed in the early 1990s, in response to a failure to create an intergovernmental process for global forest management.¹⁹ The Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) schemes hold the overwhelming majority of the global certified market, adding up to about 394 million hectares. However, this is only 9.6 per cent of the total global area for forests.²⁰

Commodity roundtables and certification of agricultural products

An important development in agricultural commodities has been the emergence of various multi-stakeholder 'roundtables'. The major commodity roundtables (for example, the Roundtable on Sustainable Palm Oil (RSPO), the Roundtable on Responsible Soy (RTRS), the sugarcane roundtable (BonSucro), and the Roundtable on Sustainable Biofuels (RSB)) were modelled on the FSC and have developed environmental and social standards to provide formal third-party certification programmes.

Roundtables typically take at least three years to develop standards because their development involves lengthy consultations and negotiations in order to reach a consensus agreement between the different stakeholders. Civil society representation and voting rights vary between roundtables. The roundtables are much younger than the FSC, with several certification systems only developed in 2011 (RSB, RTRS, BonSucro), and as a result have very small market share. The RSPO began certification in 2008 and has a 14 per cent global market share, exceeding that of the FSC.²¹

There are other systems of certification, such as the Sustainable Agriculture Network, which is a coalition of NGOs, which develop standards for farming systems and award Rainforest Alliance certification for qualifying farms.²² These standards are applicable to a wide range of crops as well as livestock and over a million hectares of land has been certified in the tropics.

18 Pfaff, A., Sills, E.O., Amache, G.S., Coren, M.J., Lawlor, K., and Streck, C. 2010. *Policy Impacts on Deforestation: Lessons Learned from Past Experiences to Inform New Initiatives*. Nicholas Institute for Environmental Policy Solutions, Duke University, NI R 10-02.

19 Cashore, B., Auld, G. and Newsom, D. 2004. *Governing Through Markets: Forest Certification and the Emergence of Non-state Authority*, New Haven, CT, Yale University Press.

20 Aguilar, F., Hartkamp, R., Mabee, W. and Skog, K. 2012. Chapter 9: Wood energy markets, 2011-2012. In: *Forest Products Annual Market Review 2011-2012*. United Nations Economic Commission for Europe/Food and Agriculture Organization of the United Nations. http://www.unece.org/fileadmin/DAM/timber/publications/FPAMR_2012.pdf

21 WWF 2012. *RSPO has much to celebrate, much to do at critical 10th Anniversary meeting*. http://www.panda.org/who_we_are/wwf_offices/indonesia/?206572/RSPO-has-much-to-celebrate-much-to-do-at-critical-10th-Anniversary-meeting

22 SAN 2013. *Our Standards*. Standards Development. <http://sanstandards.org/sitio/subsections/display/8>

Table 2. Examples of private sector measures to address drivers of deforestation

	Year founded	Year of implementation of measure	Market share	Additional information
Forest Stewardship Council (FSC)	1993	1994	4.2%, 155 million ha	Most certified operations outside of the tropics.
Programme for the Endorsement of Forest Certification Schemes (PEFC)	1999	2000	6.1% 225 million ha	Most certification outside of the tropics and/or plantations.
Roundtable on Sustainable Palm Oil (RSPO)	2004	2008	14%	Less than half certified palm oil has sold at a premium, despite price dropping. Certificate-based sales not understood well by the market.
Roundtable on Responsible Soy (RTRS)	2006	2011	<1% (328,000 ha)	Criticism over certification of genetically-modified soy led to two-tier system for certified and uncertified.
Roundtable on Sustainable Biofuels (RSB)	2007	2011	<1%	Wide range of production eligible for certification.
Sustainable Agriculture Network (SAN)	1997	2001	<1% (>1,1 million ha)	Focus on smallholder certification.
Leather Working Group (LWG)	2005	2010 (Traceability component)	~10%	Auditing takes place at tanneries.
Consumer Goods Forum (CGF) pledge on zero net deforestation by 2020	2010	2020 target for zero net deforestation	n/a	Pledge made by CGF board includes some of the world's largest food manufacturers.
Soy Moratorium	2006	2006	Exclusively covers Brazil's Amazon forest biome	Extended until 2014. Soy traders refuse non-compliant production.
G4 Cattle Agreement	2009	2009	~40% Brazil's cattle slaughter	Brazil's three largest meatpackers signatories.
CDP Forests	2008	2009	n/a	100 companies participated in 2012.

Industry-developed standards, policies and codes of conduct

Companies, acting independently or as members of associations, may commit themselves to self-defined principles of social and environmental responsibility. These measures tend to be relatively lax, since companies assess their own ability to meet self-imposed guidelines. Codes of conduct are a way for corporations to take certification-type requirements *out of* a certification monitoring system and allow for a lower level of requirement or oversight. While roundtables are multi-

stakeholder fora where civil society members have voting rights when standards are developed, industry groups may consult with civil society but the standards or policies that they develop remain their own.

The Leather Working Group was developed to improve environmental standards in the leather industry and its members include major leather brands and tanneries. The Auditing Protocol for tanneries sets a grade for traceability for leather, and leather sourced from the Brazilian Amazon is graded on whether it can be traceable to supplying ranches

with no post-2009 deforestation, in line with the G4 Cattle Agreement.²³ The group's protocol is used to audit about 10 per cent of the world's leather and its members include around 25 per cent of the world's footwear production.

The Consumer Goods Forum (CGF) is a CEO-led organisation of 400 consumer goods manufacturers and retailers. In November 2010, the CGF board announced its intention to mobilise its collective resources – equivalent to around five per cent of global GDP – to help achieve zero net deforestation by 2020.²⁴ The CGF companies who are board members include the world's largest food companies and brands, such as Nestlé, Pepsi Co, Procter & Gamble, Sara Lee, Unilever and Walmart. The CGF decided to focus on soy, palm, beef and paper. To date, no details have been made public about how the CGF intends to reach its target. For soy, there is consensus around supporting the RTRS. Regarding paper and board, the CGF recognises that while FSC may be the preferred standard, there is insufficient FSC-certified material globally to supply CGF members, so it is working on a plan to incorporate other standards and will propose a common path forward. For beef, all CGF members are encouraged to join the Global Roundtable for Sustainable Beef, which has set up a working group reporting to the CGF to produce a plan to achieve the CGF's goals.

The Dutch and Belgian palm oil industries have collectively announced goals to import only sustainable palm oil (defined as RSPO-certified). The Dutch Task Force on Sustainable Palm Oil was established in 2010, and developed a manifesto with the goal of only allowing the import of RSPO-certified palm oil, to be achieved by the end of 2015.²⁵ The Belgian Alliance for Sustainable Palm oil was modelled on the Dutch example and set a similar goal.²⁶

Voluntary moratoria

Moratoria are agreements, brokered by civil society, whereby a significant proportion of an industry agrees to avoid purchasing products arising from a particular area or from deforestation in a specific area.

An example follows a 2006 report by Greenpeace,²⁷ which linked deforestation, forced labour, land grabbing and encroachment into indigenous lands with soy exported to Europe and used in animal feed for chickens sold in major supermarket and restaurant groups. Many of these retail companies demanded deforestation-free soy from their

suppliers, leading to the Brazilian Vegetable Oil Industry Association (whose members include the major soy traders) agreeing not to purchase soy from newly deforested areas of the Brazilian Amazon.²⁸ The soy moratorium was announced by the Soy Working Group, made up of two member companies from Brazil's vegetable oil industry associations (ABIOVE and ANEC), the Brazilian Ministry of the Environment, the Bank of Brazil, and civil society groups Conservation International, Greenpeace, Instituto de Pesquisa Ambiental da Amazônia, The Nature Conservancy and WWF. A number of retailers have supported and observed the implementation of the moratorium, including Ahold, ASDA, Carrefour, Co-operative, Kraft, Marks & Spencer, McDonald's, Nutreco, Ritter-Sport, Sainsbury's, Waitrose and Wal-Mart. The moratorium was agreed in 2006 and an assessment in 2010 found soy cultivation on just 0.25 per cent of areas of post-moratorium deforestation in the Amazon forest biome.²⁹ The moratorium is monitored by the Instituto Nacional de Pesquisas Espaciais (INPE), the Brazilian government Space Agency; it has been renewed at annual or biennial intervals and is up for renewal in January 2014.³⁰

As another example, in 2009, following NGO reports highlighting illegal deforestation and forced labour on cattle ranches and legal action by the Public Prosecutor's Office in the Amazon state of Pará, Brazil's largest meatpackers, supermarket chains and major international leather brands announced new policies against deforestation in their supply chains. The four biggest meatpackers in Brazil signed an agreement with Greenpeace in 2009 (the G4 Cattle Agreement). This Agreement sets out a timeline by which these meatpackers would only buy from ranches in the Brazilian Amazon with no deforestation occurring after the date of the agreement.³¹ However, without government monitoring, there has not been a clear system for evaluating the Agreement's implementation.

Voluntary disclosure initiatives

Disclosure initiatives have been instituted by civil society, often with the backing of financial institutions (banks, pension funds, asset managers, insurance companies and foundations), to emphasise the importance of full information and disclosure throughout the supply chains. One example of such an initiative is the CDP Forests (formerly the Forest Footprint Disclosure Project).³² CDP Forests asks over 750 companies to disclose how they address forest risk commodities in their supply chains, on behalf of over 180 asset management

23 *Leather Working Group*. 2012. *LWG Audit Protocol*. <http://www.leatherworkinggroup.com/about/protocol.htm>

24 *Consumer Goods Forum*. 2010. http://sustainability.mycgforum.com/images/sustainability-pic/Press_Release_-_2010-11-29-ClimateProtection.pdf

25 *Dutch Palm Oil Task Force*. 2010. *Manifesto of the Task Force Sustainable Palm Oil*. http://www.taskforceduurzamepalmolie.nl/Portals/4/download/Manifesto_Task_Force_Sustainable_Palm_Oil.pdf

26 <http://www.sustainabelpalm.be/>

27 *Greenpeace USA*. 2006. *Eating up the Amazon*. www.greenpeace.org/usa/en/media-center/reports/eating-up-the-amazon/

28 *Soy Moratorium*. 2012. <http://www.mvo.nl/Portals/0/publicaties/Magazine/2012/17/02%20press%20release%20ABIOVE.pdf> Nepstad, D. C. et al. 2008. *Interactions among Amazon land use, forests, and climate: prospects for a near-term forest tipping point*. *Philosophical Transactions of the Royal Society B: Biological Sciences* 363:1737–1746.

29 *Bernardo Friedrich Theodor Rudorff, B.F.T., Adami, M., Aguiar, D.A., Moreira, M.A., Mello, M.P., Fabiani, L., Amaral, D.F. and Pires, B.M.* (2011). *The Soy Moratorium in the Amazon Biome Monitored by Remote Sensing Images*. *Remote Sensing* 3 (1):185-202.

30 *Abiove* 2012. *Soy Moratorium was renewed through January 31, 2014*. <http://www.mvo.nl/Portals/0/publicaties/Magazine/2012/17/02%20press%20release%20ABIOVE.pdf>

31 *Barrionuevo, A.* 2009. *Giants in Cattle Industry Agree to Help Fight Deforestation*. *The New York Times*. www.nytimes.com/2009/10/07/world/americas/07deforest.html

32 *Carbon Disclosure Project*. 2013. *The Forest Footprint Disclosure Project*. <https://www.cdproject.net/en-US/Programmes/Pages/forests.aspx>

signatories to the project. These disclosure initiatives can sometimes influence government policies. For example, the UK government has mandated that all companies on the London Stock Exchange should report their carbon emissions from January 2014.³³

Investor activism

Investor activism can also be an indirect demand-side measure, with shareholders putting pressure on company management to change or improve behaviour. This pressure may take several forms, depending on the mandate of the investment manager. Many of the assets invested globally in equities are passively managed, meaning that they are designed to perform in line with indices such as the MSCI World Index or the FTSE 100, and so it is not possible for an investor to change their holding in a particular company. Shareholder pressure in this case is restricted to engagement with management to persuade them of the benefits of behavioural change, or the filing of shareholder resolutions to demand specific measures, such as a policy on

sustainable palm oil or time-bound targets for procurement of certified commodities. This can be hugely effective in changing corporate behaviour, as has been seen with various shareholder resolutions over the past few years, especially as passive funds are usually very long-term holders of shares.

Other investors are 'active' owners – they have a mandate to choose which companies they own shares in, either with a completely free rein or subject to certain criteria, such as ethical or sustainable funds. Their ultimate sanction is to divest their shareholdings in a company (or, with hedge funds, to 'short' the company, selling shares which they do not own in order to buy them back more cheaply at a later date). This gives them a broader range of engagement tools. Companies have shown a willingness to amend their policies in order to qualify for some of the more influential indices, such as the Dow Jones Sustainability Index, since being a member of such an index attracts investors, both passive (tracking the index) and active (using it as an exclusion criteria or simply being attracted to those companies who qualify), and those investors often tend to be longer-term shareholders.

Benefits

Private sector measures can reallocate accountability to different points on the commodity supply chain. Even where national political will and sovereignty over sustainable forest management exists, demand-side measures can open up space for stronger roles for other actors. For example, in Indonesia, government claims of sovereignty over the land and the palm oil industry meant that initially Indonesian stakeholders did not welcome outside intervention in terms of environmental and social standards of production. However, the high adoption rate of the standards of the RSPO by major international companies, together with consumer campaigns bringing international attention to the risk posed to forests by oil palm expansion, have led to a recognition by the Indonesian government of the worth of these standards.

FSC and competing forest certification systems appear to modestly boost relative profitability through reduced marketing costs, lower risks associated with forest-friendly goods, preferential access to buyers and, sometimes, price premiums.³⁴ Even if certification turns out not to be able to garner major market share, the debate it creates is effective in leading to deliberations which are then taken into other policy arenas, and as a measure it has an "excellent capacity development effect."³⁵

Certification, moratoria, and other company-driven approaches, have clearly proven that they are able to change markets and company behaviour and enforce rules which recognise social and environmental attributes in production processes.

The wide range of private-sector measures can suit different needs in terms of scale and time for implementation and can act in a complementary way to each other. For example, moratoria can be put in place in a few months, and can be a 'quick fix' for a specific geographical region, whereas roundtables offer a place for in-depth discussions, information gathering and negotiations among large numbers of stakeholders, with a resulting international agreement on standards, which can be applied over the long-term (although noting that standards are not permanent but subject to systematic review).

³³ Carbon Trust. 2013. *Mandatory Carbon Reporting*. <http://www.carbontrust.com/resources/guides/carbon-footprinting-and-reporting/mandatory-carbon-reporting>.

³⁴ Pfaff, A., Sills, E.O., Amache, G.S., Coren, M.J., Lawlor, K., and Streck, C. 2010. *Policy Impacts on Deforestation: Lessons Learned from Past Experiences to Inform New Initiatives*. Nicholas Institute for Environmental Policy Solutions, Duke University, NI R 10-02.

³⁵ Guneau, S. and Bass, S. 2007. 'Global Forest Governance: Effectiveness, Fairness and Legitimacy of Market-Driven Approaches' in S. Thoyer and B. Martimort-Asso (eds.), *Participation for Sustainability in Trade*, Aldershot, Ashgate.

Challenges

Certification faces several challenges. It has yet to obtain a majority global market share, with price premiums for the most part being lower than anticipated or providing insufficient incentive for uptake by a majority of producers. The lack of uptake is also due in part to a lack of demand. For example, while demand has increased in recent years, less than half of RSPO-certified palm oil has sold at a premium.³⁶ It is difficult and costly to create segregated supplies. In the case of RSPO-certified palm oil, an alternative is a system such as Green Palm certificates, whereby companies continue to buy the same actual palm oil but buy certificates for a specific number of tonnes of virtual palm oil to 'offset' the palm oil they actually use. Some companies have found certificates a difficult notion to explain and market to consumers, which is one of the reasons for low demand.

The most successful sustainability standards face competition from multiple certification systems (particularly timber and palm oil), although the resulting 'race to the bottom' may undermine the effectiveness of the most stringent ones.³⁷ The process of improving certification standards can be positive for consumers committed to buying legally, sustainably and/or ethically sourced products. However, the generally low premiums and low demand means that certification is confined to a niche market.

The cost for participation in certification schemes can be prohibitive, especially for smallholders, who may require technical as well as financial support in order to become certified. Some standards have tried to address this by offering group certification (FSC and PEFC) and setting up working groups to address how to support smallholders (RSPO and RSB). Another barrier for small-scale producers may be that traders want large volumes and constant supplies, so favour the larger producers.

In the case of timber, since governments predominantly own the forest within developing countries (although this pattern has shifted considerably in the past fifteen years) and most industrial roundwood is consumed domestically in those countries, certification will require local buy-in for large impacts.³⁸ However, there are not many buyers working directly with forest managers to help them to become credibly certified. This has an impact on supply because anyone trying to improve the source of their products does so by trying to find them in the market. A final challenge of certification is the lack of robust studies showing a beneficial environmental impact.³⁹

Moratoria are limited by their geographical region and their duration. As with industry-developed standards and codes of conduct, without robust, independent monitoring, it is difficult to determine their impact or whether they are any different from a business-as-usual approach.

Corporate action in terms of adopting policies to avoid deforestation, purchasing certified goods, or avoiding certain suppliers, can virtually always be traced back to an initial civil society campaign which brought to light environmental and social problems in specific supply chains. As companies become more aware of their exposure to forest risk commodities, and with increasing transparency of supply chains – because of legislation and improvements in remote sensing – they may be more likely to take independent action. However, beyond reacting to campaigns, the challenge remains how to make the business case for companies to invest the time and cost involved in avoiding products linked to deforestation.

36 WWF. 2011. WWF 2011 Palm Oil Buyers' Scorecard. http://assets.panda.org/downloads/wwf_palmoil_buyers_scorecard_2011.pdf?utm_source=Scorecard_websection&utm_medium=button&utm_campaign=PalmOilScorecard

37 Bitzer, V., M. Francken, and P. Glasbergen. 2008. *Intersectoral partnerships for a sustainable coffee chain: Really addressing sustainability or just picking (coffee) cherries?* *Global Environmental Change* 18(2): 271–284.

38 Pfaff, A., Sills, E.O., Amache, G.S., Coren, M.J., Lawlor, K., and Streck, C. 2010. *Policy Impacts on Deforestation: Lessons Learned from Past Experiences to Inform New Initiatives*. Nicholas Institute for Environmental Policy Solutions, Duke University, NI R 10-02.

39 Blackman, A., & Rivera, J. 2010. *The evidence base for environmental and socioeconomic impacts of "sustainable" certification*. Washington DC: Resources For the Future

4 Consumer measures

Consumer measures are typically designed with the aim of shifting demand away from commodity production that causes deforestation or to move towards production that maintains forest cover.

Consumer campaigns

Studies have shown that consumers are more likely to be environmentally conscious about products that are consumed and that directly influence the body (such as with concerns about genetically modified and irradiated food or the recent horsemeat scandal in Europe) than issues of sustainability.⁴⁰

There have also been numerous successful consumer campaigns targeting deforestation over the past two decades.

An assessment of campaign successes found that from 1999 to 2006, over 400 major corporations had phased out purchasing from old-growth forests, or agreed to purchase only certified products.⁴¹

A few examples of successful consumer campaigns include:

- Rainforest Foundation Norway's Palm Oil Campaign reduced Norway's palm oil consumption by two thirds between 2011 and 2012.
- In 2010, Rainforest Action Network's consumer-facing campaign which involved the release of a "Rainforest-Safe Kids Books" scorecard resulted in eight leading children's book publishers pledging to eliminate controversial Indonesian suppliers Asia Pulp and Paper and Asia Pacific Resources International Limited from their supply chains.

- In 2009, following a five-year Greenpeace-led campaign, Kimberly-Clark set a goal of sourcing all of its wood pulp from environmentally responsible sources.⁴² In 2010, the company announced that 98 per cent of its supplies were coming from independently certified sources.⁴³

- In 2001, following years of protests, including a letter-writing campaign and a request for students to ask their colleges to cancel contracts with Boise Cascade, the company cancelled the US\$160 million Cascada Project, slated to be the world's largest chip mill in a temperate rainforest region of southern Chile.

Consumer measures may target the private sector or aim for a change in legislation. However, it may be more difficult to determine the importance of a campaign in bringing about a change in legislation than in corporate policies, which often result from direct dialogue or companies may publicly declare that they changed as the result of a campaign.

Boycotts

Civil society organisations are aware that companies are concerned about their reputational risk and so will act to avoid losing significant market share. Consumer boycotts usually involve a civil society organisation calling on consumers to avoid purchasing a particular product or brand and may ask consumers to write to companies explaining their choices. The level of reduction in sales needed to bring about a change differs from company to company but operating margins of many companies are frequently small, and so a loss of a few per cent in sales can be enough to encourage corporations to adopt new policies.

40 Gilg, A., Barr, S., Ford, N., 2005. Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures* 37: 481–504.

41 Innes, R. 2006. "A Theory of Consumer Boycotts Under Symmetric Information and Imperfect Competition." *Economic Journal* 116: 355–81.

42 Greenpeace. 2009. Kimberly-Clark and Greenpeace agree to historic measures to protect forests <http://www.kleercut.net/en/>

43 Kimberly Clark. 2013. Our Fiber Procurement Policy. Available online at: <http://www.kimberly-clark.com/sustainability/planet/fibersourcing/fiberprocpolicy.aspx>

Boycotts serve the aim of bringing attention to an issue, but the high costs of informing a boycott means that it is difficult to scale them up to effectively target more than a few target corporations or for them to affect national policy or legislation. The focus on decentralised private (consumer) choices means that coordination failures between different institutions informing a boycott often occur.⁴⁴

As an example, Rainforest Action Network (RAN) ran a series of successful boycotts in the 1980s and 1990s. In 1987, their first boycott was initiated against Burger King, for importing Central American beef linked to deforestation. The boycott led to a 12 per cent drop in sales in the US and led to Burger King announcing a policy of no longer importing from rainforest regions.⁴⁵ As another example, the Mitsubishi Corporation imported an estimated three per cent of tropical timber globally and in 1992, RAN called for a boycott of the international interests of Mitsubishi.⁴⁶ This included a call for a boycott of Mitsubishi's Union Bank of California and Mitsubishi Motors. In 1998, after several negotiations, Mitsubishi agreed to several changes in its policies, including the phasing out of paper and timber from old-growth forest.

While many campaigns used to focus on boycotts as the only way consumers could exercise their concerns, recent years have seen a shift in campaigns to take advantage of new technology and the advent of social media. Examples include consumers asking companies to adopt policies on deforestation, or to agree to only purchase products that can be traced back to farms with no recent deforestation.

Social media

The rise in social media has transformed the nature of consumer campaigns. Letter-writing campaigns evolved into email campaigns and have now been entirely transformed over the past decade. Social media has allowed these campaigns to reach an even wider public via channels such as Facebook and YouTube, with videos going viral and Twitter campaigns targeting individuals and companies directly and instantly. This technology has seen the birth of campaigning groups, such as Avaaz and 38 Degrees, who campaign solely through social media and on a wide range of issues. All of this has also greatly increased the level of participation and awareness of the general consuming public.

For example, Greenpeace ran a Kit Kat campaign in 2010, aimed at asking Nestlé to commit to a zero deforestation policy in its palm oil supply chain. The campaign used a video, based on the Kit Kat brand,⁴⁷ which linked to a webpage with a platform for sending messages directly to Nestlé, as well as Twitter and Facebook. The video received over 1.5 million views (there was mainstream media interest after YouTube removed the video in response to Nestlé's claims of copyright infringement). Over 200,000 messages were sent to Nestlé and hundreds of messages were placed on their Facebook fan page. As a result, Nestlé developed a plan to remove all deforestation from its palm oil suppliers, which was to be monitored by The Forest Trust (TFT).⁴⁸ The Kit Kat campaign and the reaction by Nestlé has been analysed as a lesson for many companies who were not prepared to address this new style of campaigning.^{49,50}

Benefits

Consumer-driven measures can create markets for certified products (or those adhering to specific environmental standards) by changing the procurement policies of a few major producers, especially those larger brands unwilling to expose themselves to reputational risk. Consumer campaigns have been an effective tool for bringing about a change in corporate procurement policies for forest risk commodities.

Activism has led directly to numerous companies pulling out of operations that were destructive to forests and forest-dependent peoples, and have led to the development of the corporate measures described above.

44 Delacote, DePhilippe. 2009. *On the Sources of Consumer Boycotts Ineffectiveness*. *Journal of Environment and Development*. Vol. 18, No 3, 2009.

45 Rainforest Action Network. 2013. *Our Mission and History*. Available online at: <http://ran.org/our-mission>

46 Asmus, P., H. Cauley and K. Maroney. 2006. *Turning Conflict into Cooperation*. *Stanford Social Review Fall 2006*, 52–61.

47 Greenpeace Youtube video 2010. Available online at: <http://www.youtube.com/watch?v=1BCA8dQfGi0>

48 TFT. 2011. *Greenpeace praise Nestlé for their No Deforestation commitment*. <http://www.tft-forests.org/news/item.asp?n=12819>

49 Owyang, J. 2010. *Crisis Planning: Prepare Your Company For Social Media Attacks*. Available online at: <http://www.web-strategist.com/blog/2010/03/22/prepare-your-company-now-for-social-attacks/>

50 Greenpeace. 2010. Available online at: <http://www.greenpeace.org.uk/files/po/index.html>

Challenges

A major challenge for many consumer measures is in being able to produce long-term impacts, given the short timeframe that stories can sustain media attention and over which even the most successful boycotts can persist effectively. As a result of rarely sustaining pressure, campaigns can be an unreliable source of demand generation, especially as it can be difficult to get people to change their purchasing habits over the long-term. Consumer boycotts of particular brands, products or species prove difficult to achieve lasting results and have been referred to as a “war of attrition”.⁵¹

In addition, customers whose actions would have most positive impact through their cumulative effect often have the greatest reluctance to change behaviour as they have the highest opportunity cost of boycotting.⁵² The relatively small number of buyers who are willing to adjust their purchasing habits and the large size of markets means that these measures rarely affect global prices significantly.

Messaging can be difficult, especially with regards to boycotts. There is a need to strike a balance between asking consumers to *reduce* consumption and *abandon* a given product or brand, without demonising a wider group of products which may have negative consequences. There is also a risk of consumer fatigue, in terms of both boycotts and willingness to pay premiums. Collaboration may be required between NGOs and governments in order to maximise impacts.

In order to mobilise wide consumer concern and action on an issue, many NGOs target well-known, international brands. However, the companies selected may not be the largest buyers or ‘worst offenders’. Even when they do make a change, there may not be any net forest conservation if the products sourced from areas of recent deforestation are then merely sold to other buyers.

Another challenge is that the strategies of campaigns can be unclear, whether the end goal is to raise awareness (and potentially lead to regulatory change), to change one or a few companies’ procurement policies, or to impact sufficient customers of a large producer actually directly involved in forest clearance.

⁵¹ Delacote, P. 2006. “Are consumer boycotts effective?”, 6th IDEI-LERNA Conference on Environmental Resource Economics – Environment, Finance and Corporate Behavior, Toulouse, May 2007.

⁵² Delacote, P. 2006. “Are consumer boycotts effective?”, 6th IDEI-LERNA Conference on Environmental Resource Economics – Environment, Finance and Corporate Behavior, Toulouse, May 2007.

II Wider questions on demand-side interventions

What generic and/or major challenges do those attempting to implement demand-side interventions experience?

The long-term success of measures to slow or stop deforestation will face severe constraints if the rising demand for forest-risk commodities is not addressed. Growing commodity demand may hinder law enforcement and thwart the formation of policies regulating forest assets.⁵³

There is a limitation with public statistics, which are typically constructed in 'supply-side mode' to capture actions or the effectiveness of demand-side interventions. A lack of robust monitoring of public and private sector initiatives allows for loopholes. To overcome this, there could be a framework by which information from on-the-ground monitoring and the verification of traceable supply chains holds governments and private actors accountable. This could greatly increase transparency and support broader engagement from local communities, indigenous peoples and civil society.

There is a lack of synergy and strategic application of different demand-side measures. For example, certification and FLEGT exemplify how measures may have a similar end goal but lack an agreed strategy.

While price premiums may be obtained in the marketplace for deforestation-free commodities, the benefits may not trickle down to the producer, who is typically the one investing in the significant change.

Focusing on specific areas or niche markets can lead to a risk of leakage, whereby commodity-driven deforestation is simply shifted to other areas. Restricting land use may "force the marketplace to look elsewhere to satisfy material needs"⁵⁴ either by moving geographically and causing problems in a

new location or by substituting with other goods. Another challenge is the dynamic termed the 'Rebound Effect', whereby higher yield practices that allow for increased production on less land are nullified by a simultaneous increase in incomes, which ultimately results in an expansion of production area.

Demand signals are often not sustained, which results in a lack of supply. After all, producers will be resistant to investing in change unless there is a clear long-term benefit from the market. An example of this challenge is with sustainable tropical timber being outcompeted by temperate plantations in terms of price, quality and reliability. This could act as a disincentive to investment in the certification of tropical timber.

Further, there are many different challenges in terms of communications through the supply chain, from language and cultural barriers to staffing changes, making it difficult to develop long-term relationships between producers and retailers.

What tools or innovations are needed to address these challenges?

Stakeholders should engage with actors who do not necessarily see themselves as part of the initiative being evaluated, such as trade associations and smallholder groups. New networks can be created to improve communications with groups, for example, making basic information available online to support compliance with legislation and voluntary measures. An example of this is the Forest Legality Alliance, established by the World Resources Institute and the Environmental Investigation Agency.⁵⁵

Some producers do not have the skills or financing to make changes – either to adhere to certain standards or

53 Pfaff, A., Sills, E.O., Amache, G.S., Coren, M.J., Lawlor, K., and Streck, C. 2010. *Policy Impacts on Deforestation: Lessons Learned from Past Experiences to Inform New Initiatives*. Nicholas Institute for Environmental Policy Solutions, Duke University, NI R 10-02.

54 Dekker-Robertson DL, Libby WJ. 1998. American forest policy – global ethical tradeoffs. *Bioscience* 48: 471–477.

55 Forest Legality Alliance. 2013. <http://www.forestlegality.org/>

demonstrate traceability. New ways to address this through upfront financing mechanisms or other incentives are needed to stimulate uptake.

Technological improvements and reduced costs of remote sensing (such as Laser Imaging Detection and Ranging, LiDAR) offer opportunities to enhance supply chain management. When coupled with new tools for facilitating the traceability of supply chains and monitoring of deforestation at the property level (such as Brazil's state-level Rural Environmental Registry, the CAR) the result is that supply chains can be traced from production area to end product.

How can best practices be encouraged?

Companies further down supply chains should be encouraged to act more as a partners with those in their supply chains, rather than sitting at the end of the supply chain and demanding change. They can potentially help their suppliers to deliver certified products through a range of measures other than simply paying premiums, such as by providing upfront financing to make improvements or guaranteeing specific purchase volumes.

When companies are willing to move their policy from paper to practice, and to pair it up with a development programme where they partner up with their suppliers to help them meet the set sustainability requirements, this sets the stage for developing best practices.

CDP Forests publicly announces international sector leaders in managing forest-related risks in their supply chains. The data disclosed in the questionnaire is made available to the fund managers that endorse the project, who are key shareholders in many of the companies participating.

Another promising initiative is WWF's Market Transformation Initiative, which encourages companies to purchase certified materials and works with companies to improve their procurement practices.

Robust analyses of the efficacy of demand-side measures would be an important way to encourage increased participation in voluntary measures (such as certification) or an expansion of public-sector measures. Some types of demand-side measures are easier to analyse than others; both leakage and indirect effects proving a challenge to measure. For example, the US Lacey Act may be having an impact in many different ways, by not only increasing legal compliance of US imports but by US companies applying their due diligence measures to their entire global operations. Meanwhile, this model of legislation could spread to other countries (such as the case with the Australian legislation) or to different commodities.

What disincentives exist for demand-side measures?

Certification of forests and agricultural products takes considerable time and cost to achieve, yet the benefits in terms of price premiums or market access are often not realised. There can be conflicting market or governance signals between different certification systems or between certification and public sector measures. In addition, there have been instances of fraud within certain certification bodies, which devalues the systems and further reduces the incentive to participate.

The fact that some goals are set in the distant future (for example EU RED and CGF targets for 2020) can act as a barrier to action in the present. Consumer measures are risky and, even when successful, may be short-lived. Meanwhile, too many consumer measures can result in their impacts being diluted.

Moratoria may only be successful under very specific conditions. For example, Brazil has specific areas of key conservation concern and large areas of previously-cleared and non-forest land, which have enabled moratoria to be implemented without a resulting drop in production. While certain markets may adhere to moratoria, they will not be able to be fully enforced so long as there are markets which would breach moratoria. For example, certain major markets, such as those for palm oil in Asia and Brazilian beef in China, the Middle East and Russia, have not demonstrated environmental concerns.

What is the distribution of costs and benefits of demand-side measures?

Large multinational brands and retailers should be willing to pay premiums for purchasing certified commodities or other forms of products that adhere to specific environmental standards or come from outside forest-risk areas. Ideally, consumers would be willing to pay the additional costs, or corporations would see a benefit in the reduced reputational risk. However, in most cases, there is a shortage of retailers willing to pay premiums and the brunt of the costs is borne by the producers or the traders, who have to ensure traceability, or are responsible for monitoring their suppliers and rejecting any with post cut-off date deforestation.

For most industry efforts, such as moratoria, it is the producers on the ground that bear the costs if they fail to comply and therefore are not able to sell their goods. The cost of monitoring is usually down to the processor or trader, such as the meatpacker in the case of the G4 Cattle Agreement.

Under the US Lacey Act, companies are not exposed to criminal liability if they can demonstrate that they exercised due diligence, but it does mean that they would have to forfeit their products.

Are there critical gaps in knowledge?

There is an urgent need to analyse on a global scale where demand is coming from and who is supplying it. It is difficult to get retailers and brands to make investments in specific products or to adopt new policies without good data about supply chains.

There is also a need to build awareness amongst supply chain players, who are more important to educate than the final consumer. There is also a need to better educate companies about what is 'sustainable' and what the risks are in terms of buying products without setting any requirements in terms of environmental sustainability.

There is a need for accurate and up-to-date forest sector information that can be continually made available to decision-makers, which would include clear information management processes, creating a comprehensive disclosure policy which clearly articulates what information is publically available versus what remains confidential.

With many companies looking to Africa as the source of new, cheap land and labour, there is a need for more work on land availability and tenure issues and the risks of working in areas with less effective governance. This particularly applies to companies involved in palm oil.

What collaborations or partnerships are needed?

There is a clear need for public-private partnerships, where the government does not develop its own standards but instead uses other standards or certifications. An example of this is Germany's Procurement Policy, which specifies they can use FSC or PEFC wood to qualify as sustainable.

There need to be common strategies and angles across demand-side interventions to be more powerful. If you want to penetrate the market at scale, certifying producers one-by-one is not efficient. There are examples, such as group certification for smallholders, but these ideas should be scaled up. There is also a need to study how we to certify entire supply chains. FLEGT could have been stronger and better if it had considered the lessons learned from the certification movement.

One area where there is not currently alignment is regarding the definition of deforestation or what areas or types of habitat may be cleared. In the case of the soy moratorium and G4 cattle agreement, forest areas cleared are defined and determined by Brazil's national deforestation monitoring system. In contrast, many certification standards use the concept of High Conservation Value (HCV) Forest, which is determined by site visits during audits, whereby there must

be no clearance of areas classified as HCV subsequent to an agreed cut-off date. Other systems have a threshold for forest protection determined by above-ground carbon stocks. In the case of the US Lacey Act and EU TR where legal compliance is required, what is permitted in terms of forest loss and degradation is reliant upon national laws. The extent of these differences in definition, in terms of area of forest that may be cleared or harvested according to one type of demand-side measure but not another, is unknown but can be confusing to both companies further down supply chains as well as to consumers. Efforts to determine the level of variation or to assess opportunities for alignment through collaborations between different initiatives could help overcome the confusion.

To date, the financial sector has not been meaningfully engaged in most demand-side initiatives. It is important for the financial sector to be brought on board with strong incentives to attach the availability of funding in supply areas to very clear and rigorous social and environmental criteria. A significant gap is the lack of demand for certified sustainable products such as green palm and sustainable soy or beef. Innovative finance mechanisms, such as the use of an Advance Market Commitment (AMC) mechanism to provide a price floor or first loss guarantee for forest credits or to incentivise the transition to sustainable agriculture, could do much to stimulate the engagement of the major private sector investors, which today have few reasons to participate in measures to reduce deforestation. GCP has suggested this could be done through a US\$1–3 billion Interim Forest Finance Facility to co-ordinate public/private finance ahead of 2020.

NGOs, civil society groups, certification schemes, government, investors, forest producers and managers should get together and look at risks and impacts throughout supply chains or at a landscape level. This could be undertaken through remote sensing to assess areas with recent deforestation, an analysis of high risk supply chains and how to avoid them or by finding ways to identify areas or supply chains that meet a set of agreed minimum criteria, which may, for example be suitable to demonstrate legality and be a stepping stone towards certification.

There is momentum towards new collaborations but the details of how these could work to best advantage need to be examined. For example, the new partnership between the US Government and CGF was announced several months ago but, so far, no concrete steps have been announced or any policies set.⁵⁶

⁵⁶ USAID 2012: *Reducing Deforestation Through Sustainable Supply Chains*, available online at: <http://www.usaid.gov/news-information/press-releases/reducing-deforestation-through-sustainable-supply-chains>; DECC 2012: *Joint Statement of the United Kingdom, Norway, United States, Germany and Australia on Tackling Deforestation and Forest Degradation*, available online at: <http://www.decc.gov.uk/assets/decc/11/tackling-climate-change/international-climate-change/7126-joint-statement-tackling-deforestation.pdf>

III Key lessons and recommendations

Achieving cost savings to increase demand for deforestation-free commodities

As their name implies, it is the level of market demand that will largely determine the success of demand-side measures to reduce deforestation. At present, demand for commodities traded in accordance with the different demand-side measures remains limited (for example, ranging from <1% to 14% market share for voluntary, private sector measures with global reach). Cost appears to be the primary reason for limiting demand, whereby the market is unwilling to pay the price premium associated with the costs of implementing demand-side schemes. While many certified operators have achieved costs savings in various ways as a result of becoming certified, the upfront costs are often a barrier. Therefore, there is a fundamental imperative to review available options for mechanisms to reduce the costs of finance, to make operational efficiency gains through simplified supply chains and to introduce fiscal policy incentives.

Understanding sustainability from the opportunity-based perspective of securing supply, markets and tenure is more likely to gain broader support

Reducing deforestation is but one prerogative of demand-side measures, with longer-term sustainability only possible if the environmental gains are achieved by economically viable and socially acceptable means. While sustainable development is widely accepted to encompass the need for positive outcomes in each of these three linked realms of social, economic and environmental disciplines, the forest sector has struggled for decades to find consensus on what constitutes 'sustainability', due to the wide diversity of actors' interests. In the context of trade in commodities that are causing deforestation, it is apparent that sustainability is being defined differently by consumers, corporations, investors and producers, resulting in a mixed set of aspirations and expectations from demand-side measures. 'Security of supply, markets and tenure' could be a concept that not only relates to sustainability – since it encapsulates long-term production, economic viability and social protection – but also has more

common ground among these different actors. Such an approach would also help shift the sustainability discourse from risks towards opportunities, thereby providing more of an incentive to engage. There is therefore a need to develop and test a framework for measuring sustainability that is acceptable to the different actors engaged in demand-side initiatives to reduce deforestation. Such an approach inherently simplifies measurements of the effectiveness of demand-side measures from a sustainable development perspective, which would help to strengthen support for widespread adoption and coordination.

Demand-side initiatives cannot in practice be delinked from supply-side initiatives

As illustrated by a number of considerations raised in this paper, it is not possible to effectively consider demand-side initiatives in isolation of supply-side concerns. Price premiums in the marketplace are not always fed down to the producer, who is typically the one implementing the significant change and may bear the costs if they fail to comply and are unable to sell their goods. Further, producers are likely to invest in change if there is a clear long-term benefit from the market; otherwise unsustainable demand signals will lead to a lack of supply. Some producers do not have skills or financing to adhere to certain standards or show traceability. With regards to legislative demand-side measures, it is difficult to ensure that they are compatible with the aspirations of actors within producer countries. There is a need to work more with trade associations and smallholder groups (such as is practised by the SAN), and for companies further down supply chains to act more as partners with those in their supply chains, helping their suppliers or forest managers to deliver certified, sustainable products.

Assess opportunities for engaging emerging markets

The importance of the size of Asian markets in driving global demand for products such as palm oil and timber and their relative lack of engagement (of market actors as well as

government) is perhaps the largest challenge faced when considering how to reduce commodity-driven deforestation. While many demand-side measures have been developed to fit the major consumer centres of EU and North America, there is fertile ground to explore how demand-side measures can be developed to fit emerging economies and less developed countries, where domestic and intra-regional markets are driving trade dynamics, and alternative models are required to support locally controlled enterprises.



Global demand for food, wood products, biofuels and other agricultural products drives the majority of deforestation and forest degradation. The importance of trade and increasing dominance of a relatively small number of multinational traders and retailers suggest a role for demand-side interventions to reduce incentives for deforestation driven by the expansion of commodity production.

A variety of demand-side measures have been developed and implemented over the last decade or more by government, private sector and civil society. Examples include legislation, public procurement policies, voluntary bilateral arrangements, multi-stakeholder roundtables, independent certification, moratoria, voluntary disclosure, investor activism and consumer campaigns.

This paper reviews demand side measures affecting five types of 'forest risk commodity', namely timber, soy, palm oil, beef/leather and biofuels. Information was collected from literature, interviews and an international meeting to identify challenges and opportunities.

Published by IIED, 2013



iied International Institute
for Environment
and Development

80-86 Gray's Inn Road, London WC1X 8NH, UK

Tel: +44 (0)20 3463 7399

Fax: +44 (0)20 3514 9055

email: info@iied.org

www.iied.org

ISBN: 978-1-84369-926-2

Product code: 13567IIED

<http://pubs.iied.org/13567IIED.html>

