THE GLASGOW DECLARATION FOR
fair water footprints

Triggering market transformation for fair water footprints:

Insights, lessons and evidence from other natural resource sectors

Laura Kelly, Rose McCulloch, Lucy Cullinane, Alexander Ford, Cristina Pita, Alejandro Guarin, Bill Vorley and Jan Willem Molenaar

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Acknowledgements

The following report was written by IIED with contributions from EFECA and AidEnvironment. It wascommissioned on behalf of the Glasgow Declaration for Fair Water Footprints by Water Witness International through funding from the Swiss Agency for Development and Cooperation (SDC).

Authors: Laura Kelly, Alejandro Guarin, Cristina Pita, Bill Vorley (IIED), Lucy Cullinane, Rose McCulloch (EFECA), Alexander Ford (Independent Consultant) and Jan Willem Molenarr (Aidenvironment).

Contents

Executive Summary

This research was commissioned to better understand the levers that drive greater sustainability in markets. The work identifies key levers of market transformation in several natural resource sectors to inform the development of the Fair Water Footprint (FWF) approach and evaluate the robustness of the preliminary Theory of Change.

Detailed case studies look at timber, seafood and tropical agricultural commodities alongside a shorter assessment of plastics. These reviewed literature on roles of producers, consumers, civil society, media, governments, business and investors in driving transition to more sustainable markets, alongside interviews with key stakeholders. The research provides evidence that transformation is possible but it is not straightforward or easy. The experience of other natural resource sectors transitions to sustainability, demonstrate a lot of similarities in the levers that drive change and the Fair Water Footprint approach is consistent with those.

Civil Society/NGO, media, campaigning

Though advocacy and campaigning work is most visible, NGOs have also played a role as sources of best practice, experts, and convenors and by providing monitoring and reporting.

Combatting deforestation is a good example of NGOs driving change in a sector and playing a range of roles. Beginning in the 1980s they pressured major companies to improve the sustainability of the timber trade, through high profile campaigns on the loss of habitats for endangered primates and advocated consumer boycotts. This evolved in the 1990s to playing a central role in establishing the Forest Stewardship Council (FSC) which bought together producers, retailers, NGOs and governments to develop a certification system. The broad participatory and inclusive nature of the approach (a model for other sectors including fisheries) has been identified as one of its key success factors.

Media attention has also influenced consumer perceptions spurring greater government and NGO action. Ocean plastics is an issue where media attention has driven other stakeholders to act. The 2017 BBC documentary Blue Planet highlighted the challenges facing the ocean, particularly plastics pollution and their prevalence in marine organisms. This pushed both government action, with many countries legislating on single use plastics eg UK, Kenya and business to reduce use of plastic packaging.

Policy, law and governance (producer and consumer countries)

Governments play a key role in sector transformation through a range of mechanisms from international agreements to setting statutory requirements, import/export controls, regulatory enforcement and procurement policy. When governments show practical leadership, it can drive the private sector to adopt sustainable practices.

Seafood is an area where intergovernmental agreements have shaped more sustainable markets. The Code of Conduct for Responsible Fisheries, adopted by FAO Member States in 1995, sets out globally agreed principles and standards for the sustainable use of fisheries and aquaculture resources. It has become the reference point for around 50 international and technical guidelines, four international plans of action and three strategies, which have been adopted to promote sustainable seafood supply chains.

Governments setting minimum standards and regulations on key human rights and environmental issues have driven change in topical commodities. For example, the 2009 EU Renewable Energy Directive had a big impact on the sourcing policies of biofuel importers, and the UK's 2015 Modern Slavery Act requires large companies to publicly report on the steps they take to ensure forced labour is not a part of their products. Governments in producer countries have also established rules and incentives for land use, production standards or price controls. For example, in Mozambique, the government have included Better Cotton criteria in national agricultural regulations and standards.

Finance and investment

Financial institutions are playing an increasingly important role shaping the behaviour of businesses, and by extension the nature of sectoral transformation.

Financial actors are requesting more information on sustainability KPIs on deforestation and tropical commodities to inform their decision making. CDP plays a key role in making this information accessible. Gathering information from companies on their forestry operations enabled them to estimate that the maximum potential financial impact of unsustainable timber products to be $81.7 million USD, while the cost of responding to the risk is only $1.1 million USD.

Impact investing is also influencing corporate behaviour in tropical commodities such as palm oil, soy, cattle, and cocoa, on issues such as deforestation and child labour. A US-based impact investor, Green Century Funds, has used its investments to leverage companies in the palm oil supply chain (a leading cause of deforestation) to adopt zero-deforestation commitments. These include Starbucks, Kellogg's and Target, large palm oil traders (including Archer Daniels Midland and Bunge) and producers (such as Wilmar, Asia's largest agribusiness).

Private sector

Businesses have played a key role in improving the sustainability of supply chains for over 30 years. Companies have been active in a wide range of ways including; procurement practices, standards and disclosure, generating evidence, tracking and transparency, and consumer education. However, illegality and unsustainable practices have persisted, highlighting the time change can take and the need for joined up action across stakeholders.

Seafood and plastics sectors have benefitted from the actions of lead companies, such as Unilever and other major UK retailers, especially at the earlier stages of sector change. For example, the Marine Stewardship Council (MSC), while a multistakeholder initiative, was jointly founded by Unilever and WWF in 1996. Unilever was a major supplier of frozen seafood at the time and recognised that degradation of stocks could undermine the future of the business. MSC was established as a “gatekeeper” to the seafood market. For suppliers, the incentive to meet the standard is access to higher value markets. For the consumer, the incentive is that the product they are buying has been ethically sourced.

Concern about viability of business models also drove the involvement of companies in developing more sustainable and circular plastics supply chains. The UK Plastics Pact, hosted by WRAP, brings together businesses from across the plastics supply chain with government and NGOs to tackle plastic waste. Companies commit to eliminate problematic or unnecessary single-use packaging, for 100% of plastics packaging to be reusable, recyclable or compostable, that 70% of plastic packaging is recycled or composted and that plastic packaging contains an average of 30% recycled material.

Introduction

The scale and immediacy of the global water crisis, and its significance for social justice and economic progress are striking. Water crises, exacerbated by a warming planet, rapidly escalating demand and difficult governance challenges[1], are consistently ranked among the top five risks to the global economy by the World Economic Forum[2]. Water security underpins attainment of almost all Sustainable Development Goals (SDGs) within the 2030 Agenda, from building climate change resilience, unlocking peace and stability, providing decent work and economic growth, to contributing to gender equality. It has a profound impact on human dignity, health and opportunities for education and economic empowerment.

Delivering the ambitious water related targets in SDG Goal 6 by 2030 using business-as-usual approaches is doubtful. Now more than ever, a radical and coherent agenda of collaborative action for shared water security is needed to aid recovery from COVID-19, and to unlock a fairer, more resilient, and sustainable future[3]. Water Witness International (WWI) and CDP Worldwide (CDP) have developed an approach – *Triggering Transformational Change for Shared Water Security* suggesting the levers which can unlock the transformational change needed to achieve more sustainable water use (Figure 1).

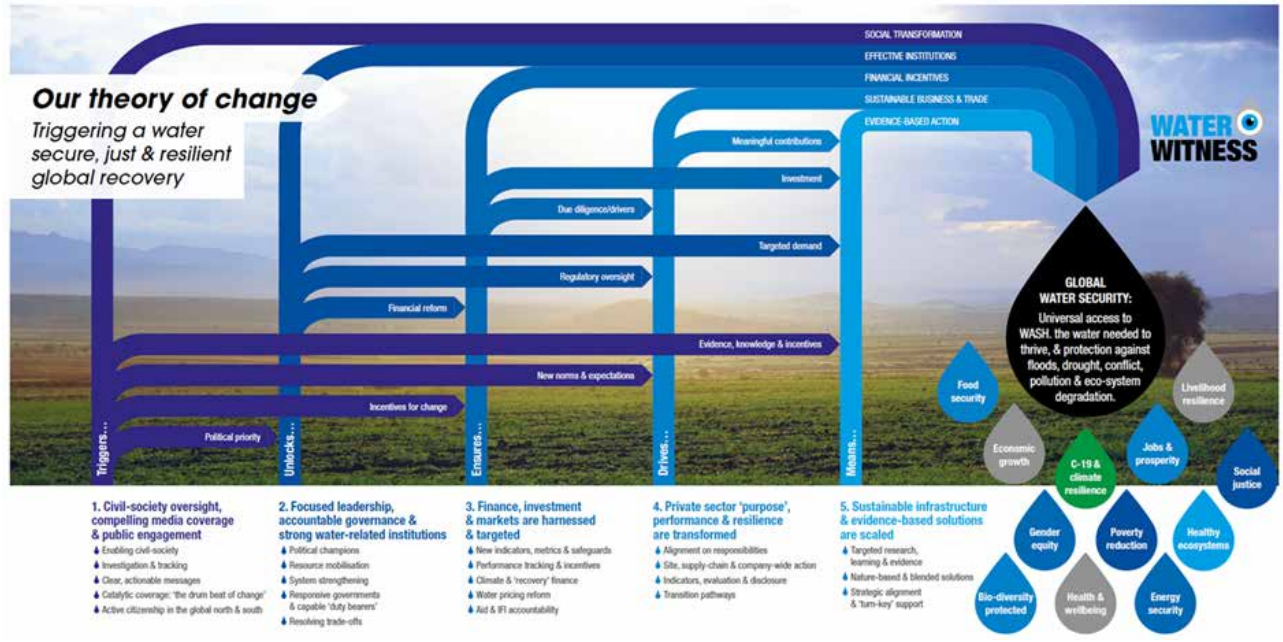

Figure 1. Fair Water Footprint – Theory of change

[1] 'The world isn't running out of water – there's enough for everyone – the global water crisis is a crisis of inequality and poor governance'. See UNDP 2006. Human Development Report: Beyond Scarcity: Power, Poverty and the Global Water Crisis. New York, UNDP. Available at https://www.undp.org/libya/publications/human-development-report-2006-beyond-scarcity-power-poverty-and-global-water-crisis

[2] WEF (World Economic Forum). (2016). 'Global Risks 2016 Report, 11th Edition'. Available at: http://reports.weforum.org/global-risks-2016/

[3] Water security is the availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems, production, and protection against water-related risks including resource depletion, pollution, flooding, drought, and water conflict (after Grey and Sadoff, 2007).

This research was commissioned to better understand the levers that drive greater sustainability in markets to draw lessons for the water sector and help shape the Fair Water Footprint initiative.

The report looks at sector markets where sustainability considerations have come to the fore. Three that have a longer history, some going back 30 years, were looked at in detail: timber, seafood and tropical agricultural commodities and a shorter case study was undertaken on plastics given the high public profile of plastic pollution and its rapid emergence in recent years.

Secondary data sources including research papers, case studies, media materials and grey literature were reviewed and experts across the different sectors were interviewed to capture their perspectives on how changes to the markets had been achieved.

1. Timber

Lucy Cullinane and Rose McCulloch, Efeca

1.1 Introduction

Since the early 1990s the forestry sector has undergone significant transformation. This was driven by stakeholders coming together to support a mass market shift in the industry towards greater transparency and collaboration around the production of legal and sustainable forest products.

While work remains, the approaches used have arguably established a pathway for agricultural commodities and have informed how multistakeholder groups can create change at scales from individual supply chains to global and government trade.

1.2 Levers of change

Several levers have been identified as contributing to transformational change within supply chains. The impact of these in the timber trade is described below.

1.2.1 Civil society action

Civil society has played an effective and valuable role in transforming supply chains to protect people and the planet. Though advocacy work is often the most visible, civil society have an important role to play as experts or sources of best practice, convenors and providing neutral monitoring and reporting.

While it can be difficult to assess the effectiveness of advocacy campaigns, there is a strong correlation between advocacy for forest conservation and sustainable management, and changes to policy (see 1.2.2 for more information on policy, law, and governance). Through advocacy, NGOs seek to pressure a target (usually a corporation or government) to adopt a desired course of action. Actions include public meetings, boycotts, and media advertising to damage the reputation of the target.

From the 1990s civil society groups have put pressure on major commodity producers (particularly those based in the north) to eliminate deforestation from supply chains. The creation of the Consumer Goods Forum and its 2010 commitment to achieving zero net deforestation by 2020 is just one example of an outcome driven (at least in part) by civil society campaigning.[4] Civil society action against Government has also been linked to changes in policy. For example, in October 2005, having found the UK was importing illegally logged timber as reported in their study 'Partners in Crime', Greenpeace blockaded several UK Government buildings who were using plywood. At the time, Greenpeace called for Government to support the use of Forest Stewardship Council (FSC) certified timber.[5]

[4] Jopke, 2018. Corporate commitments to zero deforestation. CIFOR https://www.cifor.org/publications/pdf_files/OccPapers/OP-181.pdf

[5] Greenpeace, 2005. "Greenpeace blockage government building with illegally imported timber" https://storage.googleapis.com/gpuk-archive/media/press-releases/government-building-blockaded-with-illegally-logged-timber.html

Where previously the UK's Timber Procurement Policy required legality as a contract condition with a preference for sustainability, in 2008 the UK's timber procurement policy was amended, to contractually require timber be from both legal and sustainable sources.[6]

Gaworecki (2018)[7] reviewed 34 studies and papers, as well as interviewing industry experts and found that advocacy campaigns alone did not drive long-term forest conservation but were effective in raising awareness of environmental issues and driving action. This speaks to the role of civil society advocacy campaigns as one of many levers that can be effectively combined to create an enabling environment for market change (see 1.3.1). The study concludes that these campaigns can generate a large amount of attention, but not over the long-term so these approaches are considered less 'durable' compared to others.

An additional learning from Greenpeace's UK Government campaign is their role identifying best practice. Their recommendation of FSC timber when campaigning against the UK Government is an example of civil society's role not only as a campaigner but as a thought leader and arbiter of 'best practice'.

Civil society (Greenpeace and WWF among others), 20 timber industry representatives from the UK and community forest groups established one of the first forestry certification organisations, the Forest Stewardship Council (FSC), with the objective of promoting the sustainable management of forests by certifying forestry products. This was a multi-year process, starting in 1990 when the group (known as the 1995 group) first met. In 1993 representatives from 25[8] countries met in Toronto to hold the founding assembly of the FSC and in 1994 this was followed by a definitive set of principles and criteria, and statutes for the council. In 1996 the first accreditation contracts were signed with 4 certification bodies.

Rafols and Brander credit the strength and success of FSC to be the broad participatory nature of the system, and this has been the model for other systems including the Marine Stewardship Council (MSC).[9] The 1995 group became the Global Forests and Trade Network (GFTN), a global programme to promote sustainable forest management, encourage cooperation between producers and buyers and support greater uptake of certification in key countries.

There are other approaches to forest stewardship certification. In 1992 the Programme for Endorsement of Forest Certification (PEFC) was established and holds a similar market status as FSC. The difference between the two systems is that FSC follows a 'centralised' standard approach, whereas PEFC supports the creation of national level standards. While FSC has the ability to certify any forest globally, it can be seen as a 'top down' approach that may not always respond to local contexts. Whereas PEFC has local outreach and embedding leadership in local communities, this can mean it is perceived as weaker (particularly when working in countries with poor governance). There are positives and negatives to each approach, and one interviewed expert suggested both have value and in fact drive the other to improve.

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[6] CPET Briefing note. 2008. Archived from www.cpet.org.uk

[7] https://news.mongabay.com/2018/03/do-environmental-advocacy-campaigns-drive-successful-forest-conservation/

[8] Among them Argentina, Brazil, Colombia, Ghana, Honduras, Japan, Mexico, Solomon Islands, Sweden, Switzerland, United Kingdom, and the USA.

[9] Rafols and Brander. 2005. The Stewardship Council Model: A comparison of the FSC and MSC https://core.ac.uk/download/80035436.pdf

Companies will often consult civil society experts to ensure they're following best practice, aiming to gain trust and transparency in their actions. While much of the campaigning around timber was conducted in person, the development of social media, brings positive and negative changes. On one hand more instantaneous knowledge about violations, breaches of policy can be made public, on the other hand, this can lead to potentially mixed messaging over the responsibility to act and what action to take. For example, one NGO may call for a company to cease trade with a country at risk of deforestation, while another calls for them to work with local stakeholders to prevent deforestation from occurring. In response to this challenge, a group of over 60 environmental and human rights civil society organisations came together to form the Accountability Framework Initiative. The Framework summarises best practice and gives detailed guidance to companies, and by coming together in one voice, civil society theorize companies will be more likely to adopt its advice as it gives a greater level of assurance the action is correct (and therefore reducing the chance they'll be a target for campaigning).

1.2.2 Policy, law, and governance (producer and consumer countries)

As in the Greenpeace example, civil society campaigns can target Governments, as well as corporates. Public procurement can contribute around 10% to a countries GDP and is equally important in both producer and consumer countries. Public procurement allows Government to show practical leadership, helping to model desired corporate behaviour and encourage the private sector to adopt sustainable practices. A 2006 FAO study estimated that **the knock-on impacts of public procurement policies can achieve market leverage up to 25%**.

In terms of timber, public procurement is mainly for use in construction, office furniture and paper and more specialised uses such as in public spaces. As well as using a large volume, Governments may also need to utilise niche timber species, for example some tropical species, such as Greenheart from Guyana, have unique properties well suited to marine defence.

Country procurement policies for timber vary from country to country. Some rely on certification schemes (France, Germany) whereas others have created their own timber procurement standard (the UK and the Netherlands) against which certification schemes are reviewed on a regular basis. In 2016 the Institution Support & Analysis Forest and Land Use (ISAFOR) established a working group of several countries to discuss national timber procurement policies and share lessons, consisting of Germany, Denmark, the Netherlands, the United Kingdom, Belgium, and Luxemburg.

The group found the formal objectives of all countries were similar, but only became meaningful when key definitions such as 'sustainable managed forests' were well articulated, and ideally based on commonly accepted principles. By having a common definition, it was agreed this would be less discriminatory and provide a greater level of transparency. However, there were differing opinions on the extent to which all three sustainability pillars (environment, social and economic) should be represented. For example, criteria regarding social issues were felt to be less appropriate to some, whereas others felt they were integral to 'sustainability'.

The importance of effective monitoring and reporting against these commitments is also considered essential, particularly if the intention is for Government to lead by example. The recent UK House of Commons Environmental Audit Committee recognised the importance of Government procurement but noted that the UK's Government Buying Standards (which refer to the UK's timber procurement policy) could be more strongly monitored to ensure effective compliance. In the early 2000s the forestry community shifted its thinking to explore broadening the impact, working beyond individual supply chains to influence the supply base (which is a continuing discussion across agricultural commodities) to address underlying factors limiting uptake of sustainable forest production. In 2003 the European Commission launched the Forest Law Enforcement, Governance and Trade (FLEGT) action plan. This plan combined a strong market signal, created through the EU Timber Regulation (EUTR) prohibiting the import of illegal timber and paper products, with Voluntary Partnership Agreements (VPAs) which would help foster an enabling environment in producer countries. VPAs are bilateral trade agreements between the EU (and UK) and timber producing countries. These agreements aim to ensure that exported wood is legal, and that forest governance improves in exporting countries. A VPA partner country that has implemented a timber legality assurance system and other VPA commitments can issue verified legal timber products with FLEGT licenses. 15 tropical timber producing countries are involved in VPAs, representing 24% of the world's tropical forests and supply 80% of the EU's tropical timber imports. In April 2016, Indonesia became the first VPA country to comply ahead of FLEGT licensing. VPA implementation is also well advanced in Ghana.

> ***"Sustainable government procurement presents a pathway to increasing the sustainability of supply chains. Yet Government performance against existing sustainable procurement policies has been unimpressive. The removal of the mandatory reporting obligation… has hampered the monitoring of compliance with the Government Buying Standards, to the extent that it appears at present impossible to know whether departments have improved their sustainable procurement performance."***
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> **UK House of Commons Environmental Audit Committee, Second report of session 2021-222**

> ***"According to the EC report, there were an estimated 3,042,884 domestic operators in 21 Member States, and checks were made on 13,078 (0.43 %) during the two-year reporting period."***
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> **ITTO, 2021**

An Independent Evaluation of the EU FLEGT Action Plan (2016) found the plan to be relevant, innovative, comprehensive, and future proof. However, the evaluation noted that effectiveness varied across action areas and suggested that support to producer countries should be delivered in a more demand-driven, flexible manner. The report also suggested private sector be more involved.

In a more recent report published 4th October 2021, auditors concluded that the EC procedures for assessing the effectiveness of the EUTR (the demand side element of the FLEGT action plan) are inadequate, as reporting focused on "the risk criteria for selecting operators, the number of checks, the time taken for checks, the types of information recorded and any penalties". Auditors found that information didn't allow the Commission to easily analyse the quality of the Member States monitoring activity and raised concerns that the relatively low frequency of checks would not have the required dissuasive effect.[10]

Experts were keen to note the FLEGT Action Plan was not just aiming to secure a resilient timber market to respond to European demand, but it was also attempting to use trade to support producer countries as sustainable management of forests for timber production can generate income for producer countries. As an example, in 2019 nearly 300,000 hectares of forest were illegally cleared in the Amazon. If this had been managed sustainably, as well as the forests remaining in place, it would have generated over USD1.5 billion in business revenues, as well as $222 million USD in taxes for state governments.[11]

Since these policies were created, the discussion has developed to cover multiple deforestation-risk commodities, with some countries now exploring due diligence obligations to ensure all imported commodities are deforestation free (either illegally or completely). Reflecting on the early sustainable procurement policies, many have since questioned their effectiveness, as compliance with policy was inconsistently monitored and enforced.[12] Potentially in response to this feedback, the Forests for the Future Facility (F4) was launched in 2020, a 4-year initiative designed to help implement EU global forest policy objectives. Managed by DG International Partnerships, F4 provides technical support in sustainable forest management, improved business environments, informs policy dialogue and stakeholder coordination and provides strategies/tools for comms and knowledge sharing.

Despite concerns raised in assessments, industry experts agreed that procurement policies, the EU Timber Regulation and Voluntary Partnership Agreements within the FLEGT Action Plan have driven and supported private sector action in consumer and producer countries. Their complementary actions have driven responsible purchasing improvements in individual companies in both producer and consumer countries and in industry associations including the Timber Trade Federation.

1.2.3 Financial sector

Developments in the financial sector are comparatively recent, though many actors request information on deforestation or sustainability KPIs to inform their decision making.

CDP was established in 2000 to request environmental disclosure from companies on behalf of investors. CDP uses questionnaires to gather information from companies, including a forests questionnaire which in 2020 was completed by 687 companies. CDP estimates that the maximum potential financial impact of unsustainable timber products to be $81.7 million USD, and the cost of responding to this risk to be $1.1 million USD.

[10] ITTO, 2021. ITTO Tropical Timber Market Report, Vol 25:19 https://www.itto.int/files/user/mis/MIS_1-15_Oct2021.pdf

[11] Chatham House, 2021. The Economics of Sustainable Forest Management in the Amazon https://forestgovernance.chathamhouse.org/publications/the-economics-of-sustainable-forest-management-in-the-amazon

[12] UK House of Commons Environmental Audit Committee, Second report of session 2021-222 https://committees.parliament.uk/publications/7462/documents/78136/default/

While financial actors may have access to information, there is less clarity on how to use or apply this information. The UK's Global Resource Initiative (GRI) taskforce convened representatives from industry, finance, and civil society to provide recommendations to UK Government.[13] The taskforce recommended that financial actors be obligated to conduct Due Diligence, to ensure the risk information gathered was being used. WWF's Risky Finance report also supports this, and found that UK invested £8.6 billion in companies trading, processing, or buying forest-risk commodities.

Currently finance sector action is largely voluntary, though there are examples of collaboration. The Taskforce on Climate-Related Financial Disclosures (TCFD)[14] looks for opportunities for companies to incorporate climate-related risk into risk management and planning. In 2017 they released four climate-related financial disclosure recommendations, based on the themes of governance, strategy, risk management and metrics and targets. In 2021 the Taskforce on Nature-Related Financial Disclosures (TNFD) was launched, building on TCFD but focusing on nature related risk such as deforestation.

Figure 4

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	**Recommended Disclosures**	**Recommended Disclosures**	**Recommended Disclosures**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Figure 1.1: A summary of the TNCD 2017 recommendations

[13] Global Resource Initiative (GRI) Taskforce recommendations https://www.gov.uk/government/news/global-resource-initiative-taskforce-greening-the-uks-environmental-footprint

[14] https://www.fsb-tcfd.org/about/

As well as supporting greater due diligence for financial actors, there are new initiatives to better direct finance to incentivise sustainable practices. The Lowering Emissions by Accelerating Forest Finance (LEAF) Coalition[15] was announced on 22nd April 2021 (Earth Day) and aims to mobilise $1 billion USD to incentivise tropical countries to halt deforestation. Launched by Norway, the U.K. and the U.S., LEAF is a public-private alliance that also involves companies including Amazon, Airbnb, Bayer, Boston Consulting Group, GlaxoSmithKline (GSK), McKinsey, Nestlé, Salesforce, and Unilever. Similarly, the Make my Money Matter campaign created the world's first Green Pensions Charter[16], which calls for organisations to green their pensions alongside their businesses. So far sixty companies have signed the charter including Tesco, Ikea, and Travis Perkins.

1.2.4 Private sector actions

The private sector has made significant progress over the past 30 years, however illegality and unsustainable practices in the timber sector continue. Between 2005–2013, 14.5% of tropical and sub-tropical deforestation annually was associated with traded timber products – around 0.8 million hectares per year.[17] A 2015 study estimated that as much as half of all tropical timber traded internationally came from the clearance of forests for other land uses was considered illegal.[18] While more recent data shows that deforestation is increasingly linked to conversion for agricultural commodity production, a recent WWF study on deforestation frontiers found timber extraction and logging drove most forest degradation, and could lead to the creation of infrastructure such as roads which opens access to areas for other commodity production.[19] Data from the University of Maryland and Global Forest Watch shows the tropics lost 12.2 million hectares of tree cover in 2020.[20]

Facing consumer pressure (and increased likelihood of regulation) companies began to increase certification, as it provides an approach to managing risk that is clear and easy to communicate externally. Industry experts noted that for many companies this was also a way to build resilient supply chains, as companies can rely on wood and timber as part of their business model, but not own or control their own forests. Where before source information might have been lost in key global trade hubs such as Singapore, as industry actors require a closer connection to the source they naturally removed 'middlemen' and certification was a key tool in improving traceability. While certification was one tool, other industry guides such as the "Good Wood Good Business" guide from TFT[21] also provided support. With greater assurance on long-term availability, companies had sufficient confidence to use certification labelling on public facing packaging, also helping to communicate sustainable business practices to both business customers and the end consumer.

[15] https://news.mongabay.com/2021/04/governments-companies-pledge-1-billion-for-tropical-forests/

[16] https://makemymoneymatter.co.uk/charter/

[17] Pendrill, F., et al. 2019. Deforestation displaced: trade in forest-risk commodities and the prospects for a global forest transition. https://iopscience.iop.org/article/10.1088/1748-9326/ab0d41

[18] Hoare, A. 2015. Tackling Illegal Logging and the Related Trade – What Progress and Where Next https://www.confor.org.uk/media/79650/chatham-house-tackling-illegal-logging-report-july-2015.pdf

[19] WWF, 2021. Deforestation fronts: Drivers and responses in a changing world. https://files.worldwildlife.org/wwfcmsprod/files/Publication/file/ocuoxmdil_Deforestation_fronts___drivers_and_responses_in_a_changing_world___full_report__1_.pdf?_ga=2.39092515.1442981076.1635080685-75911368.1566914468

[20] https://www.globalforestwatch.org/blog/data-and-research/global-tree-cover-loss-data-2020/

[21] https://sustainableforestproducts.org/node/46

The latest CDP forest questionnaire identified that timber product supply chains have the highest level of traceability compared to other commodities. 10% of companies that disclose to CDP are at least 90% certified in a no-deforestation compliant certification, and 17% of disclosing companies can trace more than 90% of the production (or consumption) back to a municipality level or equivalent.[22] Industry experts noted that many companies made commitments to remove deforestation and conversion from supply chains by 2020, but upon reflection it was having a commitment to annually report against this target that was a more effective driver of change. The CDP questionnaire as an example helps companies to "ask the right questions" of themselves, and the need to report progress has led to a greater level of collaboration on key issues, as often barriers to change are shared and can be addressed in a pre-competitive way.

It is important to note that the role of industry has evolved since the 1990s. Whereas before **sustainability and environmental issues may have been considered a "nice to have", responding to these challenges are now almost considered a license to do business**, certainly within those markets with supporting regulation such as Europe and the USA. This transformation in thinking can be seen clearly in the recent industry response to lowering carbon emissions, in comparison to ensuring legality of timber sourcing in the 1990s. Industry is proactively working to reduce carbon emissions, including by engaging in complex technical discussions around the role of timber as a 'sink' for carbon stored in standing forests, or 'storage' where carbon is stored for long periods of time (for example within wooden furniture) or its role as a 'substitute', such as a source of fuel. Companies are also exploring innovative ways to use forests to address challenges in other sectors, and certification processes and reporting procedures are also evolving to support this. For example, viscose is the fastest growing clothing material (produced from wood pulp) in an attempt to reduce consumption of water-intensive cotton.

[22] CDP. 2021 The collective effort to end deforestation. https://www.cdp.net/en/research/global-reports/global-forests-report-2020

1.3 Creating an enabling environment

Unsurprisingly, all of the experts interviewed for this study agreed that it **was how the levers above came together that enabled the level of market transformation seen in the timber trade today**.

Engaging the consumer was identified by several interviewees as an important lever of change, but many specified it was the role of the consumer in lobbying and campaigning that was most effective as opposed to the purchasing choices made. It is perhaps for this reason that **civil society campaigns that engaged the public in a clear ask i.e., that government procure legal and sustainable timber in the 1990s were particularly effective** in comparison to uptake of certified labelling, which while more common than other commodities is still not commonplace.

Experts interviewed suggested that certification and labelling is most impactful as a demonstration of corporate compliance as opposed to driving consumer choices. For example, in a 2017 study only 54% of consumer respondents recognised the FSC logo, yet the majority of 'report card' studies of timber using companies (such as Forest 500 or the WWF commodity scorecards) will award marks for certified sourcing.[23] One expert noted that the rise of social media and digital engagement means that consumers can have a greater emotional reaction to actions happening on the ground, but actions remain local e.g. writing to companies you directly purchase from.

> ***"The market campaigns, the boycott campaigns, were part of a spark. [But] they had to interact with public policy in ways that created durable and long-lasting effects… A very complicated set of pathways that involve norms-changing, markets-influencing, and moulding public policy were developed by multi-stakeholders in a sort of bottom-up way that, together, created this durability."***
>
> **Ben Cashore, a professor of environmental governance and political science at Yale University (Gaworecki, 2018)**

Certification schemes have played an important role in providing a greater sense of credibility and transparency in forestry supply chains and continue to spread knowledge of 'best practice' around the world, playing an important facilitation role. However, to achieve success it is crucial that this 'best practice' be developed collaboratively. For example, where FSC and PEFC processes were led by members, the Marine Stewardship Council, though following lessons learnt from forestry certification, was led by experts Unilever and WWF in a 'top down' approach which in the early years led to more questions on its legitimacy, particularly in producer countries.[24]

[23] https://uk.fsc.org/use-the-fsc-trademarks

[24] Rafols and Brander. 2005. The Stewardship Council Model: A comparison of the FSC and MSC https://core.ac.uk/download/80035436.pdf

Some experts argue that certification can support a long-term transition to sustainability as the responsibility to ensure sustainable forest management remains with industry, as it is the choice of the forest owner to take the necessary action to pass an audit. However, other experts expressed concern that there is a risk industry will 'wait' for the certification body to create solutions to the challenges of industry, as opposed to proactively seeking solutions themselves. Often the certification body itself is a relatively small organization with limited budget, and so these expectations are not realistic. While it is the aim that the sustainable forest manager that chooses to become certified experiences benefits (or is less vulnerable to challenges) as a result of sustainable management, it is more common that the benefits of certification are more likely to be a greater level of consistency of price from the market. It therefore remains challenging to expand these 'pockets of good' and for this reason certification alone is unlikely to create the required shift in any market or supply chain.

As well as having the legal right to the land and to log a forest, many countries require loggers to implement sustainable forest management (such as protecting biodiversity and water courses) and show evidence of compliance with human rights, for example gathering Free Prior and Informed Consent (FPIC) from local stakeholders before logging takes place. When introducing new legislation, one expert noted the importance of timing, using the creation of the EUTR as an example. There was a long lead up to implementation of the EUTR, and the interviewee noted that before the law came into effect some stock piling of wood products occurred, whether as a result to avoid the EUTR or in fear of delays that might arise at the time of implementation, is hard to know.

More recently, the actions of the finance sector have increasingly been considered as part of the package of measures to create the enabling environment. One industry expert commented on the **ability of the financial sector to both incentivise positive action and discourage negative**. In their view the financial sectors approach to divesting in companies that were not acting responsibly was an effective approach, but that the financial sector needed to 'catch up' to the latest best practice to effectively recognise and promote responsible businesses.

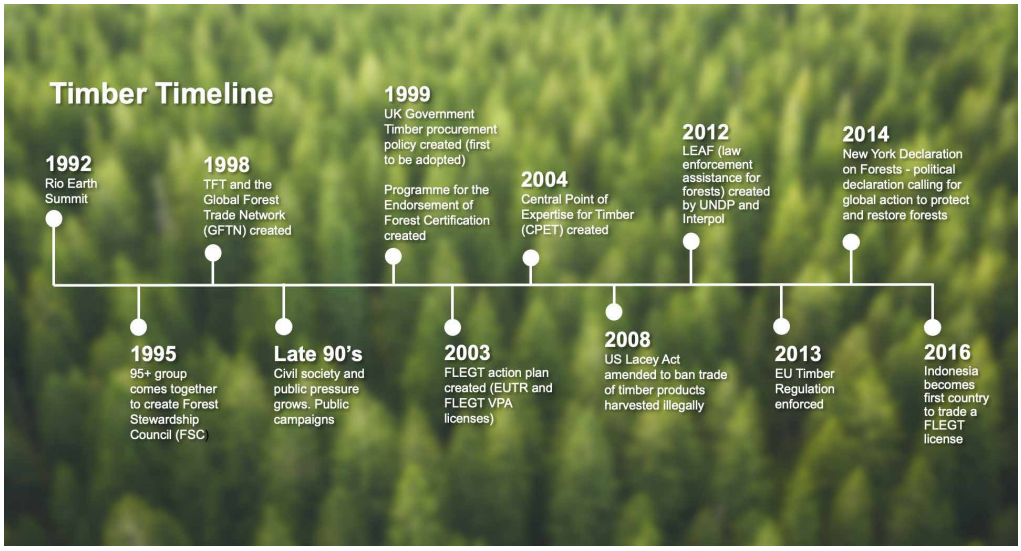

Figure 1.2: A timeline of key events in timber sustainability

A 2015 Chatham House report showed slowing of action to tackle illegal logging globally. This is attributed to three major changes in the forest sector. The first being the development of new markets, as countries such as China (a large consumer and major processing hub) with rapidly expanding demand, dilute the impact of sourcing policies developed by previously significant markets such as Europe. At the same time, the market in producer countries is also growing, and domestic markets are more easily able to accept illegally produced timber. Secondly is the rise of forest clearance for agricultural commodities- the report estimated that nearly half of the tropical timber trade was as a result of forest conversion. Finally, small scale production logging has increased, and this is often out of scope for many policies and regulations.[25] If **policy and regulation is to be an effective tool then the work of Chatham House shows how it is crucial this is consistent across markets, both domestically and internationally**. Beyond this, experts viewed that action should be holistic, working across the drivers of deforestation from logging to agricultural conversion, mining, and other causes.

1.4 Market Transformation Lessons

1.4.1 Accessibility

Have a range of accessible solutions. Certification, while often the most discussed approach to mitigating risk in supply chains can be seen as a niche solution, and perhaps only accessible for leading companies. The principle of accessibility is key both in terms of the ability for the mass market to adopt the solution to create change, but also describing accessibility for different stakeholders, while recognising the differing levels of responsibility. For example, smallholders should be included and engaged in developing solutions but not expected to shoulder an equal share of the economic cost of change. Many large corporates recognise that certification is just one tool of many that will be needed to create change and have publicly supported the creation of large funding pots, but then can struggle to decide where this investment can be used most effectively. This speaks to the need for multistakeholder initiatives, but with clear roles and responsibilities for all actors, to avoid previous weaknesses, such as civil society being expected to lead the creation of solutions. One industry expert felt it was better to start with a smaller, engaged group to make progress quickly, and then use the evidence of success to expand the group and enable mass market change.

1.4.2 Ownership – local engagement

Solutions must be owned by those who must deliver it. This may be industry creating solutions in pre-competitive spaces or supporting local ownership of solutions as opposed to a 'top down', centralized approach. Not only does this mean activity is likely to be long-lasting (for example should donor funding come to an end), but it also allows for solutions to be adapted to local contexts. For example, the specific laws in place to manage forests can vary significantly across different national contexts, such as a natural forest in Guyana compared to a plantation forest in Sweden. Certification can act as an 'umbrella' support

[25] Hoare, A. (2015). Tackling Illegal Logging and the Related Trade – What Progress and Where Next https://www.confor.org.uk/media/79650/chatham-house-tackling-illegal-logging-report-july-2015.pdf

system to industry actors to ensure they are buying timber in compliance with the law and adds credibility. It is important to recognise that barriers to entry or engagement will differ across local contexts, and this needs to be recognised as part of any wider strategic planning. For example, if including certification within public procurement policy, is there a risk of unintentionally creating bias in the market, favouring countries that already have strong forest governance? This may raise questions as to how effective the policy is in creating impact if there is no incentive for the supply base to change.

1.4.3 Don't reinvent the wheel

Build on what has come before. This was seen as particularly important by industry. As the EC is looking to expand due diligence obligations to other forest risk commodities, industry is calling for the Commission to learn lessons from the EUTR, and explore how demand side measures, government to government engagement and producer focused programmes can work effectively together, and at a range of scales.

2. Seafood

Alexander Ford, Independent Consultant and Cristina Pita, IIED

2.1 Introduction

In the early 1990s the collapse of several of the world's most commercially exploited fisheries led to increased focus on sustainability of supplies. Initial responses included market-based incentives to support the sustainable management of marine fisheries, such as the Marine Stewardship Council's (MSC) ecolabelling scheme. As the coverage and cost of these schemes came into question initiatives to build supplier capacity such as Fishery Improvement Projects and the role of governments in building sustainable markets came to the fore. Some of the key policy frameworks are described and how they have influenced aspects of the international seafood trade. The more recent role of the media in driving public opinion is also considered.

Today, fish and fishery products are the most traded food commodities in the world by volume, totaling an estimated £111 billion.[26] Fish is also the main source of animal protein for billions of people worldwide, and the livelihoods of an estimated 160 million people depend on capture fishing.

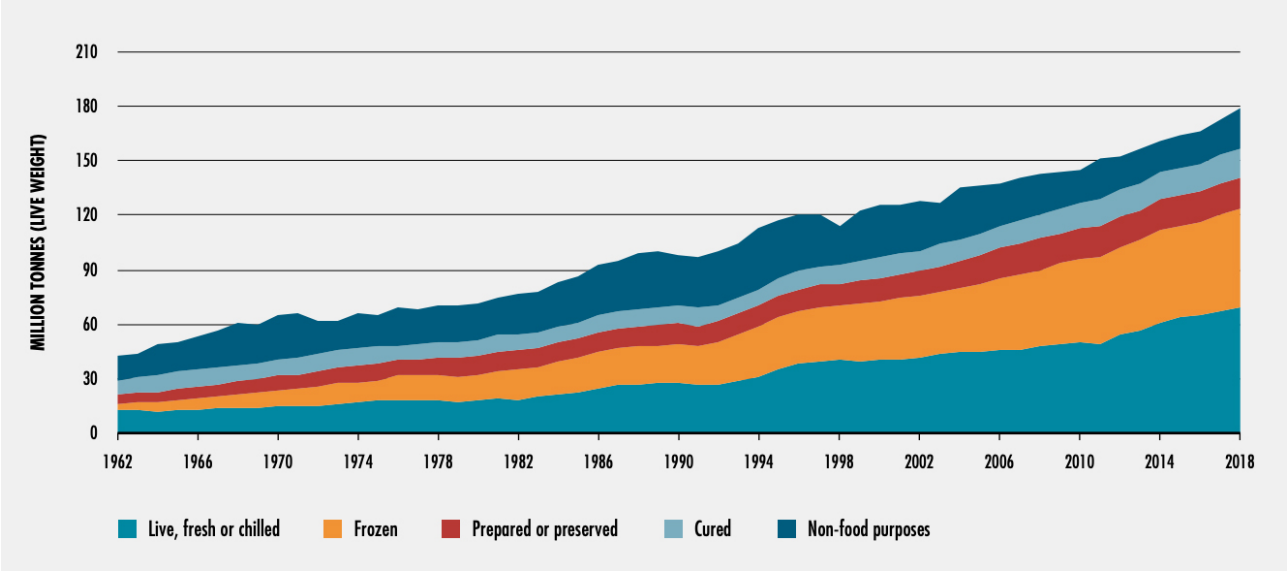

Figure. 2.1 – Utilisation of world fisheries and aquaculture production, 1962 – 2018. Source: FAO

[26] FAO. 2020. *The State of World Fisheries and Aquaculture*. Rome: FAO.

The sustainable seafood movement, born out at the end of the 1980s, has come to be understood as a social and political effort to ensure the responsible sourcing and consumption of seafood. The movement has traditionally sought to influence consumers in European and North American countries, as well as places like Australia and New Zealand. However, since fish is such a highly traded commodity, it has, especially in recent times, sought to work more closely with suppliers and market communities at the sourcing end of the value chain to develop more sustainable practices and equal distribution of food security and nutrition.

2.2 Levers of change

2.2.1 Market-Based Incentives

The Marine Stewardship Council

The Marine Stewardship Council (MSC) is an independent organisation which sets a standard for sustainable fishing and is a keystone organisation in the discourse on the sustainable fisheries movement. The organisation was jointly founded in 1996 by Unilever and the World Wildlife Foundation (WWF) following the collapse of the Grand Banks cod fishery among several other major fisheries around the world. At the time, Unilever were a major supplier of frozen seafood, and were concerned that the environmental degradation of the fisheries on which they depended would lead to the business becoming untenable. Thus, in partnership with the WWF, the two organisations established the MSC designating it as a "gatekeeper" to the seafood market. For suppliers, the incentive to meet the standard is access to higher value markets and consumers seeking only responsibly sourced produce. For the consumer, the incentive is security in the knowledge that the produce being consumed has been ethically sourced.[27]

The MSC Fisheries Standard is based on 3 Principles, comprised of 28 Performance Indicators. The Principles include:

1. **Sustainable Fish Stocks** – Fisheries must operate in a way that allows fishing to continue indefinitely, without over exploiting the resources.
2. **Minimising Environment Impacts** – Fishing operations need to be managed to maintain the structure, productivity, function and diversity of the ecosystem upon which the fishery depends, including other species and habitats.
3. **Effective Management** – All fisheries need to meet all local, national and international laws and have an effective management system in place.

In addition to the MSC Fisheries Standard, there is the MSC Chain of Custody Standard, intended to give assurance that products bearing the MSC "Blue Tick" come from a certified source. Certification of the supply chain is necessary for seafood to be sold as MSC certified on packaging or menus.

[27] Gutiérrez, and Morgan. 2015. "The influence of the Sustainable Seafood Movement in the US and UK capture fisheries supply chain and fisheries governance." *Marine Affairs and Policy.*

For both the MSC Fisheries Standard and MSC Chain of Custody an independent, third-party, conformity assessment body (CAB) that has been ratified by Accreditation Services International (ASI) is required to assess whether the fishery and/or the supply chain meets the criterion of the MSC.

The Integrity of the Standard

As demand for seafood has grown supply has needed to keep pace (see Figure 2.1). Critics argue that MSC has adapted to this by setting the bar too low, allowing too subjective an interpretation of the Standard and favouring industrial interests. Proponents argue that the MSC filled an essential gap by providing a managerial framework for some of the most targeted mono-species fisheries in the world, and that it is largely because of the MSC that many of the managerial structures to conserve fisheries are in existence today.

Over the years the MSC has attracted criticism for a number of reasons. These include:

- **High costs and difficult procedures** associated with the MSC's recourse procedure. In total 19 formal objections have been levelled against MSC certifications but only one objection has been upheld such that the fishery was not certified. A review in 2013 of these objections concluded that the MSC's principles for sustainable fishing are too lenient and discretionary and allow for overly generous interpretation by third-party certifiers and adjudicators.[28]

- **Perceived 'conflict of interest'** within the organisation due to its funding mechanism. For each MSC-labelled product sold, the MSC receives a percentage of the retail price (contributing to 80.5% of the organization's total revenue), therefore providing an incentive to certify. MSC has a target to certify 20% of all wild-caught fish by 2022 and 33% by 2030 (they are currently at 15%)[29], leading many to suggest that the MSC is lowering its standards rather than making fisheries improve theirs.[30]

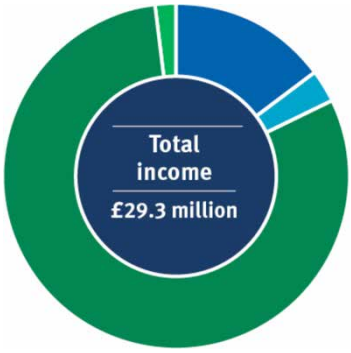

Figure 2.2 - The MSC's revenue streams for 2020

- **Exclusion of most small-scale and developing world fisheries**, or a combination of both. Currently, the MSC has only certified around 15% of capture fisheries worldwide.[31] The vast majority of the remaining 85% are small-scale fisheries in the developing world with an estimated 60% of seafood coming from developing countries.[32] The reason most of these fisheries are unintentionally excluded from MSC certification is due primarily to the cost involved in certifying a fishery and/or the administrative capacity required by a fishery to meet the MSC standard.

[28] Christian, Ainley, Bailey, Dayton, Hocevar, LeVine, Nikoloyuk, et al. 2013. "A review of formal objections to Marine Stewardship Council fisheries certifications." *Biological Conservation* 10-17.

[29] MSC. 2021. *Our funding and finances.* https://www.msc.org/about-the-msc/our-funding-and-finances

[30] Changing Markets Foundation. 2018. *The false promise of certification.* Changing Markets Foundation.

[31] Le Manach, Jacquet, Bailey, Jouanneau, and Nouvian. 2020. "Small is beautiful, but large is certified: A comparison between fisheries the Marine Stewardship Council (MSC) features in its promotional materials and MSC-certified fisheries." *PLoS ONE.*

[32] FAO. 2020. "Fishery Improvement Projects: In the context of small-scale fisheries value chains, post-harvest operations and trade." Rome: FAO.

It must be noted that the MSC are conscious of this exclusion and established the Global Fisheries Sustainability Fund in 2015 that has so far awarded £400,000 in funding to research projects that support fishery science research in small scale and developing world fisheries.

Proponents argue that MSC is improving fisheries management. Experts interviewed for this report concurred that prior to the establishment of the MSC, there was little interest in or means for measuring the impact of fishing on fish populations (communication with World Wise Foods, 22/09/2021). The organisation was created at a time when the fishing industry was realizing that ocean resources are not inexhaustible,[33] but were still resistant to the change that organisations like WWF and the MSC represented.

Some of the most commercially successful fisheries are mono-species and are certified by the MSC. MSC occupy a middle ground attempting to guide consumers towards sustainable produce as well as providing a market-based incentive for the fishing industry to change. Most of the world's largest supermarket chains have altered their sourcing policies in the past decade to ensure their supply of seafood is all MSC-certified (examples include Walmart, Sainsbury's, Tesco, Ahold Delhaize, Aldi, Woolworths and Carrefour).

MSC proponents agree that improvements could be made to the programme. However, it provides a structure and framework for organising the sustainable progression of the world's most targeted and valuable fisheries. The campaign *On the Hook* is calling on the MSC to undergo an independent review in order to resolve many of the consternations highlighted above and to give the MSC strategic direction going forward (as of yet the MSC have not responded).[34]

Benchmarking Initiatives

The Global Sustainable Seafood Initiative (GSSI), launched in 2013, was given a mandate by a series of private, public and non-profit stakeholders across the sustainable fisheries landscape as a benchmark for seafood ecolabels.[35]

GSSI's function is twofold; firstly, they benchmark seafood ecolabels, driving forward the concept of sustainable seafood markets. Although individual ecolabels hold a degree of leverage over the markets they are present in, without an independent recognition they risk losing credibility, which can impact public perceptions of the concept of sustainable seafood. This is important as the sustainable seafood market grows so does the risk of "greenwashing"[36]. GSSI can help assess credibility and helps suppliers avoid cost duplication of certification as GSSI-endorsed labels common across markets.

[33] Fisheries biologist, Thomas Huxley, argued in 1884 that, "Probably all the great sea-fisheries are inexhaustible; that is to say that nothing we do seriously affects the number of fish".

[34] On the Hook. 2021. *Putting the MSC on the hook for certifying unsustainable fishing.*

[35] GSSI recognized ecolabels for marine capture include: the MSC, the Marine Eco-Label Japan, the Audubon Gulf United for Lasting Fisheries (G.U.L.F.) Responsible Fisheries Management (RFM) Certification Program, the Alaska Responsible Fisheries Management (RFM) Certification Program, and the Iceland Responsible Fisheries Management (IRFM) Certification Programme.

[36] The practice of overstating the environmentally or socially conscious attributes of an enterprise's offering while understating the negative attributes, to the enterprise's benefit.

GSSI has also helped drive systemic change throughout the industry. The beginnings of the sustainable seafood movement were characterized by oppositional stances, between science and policy on one side and the fishing industry on the other. Over the past three decades these actors objectives have aligned. GSSI has drawn on the various frameworks for sustainable fisheries and ocean resource management endorsed by the United Nations and focused on using these as reference points for dialogue between the different stakeholders. These international agreements provide a common language that is being used to strengthen and expand the network of actors, as well as building a common vision for sustainability.

GSSI's own authority and legitimacy is due in large part to the diversity of representatives to the organization's board, all committed to respecting GSSI's pre-competitive efforts to ensure sustainable seafood. Critically, the Food and Agricultural Organisation of the United Nations (FAO) and the United Nations International Development Organisation (UNIDO), as well as the German Corporation for International Development (GIZ) all sit on the GSSI board, bringing balance to a discourse that has, in the past, been fraught with private motivations (personal communication with GSSI, 20/09/2021).[37]

Fishery Improvement Projects

With the objective to certify or otherwise regulate the 85% of fisheries not currently under some form of market-based improvement programme, Fishery Improvement Projects (FIPs) have been developed over the past two decades as a step-by-step approach to supplying markets with sustainable seafood. A consortium of 94 organisations, including the MSC, the Conservation Alliance for Seafood Solutions (CASS), are committed to evolving this model to improve the environmental, social and economic pillars of sustainability. *"A fishery improvement project is a multi-stakeholder effort to address environmental or social challenges in a fishery. These projects harness the power of the private sector to incentivize positive changes toward sustainability. Suppliers, retailers, and food service companies can support the efforts of their source fisheries by participating in or buying products from FIPs".*[38]

Although seafood from FIPs is not certified, the members of CASS have agreed that to provide an incentive for fishery improvements, FIPs should be granted access to markets seeking to source sustainable seafood, on the condition that they show progress overtime. Subsequently, FIPs have come to be seen as a viable sourcing option for sustainable seafood among major buyers (including all the supermarkets previously referenced), with the majority seeking to achieve MSC certification.

The first FIPs were established in the early 2000s to engage industrial supply chain actors as partners in the management of the fisheries from which they sourced. In general, the strength of FIPs lie in their ability to provide a platform for dialogue and strategic direction involving different stakeholders. Some studies have argued that fishers and fishworkers

[37] It should be noted that the Committee on Fisheries (COFI), though aware and supportive of the FAO's relationship with GSSI, have not officially endorsed the initiative. In other words, GSSI have not received official backing from the Member States of the FAO, but enjoy access to the FAO's technical and advisory services.

[38] CASS. 2021. *Fishery Improvement*. 23 September. https://solutionsforseafood.org/resources/fishery-improvement/.

have not been included[39] whilst others have found that fishers and their communities have benefitted.[40] In terms of preserving the natural resource, it has been found that 'management' and 'overfishing' are better addressed in fisheries taking part in FIPs.[41]

Currently, the biggest issues facing the development of FIPs include "greenwashing" and securing government engagement. FIPs have inadvertently become a form of currency for seafood companies seeking to source sustainable seafood, the incorrect assumption being that, so long as the fishery is part of a FIP, the seafood produced is sustainable. The FIP model has already demonstrated its potential to bring about closer coordination between different stakeholders and has the potential to be taken further and be adapted to system-wide management. Nevertheless, issues around "greenwashing" threaten to undermine steps to improve sustainability efforts.

Direct Selling and Technology

With certification schemes beyond the financial means of many small-scale fisheries, initiatives are emerging to sell seafood directly to consumers eg Community Supported Fisheries (CSF), where consumers sign up and pay in advance for a "share" of seafood, to be delivered periodically. CSFs aim to promote a positive relationship between fishermen, consumers, and the ocean by providing high-quality, locally caught seafood to members.[42]

CSFs, and similar approaches, are premised largely on the 'authenticity factor' of the exchange: consumers value the intangible characteristics of buying their fish directly from a fisher.[43] Consumers tend to be middle income and willing to pay extra in exchange for the knowledge that they are directly supporting a local fishing community (personal communication with Jeremy Percy, 23/09/2021).

This trend in direct selling has been enabled by information communication technologies for small-scale fisheries (ICT4SSF). Traceability apps allow consumers to visualize the movement of product through each stage of production. However, ICTs are not without risks. Until recently, third-party assessed ecolabels were the only viable way of guaranteeing sustainability. However, digitalization of value chains has the potential to undermine this assurance. Fishers have direct access to consumers bypassing pre-competitive initiatives and relying on the 'authenticity factor' to convince consumers of the sustainability of the product. Socio-economically, this approach can be very sustainable, but it does not guarantee the sustainability of the stock or ecosystem (personal communication with Jeremy Percy, 23/09/2021; and John Goodlad 22/09/2021).

[39] Crona, Käll, and Holt. 2019. "Fishery Improvement Projects as a governance tool for fisheries sustainability: A global comparative analysis." *PLoS ONE*.

[40] Tolentino-Zondervan, Berentsen, Bush, Digal, and Lansink. 2016. "Fisher-Level Decision Making to Participate in Fisheries Improvement Projects (FIPs) for Yellowfin Tuna in the Philippines." *PLoS ONE*.

[41] Cannon, Sousa, Katara, Veiga, Spear, Beveridge, and Holt. 2018. "Fishery improvement projects: Performance over the past decade." *Marine Policy* 179-187.

[42] Brinson, Lee, and Rountree,. 2011. "Direct marketing strategies: The rise of community supported fishery programs." *Marine Policy* 542-548.

[43] Bolton, Dubik, Stoll, and Basurto,. 2016. "Describing the diversity of community supported fishery programs in North America." *Marine Policy* 21-29

2.2.2 Policy, law, and governance

Code of Conduct for Responsible Fisheries

The Code of Conduct for Responsible Fisheries (the Code), unanimously adopted by FAO Member States in 1995, is a foundational agreement that sets out globally agreed principles and standards for the sustainable use of fisheries and aquaculture resources. As such, over the past 26 years, the Code has informed the development of a number of instruments to provide the overarching framework for international, regional and national efforts to responsibly utilise fisheries and aquaculture.

The Code is the reference point for around 50 international and technical guidelines, 4 international plans of action and 3 strategies, which have all been adapted to support the international community in meeting emerging challenges. Some examples include:

The Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA)

The Port State Measures Agreement was adopted in 2009 and entered into force in 2016. It is the only binding international agreement specifically designed to combat IUU fishing. Its objective is to prevent, deter and eliminate IUU fishing by preventing vessels engaged in IUU fishing from using ports and landing their catches. In this way, the PSMA reduces the incentive for such vessels to continue operating while, at the same time, blocking fishery products derived from IUU fishing from reaching national and international markets.

Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries

The Ecolabelling Guidelines for Capture Fisheries were endorsed in 2005 and intended to provide guidance to ecolabelling schemes certifying and promoting products from well-managed marine capture fisheries. They call for ecolabels to be science-based, transparent, whilst allowing for fair participation by all interested parties. They should also fulfill the requirements for third-party certification. The guidelines refer to relevant international conventions and the sovereign rights of states as further guidance for ecolabelling schemes.

The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines)

The SSF Guidelines were adopted by the 31st Session of the Committee on Fisheries (COFI) in 2014 after a 6-year consultative period with over 4,000 stakeholders globally. Chapter 7 of the SSF Guidelines – Value Chains, Post-Harvest, Trade – recognizes the right of fishers and fishworkers to improve their livelihoods through the commercial exploitation fisheries. Moreover, Chapter 7 speaks to SDG 14.b, “provide access for small-scale artisanal fishers to marine resources and markets” seeking to fulfil this objective.[44]

[44] FAO. 2021. *The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.*

The European Union's Illegal, Unregulated and Unreported Fishing Carding System

The EU is the world's largest import market for seafood, valued at a total of £40 billion including intra- and extra- European imports. 74% coming from developing countries.[45] The value of the European seafood market gives the EU significant political leverage over seafood traded internationally.

In 2008, the EU Council passed legislation establishing an EU-wide system to prevent, deter and eliminate IUU fishing.[46] The implication of this legislation requires that all countries – including EU Member States – certify the origin and legality of the fish, thereby ensuring the full traceability of all marine fishery products traded from and into the EU. The measures therefore aim to ensure that countries comply with their own conservation and management rules as well as with internationally agreed rules. When flag States are unable to certify the legality of products in line with international rules, the Commission starts a process of cooperation and assistance with them to help improve their legal framework and practices. The milestones of this process are the warnings (yellow cards), the green cards if issues are solved and the red cards if they aren't – the latter leading to a trade ban. In addition to the certification scheme, the Regulation introduces an EU alert system to share information between custom authorities of EU Member States about suspected cases of illegal practices.

2.2.3 Media

The *Seaspiracy* documentary produced by the global streaming service, Netflix, in 2021 has ignited a new debate about the sustainability of fisheries, with calls to stop consuming seafood. The programme has been criticized for misrepresenting impacts of the fishing industry undermining decades of painstaking seafood stewardship efforts.[47] [48] Experts interviewed for this report agreed that the potential impacts of *Seaspiracy* in deterring seafood consumption will most likely be felt by those with the least bargaining power or access to decision making processes, namely small-scale fisheries.

However, it has drawn public attention to the challenges facing the seafood trade today, yet in somewhat of an inaccurate and unconstructive manner as the documentary does not provide any clear messages about how society can contribute to stewarding fisheries and the ocean, other than to stop eating seafood altogether.

[45] CBI. 2021. *Dutch Ministry of Foreign Affairs.* Exporting fish and seafood to Europe | CBI

[46] Council Regulation (EC) No. 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing

[47] Forbes. 2021. *Seaspiracy: A Call To Action Or A Vehicle Of Misinformation?* 10 April. https://www.forbes.com/sites/allenelizabeth/2021/04/10/seaspiracy-a-call-to-action-or-a-vehicle-of-misinformation/?sh=5c6f8891c23a.

[48] Sustainable Fisheries. 2021. *The science of Seaspiracy.* 2 April. https://sustainablefisheries-uw.org/science-of-seaspiracy/.

Figure 2.3 Tranformation timeline

2.3 Market transformation lessons

In order **to find consensus among stakeholders** with diverse and sometimes opposing perspectives, **internationally agreed frameworks, policies and legislation can provide a neutral and agreed starting point**. In the seafood industry this has helped develop a common language, which is allowing the industry to build a common vision of sustainability.

Roundtables that include the full range of **stakeholders from specific value chains or specific units of a natural resource to openly discuss and take decisions** can allow for dynamic progress to be made where needed and allow for **localised applications of internationally agreed good practices**. Fishery Improvement Projects are a working example.

The **role of technology should be considered** in any initiative being set up to manage and govern natural landscapes. However, there **should be relevant legislation** to ensure that its application does not undermine environmental or socio-economic concerns.

Approaches to governing and managing natural resources sustainably should consider the needs of those dependent on the natural resource, in both developing and developed regions, and will likely result in ineffective and short-lived initiatives that will fail to conserve the environment.

Mass media has the power to greatly undermine or exaggerate facts. Extreme points of view should be avoided as they only serve to confound progress and increase conflict between stakeholders.

Independent reviews and bodies are fundamental to ensuring the continued legitimacy of actors in positions of authority and those setting guidance. This is particularly pertinent **where private interests are concerned or there are accusations of 'conflicts-of-interest'**.

Although technology can open opportunities for ensuring the sustainability of a natural resource and those dependent on it, **third-party assessment remains indispensable for guaranteeing the authenticity of a product**.

3. Tropical agricultural commodities

Alejandro Guarin and Bill Vorley IIED and Jan Willem Molenarr, Aidenvironment

3.1 Introduction

The tropical agricultural sector includes a diverse set of commodities such as oil palm, cocoa, coffee, tea, cotton, rice and cattle which provide a crucial source of income and livelihoods in low- and middle-income countries. The production of these crops is linked to a number of sustainability impacts that are behind calls for **sector transformation**: deforestation and land use conversion; water use: diversion, depletion and pollution; biodiversity; working conditions; human rights; land conflicts; poverty and price volatility with booms and busts. These sub-sectors are very diverse with regard to their production structure (e.g. produced by large-scale vs smallholder farmers), international trade (e.g. 71% of palm oil is traded internationally, compared with only 5% of rice), levels of corporate concentration, degrees of processing and consumer visibility (e.g. palm oil is an industrial feedstock for household products and cosmetics, and also an important animal feed, largely invisible to consumers, unlike coffee).

Some of the earliest attempts at sector transformation can be traced to the fair trade and organics movements in 1990s. In the years since there has been a blossoming of multiple initiatives, but the outcome in terms of material end impacts is decidedly mixed. A few sectors – palm oil stands out – have reached a transformation point where bad practice (namely forest conversion by plantations) is the exception rather than the norm, and where the supply chain has undergone major structural changes.

While sector transformation was earlier driven almost exclusively by actors based in the global North, in recent years we have seen a rapid rise in importance of emerging economies as both consumers and producers, a shift in the South to North trade axis, and the emergence of Asia as a dominant player in agricultural commodity trade, and therefore increasingly key to sector transformation and associated governance.

3.2 Key Insights from the agricultural sector transformation

3.2.1 The drivers, evolution, and timeline of sector transformation

Efforts to transform agricultural commodity sectors often follow a similar progression, from crisis-triggered actions by individual actors to more widespread, institutionalised change. Palm oil is the prime example of this type of progression. But not all commodity sectors have followed all stages towards institutionalisation; in some cases, processes have become

'stuck' after initial progress (e.g. coffee) and in others change is happening in a different sequence altogether (e.g. rice). The different stages, and their sequencing, depends on the nature of the commodity, how and where it is produced and traded, the configuration of actors within the sector, and sometimes external and/or serendipitous events. Below we describe the type of sequence that has been observed in some agricultural sectors, providing examples of commodities that have followed this sequence and others that have departed from it.

Our review suggests that, in some cases, transformation processes in agricultural subsectors follow certain phases. **Phase 1 (Inception)** often starts with a **crisis** that raises general awareness in the sector about the problem, such as public campaigns (often directed to consumer-facing brands) on child labour in cocoa or deforestation in palm oil, or a price crisis in coffee. In this phase, innovators develop isolated projects to **establish best practices**. In **Phase 2 (First movers)**, it becomes evident that the problem is persistent, and the pressure is increasingly felt by government and industry. First movers use the viable alternatives from the Phase I pilots to their competitive advantage as they absorb first mover cost and risks. These efforts could result in a range of competing standardized solutions, notably **certification**. The end state of this phase is that businesses will be competing on sustainable business models. There will be confusion in the system on what to do next with growing frustration that the problem is not solved despite all efforts. After competition in Phase 2, in **Phase 3 (Critical Mass)** several key actors accept the need for non-competitive collaboration to solve persistent issues through **coalitions and platforms**. In this phase there is also increasing attention to the **enabling environment**. In Phase 4 (**Institutionalization**) the sector is ready for transformational change. The level playing field of Phase 3 has become a market opportunity. Laggards come on board and a level playing is created. Political leadership at this stage is crucial as choices will have to be made and the anti-lobby needs to be resisted.

The palm oil sector is one of the few commodity subsectors that have reached Phase 4 (Figure 3.1). In phase 1, NGO campaigns from 2004-2010 targeting well-known brands and their link to palm oil related deforestation created awareness and a sense of urgency. After a suite of smaller NGO-company projects, the Roundtable for Sustainable Palm Oil (RSPO) was created (Phase 2). This western NGO and industry-led international multi-stakeholder initiative introduced a voluntary sustainability standard. First mover companies committed to buy only RSPO certified palm oil, such as Unilever's Sustainable Living Plan (USLP) target of 100% by 2019. After the EU market was more or less saturated with RSPO certified palm oil, and after limited impact and reach of certification became evident, the same NGOs and companies introduced **No Deforestation, No Peat, and No Exploitation (NDPE)** policies.

This is an additional supply-chain tool which required deeper engagement and monitoring in the supply chain than certification. It also led to increased coverage, including markets without consumer demand for RSPO certified palm oil —much closer to a critical mass (Phase 3). However, issues around deforestation and exploitation often have many locally rooted causes and do not only depend on voluntary corporate behaviour. Hence there is nowadays much more attention to the creation and implementation of national regulatory frameworks including mandatory standards, land use planning and monitoring, and forest

moratoria (Phase 4). Anecdotal evidence suggests that media attention about the haze in Singapore linked to oil palm related fires on Sumatra has had more impact on the largest palm oil companies' attitude towards deforestation than years of roundtable activity and civil society campaigning as CEOs were asked by their families and friends whether they were responsible for the haze.

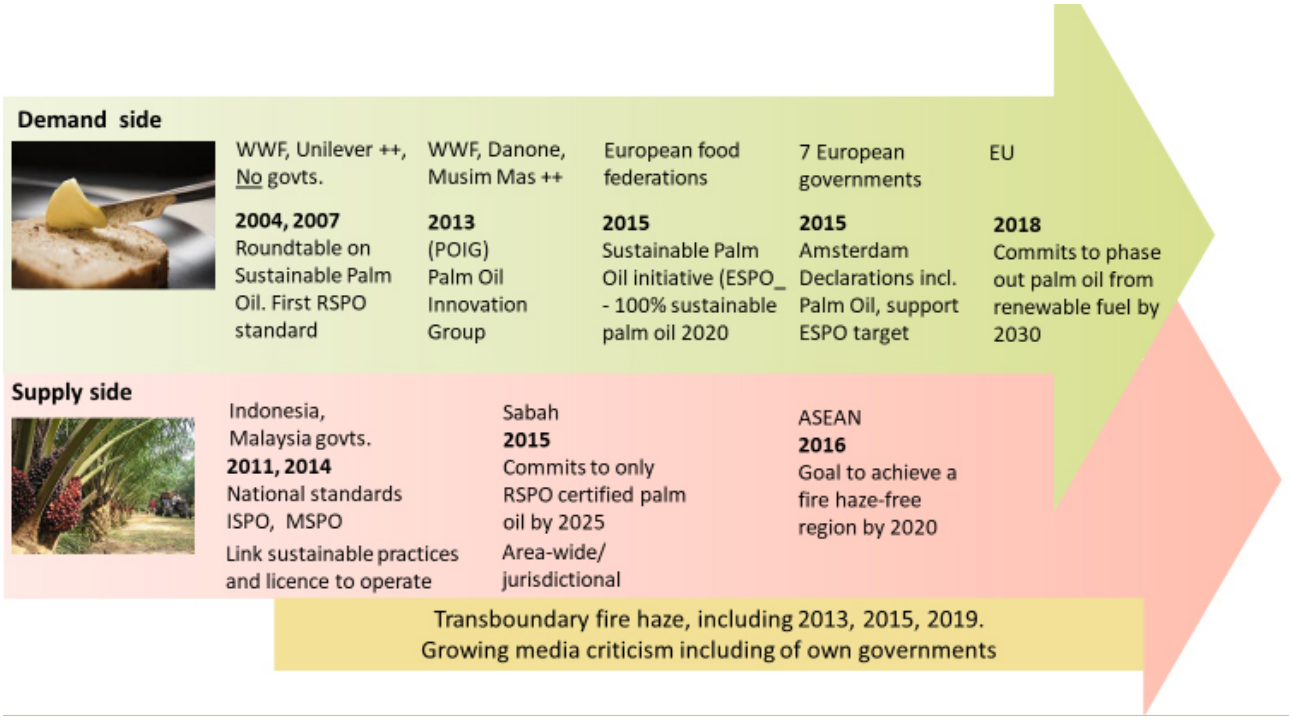

Figure 3.1 Selected key milestones in palm oil sector transformation

The palm oil sector also shows some of the limitations of demand-side and lead firm initiatives, including bypassing the government, or overstating tipping power of lead firms. Moreover, this sector has shown the limitations of certification proving a link to impact and the prevention of deforestation due to traceability challenges and shortage of data on the ground, which is why the NDPE initiative took hold.

However, market transformation does not necessarily follow these four phases, and systems change does not necessarily follow a linear pathway. There are many cases where processes started with collaborative platforms or public policy reforms (institutionalization). An example is the Sustainable Rice Platform (SRP) which was originally co-convened by UNEP, the International Rice Research Institute (IRRI), and GIZ before any NGO campaign or actions by big brands. Apart from UNEP concerns about the link between rice production, competition for water use and GHG (methane) emissions, a big driver of SRP engagement by governments in producer countries has been poverty in rice producing households, and risk to future security of supply.

Coffee is an example of a commodity in which progress stalled after the initial phases, due to structural weaknesses. The **Global Coffee Platform** (GCP) was set up as a multi-stakeholder platform for the whole sector – producers, trade, standards bodies, civil society, donors, and with clear participation of the state – to address these structural weaknesses.

Launched in 2019, the **Asian Tea Alliance** (ATA) is another example of sector collaboration with governments and industry associations in the lead. The Alliance brings together the main industry and policy organizations in five top tea-growing countries: the Indian Tea Association, China Tea Marketing Association, Indonesian Tea Marketing Association, Sri Lanka Tea Board and Japan Tea Association. As well as promoting trade, they have committed to implement a sustainability agenda, with support from, among others, the Solidaridad Network.

3.2.2 Levers of change

The role and the intervention timing of different actors has evolved over time and varies from one agricultural sector to another. Civil society organisations have been important drivers of change by holding private companies to account and by mobilising public opinion. Our review suggests that this lever was very important in earlier efforts for transformation, but its importance has reduced more recently relative to other actors – this is in line with the "crisis" triggers of phase 1 described in the previous section. Businesses, which initially tend to be reactive to public pressure, have moved towards a more strategic approach, promoting sector-level change to protect their own long-term viability. The role of multi-stakeholder collaborations, and the influence of finance institutions, has catalysed this more strategic approach. Finally, while the role of public policy was initially focused on banning the worst types of offences such as modern slavery, more recently governments have tended to play more of a facilitating role by developing clear rules and incentives. Below we describe each of these actors and levers individually, showing examples of their roles and influence, and how these have evolved.

Civil society

Civil society has been one of the key drivers of change in agricultural sectors by holding businesses and governments to account. While some civil society organisations have risen to prominence through their 'naming and shaming' role, their importance covers a range of activities including oversight and investigations, giving voice to affected communities, direct action, whistleblowing, bargaining, engaging consumers, working with media/champions, instigating action by companies and governments, and public interest litigation.

Targeted **NGO campaigns** have been instrumental in catalysing corporate response. For example, the high profile Greenpeace campaign in 2010[49] targeting Nestlé and its brand KitKat for the use of unsustainable palm oil not only harmed the company's reputation, but also raised concerns among its staff. This campaign put the topic high on its agenda, as well as with its peers. Other examples include Mighty Earth's report[50] which put deforestation in the West African cocoa sectors on the agenda and an NGO coalition campaign[51] on bananas in the UK pushed Sainsbury's supermarket to make Fairtrade the standard for all the bananas they sell.

[49] Coombs, T. (2014). Nestlé and Greenpeace: The Battle in Social Media for Ethical Palm Oil Sourcing. In M. W. DiStaso & D. S. Bortree (Eds.), *Ethical practice of social media in public relations*. Routledge.

[50] Might Earth (2018). Behind the Wrapper: Greenwashing in the Chocolate Industry.

[51] Fairtrade Foundation (2019). Britain's Bruising Banana Wars: Why cheap bananas threaten farmers' futures.

Organisations like WWF, Solidaridad and Oxfam have introduced **company scorecards** where they compare companies on specific performance indicators (e.g. the presence of targets, policies and % of sustainable product uptake). As these exercises are repeated over time, they show the (lack of) progress companies made. These initiatives contribute to more public transparency. The degree to which they drive company behaviour is not clear, but some companies are sensitive to such initiatives. Examples include cotton, soy, palm oil and big brands.

The effectiveness of NGO 'naming and shaming' campaigns as well as company scorecards depend on the visibility of these companies or their brands in the public space and hence the potential risks they can cause for corporate reputations. The effectiveness tends to reduce over time as the topic becomes more mainstream and companies start to address the issues. By then, constructive collaboration to find solutions becomes important. Still, the presence of 'watchdog' NGOs can still be valuable to keep everybody sharp; Greenpeace is a prime example. While some NGOs position themselves as 'critical outsiders' (e.g. Oxfam and its Behind the Brand's campaign), sometimes it is also strategic for them to place themselves as 'critical insiders' to support the company in better performance (e.g. Solidaridad's partnership with industrial giant Henkel to improve sustainability of palm oil supply sourcing from smallholders[52]).

Civil society oversight, media exposure and public engagement have also been effective means of triggering legal and financial sector changes. For example, A BBC documentary on the use of enslaved children in the production of cocoa in West Africa, led to the development of the US Harkin-Engel Protocol (see below). Chain Reaction Research, a donor-funded consortium between Aidenvironment, Profundo and Climate Advisors, conducts free sustainability risk analysis for the financial sector, institutional investors, corporations, and other stakeholders. Its investigations focus on demonstrating that deforestation is a material financial risk. Their reports are an important source for finance and investment decisions for financial institutions, as well as their ESG (Environmental, Social and Governance) engagement strategies with companies in sectors such as palm oil, soy and cattle.

Multi-stakeholder collaboration

Increasingly there are public-private partnerships in agricultural sectors which convene key actors around a common agenda, specific goals such as living income and living wage, and declarations of intent they try to achieve through peer learning, joint projects and monitoring. Examples are the Malawi2020 initiative for tea, and various national platforms in cocoa and bananas in European countries.

There are numerous platforms in which multiple stakeholders exchange knowledge, research, strategize, lobby and advocate and conduct joint projects; these can be at the national or at the regional level. One national-level initiative is the Ghana Tree Crop Authority, a forum that brings together stakeholders from the oil palm, coconut, mango, shea, rubber and cashew sectors under a common umbrella to improve their sustainability performance[53].

[52] https://www.theguardian.com/corporate-sustainability-in-practice/2021/sep/28/palm-oil-why-a-sustainable-global-supply-chain-needs-to-include-smallholder-farmers

[53] https://www.proforest.net/news-events/news/regulating-tree-crops-for-responsible-production-in-ghana-14104/

The results of these initiatives are mixed. In some cases they have nothing to show, while in other cases they have produced strong alignment between stakeholders, influenced the public policy and regulatory environment, and successfully launched innovations which promote sustainable performance. An analysis of several Asian regional public-private sustainability initiatives that pursue sector transformation revealed the following success factors: they (1) attract influential, committed, and representative participants, (2) ensure the (indirect) voice of grassroots organizations, (3) have a neutral convenor with subject-matter expertise, (4) gear facilitation towards trust-building, (5) achieve a balance between concrete short-term outputs and more strategic longer-term outcomes, and (6) aim for long-term processes with sustained funding.

Policy, law, and governance

The State has played a role in many aspects of sector transformation, but this role – and its relative importance – has changed through time and across commodities. As we have noted, many early efforts of sectoral change were driven by businesses, either alone or in coordination. However, there has been an increasing realisation of the importance of statutory requirements, import/export controls, trade deals and technical assistance, mandatory disclosure, public procurement policy, regulatory enforcement, and many other roles played by national governments.

Governments can get things moving by introducing new regulation, or by the threat of introducing regulation. The establishment of mandatory palm oil sustainability standards by Indonesia (ISPO) in 2011 and Malaysia (MSPO) in 2014 (made mandatory in 2019) provides an opportunity to build on voluntary standards by NGOs and companies in Europe (RSPO). But it can also introduce tension around the legitimacy of different governance approaches, between private non-state models (RSPO) and initiatives by producer states to exert their authority over the sustainability agenda.

In consumer countries, governments have often stepped in to set minimum standards and regulations on imports and supply chain sourcing regarding key human rights or environmental issues. For example, a key driver of the attention to sustainability in the cocoa sector has been the US **Harkin–Engel Protocol** (2001), which is a voluntary public-private agreement to eliminate the worst forms of child labour in the cocoa sectors in West Africa. This protocol was a direct result of the BBC documentary on the use of enslaved children in the production of cocoa. The EUs **Renewable Energy Directive** had a big impact on the sourcing policies of biofuel importers, and the EU **FLEGT** has had a similar impact in the timber market. The UK's **Modern Slavery Act** requires large companies to publicly report on the steps they take to ensure that forced labour is not a part of their products. Similar initiatives include the Dutch Child Labour Due Diligence law and the French Duty of Vigilance Law. The US Department of Labour maintains a list of goods and their source countries which it has reason to believe are produced by child labour or forced labour in violation of international standards. The list is not intended to be punitive, but rather to serve as a catalyst for more strategic and focused coordination and collaboration among those working to address these problems. Still, it is an important driver for companies that source to the US to comply with internal or external sustainability standards.

National governments in producer countries have also played a role by establishing rules and incentives about land use or production standards, or through direct price controls. For example, in Mozambique, the government embedded the Better Cotton principles and criteria in its national regulations and standards. In response to water and soil issues, the government of Jersey (UK) obliges farmers to be Organic or LEAF Marque certified. This is coupled to a Payment for Environmental Services scheme to support farmers in adopting drip-feeding. In Indonesia, there is a moratorium on forest-clearing permits for plantations and logging. In Peru, forest concession holders can reduce their yearly lease payment by up to 70% through the adoption of various types of sustainable practices. These include implementing credible private standards like the FSC. On several occasions, governments introduce minimum prices, fixed prices, living income premiums (e.g. coffee Costa Rica, cocoa in Ghana and Cote d'Ivoire, palm oil Indonesia, India on various food crops).

Private sector

The private sector has been an essential driver of change in the agri-commodities sector – whether reactively in response to external circumstances, or more proactively as it has looked to set the agenda. Private companies have been active across procurement practices, standards and disclosure, generating and using evidence, tracking and transparency, and consumer education.

As we have seen above, the actions of lead companies are very important, especially at the earlier stages of sector change. The public commitments of lead companies can send a strong message to other companies to follow and can give legitimacy to multi-stakeholder sustainability initiatives. As the sector matures, these overtly public actions become replaced by 'internal' processes around sourcing and compliance, which are communicated less to the public and customers. Sustainability then increasingly becomes a license to operate which may even result in not showing sustainability labels / commitments anymore, as the brand itself should be positioned as sustainable (although corporate communication on it remains important).

When one or two lead firms take the initiative to address a certain issue, and when they try to do so through a pre-competitive, multi-stakeholder approach, this can create a basis for mainstream growth. Examples are Unilever's role in the creation of RSPO and the Round Table on Responsible Soy (RTRS), or Olam's and Mars' role in the creation of the Sustainable Rice Platform (SRP). Generally, these companies collaborate with a CSO or international NGO in such initiatives. A disruptive innovator, like Tony's slavery-free Chocolonely, can create a new perspective, introduce new practices, which others then follow – including the living income initiatives by different Dutch and German retailers.

Finance

Financial institutions are playing an increasingly important role shaping the behaviour of businesses, and by extension the nature of sectoral transformation. Roles played by finance markets include due diligence and screening to ensure that businesses comply with specific milestones, divestment when there is a reputational or financial risk, and impact investing (i.e. investment that seeks social and environmental, in additional to monetary, returns).

The finance lever is often less visible, but it is an important undercurrent that can influence the course of the river. It is important to note that, for now, sustainable finance is relatively small within the overall financial market, and that many players are still not engaged or interested in these types of markets.

The availability of impact funding, soft lending (e.g. development banks eg IFC) and ESG criteria by commercial institutions does influence corporate behaviour increasingly in sectors such as palm oil, soy, cattle, cocoa – sectors with prominent sustainability issues such as deforestation and child labour[54]. For example, Green Century Funds, a Boston-based environmentally conscious investment firm, has been addressing deforestation since 2012. Using shareholder advocacy, it convinced companies throughout the palm oil supply chain (one of the leading causes of deforestation in Indonesia) to adopt zero-deforestation commitments. Companies included major buyers such as Starbucks, Kellogg's and Target, large palm oil traders (including Archer Daniels Midland and Bunge) and producers – such as Wilmar, Asia's largest agribusiness. In 2019, Green Century persuaded Aramark (a multinational food service company which serves almost 2 billion meals a year) to adopt a deforestation policy[55]. Other initiatives include the 'Soft Commodities' Compact[56], which aligned the banking industry with The Consumer Goods Forum's resolution to help achieve zero net deforestation in their supply chains by 2020.

3.3 Market transformation lessons learned

Enduring sector change requires moving from competition to collaboration

- When sustainability initiatives remain in the **competitive sphere** they tend to stay with a few high profile companies, but not reach critical mass. This impedes the development of a **joint vision** of what a sustainable sector looks like, which is needed to tackle complex issues. It also incurs additional costs to actors, such as meeting different requirements by different buyers, and double auditing.
- Many of the initiatives react to symptoms, but do not address the **underlying root causes**. Increasingly we are seeing changes to the private voluntary model built around collaborations between Northern-based brands and NGOs. More collaborations involve the **whole sector** – including governments in producer countries and emerging economies – to address structural risks. **Financial institutions** are playing an increasingly important role shaping the behaviour of businesses, and by extension the nature of sectoral transformation.

[54] https://www.bbc.com/future/article/20210825-can-investors-save-the-amazon

[55] https://www.aramark.com/sustainability/planet/source-responsibly

[56] https://www.cisl.cam.ac.uk/system/files/documents/the-bei-and-cgfs-soft-commodities-compact.pdf

Implementing transformation requires tools that lead to material outcomes

- **Certification** is a commonly used tool for managing sustainability performance, but it has shown a number of limitations when applied to agricultural commodities. One is the displacement effect, with less discriminating buyers and countries sourcing more uncertified product such as deforestation-linked palm oil or soy. Certification is difficult in complex chains for ingredients and feeds, especially soy and palm oil. And certification works much better at plantation scale – because of a higher return on investment – than at smallholder scale.

- Classical **verification** approaches (auditing whether someone complies with the norms) are generally expensive, and have issues of reliability and effectiveness. Performance has been based on **practice** adoption (farmers participating or area certified) rather than real **outcomes** (e.g. water or energy footprints).

- **Assurance systems** must learn from agriculture in how to achieve **cost-effectiveness** – especially for small-scale producers and enterprises – and to measure **outcomes** rather than practices (e.g. farmers participating or area certified). The Better Cotton Initiative (BCI) assurance programme has from the outset prioritised support for farmers over measuring compliance. Trust-based systems that combine self-assessments with technical support, and risk-based data driven approaches could be a better way to verify and promote improvement. Bonsucro has built the reporting of **field-level results** into its standard system from the beginning, including water consumed for irrigation (blue water), amounts of fertilisers and pesticides applied, yield and profitability.

- While **inclusion of women** becomes mainstream in most sustainability initiatives, women's empowerment is still often a blind spot. Gender-related outcomes at the field level are difficult to achieve and to monitor.

Enabling transformation requires clear business incentives and long-term planning

- Many sustainability investments require significant **resources**. But the **business case** for such investments is often poor. An important reason is the lack of market **incentives** particularly for small-scale producers. This can be caused by unstable trading relations, low prices because of unfavourable supply-demand dynamics or unequal power distribution in the value chain (e.g. the power of retailers), volatile prices, and long and opaque value chains which impedes transparency and the transfer of market incentive. Another important reason is the lack of organization of small-scale producers which raises the transaction costs for the required services for the sustainability investments such as training, inputs, finance, and verification. In many contexts, these services are absent, unreliable or too expensive. Compliance with standards comes with no market incentive for producers when compliance is treated only as a condition of supply to the lead firm, without price premium.

- Sector transformation requires **long-term adaptive management**, in which strategies change over time in response to changing context and what's working. It's especially important for donors to factor in this flexibility in strategy and funding modalities[57]:
  - Prepare for long-term engagement, be realistic about time for systems to change
  - Support evolving paths to systems change and allow for flexibility, in plans and budgets
  - Work in true partnerships, being complementary to other development actors.

[57] More details in: https://catalyst2030.net/resources/embracing-complexity-report/

4. Plastics

Laura Kelly, IIED

4.1 Introduction

Plastics waste and recycling has been an issue for industry and governments since the 1980s. In developed countries single use plastic took off at the same time as landfill sites for waste began to decline and a global recycling trade began to emerge, dominated by China. Consuming country governments used a combination of voluntary and regulatory measures to promote recycling and the system appeared to be working reasonably well.

However, in the 2010s a number of factors emerged to both disrupt the system and question how effective it had in fact been, among the most influential of these was a ban by China on importing waste plastic for recycling and increased public awareness of plastics pollution of the Ocean in particular.

4.2 Levers of change

4.2.1 Policy, law and governance

In the UK plastics recycling has been driven by a decrease in landfill sites and increasing public concerns about plastics pollution. The government employs differential producer, consumer and local authority responsibilities to meet overall targets.[58&59] The government's 2020 target for plastic packaging recycling was 57%.

Compared to other sectors there is quite significant government engagement. Extended Producer Responsibility (EPR) is used to promote recycling. A system of Packaging Waste Recovery Notes (PRNs) and Packaging Waste Export Recovery Notes (PERNs) are purchased by manufacturers from recyclers to show they have met their government-determined contribution to packaging (including plastics) recycling costs. However, this is a complex system[60] and the extent to which it has achieved positive global environmental outcomes has been questioned as the bulk of plastic has been exported for processing, where it has not always been effectively dealt with.

Role of Chinese recycling

China was the centre of global plastics recycling from the mid 1980s to the late 2010s. This was initially a mutually beneficial relationship. China imported waste plastics to build its manufacturing sectors allowing OECD countries to reduce the volume going to landfill. From about 2010 this system began to change, with Chinese wages rising some manufacturing moved offshore, mainly to SE Asian countries and recycling businesses relocated as well. At the same time the government started to try and reposition China as more positive on the environment.

[58] HM Treasury. 2018. Tackling the plastic problem: Using the tax system or charges to address single-use plastic waste. March 2018.

[59] HM Government. 2018. A green future: Our 25 year plan to improve the environment. Defra.

[60] Advisory Committee on Packaging, Task Force 2 – PRN Transparency. 2016. PRN System Guide. February 2016.

In Jan 2018 the Chinese government banned waste plastic imports (Asia Nikkei Review) citing environmental and health reasons in its notification to the WTO. Despite some incremental restrictions in the years before 2018, few in the industry or environmental sector saw the ban coming.[61] The CEO of the UK Recycling Association described the UK Government as "asleep at the wheel" (China Daily). As a result plastic waste started to build up on UK ports and started to be exported to lower income countries in SE Asia with nascent recycling industries. These industries were by and large unable to cope with the huge increases in volumes and scenes of plastics pollution in waterways and oceans began to emerge.[62]

4.2.2 Public pressure/media

In 2017 the naturalist David Attenborough produced the second of two major documentary series about the ocean, Blue Planet II. This focussed on the problems the Ocean was facing, including plastics pollution and the amount of plastics now being found in marine organisms. Coming at about the same time as the China imports ban it had a significant impact on public perceptions and concern. It also saw a number of celebrities such as Dame Ellen McArthur and Leonardo Di Caprio enter the debate about ocean conservation, both setting up foundations to fund work in the area, which further heightened public awareness.

4.2.3 Private Sector

The combination of heightened public awareness alongside potential tightening of government regulation in many consumer countries led business to look for collaborative solutions to addressing plastics waste.[63] WRAP which was initially established with UK government involvement as a not-for-profit, multi-stakeholder initiative in 2000 to promote sustainable resource use through product design, re-use and recycling, was well positioned to respond. A UK Plastics Pact,[64] was developed including 2025 targets for packaging recyclability, recovery and reuse. The UK Pact has four key targets:

- Eliminate problematic or unnecessary single-use packaging through redesign, innovation or alternative (reuse) delivery model.
- 100% of plastics packaging to be reusable, recyclable or compostable.
- 70% of plastics packaging effectively recycled or composted.
- 30% average recycled content across all plastic packaging.

There is an annual independent assessment of members progress against these https://wrap.org.uk/taking-action/plastic-packaging/the-uk-plastics-pact/progress-against-targets

[61] Hook, L. and J. Reed. 2018. Why the world's recycling system stopped working. Financial Times, 25 Oct.

[62] Hook, L. 2018. Plastic waste export tide turns to south-east Asia after China ban. Financial Times, 14 June.

[63] Peake, L., C. Brandmayr and B. Klein. 2018. Completing the circle: Creating effective UK markets for recovered resources. Green Alliance, June.

[64] WRAP. 2018. A roadmap to 2025: The UK Plastics Pact.

The Plastic Pact approach is being rolled out across a number of other countries. Most recently in October 2021 Canada announced a Pact building on the United States Plastics Pact launched in 2020. A roadmap is being developed on how commitments will be met. It's steering committee includes The Recycling Partnership, WWF and The Ellen MacArthur Foundation. Across the developing world Pacts have been established in South Africa and India and are getting underway in Senegal, Morocco, Kenya and Malaysia alongside regional initiatives in the Pacific islands.

4.2.4 Finance

The increased public profile of plastics pollution has also driven an increase in investors including plastics use in their investment decisions https://www.morganstanley.com/ideas/future-of-investing-in-plastic-waste-solutions/ and impact and philanthropic investing actively looking for innovative approaches to plastics reuse and recycling https://www.raconteur.net/corporate-social-responsibility/impact-investing-plastic-crisis/. There are as of yet only limited examples of successful investments.

4.3 Lessons and transferable insights

A standout feature of the plastics sector experience compared to others covered in the research is how it emerged as such an iconic issue for the public as a result of media attention and the tangible link from everyday products to negative pictures of affected environments. Those interviewed for the research suggested that even more than overfishing, coral reef bleaching or tropical deforestation it has captured public attention and resulted in regulatory changes.

The experience of Plastic Pacts as a multistakeholder initiative in promoting improved sector sustainability at national levels in both developing and developed countries could be an interesting example for water stewardship to learn from.

5. Lessons for water sector transformation

These case studies provide lessons on how transformation to more sustainable markets has happened and is still happening across a range of natural resource sectors. These insights can help to inform the development of the theory of change underpinning the Fair Water Footprint approach and guide its implementation. The case studies provide information on the roles of civil society, media and campaigning; policy, law and governance; finance and investment; and private sector in driving transformation. They suggest that these levers play a role in driving transformation in a sector but that it is often how these come together that maximises the extent of transformation.

Examples of the levers in action are outlined below.

5.1 Civil Society/NGO, media, campaigning

Civil society has played an effective role in transforming each of the supply chains studies to enhance sustainability. Though advocacy and campaigning work is most visible, NGOs have also played a role as sources of best practice, experts, convenors and by providing monitoring and reporting.

Combatting deforestation is a good example of NGOs driving change in a sector. From the 1990s they pressured major commodity producers (particularly based in the north) to improve the sustainability of forestry.

Civil society (Greenpeace and WWF among others) played a major role in establishing the Forest Stewardship Council (FSC) to promote sustainable management by certifying forestry products. This was a multi-year process, starting in 1990. By 1993 representatives from 25 countries met in Toronto to hold the founding FSC assembly and in 1994 a definitive set of principles and criteria, and statutes for the council were produced. In 1996 the first accreditation contracts were signed with 4 certification bodies. In 2018 it was estimated that nearly 22% of the global roundwood production was FSC certified. The **broad participatory nature of the system** (which has also been a model for other systems including the Marine Stewardship Council) has been identified as one of its key success factors.

An example of successful civil society advocacy in the sector is the 2005 Greenpeace campaign against the UK government. Their study 'Partners in Crime', found the UK was importing illegally logged timber and blockaded several UK Government buildings who were using plywood. Greenpeace then called for the Government to support the use of Forest Stewardship Council (FSC) certified timber.[65] Where previously the UK's Timber Procurement Policy required legality as a contract condition with a preference for sustainability, in 2008 the UK's timber procurement policy was amended, to contractually require timber be from both legal and sustainable sources.[66]

[65] Greenpeace, 2005. "Greenpeace blockage government building with illegally imported timber" https://storage.googleapis.com/gpuk-archive/media/press-releases/government-building-blockaded-with-illegally-logged-timber.html

[66] CPET Briefing note. 2008. Archived from www.cpet.org.uk.

While civil society often generate and drive media attention on an issue there are also examples of where media has impacted consumer perceptions spurring greater government and NGO action. **Ocean plastics** is a good example of this. The 2017 BBC documentary Blue Planet highlighted the challenges facing the ocean, particularly plastics pollution and their prevalence in marine organisms. This increased public debate on the issues and prompted celebrities such as Dame Ellen McArthur and Leonardo Di Caprio to become advocates and set up foundations to address ocean pollution issues. This pushed both government action, with many countries legislating on single use plastics eg UK, Kenya and business to reduce use of plastics packaging.

5.2 Policy, law and governance

The case studies show that governments play an important role in many aspects of global sector transformation through, for example, international agreements, statutory requirements, import/export controls, regulatory enforcement and procurement policy, etc but this changes over time and sectors. There are good examples of the different roles governments can play in **tropical agricultural commodities**.

In consumer countries, governments have set minimum standards and regulations on key human rights and environmental issues that have helped to drive change. For example, the 2009 EU **Renewable Energy Directive** had a big impact on the sourcing policies of biofuel importers, and the UK's 2015 **Modern Slavery Act** requires large companies to publicly report on the steps they take to ensure forced labour is not a part of their products. While having a legal basis these regulations operate as a carrot to incentivise good practice rather than imposing punitive measures for non-compliance. These 'floor' standards are arguably becoming more important as private sector initiatives proliferate and concerns about 'greenwashing' grow.

Governments in producer countries also play a role by establishing rules and incentives for land use, production standards or price controls. For example, in Mozambique, the government included Better Cotton criteria in national regulations and standards. Indonesia currently has a moratorium on forest-clearing permits for plantations and logging. In Peru, forest concession holders can reduce their yearly lease payment by up to 70% by adopting a range of sustainable practices such as implementing credible private standards like the FSC. Governments have also introduced minimum prices, fixed prices, living income premiums (e.g. coffee Costa Rica, cocoa in Ghana and Cote d'Ivoire, palm oil Indonesia, India on various food crops).

As well as at the national level, governments also exert influence through international agreements and guidelines. **Seafood** is an area where international agreements have helped to shape more sustainable markets. **The Code of Conduct for Responsible Fisheries** (The Code) adopted by FAO Member States in 1995, sets out globally agreed principles and standards for the sustainable use of fisheries and aquaculture resources. It has become the reference point for around 50 international and technical guidelines, 4 international plans of action and 3 strategies, which have been adopted to promote sustainable seafood supply chains.

5.3 Finance and investment

Financial institutions are playing an increasingly important role shaping the behaviour of businesses, and by extension the nature of sectoral transformation. Financial actors are requesting more information on sustainability KPIs on **deforestation and tropical commodities** to inform their decision making.

CDP is a cross sectoral example of making this information accessible. CDP questionnaires gather information from companies, including a forests questionnaire which in 2020 was completed by 687 companies. **CDP estimates that the maximum potential financial impact of unsustainable timber products to be $81.7 million USD, while the cost of responding to the risk is only $1.1 million USD**.

While financial actors may have more access to sustainability information it is less clear if investors know how to use it. The Global Resource Initiative (GRI) taskforce convened representatives from industry, finance, and civil society to advise UK Government on sustainable supply chains. It included a recommendation that financial actors be obligated to conduct Due Diligence, to ensure the risk information gathered was being used. WWF's Risky Finance report also supports this, and found that UK invested £8.6 billion in companies trading, processing, or buying forest-risk commodities.

Impact investing is also influencing corporate behaviour in tropical commodities such as palm oil, soy, cattle, cocoa, with prominent sustainability issues such as deforestation and child labour. **Green Century Funds**, a Boston-based impact investment firm, has been using shareholder advocacy since 2012. It convinced companies in the palm oil supply chain (a leading cause of deforestation in Indonesia) to adopt zero-deforestation commitments. These included major buyers such as Starbucks, Kellogg's and Target, large palm oil traders (including Archer Daniels Midland and Bunge) and producers – such as Wilmar, Asia's largest agribusiness. In 2019, Green Century persuaded Aramark (a multinational food service company which serves almost 2 billion meals a year) to adopt a deforestation policy.

5.3 Private sector

The private sector has been a key driver of more sustainable supply chains over the past 30 years, Companies have been active across procurement practices, standards and disclosure, generating and doing the right thing with evidence, tracking and transparency, and consumer education. However, illegality and unsustainable practices persist highlighting the long timeframes involved and the need for joined up action across stakeholders. The **seafood and plastics sectors** have benefitted from the actions of lead companies, such as Unilever and major UK retailers, especially at the earlier stages of sector change.

The **Marine Stewardship Council (MSC)**, while a multistakeholder initiative, was jointly founded by Unilever and WWF in 1996. It sets a standard for sustainable fishing and is a keystone organisation in the discourse on the sustainable fisheries movement. Unilever was a major supplier of frozen seafood at the time and were concerned that degradation of the fisheries would lead to the business becoming untenable. MSC was established as

a “gatekeeper” to the seafood market. For suppliers, the incentive to meet the standard is access to higher value markets and consumers seeking only responsibly sourced produce. For the consumer, the incentive is security that the product they are buying has been ethically sourced.

The MSC standard is based on three Principles and 28 Performance Indicators. The Principles include: **Sustainable Fish Stocks** – Fisheries must operate in a way that allows fishing to continue indefinitely, without over exploiting the resources; **Minimising Environment Impacts** – Fishing operations need to be managed to maintain the structure, productivity, function and diversity of the ecosystem upon which the fishery depends, including other species and habitats and **Effective Management** – All fisheries need to meet all local, national and international laws and have an effective management system in place.

Concern about viability of business models also drove the involvement of companies in developing more sustainable and circular plastics supply chains. The **UK Plastics Pact** includes businesses from across the whole plastics supply chain with government and NGOs to tackle plastic waste. Companies sign up to four concrete commitments:

- Eliminate problematic or unnecessary single-use packaging through redesign, innovation or alternative delivery model.
- 100% of plastics packaging to be reusable, recyclable or compostable.
- 70% of plastics packaging effectively recycled or composted.
- 30% average recycled content across all plastic packaging.

The initiative is hosted by WRAP a not for profit that was established in 2014 to promote sustainable resource use through better product design, waste minimisation, re-use and recycling. The Ellen McArthur Foundation has funded the PCTs process to incorporate an annual monitoring process and to role the model out across other countries.

These lessons from sector experiences of moving towards more sustainable markets can help the Fair Water Footprint multistakeholder approach build on what works and address some of the challenges of reconciling different stakeholder interests. However, as the research shows the exact mix of interventions that have driven successful transformation have varied between sectors so a flexible and iterative approach will be needed for water.

Annex Experts consulted

Timber

Anand Punja	Regional Director for Europe, FSC
Ben Gunneberg	CEO & Secretary General, PEFC International
David Hopkins,	Chief Executive, Timber Trade Federation
Duncan Brack,	Consultant, Forest Trends and Efeca Associate, Associate Fellow Chatham House.
Egbert Topper	Team leader Forests for the Future Facility
Emily Fripp	Founding Director, Efeca
Julia Young	WWF Director – Global Forest Sector Transformation
Sarah Price	Sustainability Manager Europe, SAPPI

Seafood

Dr. Katrina Nakamura	The Sustainability Incubator, FIPs
Mr. John Goodlad	Consultant Sustainable ocean finance and UK fishing industry
Mr. Herman Wisse	GSSI, Market-based incentives
Mr. Jeremy Percy	Consultant, Small-scale fisheries in Europe
Ms. Editrudith Lukanga	EMEDO, Small-scale fisheries in Africa
Ms. Melanie Siggs	Global Aquaculture Alliance, Global fisheries and aquaculture

Tropical commodities

Don Seville	Executive Director, Sustainable Food Laboratory
Patrick Mallet	Director, Innovations, ISEAL
Dr Shatadru Chattopadhayay	Managing Director, Asia, Solidaridad
Dr Clara Brandi	Senior Researcher, German Development Institute

Plastics

David Rogers	Head of international Programmes, WRAP
Libby Peake	Head of Resource Policy, Green Alliance
Ed Shepard	Global Sustainability Plastic Lead, Unilever