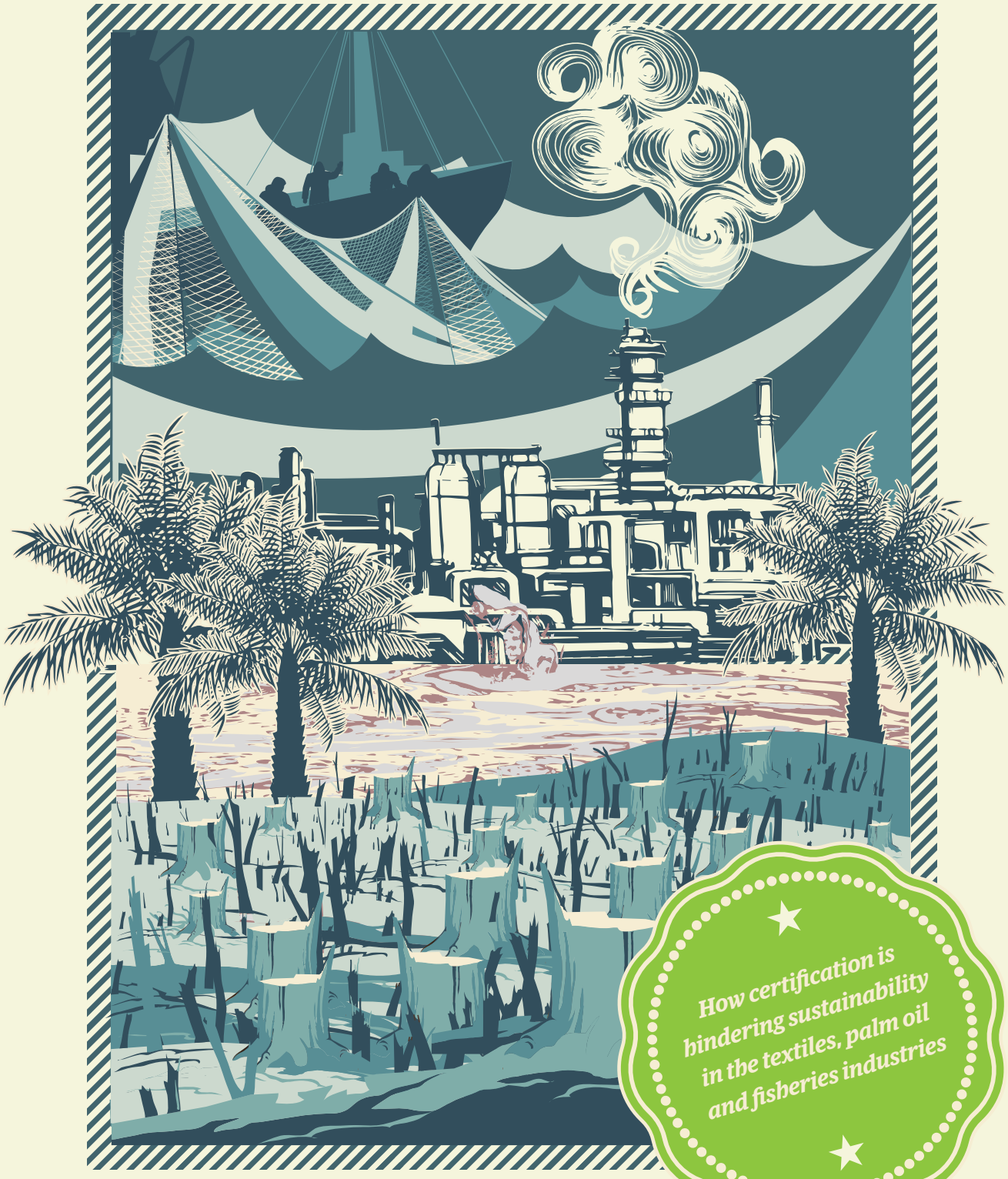
The false promise of certification



How certification is hindering sustainability in the textiles, palm oil and fisheries industries

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FOUNDATION

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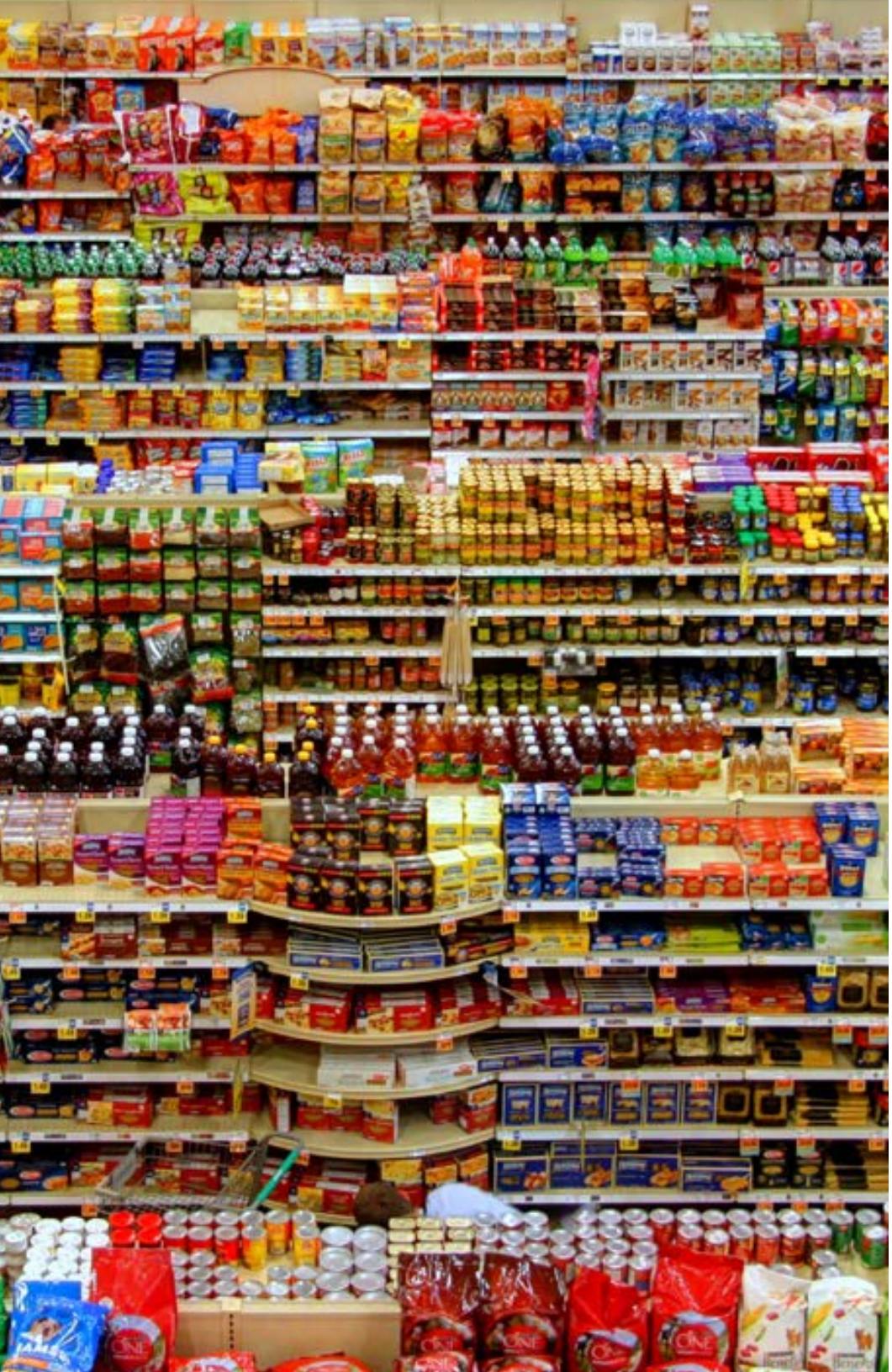
Urska Trunk and

helloo.org

The purpose of this report is to shed light on industry specific issues related to environmental impacts of certification schemes and voluntary initiatives in fisheries, palm oil and textiles sectors. The information in this document has been obtained from sources believed reliable and in good faith but any potential interpretation of this report as making an allegation against a specific company or companies named would be misleading and incorrect. The authors accept no liability whatsoever for any direct or consequential loss arising from the use of this document or its contents.

Contents

List of figures, tables and boxes



The market for sustainable and ethical products is growing.
(credit Peter Bond/Unsplash)

Executive summary and key findings

1. Executive summary

Faced with the gravity of today s environmental and social problems, consum
ing out sustainable products that minimise negative impacts on people and th
of 30,000 consumers in 60 countries found that 66% of consumers are willing
or services from companies committed to positive social and environmental
the UK alone, the market for ethical products grew to more than £81.3 billion
sustainable fish growing by nearly 37% in 2016 (Ethical Consumer, 2017). Stu
shoppers rely on labels and certifications as a quick and easy way to identif
products without having to become supply chain experts (e.g. Nielsen, 2014).

As sustainability goes mainstream, more and more companies are keen to s
by adopting different types of certification, labels and ethical commitments.
schemes and voluntary initiatives has grown exponentially in recent years. Th
est global directory of ecolabels, currently lists over 460 labels in 25 differen
2018). Most of these have emerged in the past two decades. But are they any
that, rather than being an accelerator for positive change, this flood of certif
for consumers and the industry and is standing in the way of genuinely sustai

We investigated voluntary initiatives in three sectors where growing consum
sourcing have caused serious environmental problems: palm oil, fisheries an
of the leading drivers of deforestation, greenhouse gas (GHG) emissions, fores
for charismatic and endangered species such as orangutans, elephants and
has devastated the planet s oceans; nearly 90% of global fish stocks are either
(FAO, 2016a). It is also a hugely wasteful industry. Nearly 10 million tonnes of g
into the ocean every year, while damaging fishing methods have wreaked h
nets commonly kill dolphins, porpoises and whales, longline fishing is a pa
and discarded fishing gear continues to kill sea life for many decades in wha
Last but not least, the textile industry uses one quarter of the world s chemic
for 20% of global water pollution, making it the second biggest polluter of fres
lations of human and workers rights are also rife in all three sectors.

In the absence of effective national and international legislation to tackle the
creasingly globalised supply chains, voluntary schemes are seen as a conven

he context in which such voluntary initiatives emerge, what their role is and ss some of the challenges identified. We investigate an array of voluntary ini mpany, product or service with a sustainability endorsement, ranging from wide initiatives aiming to improve the environmental performance of a sec w key schemes in each of the three sectors, evaluating how they work, their ailures. Our focus is mostly environmental issues, although in some cases we man rights violations.

he when many of these schemes are under pressure to reform from NGOs and ases, even progressive companies. But despite the fact that the tide is turning, sh for certification and not always for the right reasons. This report demon e schemes are being used as a cover, which makes it more difficult for NGOs n the sustainability of some products and companies. For example, McDon Stewardship Council (MSC) label to deflect criticism over the sustainability of shery, which has been criticised for its high discard levels and trawling meth ernments are also increasingly using schemes as evidence of sustainability, as of certified palm oil to comply with biofuels targets, despite doubts about its estation. The following section presents the key findings of this report.

s

food production was certified up from only 0.5% nearly a decade earlier. Cer tch accounts for 20% of global wild catch supply and has been growing ten tional seafood production (Potts et al., 2016). This report focuses on two of the f the Sea (FOS) and the MSC, which certified over 9 million metric tonnes of es are relatively insignificant in comparison. Both the MSC and FOS certifica rohibition of destructive fishing techniques, management of by catch, envi sessment and the management of stock regulation, among other issues.

ound to be certifying numerous fisheries as sustainable even when they over els of by catch and, in some cases, were even at odds with national legislation. und to certify a number of fisheries in a compartmentalised approach, which can use their nets to catch tuna sustainably (receiving MSC certification), and nd using the same equipment haul in tuna along with protected species: a able and therefore non certified. Although some certification experts (Froese tified seafood is still a better choice (because those fisheries are more likely to ly exploited stocks and to ensure labelled fish has not been caught illegally), SC system has compromised its standards to keep up with booming demand r retailers. Booming demand for sustainable seafood, and the desire to meet g the MSC s credibility, as there are not enough truly sustainable fisheries to

y MSC certified sources by 2011, but still hadn t fulfilled this commitment by 2015, due to lack of sufficient certified supply

Bottom trawler in the Barents Sea
(credit Nick Cobbing/ Greenpeace)

FOS does not have much support from NGOs and the scientific community du cy and stakeholder involvement; hence, it should probably be abolished. MSC, per, has come under a lot of criticism from NGOs and scientists and is also los of many retailers. In a last ditch attempt to reform the scheme, many dozens c MSC Board in January 2018, requesting that it deliver on commitments to fin ed reforms to both the standard and the certification process itself. The aim i gold standard in seafood certification. Unless this happens within a short tim en in the letter is the end of 2018), NGOs may be forced to recommend that t sations, producers and retailers move away from seafood labels altogether (Z this scheme is reformed, consumers and restaurants need to find other tools genuinely sustainable fish that contributes to the long term sustainability and livelihoods connected to it.

2.2. Palm oil

Palm oil is now so common that is estimated to be present in half of all superm International, 2016a). In addition, a third of all biodiesel burned in cars and estimated to be palm oil (Transport & Environment, 2017). Since palm oil cult tropical areas, it is in direct competition with tropical rainforests for land, a drivers of deforestation. Besides massive biodiversity loss, deforestation is amounts of GHG emissions. Indonesia alone, which is the largest palm oil pro second in the world for tropical deforestation; land use change and peatland for 79% of Indonesian GHG emissions (WRI, n.d.). While Indonesia and Mal 85% of global palm oil production, the plantations are quickly moving into such as in Africa and Latin America, leading to similar problems there.

Palm oil products by Procter & Gamble
(credit Fred Dott/ Greenpeace)

Palm oil production is a leading cause of deforestation
(credit Ulet Ifansasti/ Greenpeace)

oundtable on Sustainable Palm Oil (RSPO) has become the most prominent cation scheme worldwide, now certifying 2.6 million hectares or around 19% ion (RSPO, 2017). Since then, other certification initiatives in the palm oil sector continuous growth in the amount of certified palm oil on the market. These tainability and Carbon Certification (ISCC) and the Roundtable on Sustainable mostly focus on palm oil used in biofuels, and the Rainforest Alliance (RA), sustainable agriculture. The Malaysian and Indonesian governments have also Malaysian Sustainable Palm Oil (MSPO) and Indonesian Sustainable Palm Oil which is now a requirement for Indonesian plantations, has rapidly increased 7% of all plantations, or 1.9 million ha (Indonesia Investments, 2017). However, represents a race to the bottom, as it merely requires compliance with already on.

ne of the schemes has been effective at slowing down deforestation, peatland odiversity. While RSPO is often referred to as the best scheme in the sector, it ; most notably, it allows the conversion of secondary forests and the draining prevented human rights violations and it does not require GHG emissions chemes investigated also have consistency issues: they offer numerous n each scheme. These modules have different levels of ambition (tailored ion) and different traceability requirements (ranging from full segregation of selling green certificates via trading platforms). RSB and ISCC have developed ing on which biofuel market the company wants to sell to. In response to loped a voluntary add on module called RSPO NEXT, which raises the bar on ing peatland and secondary forest conversion. The first 2,000 tonnes of this the market in February 2018, but were sold on the trading platform PalmTrace, ty back to the source (RSPO, 2018). This lack of traceability is a major problem

(and is criticised in this report) because it reduces the incentive for companies their own operations further down the supply chain.

The report also reviewed the schemes set up by the Malaysian and Indonesian now trying to merge their two schemes into one weak standard and solidify it cooperation with other palm oil producing countries. This is a blatant effort and allow further expansion into new areas, and is driven by continuing grow and processed food products. In light of this, we call for action to reduce dem ditching biofuels targets, as well as channelling new plantations into non fo place a strong moratorium on palm oil expansion to forests and peatlands. M should be abolished in light of their failures on multiple fronts.

2.3. Textiles

The textile sector has seen a proliferation of voluntary schemes and green la in the Ecolabel Index, and several other initiatives, such as the Higg Index, a Raw material sourcing, manufacturing and processing of textiles are largely very low wages and weak environmental regulations, which has historically from environmental pollution with toxic chemicals to the exploitation of wo on schemes that set out to address the environmental performance of the te and at key schemes covering two fibre types: cotton and viscose. We found ation of different initiatives, there is no overarching scheme that satisfactory performance across the whole supply chain. The EU Ecolabel covers differen life cycle approach but in the case of viscose, it does not cover all parameter indicators during the manufacturing of viscose fibres.

Hidden discharge pipe coming from a textile factory in Thailand (credit John Novis/Greenpeace)

Parmarkhedi women, India, collecting water supplied by Grasim since November 2017 (the village fell ill in October 2017).

widely used by fashion brands and counts several NGOs among its members, y tool for improving the environmental performance of the sector as a whole. ws that it has many shortcomings; namely, a reliance on self assessment and a ch would be a real incentive for fashion brands to continuously improve. While ised full transparency by 2020, it remains to be seen how thorough this will BY s ModeTracker, also scores brands on their environmental and social per om incompleteness, allowing brands to pick and choose the areas on which port also evaluates different types of OEKO-TEX Standards not only the OE odule, which deals with chemicals in the final product, but also the MADE IN Textile Production (STeP) modules, which deal with chemicals in the produc

look at schemes for cotton and viscose, based on the potential for these two n environmentally friendlier way. On cotton, it was found that a weak scheme ive (BCI), which allows for the use of toxic chemicals and genetically modified ery rapidly at the expense of organic cotton. A recent investigation broadcast cet, 2017), showed how BCI has overtaken organic cotton s market share and switched from organic to GM cotton as a result of their participation in BCI. ned and successful schemes (such as the CanopyStyle initiative, which ad rcing in viscose production) can provide a misleading picture, because they supply chain. As the Canopy initiative only covers the sourcing of wood pulp, als in the manufacturing of viscose, it can give companies that are continuing nt an unjustified green glow which is then often used as a selling point with

ard for certification

his report is that certification has lost its way and that its contribution to cre world is minute. We argue that it can even cause active damage; it lowers the uct volumes and in many cases fails to enforce greater transparency, thereby tainable companies and practices. If there is to be a role for certification in the e economy, it must undergo some serious reforms. First of all, the majority of

schemes in the three sectors examined here should be abolished, because t sion and label shopping, which waters down the ambition of certification i cation schemes should aim for the highest possible level of ambition not d with differing requirements, based on their target markets and to satisfy differ Why has RSPO developed a voluntary add on module (RSPO NEXT) to drive m which will affect only a small share of supply, rather than prohibiting all expa ed areas and peatlands? This piecemeal approach has to change.

The general problem with certification is that all these schemes come in the co for commodities, as well as insufficient national and international regulatio ment and safeguard human rights. These schemes also exist within the fra duction and consumption, where complex and opaque supply chains often c tion and reduce the level of external scrutiny. Certification exists to address t therein lies the problem: for all three sectors featured in this report, most of t very small part of overall production volumes, or only one aspect of the prob the supply chain, only chemicals used at a specific part of the production proc become more comprehensive and aim to cover the whole life cycle of the pr the intention of the EU Ecolabel.

Schemes must also be selective about their membership, with high entry req ous drive for improvement. Currently, schemes are all too often focused on g on board, or trying to lower their bar to meet the growing demand for certifie a race to the bottom. This report calls for significant reforms, which should b four principles:

which includes availability of criteria and reporting on the performance of
ers of the scheme, and encourages supply chain transparency.

, which includes removing conflicts of interest, such as decoupling member
om certification and compliance outcomes, and ensuring independent bodies
s.

ach with high traceability, aiming to cover the whole life cycle of a product,
g companies to pick and choose criteria or to be certified with conditions.

tinuous improvements, which includes setting the bar high enough to only
es that demonstrably go above and beyond average performance and are com
uous improvement. Schemes should also be science based, reflect regulatory
nd prevent backsliding.

es and certification can play a role in driving more sustainable practices, this
t they cannot and should not replace governmental and international reg
oses several measures that governments, companies and consumers can take,
e certification schemes, and what can be done to put all three sectors on a more
cludes: prioritising small scale sustainable fisheries; establishing marine re
fishing quotas, and enforcing them in the fisheries sector; a moratorium on
d draining in the palm oil sector; and establishing zero pollution policies and
sparency in the textile sector.

ately also beneficial for companies operating in these sectors, as they guaran
y of their business operations. It is evident that without healthy oceans there
n consumption, and that without healthy forests we risk dangerous climate
all agricultural production everywhere. For the fashion industry, the lack of
ent water supplies represents a major business risk, which is already affecting
must realise that the scale of the challenge requires actions that go beyond
f voluntary initiatives, and live up to its own commitments and market de
ability.

Chapter 1.

About standards

1.1. Introduction

Outside of government regulation, there is a whole universe of private, volu
tives to help consumers make environmentally friendly purchasing decisio
deliver improvements in companies environmental and social practices; at th
easy way for consumers to identify responsibly manufactured products and
without having to become experts on each and every problematic issue in a
report investigates an array of voluntary initiatives that provide a company,
sustainability endorsement, ranging from product labels to industry wide in
untary sustainability certification has largely been derailed from its original
vast majority of cases, consumers are not getting what they pay for with their
ing decisions.

How did we come to this place? The short answer is that current levels of gl
sumption are at odds with attempts to protect the environment. Neolibera
competition and free trade, undermines the perceived utility of government
socially and environmentally responsible business. In the absence of binding
mechanisms driven by partnerships between large corporations and non go
(NGOs) could be seen as a good response to the problem of environmental des

Against this backdrop, this report focuses on three sectors notorious for caus
environment: palm oil, fisheries and textiles. In all of these sectors, we find
tary schemes used as proof of sustainability are failing to ensure that compa
standards or improve their practices, resulting in harm to forests, oceans, air
human and workers rights violations are endemic in all three sectors (and of
environmental impacts), we mainly focus on the environmental aspects of the

Based on qualitative research, interviews with NGO experts and an extensive
erature, we assess how well the identified schemes measure up and to what ex
uine improvements within their given sector. We identify fltaws and shortcom
specific to particular schemes and other problems typical across a broader ran
focus on three sectors in particular, we have also encountered the highlighte
our campaigning work. On that basis, we view the lack of credible and robust s
and verification frameworks as a systemic problem, which is actively impedin
inely sustainable economy. With certification and labelling schemes failing to
able practices from greenwashing, it could be argued that they are actually cr
rewarding good and bad corporate practices alike and misleading consumers
difference, there is no virtuous circle whereby responsible companies are abl
from their efforts.[3] This being the case, it is important to understand how we
to change.

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3 This market failure is further reinforced by the fact that many certification schemes are paid for by the participant

andards

ion for Standardization (ISO) identifies three categories of environmental labelling*

024:1999)

ble labels that consider the criteria across the life cycle impacts of products or services. oped by a large number of stakeholders and are intended to be ambitious, guaranteeing ave a reduced environmental impact throughout their life cycle. Examples include the bel, Germany s Blue Angel and the Nordic countries Nordic Swan.

of schemes that certify a single product or criteria, therefore not covering the impacts xamples include the Forest Stewardship Council (FSC) and Marine Stewardship Council as Type 1 ecolabels, although such ecolabels sometimes use these labels to cover part mple, the European Commission (2017) states that companies that have obtained FSC prove they meet certain criteria of the EU Ecolabel paper based products certification.

ironmental claims (ISO 14021:1999)

n independent authority; rather, they are self declared claims of environmental stew nies develop their own label or environmental claim, knowing that consumers are onmental issues and more likely to feel positive about a company that appears to be mpetitors. These voluntary self declarations are called environmental or green claims. nformation, but unfortunately are not always true, and are not subject to independent ndustry led carpet certification scheme GUT has established a label for chemicals in nalysis showed that it restricts only 13 of the 59 identified hazardous chemicals (HEAL

pact labels (ISO 14025: 2006)

l product information that is independently verified and designed to enable a com products. Type 3 labels do not assess a product s environmental performance; they a, leaving evaluation to the buyer or consumer. There is significant organisational and ed in Type 3 labels because they require exhaustive life cycle data sheets, which are ct declarations.

luntary initiatives that fall outside these three categories but are nevertheless used stainability, or as a measure of performance that helps to differentiate themselves or

pes of binding labels also have environmental relevance, such as the EU Energy Label, ducts sold on the EU market.

1.2. What are sustainability standards?

Sustainability standards and certification schemes have proliferated over the private sector and environmental advocates have sought to improve compa mental performance against a backdrop of government deregulation.

In a climate of heightened consumer concern about the environment, anima human rights, the stated goal of labelling schemes and other voluntary initia and industries an incentive to do the right thing for the environment, and co for sustainable products and services. This is often though not always a price premium.

It is important here to distinguish between regulatory and voluntary standar regulatory standards on food safety comprise mandatory sanitary and phyt many everyday products, such as washing machines and refrigerators, carry a bel, which helps consumers choose more efficient products (European Comm government standards tend to be more comprehensive in terms of what they datory. At the same time, governments can also develop labels (such as the that are voluntary rather than regulated by legislation, meaning that compa or not to use the label. Even the EU Ecolabel sometimes has to rely on privat verify part of production or the supply chain (for example, the FSC certificatio tainable sourcing of wood for paper products).

The multiplication of voluntary standards and codes of conduct for sustainal ly in the agricultural, fishery and forestry sectors reflects the growing influ and an erosion of state power. The development of non governmental standa of new semi governance institutions: standards setting organisations (often involving industry associations and NGOs, although some are managed exc industries), auditors to enforce those standards and certification agencies.

BOX 1.2: The role of standards

The role of standards is to provide credible information about the sourcing, produc (for example, the absence of harmful chemicals) of products, while certification is re standards to maintain credibility (Barry et al., 2012; Mori Junior et al., 2016, Seele/ responsible for signaling to consumers that a higher level of ambition has been set a

Motives for developing and participating in sustainability certification schemes v pany might want to take proactive steps out of a conviction that production co improved, and to distinguish itself from its competitors. More frequently, they workers, regulators, the media, NGOs or their investors in the wake of crises, such Plaza building in Bangladesh in 2013. Such pressure includes calls for regulation times seek to stave off with promises of voluntary action.

But perhaps the strongest motivation for voluntary standards and certificatio

tplace. The public often lacks deep knowledge of the specifics, but neverthe
nsumers have become more aware of and concerned about the consequences
ions. They are on the lookout for products that minimise harm to the envi
lfare into account and provide workers with decent wages and safe working

ing companies, such as fashion brands and food conglomerates, are particular
city, which can create a lasting damage to their brand. As such, they often pro
ainability as part of their Corporate Social Responsibility (CSR) policy. These
kely to engage in sustainability initiatives and certification schemes. Sustain
a company s reputation, and consumers see them as evidence of social or en
y.

and their related certification schemes can be seen as a communications tool
nsumer. They are also a way of improving production conditions, while avoid
making the higher standards visible to the consumer through product label
mer pays a bit more.

or certified products on the rise

y can pay off for companies. In 2015, a Nielsen survey of 30,000 consumers in 60
ere willing to pay more for products or services from companies committed to positive
pact this is an increase risen from 55% in 2014 and 50% in 2013 (Nielsen, 2015).

of products that demonstrated commitment to sustainability grew faster than compa
e commitments. Consumers in Latin America, Asia, Africa and the Middle East are more
urrounding communities and, as such, more likely to seek out and pay for sustainable
ross regions, income levels and categories are willing to pay more, if this means they
Interestingly, people earning 20,000 USD or less are actually 5% more willing than
than 50,000 USD to pay more for products from companies committed to positive
pact (Nielsen, 2015).

ase decisions partly depend on the packaging they check the labelling before buying,
mitted to positive social and environmental impact (Nielsen, 2014). This shows how
consumers.

ed in 2016 found that 64% of UK citizens would be prepared to pay an additional 5%
upport people in developing countries, such as Fairtrade. This compares with an EU
ondents in Luxembourg, Sweden (both 80%) and the Netherlands (77%) most likely
mission, 2016; Jones, 2016).

e UK are seeking out ethical and sustainable options. An Ethical Markets Report in
thical spending in the UK alone has grown to £81.3 billion GBP the highest to date.
l food and drink in the UK saw 9.7% annual growth in 2015, while conventional foods
2016).

in the UK grew rapidly (by nearly 37%) in 2016, surpassing the growth of free range
s. The MSC s annual league table of sustainable fish retailers shows that Sainsbury s led

the way, with nearly three quarters of their wild catch fish range carrying the MSC lab

According to a June 2017 Cargill consumer survey, 88% of Americans were willing t
is sustainably and responsibly sourced (Cargill, 2017). Furthermore, a recent revie
consumers willingness to pay for certified wild catch seafood showed that interest in
worldwide (Vitale et al., 2017).

When it comes to palm oil, there is a greater disconnect between sustainability and
in 2015, Rabobank forecast that global demand for palm oil certified by the Roundta
(RSPO) would double in five years (Rabobank, 2015). One of the big drivers of deman
EU biofuels policy, which has mandatory sustainability criteria one of the ways to p
is through certification. In addition, the 2017 Amsterdam Declaration signed by the
German and Norwegian ministers called for fully sustainable palm oil supply chains
very unclear what this will mean in practice, it will likely provide another boost to cer
Foreign Affairs, 2017).

1.3. The history of voluntary standards and certif

Voluntary standards for organic products emerged during the early 1920s, bu
first big push with the Blue Angel environmental label, which Germany s Fed
rior created in 1978 (UNOPS, 2009).

However, it was not until the 1990s that the trend really picked up speed, fo
forestry, agriculture and fisheries, as well as specific issues such as labour cond
introduced the EU Ecolabel (sometimes referred to as the EU Flower) in 199
ed Nations (UN) Earth Summit. Since then, standards and certification sche
dustry initiatives and agreements have also adopted a larger role as compani
vocates seek to establish a new form of governance to improve production
social and environmental impacts.

The Blue Angel environment label was created by the German government in 1978

Over the past decade, as consumers have grow
pacts of climate change, animal cruelty and mo
global supply chains, the number of standards a
has soared. The Ecolabel Index lists no fewer t
countries and 25 different sectors (Ecolabel Inde
Alliance (a London based organisation that cal
bership association for credible sustainability st
members in 2005 to more than twenty in 2018 (

Since 2004, various commodity based roundtables have been established, m
Wildlife Fund for Nature (WWF) strategy to develop standards and certifica
commodities (e.g. palm oil, soy, sugar) that have significant environmental i
of major global corporations is a core element and seen as a marker of success.

It is important to understand some of the factors that took sustainability sta
purview of governments and placed it in the hands of private, non state actors

, globalisation restructured the global division of manufacturing in ways that
e advantage of cheaper labour and natural resources in under regulated coun
Because different parts of a single product might be sourced and assembled
the world, this model of manufacturing created a more diffuse supply chain;
differed, depending on the country, which made it more difficult for compa
cement of standards throughout their supply chains. These shifts often result
the environment and worker welfare.

ergers and acquisitions during this time led to the concentration of business
larger, multinational corporations. Because of their size, these corporations
nfluence and power, which allowed them to oppose strong regulations more

enefits that would come from attracting these multinational corporations,
state bureaucracies began to focus on creating favourable investment condi
t Hirsch (1997) called national competition states. Nations felt they were in
her in the drive to attract big corporations; under the conditions of global com
d labour and environmental protections and resulted in a race to the bottom.
tablished environmental ministries in the 1990s, these remained subordinate
nomics and finance ministries, showing that strong environmental and social
rity for governments.

g scepticism towards state regulation, helped give rise to the proliferation of
certification schemes driven by non state actors. Standards and certification
ernance beyond the state and a shift towards non state actors driving policy
5; K tting/Lipschutz, 2009). Unlike national governments, non state actors
nt and oversee standards across national and even continental boundaries.
ore sense for corporations as well from a company s perspective, complying
ard is arguably preferable to adapting to new regulatory requirements, which
untry.[4]

voluntary nature of private agreements to the mandatory restrictions of gov
mpanies are given more of a role in developing voluntary standards because
led to make the standards work; at the same time, they can back out if the
eir expected benefits, or if the effort required to gain certification is more than

all mandatory standards are necessarily more efficient or effective in bring
oduction. In some cases, governments are in the driving seat of either creat
r making them de facto mandatory (see, for example, the Indonesian palm oil
pter 2). Governments also sometimes push voluntary standards, by making
way or adopting them in legislation or public procurement. In some cases, vol
ut higher requirements than government standards. But as we will see in the
n than not, voluntary schemes also pursue the lowest common denominator
nation towards greater sustainability.

e standards, new institutions that set rules and undertake conformity assessments and enforcement including stan
d certification agencies, have evolved, forming an audit industry, that promotes standards as a key mode of regulation

BOX 1.4: Governments lowering ambition of certification

The Indonesian and Malaysian governments established their own weak certification
trend of the growing demand for sustainable palm oil. The Indonesian scheme is man
its ambition is low it barely requires compliance with national laws. These schemes
of their design and independent functioning; their driving purpose seems to be to sati
oil industry in the two countries (Kusumaningtyas, 2018).

Deforestation and drainage for palm oil in West Kalimantan, Indonesia *(credit Ardiles Rante / Greenpeace)*

The following three chapters examine three sectors palm oil, fisheries and t
edged to cause significant environmental destruction, and the standards and
have been established to move the industries in a more sustainable direction.
tiveness (or ineffectiveness) of sustainability certification for each sector and
based on that analysis.

Textile schemes

MADE-BY

MODE Tracker
Performance tracking tool for brands, gives a numeric score based on a number of criteria

Offers 5 consultancy packages:

- Detox
- Sustainable Collection
- Cotton options
- People
- Leather

Higg Index

Established by the Sustainable Apparel Coalition (SAC); >100 brands, retailers, suppliers and NGOs are members of SAC

Material Sustainability Index (MSI)
Compares sustainability of different fibres

Brand and Retail Module (BRM)

Facility Environmental Module (FEM)
Scores production facilities according to environmental performance

Product
Expected to

ZDHC

- Focused on chemical management
- Established in response to the Greenpeace Detox campaign
- 92 members

OEKO-TEX®

Leather Standard

Standard 100
Certifies absence of harmful chemicals in textile products

Made in Gre
Traceable produ for green produ and products

Detox to Zero
Option to confirm compliance with the Greenpeace Detox campaign

STeP
Managing ch used in produ

Eco Passport
For textile chemical suppliers

MyStep
Supply chain database

COTTON

- 2,788 certified companies
- Covers all parts of the supply chain

VISCOSE

canopy

- 125+ brand partner
- Covers only pulp s
- Ranks viscose mar according to impac

RSB
Roundtable on Sustainable Biomaterials
www.rsb.org

Biofuel

Other add ons possible, including ILUC

rd

CERTIFIED SUSTAINABLE PALM OIL
RSPO
Covers >19% of global palm oil production

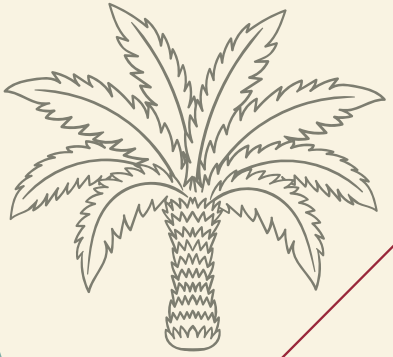
RSPO RED

RSPO NEXT

Palm C
Innova
(POIG)

Group fou
palm oil pr
with the a
deforesta
beyond RS

l schemes



able Palm Oil

tives
reate
m Oil
ies

epresent
om

SAN

Rainforest Alliance Sustainable Agriculture Standard

>35,000 members (small holders) across all commodities

MSPO
Malaysian Sustainable Palm Oil

ISCC

ISCC EU

ISCC
International Susainability & Carbon Certification

ISCC PL

Biofuel

Other ac
includin
emissio

es schemes

al coverage: 12% (2017)

f fish eries
id: >300

f companies
mitted to source certified

CERTIFIED SUSTAINABLE SEAFOOD MSC

FRIEND OF THE SEA

Global coverage: 15%

No. of fish eries certi
(including aquacultu

No. of companies co
to source certified se

ery in Cameroon (credit Greenpeace/ Alex Yallop)

Chapter 2.

Case study: Palm oil

2.1. Palm oil: the world's favourite vegetable oil

Few consumers realise how dominant a crop palm oil is or the havoc inflict produce it. Palm oil is the most used vegetable oil for food processing, cooki icals and fuel, amounting to more than half of the approximately 184 million fats consumed annually (Palmoil Research, 2017). Palm oil is now so comm present in half of all supermarket products (Amnesty International, 2016)

Since 1980, palm oil production has increased tenfold. Over 85% of palm oil two countries: Malaysia and Indonesia (Indonesia Investments, 2017b). More tion has been increasing in African and South American countries (GreenPaln

The attractiveness of palm oil is easy to understand. The yield of oil palm frui that of other oil crops, which makes it one of the most cost effective fats to pro tional properties (semi solid at room temperature) make it a versatile raw mat of product applications (GreenPalm, 2016a).

There has also been significant growth in palm oil use for biofuel in recent y aged this through increased blending of vegetable oils with fossil varieties in newable Energy Directive (RED). Currently, cars and trucks burn almost half EU; a third of the biodiesel consumed in the EU also comes from imported pa ronment, 2017).

2.2. The problem with palm oil production

A tropical crop, palm oil production is centred around the equator in direct vast areas of biodiversity rich tropical rainforest on the continents of Asia, A The fast pace of palm oil expansion is creating numerous problems for the cli versity loss and people living in the forest.

In Indonesia alone, more than 74 million hectares an area twice the size logged, burned or degraded in the last half century (Greenpeace USA, n.d.), a considered a leading cause of land conversion (UNEP, 2007). Princeton Univer Institute of Technology estimate that, between 1990 and 2005, 55–60% of pal sia and Indonesia occurred at the expense of virgin forests (WWF, n.d.). In key such as Borneo, current deforestation rate stands at 1.3 million hectares per ye of protected areas, most of Borneo s lowland rainforests could be lost by 2020

The preparation of rainforest land for palm oil plantations involves burning le and draining peatlands, which are responsible for huge greenhouse gas emis tion is estimated to be responsible for about 10% of all greenhouse gas emiss cultivation in Indonesia alone made up an estimated 2–9% of all such emissio ing it a significant contributor to climate change (Carlson and Curran, 2013).

nds which involves draining swamps and adding chemical inputs to the soil, ith forest fires is closely linked with the expansion of palm oil cultivation. at, between 2010 and 2015, about 20% of plantation expansion occurred on 2017). This is particularly problematic for climate change; it is estimated that South East Asia alone store an amount of carbon comparable to that in the abo e Amazon rainforest (van der Werf et al., 2008). In addition, fires on drained ds of years worth of sequestered carbon; for example, fires burning peat and eleased as much CO_2 into the atmosphere as the United States released that 02; EPA, 2013).

ction is threatening the habitat of many critically endangered plants and an ans, elephants and tigers, among other species. A recent study estimated that utan population was affected by logging, deforestation or industrialised plan 2015 (Voigt et al. 2018).

e who depend on forests for their food, shelter and livelihoods have been vic palm oil plantation companies. NGOs have frequently reported the involve onal, the biggest palm oil company, in land grabbing incidents including in villagers (Forest Peoples Programme, 2017b) and in joint operations with the esian police (Forest Peoples Programme, 2018).

ith palm oil are likely to be significantly exacerbated, as production is expect to 84 million tonnes in 2020 (Greenpeace USA, n.d.). In Indonesia alone, only on hectares of land leased to plantation companies is currently planted (Chain

palm oil production standards cation agreements

n schemes in the palm oil industry were introduced in response to its produc negative environmental impact and other problems, as well as increased pub 2000s (Spaargaren and Oosterveer, 2010). In 2004, a number of companies ainability standards to govern the production of palm oil and to transform the al boundaries. To do so they established the Roundtable on Sustainable Palm members of which include Aarhus United (UK); Karlshamns AB (Sweden); Ma ion; Migros Genossenschafts Bund (Switzerland), Unilever NV (Netherlands) Nature (WWF). Also active on the RSPO s Executive Board from the beginning tions Berhad (Malaysia), Loders Croklaan (Netherlands), Pacific Rim Palm Oil ody Shop (UK). RSPO has become the most prominent voluntary palm oil cer ide; it now certifies 2.6 million hectares, or around 19%, of global palm oil pro

ation initiatives have emerged in the sector, leading to continuous growth in alm oil. These include the Sustainable Agriculture Network (SAN), a coalition ofit organisations that operates a certification scheme with the Rainforest Al al schemes the International Sustainability and Carbon Certification (ISCC) ustainable Biomaterials (RSB) focus on palm oil used in biofuels and were EU biofuel policy.

More recently, the Malaysian (MSPO) and Indonesian (ISPO) governments h sustainability standards. ISPO certification, which is now a requirement fo has rapidly increased in recent years to cover 16.7% of all plantations, or 1.9 m Investments, 2017a).

The next sections take a closer look at the design and operation of these flags to evaluate their achievements and flaws.

BOX 2.1: EU biofuels policy as a driver of certification

One interesting example of a boost to certification of palm oil and other commoditi mandatory 10% target for renewable fuels, adopted in 2008. The RED established a including discouraging the conversion of land with high biodiversity value and requirin a certain percentage of greenhouse gas (GHG) emissions compared to fossil fuels, w qualify for public support. One way of proving compliance was through certificatio European Commission (EC).

ISCC and the Roundtable for Sustainable Biofuels (later renamed the Roundtable for Su set up to enable companies to reach lucrative EU energy markets; both run specific EU RED respectively) for operators interested in the EU biofuels market. RSPO also module to its standard process, which it established to prove compliance with RED continues to recognise ISCC EU and RSB EU RED certification as sufficient proof, RS the end of 2017 and has not yet been renewed (European Commission, n.d.).

However, NGOs and scientists were quick to point out a major shortcoming of sustainab as tools for compliance. They drew public attention to indirect land use change (ILUC), had been used for agricultural production becomes certified for biofuels production into natural land areas, leading to deforestation and peat destruction. When ILUC wa of GHG impacts of biofuels, the carbon footprint of these biofuels was several times w (Transport & Environment, 2016).

It is difficult for certification to respond to such concerns because it is traditionally happens on a particular part of land. However, certain certification schemes (such as specific criteria that operators can choose to adopt to minimise overall land expansion operators to prioritise low carbon stock and low biodiversity lands for the develop increase productivity of their land in a number of ways and/or to increase the use residues. Despite its good intentions, on the ground pilot schemes have struggled t cation challenges; for example, how operators can credibly demonstrate their produ business as usual scenario, so the overall problem the growing demand for palm oil production remains (ICCT, 2016).

As a result of such questions over the sustainability of palm oil and biodiesel, the E to remove biodiesel made from palm oil the highest emitting biofuel in the market can count towards the renewables target in 2021 (Transport & Environment, 2018). It other EU institutions will support this move.

t palm oil certification scheme:
e on Sustainable Palm Oil (RSPO)

uction

ciation organised and overseen by a multi stakeholder group, including palm cessors and traders; consumer goods manufacturers (e.g. Unilever); retailers nvestors, and environmental, nature conservation and social/developmental has more than 3,700 active members worldwide, at different points along the hich account for 40% of global palm oil production. The bulk of RSPO s certi Indonesia (53%), Malaysia (32%), Papua New Guinea (6%) and Costa Rica (1%)

ale processing industries, mainly for European and US markets. Some major l to use RSPO trademark include The Body Shop, Waitrose, Marks & Spencer, (RSPO, n.d.).

ge

prises eight principles, which are further defined through a number of crite fy sustainability in the palm oil production process. Its principles and criteria 2013, and will be reviewed again in November 2018 (RSPO, n.d.). Among other uire:

te best practices by growers and millers (Principle 4);
esponsibility and conservation of natural resources and biodiversity

elopment of new plantings (Principle 7);
transparency (Principle 1).

quires full compliance with all criteria, or at least a plan (with timescales) for mpliance.

he types of records or proof necessary to demonstrate compliance, while the ional instruction and interpretation of the criteria. RSPO standards have some requirements on social and environmental issues, including human rights, and the rights of women and Indigenous people.

sm

PO for failing to limit negative environmental and social impacts associated . For example, Greenpeace and Friends of the Earth have criticised RSPO for nmental damage associated with palm oil expansion. This is because RSPO version of secondary or degraded forests and allows plantation development s, and has not introduced binding requirements to address GHG emissions as oduction (Kusumaningtyas, 2018).

One of the main objectives of certification schemes in the palm oil sector is f are two approaches to identifying areas where new palm oil plantations shoul conservation value (HCV) forests and high carbon stock (HCS) areas. HCV cons versity, cultural values, critical ecosystems and effects on larger landscapes, b insufficient when it came to GHG emissions, which is why HCS was later deve uses HCV standards, but not yet HCS, which would address many of RSPO emissions.

One way in which RSPO has tried to defer such criticism has been develop its standard, which include more ambitious criteria. This means that, in add standard, the scheme offers operators the option to voluntarily certify again as RSPO-RED (requiring stronger protection against conversion of land, redu emissions, etc.) and RSPO NEXT (requiring stronger protection against defore protection, reduction of GHGs, respects for human rights and transparency, et

Deforestation for palm oil in Indonesia *(credit Kemal Jufri / Greenpeace)*

The proliferation of different sustainability modules is not necessarily help shortcomings; in addition to leading to a system of la carte sustainability ce erage, it does not address any of the systemic failures identified with the fu 2015, the Environmental Investigation Agency (EIA) conducted an investig economic operators committing systemic and serious breaches of RSPO pri

O certified plantations were failing to identify violations and, in some cases, as to deliberately disguise them leading to deforestation, human trafficking ronmentalists (The Guardian, 2016). EIA recommendations to the RSPO in to ensure the quality of economic operators assessments, improve members ce and improve accountability for substandard audits (EIA, 2015).

progress in addressing required improvements has led to the emergence of ious initiatives, such as the Palm Oil Innovation Group (POIG). This group was onmental organisations (Greenpeace, Rainforest Action Network, WWF and mme) and palm oil producers (Daabon Organic from Colombia, New Britain Indonesia based Golden Agri Resources) in 2013, with the aim of reducing yond the RSPO s requirements. Since its establishment, it has grown in mem retailers and manufacturers, as well as operators involved in processing and

ication indicators build on RSPO s principles and criteria to prevent defor eatlands of any depth, to uphold human and labour rights, and limit climate t to compete with RSPO or other schemes as a certification system, but to pro rogressive forum to support their development (Ecobusiness, 2013).

dress negative impacts associated with palm oil production has also led trans ner goods companies and palm oil producers to pledge to eliminate produc restation from their supply chains (NDPE commitments: No Deforestation, No the end of 2014, companies controlling 96% of the global palm oil market had deforestation by 2020 (Butler, 2015).

seem to have had limited effect in preventing environmental harm to date; xpand on forests and peatlands. Indeed, 2.4 million hectares of forest were lost million of which were from primary forests. This level of forest loss is the high e of 0.7 million hectares on forest loss reported in 2015 (Illegal Deforestation ntext, 16 leading multinational companies including Unilever; PepsiCo; Fer nolive; Johnson & Johnson, Mars and Reckitt Benckiser failed a recent chal o demonstrate they had made real progress towards a clean palm oil supply ational, 2018).

used of covering up abuses of workers rights

or failing to prevent abuses of workers rights in certified plantations.

nal conducted an investigation of concessions granted by the Malaysian government pment Authority, the biggest palm oil company. It found evidence of foreign workers m Bangladesh and Myanmar working under human slavery conditions (WSJ, 2015), as rs were often not paid or paid below minimum salary; had their passports removed so ntation; were handling toxic chemicals without receiving safety training or equipment, care when they fell ill or suffered accidents.

our conditions in Indonesian plantations that supply Wilmar the world s largest pro which controls over 43% of the global palm oil trade and reported that Wilmar and liers are RSPO members.

Serious human rights abuses were also uncovered on the plantations investigated, inclu child labour, gender discrimination, as well as exploitative and dangerous working pra workers at risk . AI explained that the abuses identified were not isolated incidents b practices by Wilmar s subsidiaries and suppliers . Working conditions encountered in only unethical but also in breach of multiple domestic and international conventions r hours, minimum salary and employment age.

Moreover, many workers were exposed to highly toxic herbicides including paraq EU and restricted in several other countries because of its potential toxicity after ing exposure. AI also documented reports of workers experiencing negative health effects including severe injuries, such as permanent damage to eyesight.

AI s report was very damning of RSPO certification, which it found was acting as a s scrutiny of Wilmar s and other companies practices ; companies that buy from Wilma ness, yet its implementation and monitoring are extremely weak and based on a sup Amnesty International concluded that membership of the RSPO and certification asse not be used as proof of compliance with workers human rights (Amnesty Internatio

In 2016 and 2017, the International Labour Rights Forum, Rainforest Action Netwo RSPO certified plantations belonging to Indofood, Indonesia s largest food processi similar picture of workplace abuses, including union busting, poverty wages, routine and a high risk of forced labour conditions. They also found that RSPO audits are fai tions on Indofood s plantations , and that the RSPO complaint process has failed to them to continue selling RSPO certified oil while violating the RSPO standard for mor Labour Rights Forum, 2017).

2.5. Other schemes

2.5.1. Rainforest Alliance (RA) / Sustainable Agriculture Network (SAN)

The RA was established in 1987 with the aim of improving land use change reduce negative impacts on biodiversity and local communities. It cooperates w independent NGOs formed in 1997) to certify sustainable production practices such as chocolate, coffee and bananas (Oxfam, 2016; ZDF, 2017). With a producti certified palm oil is the fifth most certified crop (SAN, 2015). While RA does no about its 35,000 members, different studies point to the weakness of its cer working condition standards in the food crop sector.

SAN focuses on smallholders, which are organised into groups and verified by a SAN standard itself is organised according to ten principles and 99 criteria, whi to gain SAN certification. The ten principles cover the following areas (SAN, 20

1. social and environmental management system;
2. ecosystem conservation;
3. wildlife protection;

on;
t of workers and good working conditions;
lth and safety;
y relations;
nanagement;
and soil management;
management.

ers is reflected in its strict requirements on the clearance of natural areas, de
development and social provisions. At the same time, it does not contain a spe
ous peoples, and it only requires free, prior and informed consent (FPIC) when
rned (Forest Peoples Programme, 2017b).

% compliance with criteria within each principle and 80% of the total criteria
xception, which must be fulfilled in their entirety). SAN s certification process
credited third party certification bodies that carry out the verification process
their reports (Forest Peoples Programme, 2017b).

in January 2018 and the two organisations are in the process of being consol
scheme (Rainforest Alliance, 2018). It is unclear how this merger will impact
ngements.

tainable products?

allow the use of their sustainability seal on manufacturers product packaging as long
ercentages of sustainable product in their mix. One such case is the RA scheme. This
se 100% certified content in any product bearing the RA certified seal but also allows
% certified content to bear the seal, as long as they include a small printed statement to
fied batches of tea products from different brands may only contain 30%, 50% or 70%
While a certain amount of flexibility is understandable, it is difficult to grasp the benefits
a brand that can only guarantee the sustainability of less than one third of its product.

ational Sustainability and Carbon Certification (ISCC)

to ensure compliance with the German sustainability act (BioNach) and later
out of a multi stakeholder process in 2006, involving representatives from ag
nd refining industries and traders, as well as NGOs.

e 2017 some 353 palm processing companies were ISCC certified and, in 2016,
f ISCC compliant palm fresh fruit bunches were produced. ISCC certification is
esian producers that want to access the European biofuels market (EPOA, n.d.).

offers companies different certification categories to match their ambition or
destination market. These include ISCC EU (compliant with EC legal sustain
gy) and ISCC PLUS (for EU markets other than bioenergy, such as food, feed,

Oil palm seed which has been separated for processing
(credit Greenpeace/ Daniel Beltr)

chemical/technical markets or non EU bioenergy markets). ISCC PLUS can be
voluntary add ons, such as environmental management and biodiversity, r
hazardous chemicals, reporting on the amount of all relevant consumables (e.
along the supply chain, and non GM food and feed requirements.

2.5.3. Roundtable on Sustainable Biomaterials (RSB

The RSB was established in 2007, also in response to the EU RED. It emerge
er process, led by ...cole Polytechnique F d rale de Lausanne (EPFL) (Switzer
WWF. Its global certification scheme was launched in 2011 with a worldwide
biofuel production; later, this was extended to cover other biomaterials, and re

Subsequently, the RSB established various working groups, including on env
life cycle efficiency analysis, social impacts and implementation. Besides pal
based feedstocks (perennial grasses, annual crops, oilseeds, algae, waste), bio
(biodiesel, ethanol, bioplastic, energy pellets, cosmetics, pharmaceuticals etc.)

Similarly to other schemes, RSB provides two different standards: a more fl

as developed a voluntary add on ILUC module (Low ILUC) for operators that
d use change impacts associated with biofuel production (RSB, n.d.).

e:
tor international palm oil certification schemes

PO	RA/SAN	RSB	ISCC
04	Rainforest: 1987; SAN: 1997	2007	2010
m oil	Cocoa, tea, coffee, bananas, oil palm, oranges, pineapples, rubber	Various agricultural and forestry materials	Various agricultural and forestry materials
% global palm oil duction; 3.43 million ctares of palm oil 018)	0.1 million hectares of palm oil (2018)	n/a	n/a
79 members lm oil)	35,000 members (all commodities)	n/a	357 certified companies (palm oil)
PO, RSPO NEXT, PO-RED, GreenPalm	Rainforest Alliance Sustainable Agriculture Standard	RSB Standard; RSB EU RED. A number of add ons are possible, including ILUC	ISCC; ISCC EU; ISCC PLUS. A number of add ons are possible, including non GMO, GHG, consumables, etc.
cused on food/feed/ emical markets; also ne bioenergy. Major nds using RSPO demark products ude M&S, Waitrose, refour, Ferrero, logg, Lactalis, Mars, lever, Cargill	Focus on personal care and food products	Traditionally focused on bioenergy markets; now also covering bio based products and biomaterials	Strong focus on bioenergy; also covering chemicals/food and feed. Some users of certified palm oil include Cargill, ADM, British Petroleum, Repsol

ian schemes are addressed in Box 2.4.

BOX 2.4: A race to the bottom: Indonesian and Malaysian S

Despite the impressive growth in certification, hundreds of thousands of hectares of t
lost each year to new palm oil plantations. Why is palm oil certification failing to stop

One reason is the proliferation of increasingly unambitious schemes under the curre
fication of palm oil plantations and operations. This is illustrated by the fact that, desp
RSPO ranked top in a recent study by the Forest Peoples Programme (FPP, 2017).

In this context, sustainability standards endorsed by the Malaysian (MSPO) and the Indo
although referred to as sustainability schemes by these governments, fail to meet bas
tional multi stakeholder certification schemes. Shortcomings include lack of transparen
and third party audit (Kusumaningtyas, 2017). Such deficiencies have resulted in these
and failing to gain international recognition, including being questioned by represent
the British Government (Kusumaningtyas, 2017) and European Parliament (Europea

Despite this, the coverage of ISPO and MSPO certification is likely to expand rapidl
Indonesian and Malaysian governments to roll out certification across their national p
nounced a plan to merge the ISPO and MSPO to form the Council of Palm Oil Producin
creating a palm oil sustainability standard to control and influence the global market. Ho
of ISPO/MSPO certified products is likely to remain limited if these schemes fail to ga

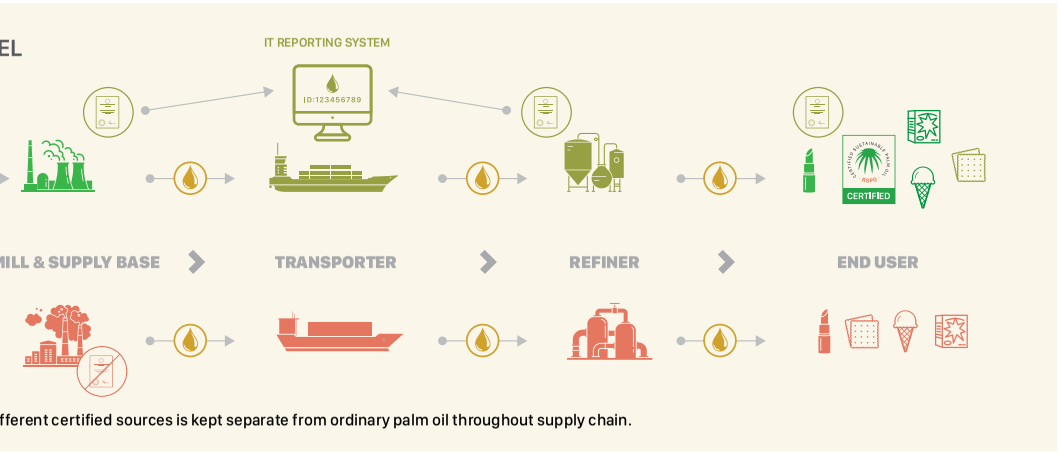
2.6. Traceability: Roughly right or precisely wron

Another weakness of most existing certification schemes relates to their re
operators to trace specific batches of sustainable certified palm oil across th
of custody). When consumers buy a product bearing a sustainability logo,
guarantee from the manufacturer that the physical product they have been
responsible environmental and social conditions. However, in an attempt to
nomic operators, certification under some schemes means this is not necessa

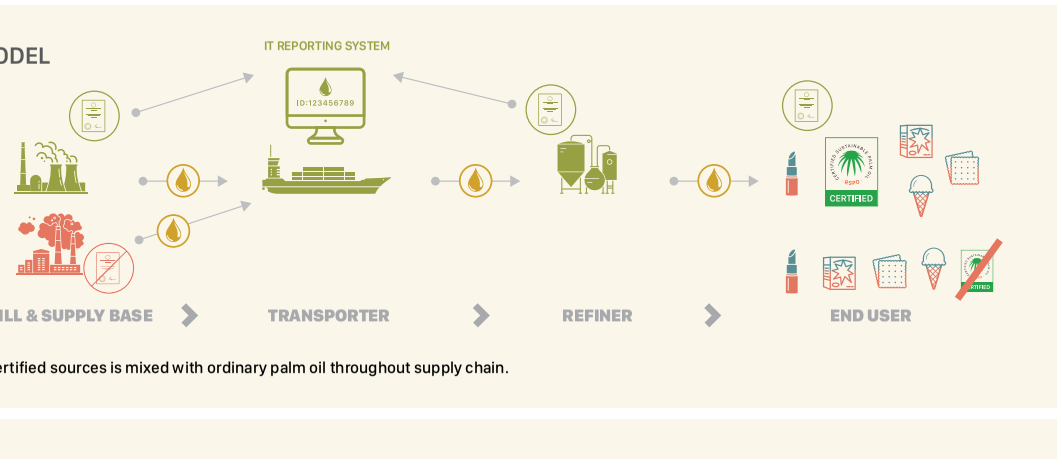
Global agricultural commodity supply chains are complex; as such, economi
flexibility regarding traceability requirements from certification schemes as a
Consumers believe the physical products can be entirely traced to a specific s
identity preserved system), or at least entirely associated with sustainable pl
system). However, it is much more likely that only a *proportion* of sustainable
nomic operators supply chain *somewhere* (i.e. mass balance system , which a
unsustainable production to be mixed).

WWF and Unilever successfully advocated that transactions should be trans
RSPO. This finally cleared the way for RSPO (among other schemes) to adopt
tion trading platform, called GreenPalm, in 2007. Greenpalm, which operated
claim system introduced to reduce the complexity of the supply chain and giv
selling certificates and buyers a platform to purchase them. Its stated goal was

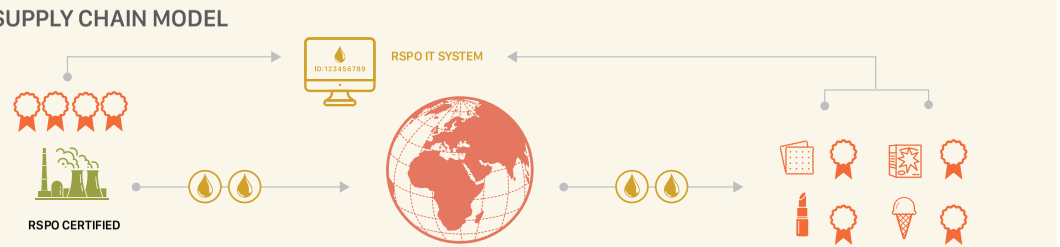
single identifiable certified source is kept separately from ordinary palm oil throughout supply chain.



fferent certified sources is kept separate from ordinary palm oil throughout supply chain.



rtified sources is mixed with ordinary palm oil throughout supply chain.



cial value, [be] cost effective and [meet] the existing demand immediately (R
RSPO, 2007, p.12). While GreenPalm attempted to offer buyers traceability ba
its book & claim system circumvented the physical supply chain and conse
virtual (Michail, 2016).

The trading of RSPO certificates became particularly attractive for buyers in
to source certified sustainable palm oil without establishing and monitoring
Palm oil mills and independent smallholders that were exporting to countrie
tified palm oil, such as China and India, also had an incentive for certificati
certificates via the trading platform directly to buyers in the Global North. Aga
vocates for certificate trading argued that RSPO would became an industry s
ducers would eventually need to become certified to remain in business (Rich

In January 2017, RSPO established another online trading platform, PalmTra
factures and retailers that produce palm oil products could bid for and buy cer
of non certified palm oil. PalmTrace also introduced additional features, such
palm oil using not only the book & claim system but also across all supply ch
served, segregated and mass balance).

Recent certificate trading platforms, especially GreenPalm and PalmTrace, ar
potential greenwashing effect of palm oil certification schemes. The core pr
is separating the sustainability claim of a producer or retailer from the actu
product produced or sold.

For instance, a retailer can claim to fully support sustainable palm oil producti
that contain non certified palm oil; all it has to do is purchase additional sus
the trading platform. As a result, buyers (i.e. retailers) are absolved of the resp
sustainability of their own supply chains.

BOX 2.5: Lax traceability rules behind major illegal planta

Lax chain of custody certification rules may not only leave customers feeling sho
manufacturers to possible scandals, as they are not able to trace their products back
risks were highlighted in a 2015 report by the NGO Eyes of the Forest (EoF) following
palm oil trade in Indonesia (Eyes of the Forest, 2016). During its investigation, EoF follo
palm oil fruit illegally grown in government protected areas, which were habitats for c
like tigers, elephants and orangutans. Deliveries were made to subsidiaries of the bigg
as Royal Golden Eagle group, Golden AgriResources of the Sinar Mas group, Wilmar a
that the majority of the world s palm oil supplies may be tainted with illegally grown p

EoF found four RSPO Supply Chain Certificate holders from three groups were involve
oil fruit. This led to their recommendation for buyers not to waste their resources on
ity schemes but use that money to buy segregated oil based on RSPO identity pres
Supply Chain Models .

oe? Concluding notes on the effectiveness palm oil certification schemes

inability standards for palm oil production were developed with the intention cessed palm oil sold on the world market was produced in accordance with d social standards. However, a closer look reveals several reasons why, in their n schemes may actually be an obstacle to sustainable development.

l level, this pertains to the question of what is considered sustainable and nvolved in the design of standards decide what is allowed and how to demar sustainable production. Based on the findings presented in this chapter, indi nes all present major flaws, which are obstacles to promoting and ensuring en ly sustainable production. Some of the least ambitious schemes, such as ISPO, nward competition in a race to the bottom rather than contributing to an up ndards. This trend is problematic because unambitious certification schemes dustry that has seriously negative impacts on deforestation, the climate and ommunities.

The border between an area destroyed for a palm oil plantation and an ancient forest in Riau province, Indonesia *(credit Greenpeace / Ardiles Rante)*

This has led some NGOs, like Friends of the Earth (FoE), to oppose certifica tackle palm oil related problems; they believe certifying palm oil as respons consumers feel good and encourages increased consumption, which is preci problem (FoE, 2009). Indeed, the proliferation of palm oil schemes is leading tification; 60% of all palm oil used by the European food industry claims to be

Despite NGOs call for governments to pass and enforce laws to control the dan oil cultivation, major EU countries continue to emphasise private sector drive address commodity driven deforestation. The only exception to the rule seen French law, which requires French companies to establish a risk assessment vironmental and social damage within their supply chains, including subcon over the world (Polsterer, 2018).

One example of a less ambitious initiative is the Amsterdam Declaration: a n mitment in support of achieving a 100% sustainable palm oil supply chain in been signed by seven countries so far (Denmark; Germany; The Netherlands; France) (Dutch Government, 2017), as well as some European food and feed British), industry groups (Sustainable Palm Oil Alliances of Belgium; The Nethe Italy and Sweden) and European trade groups, such as the European Vegeta Industry Federation (FEDIOL), European Margarine Association (IMACE) and olate, Biscuit and Confectionery Industries of Europe (Caobisco). Despite the existing certification schemes, the focus of this declaration is to increase the oil, as sustainable palm oil is defined as a stepping stone approach, working t equivalent) at minimum, and aim[ing] to build upon existing declarations a tainable palm oil in Europe (IDH and MVO, 2015).

Urgent reform of palm oil schemes is much needed. This report concludes th schemes especially those set up by the Malaysian and Indonesian govern doned, as they stand in the way of greater sustainability. In addition, biofuels able, as palm oil based biodiesel increases greenhouse gas emissions; these together with the schemes that exist to prove compliance with them.

The RSPO, which has been ranked as having the most robust standards for s palm oil (FEPP, 2017), urgently needs to implement reforms. Its reputation been damaged by systemic and serious failure to tackle the malpractices of so ing environmental and social abuses. More generally, the effectiveness of RSP of limiting the most damaging deforestation and fires at Indonesian oil palm 2015, has been questioned by a recent study (Carlson et al., 2017). While the st tification was associated with reduced deforestation, it also revealed that ce opted in older plantations, which contained little remaining forest (certified of forests remaining within oil palm plantations), and had no causal impact active fire detection rates.

For these reasons, the RSPO needs to adopt improvements in terms of coverag

1) ensure all HCS areas such as secondary forests and peatlands are covere
2) address issues around GHG emissions associated with production, in fires occurring in forests and plantations;
3) ensure labour and human rights of plantation workers are fully respecte

uld also work on ways to increase efficient use of land and mitigate ILUC, in his area. In this context, the RSPO should focus on the quality, not quantity, of not compromise its standards by operating different certification systems with t should also make all requirements mandatory.

ensure that small and medium sized companies, which offer opportunities mprove their livelihoods, are no longer disadvantaged (Oosterveer et al., 2014). e existing gap between large scale industries and smallholders in terms of ac

dress concerns around its governance and functioning as a scheme. This in of its members operations, ensuring that complaints are dealt with effectively at offending members are adequately sanctioned.

should look to POIG to recognise the leadership practices of certain industry Charter for members, who commit to certifying all of their palm oil produc onstrating environmental responsibility, partnerships with communities and orate and product integrity through third party verification. The POIG stan assessments and promote palm oil production free of deforestation, peatland xic pesticides and human and labour rights violation (as well as the FPIC). The tain to palm oil producers, retailers and manufacturers, as well as traders and cators and verification mechanism are significantly stronger than the RSPO s, is a precondition for POIG membership (POIG, n.d.).

should not operate under non segregated traceability schemes. This chapter ibility for economic operators in this area can actually compromise the effec ltogether. The problem with lax traceability is illustrated by recent certificate s GreenPalm and PalmTrace. These trading platforms attack the core founding i.e. the need to link the sustainability claim of a producer or retailer with the the product produced or sold. Such approaches lay schemes open to claims of facturers can claim to be selling sustainable palm oil products while physical products, just because they have purchased sustainability certificates on the n paying for these indulgences , operators are absolved of the responsibility to y of their supply chains, and cannot be held accountable for any direct links to chardson, 2015, p.558).

of the reform of certification, complementary strategies must be implement development of the palm oil sector. An important strategy includes morato panies pledge to avoid purchasing products related to deforestation, or other vironmental impacts, in an attempt to clean up their supply chains. However, their efforts for these pledges to deliver meaningful results including pro on their supply chain and ensuring independent audits on their suppliers are pliant operators must be suspended until corrective action has taken place. A s in the Brazilian Amazon with regard to soy expansion.

Palm oil fruits in West Kalimantan, Indonesia (c

Another complementary action must include state policies preventing defo of key areas. Policy interventions in both exporting and importing countries deforestation free production of palm oil without negative social and envir should include demand side sustainability criteria for market access to impor fective quantity restrictions, to foreclose the further expansion of unsustainal

Chapter 3.

Case Study: Fisheries

3.1. The problem

Industrial fishing has been identified as one of the world s most pressing envi
es systemic ecological collapse across the world s oceans and waterways (M
ronmental changes are affecting ocean temperatures, nutrient availability an
ing is simultaneously and drastically reducing global fish stocks. Damage al
pollution, coastal development for urbanisation and aquaculture. Despite th
of national and international actions aiming to preserving marine resources
fishing practices remain destructive.

The pressure on the oceans is fuelled by growing demand for fish, as a result
rising incomes in China, Mexico, South Korea and other countries. About 87%
ally is consumed by people as food (FAO, 2016a, p.6). Global human consum
bled from 1980 to the present; wild capture fisheries produced 93.4 million to
ture production rose to 73.8 million tonnes (FAO, 2016a, pp.4–5). If China has
grow; as the world s largest consumer, producer and exporter of seafood, Chin
to increase seafood consumption by 50% over the next six years (MoA of Chin

Based on current trends, total demand is projected to grow to 186 million to
culture providing close to two thirds of that, according to collaborative resear
Food and Agriculture Organization of the UN (FAO) and the International Fo
tute (World Bank, 2013, p.xv). By 2030, China is expected to account for 38% o
and Asia overall for 70% (World Bank, 2013, p.46).

While human population growth is expected to have the greatest effect on ava
climate change and bad fishing practices are projected to reduce fish availabili
species (Merino et al., 2012, Bell et al., 2013).

Destructive fishing practices are responsible for much of the fish species dep
ocean habitats. Wild capture fisheries reduce the abundance, spawning pot
species; they modify the age, size structure, sex ratio and genetics of not on
also other species in the ecosystem (Garcia et al., 2003, p.10) In addition to bad
to ocean health is caused by pollution from fish processing plants, use of ozo
dumping at sea of plastic debris that can entangle marine animals or be swallo
fishing gear (Garcia et al., 2003, p.10).

of bad fishing practices

hing crews light sticks of dynamite and throw them into the water. The ex
rby fish and can make their swim bladders rupture, causing them to float to
sy capture. With up to 2,000 USD worth of fish being caught from a single
s can be lucrative for fishermen, but destroys coral reef and other coastal
ocess (Njoroge, 2014; Actman, 2015).

mon clam harvesting technique, which uses a large metal scoop that drags
to pick up clams. This practice removes large parts of the seabed and dumps
can have a major impact on the ecosystem, particularly on sensitive areas
and fish nurseries. It has also been blamed for releasing toxic chemicals, in
bidity and littering harmful metals throughout the food chain (Milman, 2013).

: The practice of pulling a fishing net along the sea bottom behind trawlers
spread human activity affecting seabed habitats. A recent study showed
6–40% of an area s seabed life on a single run (Hiddink et al., 2017). It is
utting on land; it unearths everything in its path, destroying crucial habitat
marine animals.

g devices: Floating mats that attract marine life in the open ocean. Many
shark are caught before they can reproduce and other species, such as
bycatch (Carrington, 2017).

lls and waste (including abandoned gear) from fishing vessels and sewage
lants all end up polluting the oceans. Much of the oil in the world s seas comes
er sources, such as tankers discharged ballast water. Ballast water taken up
d in port is a major source of unwanted exotic marine life (Farmer, 1997).

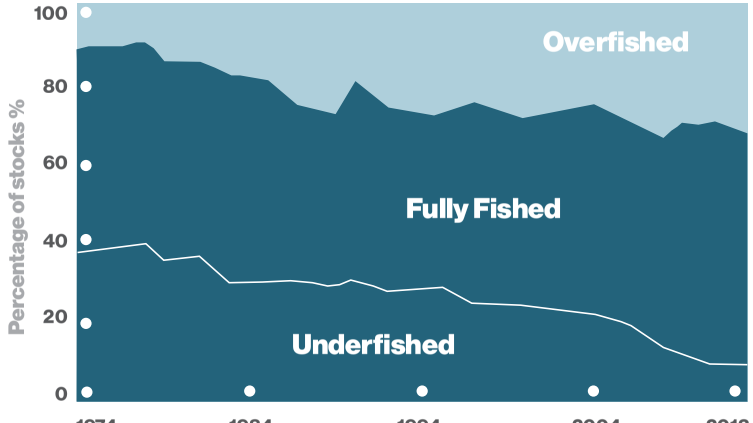
he result of fishing vessels abandoning or losing their fishing nets, lines
the ocean. The FAO estimates that lost and discarded fishing gear makes
ll marine litter 640,000 tonnes per year, or more than one tonne every
nd Us, 2016).

Figure 2: Global fish stock trends over 40 years

Source: FAO, 2016a, p.39.

fish stocks continues to deteriorate; in its latest report, using 2014 data, the
hat 58% of fish stocks are fully exploited. This means they are producing or
r maximum sus
e or no potential
rther one third of
being overfished.
0% of global fish
hed or overfished
he Mediterranean
s have dropped by
, 2016a, p.16).

nreported fishing
ion tonnes of fish
% of the world s to



tal annual capture fisheries output (FAO, 2016a, p.iii). In West Africa alone, ab
are caught illegally (EJF, 2017). In an article entitled Trawling for Trouble , *The*
the growing pattern of illegal fishing infractions among Chinese fishers, who
for illegal fishing in Japan; the Philippines; Taiwan; Vietnam; Russia, North Ko

BOX 3.2: Definition of illegal fishing

According to the FAO, the term illegal, unreported and unregulated fishing (IUU fish
of irresponsible fishing activities. Some fishers do not respect fishing rules, including
Conduct for Responsible Fisheries (adopted by 170 countries in 1995) and other int
example, some fishers do not respect rules concerning fishing gear and fishing area
(or misreport) their catches (FAO, 2016b).

Aside from catching too many fish, industrial fishing results in bycatch (fish
isms that are caught incidentally) and discards fish and other marine life tha
overboard). Not all bycatch is discarded and some discards are not bycatch;
fishers will discard low value fish to take on board more valuable fish. Tropi
have the highest discard rate; they throw away up to 90% of the catch, and acc
estimated discards (Kelleher, 2005). The scale of the problem is difficult to
often do not report what they do not land. Different types of fishing practices
being killed as bycatch: gill nets commonly kill dolphins, porpoises and wh
particular problem for birds, which dive on the baited hooks, are pulled unde
bottom trawling devastates corals and sponges growing on the seabed (Garcia,

New research has shown that industrial fishing fleets dump nearly 10 million
into the ocean every year. Almost 10% of the world s total catch in the last d
to poor fishing practices and inadequate management equivalent to throwi
4,500 Olympic sized swimming pools, every year (Zeller et al., 2017).

The consequences of bycatch are often far reaching, as species become func
areas. For example, leatherback turtles are major predators of jellyfish, capable
600 jellyfish in a single day (Heaslip et al., 2012). When turtles are gone, jelly
some areas, making the waters dangerous for swimmers and thus harming t
revenue for some countries. Green sea turtles and manatees are herbivores
beds and keep the grass at a healthy level; without them, many seagrass ecosy
die offs, unable to sustain a wide range of marine life.

The growing aquaculture sector exacerbates the pressure on overfished stoc
for forage fish. About two thirds of farmed fish production requires feed (FAO,
herbivorous species of fish that consume feed from crops, other species such
are carnivorous and have to be fed fish or animal protein. Using forage fish
the aquaculture industry raises concern of overfishing, disruption to aquatic f
and a potential net loss of seafood available for human consumption (Cao et al

n schemes

t runners in developing labelling schemes in the fisheries sector. Of the more d standards currently in operation (Potts et al., 2016), the Marine Stewardship st prominent market based seafood certification scheme globally; the only nilar volume of wild catch fish is Friend of the Sea (FOS).

half of the fish consumed globally (FAO, 2016a). In the future, aquaculture and an even more crucial role in the supply of certified seafood. The challenges are so different that they require mostly separate standards and certification s case study is on wild capture.

SC certify nearly equal portions of production, FOS has grown five times as few years and, by 2015, the total production volumes of the two initiatives million metric tonnes. Other schemes cover fairly insignificant volumes by 016).

rtification schemes for wildc apture fisheries

lship Council (MSC): The most prominent market based international seafood me.

a (FOS): Certifies a similar volume of wild catch fish to MSC.

eloped standards for sustainable wild capture fisheries in 2006 but has less than verage.

MSC schemes

	FOS	MSC
	2008	1997
	15% (2017)	12% (2017)
	>500 (including aquaculture companies)	>300
co	27	>100
	Aquaculture farms, fishmeal plants, feed mills and wild catch fisheries	Only wild catch fisheries
	Peruvian anchovy, skipjack and yellowfin tuna, Chilean jack mackerel	Alaska pollock, Atlantic cod, herring, skipjack tuna

s; Potts (2016); MSC (2017b).

The amount of certified seafood has multiplied many times over in recent ye seafood production was certified by any of the larger schemes (MSC; FOS; ASC; and GAA BAP) up from only 0.5% nearly a decade earlier. Certified sustainab 20% of global wild catch supply and has been growing ten times faster than duction (Potts et al., 2016). The problem is that sustainable catch labels ofte consumers think they do.

3.2.1. Marine Stewardship Council (MSC)

The MSC was established through a collaboration between WWF and Unile sets of standards:

- **The MSC Fisheries Standard**: Assesses fisheries activities up to th the fish are landed.
- **The MSC Chain of Custody Standard**: Ensures the fish can be trac landing to sale and allows the use of the blue MSC label on packaging and on restaurant menus.

The MSC Fisheries Standard is designed to assess if a wild capture freshw well managed and sustainable. The certification can relate to a whole fishery down to an individual fishing vessel. To ensure only seafood originating fro carry the MSC label, all companies in the supply chain must be certified acco Custody Standard. MSC s annual budget from 2016–2017 was over £24 millio income comes from foundation grants, most of it comes from the licensing f for the right to use its label (MSC, 2017a). Indeed, these licensing fees have bec share of the MSC budget; logo licensing currently constitutes 76% of its ann in 2006 (Christian et al., 2013; MSC, 2017a). MSC has also received millions from the Walton Family Foundation, which Wal Mart s founder created and the Foundation has become one of the MSC s largest donors (Zwerdling and W

3.2.2. Friend of the Sea (FOS)

FOS was founded by the Earth Island Institute, which has been managing th the elimination of dolphin bycatch in tuna fishing. FOS now is one of the most ling initiatives, certifying both aquaculture and wild catch fisheries. Like MSC ular fisheries but, because of lower certification costs, FOS wild catch certifi species destined for fish meal or fish feed. Of FOS certified companies, 22% a feed markets (Potts et al., 2016). FOS has also grown a supply base in the Globa certified products originate from artisanal fisheries and aquaculture produce (FOS, 2016; Potts et al., 2016).

Nearly one quarter of the global catch of tuna is certified as sustainable throug est certifier of tuna in the world (FOS, 2016). Tuna companies are required to b to gain FOS certification. The FOS Chain of Custody Standard is designed to food can be traced back to a sustainable and well managed source. DNA tests a basis on certified products to monitor traceability (FOS, 2016).

Bottom trawlers use huge nets to scoop up fish, damaging the sea bed. Bottom trawling is not prohibited by MSC (credit Nick Cobbing/ Greenpeace)

royalties from the use of the Friend of the Sea logo and sporadic sponsorships marketing events (FOS, n.d.). Its revenues are a small fraction of that of MSC, nual income (FOS, 2016; MSC, 2017a).

riticisms of FOS and MSC certification procedures

ertification standards cover prohibiting destructive fishing standards, man ental risk and impact assessment and managing stock regulation. Neither ad protecting high value conservation areas (Potts et al., 2016).

auditors from accredited third party certification bodies (also called Confor which monitor the fishery operations. Producers pay a fee to these third par be assessed against the standards and, if certified, to use the sustainability d party certification bodies are selected, appointed and paid for by the fishery

ntify and mitigate unsustainable practices, and the regulatory regimes of all equipped to screen the operations they oversee. One analysis (Christian et allows third party certifiers too much leeway in deciding whether a fishery ark. A random sample of about twenty FOS assessment reports showed that nconsistent, using simplified checklists with minimal information to back up ace, 2009). Recent anecdotal evidence suggests that MSC auditing might take s inspecting the vessels or gear or meeting the fishermen (Kochen, 2017).

le access to independent dispute resolution processes. In theory, these proce s and others to object to certifications for possibly problematic fishing opera es are deeply faulty. For FOS, no information could be found about how many ed so far, by which organisations and whether any succeeded in halting certi nding MSC certifications are cumbersome to file and appear to have a very low an et al., 2013; Brown et al., 2016).

Fish catch onboard a bottom trawler in the Gulf of Thailand (credit Athit Perawongmetha/ Greenpeace)

MSC charges around 8,000 USD to launch a formal objection, whereas FOS cl tablishing and maintaining a panel, which also run to thousands of dollars (Po other groups have filed and paid for dozens of formal objections to MSC fisheri only two objections have resulted in the fisheries not being certified. By tonn of MSC certified seafood has received formal objections. Among the most con of data on stock population and size, high levels of bycatch, harm caused by d damage to vulnerable marine ecosystems and seabird populations (Christian et

Conflicts of interest are inherent to the process: Third party certifiers are pai they certify, resulting in lenient certifications as numerous certification bodies This may not be such a large problem if MSC provided effective oversight. Howe est in increasing its logo licensing revenue, in conflict with its role as an indepe dard setting body; not certifying a fishery or withdrawing an existing certific for MSC. According to an internal WWF report in 2016, MSC actively interject tification processes in favour of approving certifications, instead of enforcing 2016).

The schemes place too much emphasis on increasing the number of fisheries par of seafood caught, rather than on the quality of participation or outcomes. Most public documents lack meaningful quantitative data by which to assess perfor

3.3. Have seafood certification schemes made a di

Despite the problems outlined above, certification schemes can and do have sor existence has made industry and government regulators more proactive abou and can be seen as a catalyst for increased data transparency and improved a 2017c). They appear to have resulted in reduced bycatch in some fisheries, and in terms of fishing gear and areas being fished (MSC, 2017b). Certification also ensuring that labelled fish has not been caught illegally (MSC, 2017b).

Although the FOS Annual Report (FOS, 2016) says its certification has contrib world s oceans, it does not provide data or cite studies to show how the scheme In contrast, using independent stock assessment data in nine regions of the wo fied stocks showed higher biomass in nearly all regions after certification (MSC, express reservations about certification nonetheless say certified seafood is a re those fisheries are more likely to reflect healthy, moderately exploited stocks (F

However, these apparent improvements in some sectors of the fishing industry ing lapses in fishery certification.

For example, consumers should be able to assume that seafood with sustaina significant bycatch and that endangered, threatened or protected species have MSC standard allows certifiers to award generous scores to fisheries with high the criteria focus only on avoiding serious or irreversible harm. In contrast, FOS of the total catch in weight for discards and requires strong bycatch mitigation a not deem it essential for bycatch to be free of vulnerable or higher risk species c for Conservation of Nature s (IUCN) red list of endangered species. For example, e is not acceptable according to the MSC standard, in practice it is tolerated (Zieg holes in the standards offer certification bodies plenty of room for diverse interp

k awarded for destruction?

ven the MSC blue tick label without an adequate review of destructive fishing practices or their impact on endangered, pecies such as sharks, whales, dolphins and porpoises. In early 2018, 66 marine conservation organisations, animal cademics issued a letter condemning the MSC for awarding an increasing number of certifications to fisheries that catch d endangered animals, and irreversibly harm vulnerable ocean habitats (Make Stewardship Count, 2018b, 2018c). A ed fisheries still fails to address these problems, bringing the credibility of the MSC label into serious question.

e information on scandals affecting a number of MSC certified fisheries that resulted from harmful fishing practices.

	Northwest Atlantic swordfish longline fishery
	Nova Scotia Swordfishermen s Association
	MSC, 2012 and 2017
s	The majority is exported to the US. Major retailers include Wholefoods (SeaChoice, 2018; Greenpeace 2015).
	At the time of certification, this fishery killed 35,000 endangered, vulnerable and near threatened sharks per year, as well as affecting 200–500 endangered sea turtles (Brazner and McMillan, 2008; Caruthers, 2009). The MSC cer tification was granted despite knowing that two sharks die for every swordfish landed (Ecology Action Centre, 2012). The fishery was recently granted re certification despite having an almost 50% bycatch rate of blue sharks, which it then mostly discarded prior to landing (Ziegler, 2017). The fishery also catches up to 1,200 endangered loggerhead sea turtles per year, cutting them off the line with varying degrees of injury. The few measures the fishery has introduced have not decreased the numbers of these endangered animals being hooked (Make Stewardship Count, 2018c). MSC certification did not require this fishery to reduce the disproportionate amount of unwanted non target animals, nor the unacceptably high bycatch levels of species classified as near threatened (Make Stewardship Count, 2018c).

	New Zealand orange roughy
	Deepwater Group Ltd
	MSC, 2016
	Also called deep sea perch , roughy is sold skinned and filleted, fresh or frozen. Most of the catch is exported as frozen fillets to the US (80%) and Australia (14%) (Marine Stewardship Council, 2018b).
	During the assessment process, organisations such as WWF and Greenpeace raised serious concerns, citing a long history of fish stock crashes, under reporting and dumping of fish species, misreported information about orange roughy catches and destructive trawling methods that cause irreversible damage to the seabed. Despite these concerns, the fishery was

Fishery	Australia Northern Prawn
Company	NPF Industry Ltd
Certification	MSC, 2012 and 2018
Main markets	The fishery supplies fresh and frozen prawns in Australia, including to leading supermarkets such as Coles ar worths. It also exports frozen prawns, mainly to China and Japan (Marine Stewardship Council, 2018a).
Scandal	Australia s largest prawn fishery covers 771,000 km2 of tropical waters off Australia s northern coast. Mor catch around 7,500 tonnes each year, comprising several different species, including banana, tiger and er (Marine Stewardship Council, 2018a). Bottom trawl fishing methods are used in this fishery, which is well known for being destructive to ocean seafloor, including corals and the habitat for many fish and animals. Bottom trawling is also notorious for catch of bycatch including fish, sea turtles, seabirds and marine mammals. Most of these dead and dying animals the side (Marine Conservation Institute, n.d.). The Australian Northern prawn fishery was granted MSC certification in 2012 despite high bycatch levels. The even noted that a typical tiger prawn trawl usually consists of 50–90% discards (MRAG, 2012, p.280).

Fishery	Gulf of Maine lobster fishery
Company	Maine Certified Sustainable Lobster Association
Certification	MSC, 2016
Main markets	The catch is sold in the US and internationally in both live and processed forms (Marine Stewardship
Scandal	The fishery was certified even though the fishing methods used to catch the lobsters were known to risk to large whales listed as endangered by the US. The population size of one of those endangered w Atlantic right whale, is currently estimated to be 450. The death of a single right whale is dangerou survival. In 2017, a total of 17 North Atlantic right whales were found dead, nine of which were due t in fishing gear (Make Stewardship Count, 2018c)

sed as a key concern in several official objections to MSC certification. In the gers ignored scientific advice about rebuilding depleted stock; instead of taking and despite Canadian scientists disapproval), in 2008 hake catch limits were ever. The following year s stock assessment indicated the hake stock was at of being overfished yet the fishery was still certified (Christian et al., 2013).

uld also disqualify fisheries that are destructive because of their fishing meth ndards define destructive fishing practices as only those using poisons or ex m trawling and dredges are also highly destructive (Kaiser et al., 2006); there trawling, and continued reliance on these destructive methods fails the MSC s A recent study of MSC certified fisheries in Canada showed certifications were to fisheries employing bottom trawling methods (Arnold and Roebuck, 2017).

nt of the Alaska pollock fisheries, four separate US District Court decisions found ng in violation of the federal Endangered Species Act and National Environmen er an official objection from NGOs, the MSC objections panel upheld the certifi ied reason: the MSC standard required respect for the law , and non compliance n not respecting the law (Christian et al., 2013). Due to its troubled history of seabirds, the MSC certified New Zealand hoki fishery has also been found to eries act, which requires addressing and avoiding adverse effects on the aquatic n et al., 2004).

markets caught with unsustainable tuna

PNA Western and Central Pacific skipjack and yellowfin tuna	
Princes Tri marine (supplies John West)	
MSC, 2011 and 2018	
Sold to Europe, Australia and North America, where it is commonly canned (Marine Stewardship Council, 2018d). UK supermarkets including Tesco; Sainsbury s; Asda; Morrison s, Waitrose and M&S (Stop Illegal Fishing, 2017; Chapman, 2018).	

Fish are certified with the MSC blue tick logo despite being caught by trawlers that also haul in turtles, sharks and other protected species.

Campaign organisation On the Hook recently found that tuna from two MSC certified fisheries were certified despite un sustainable fishing practices and dangerously high bycatch levels; the tuna ended up on the shelves of major supermarket retailers in the UK and Europe, including Tesco and Sainsbury s (Chapman, 2018).

The MSC has been found to certify a number of fisheries known as compartmentalised . This means that vessels and crew can use their nets to catch tuna sustainably receiving MSC certification and then, on the same day, haul in tuna along wwith protected species (Chapman, 2018).

The MSC has a specific target of certifying 20% of all wild caught fish by 2020 and 30% by 2030 (they are currently at 12%). Campaigners are concerned this arbitrary target is leading MSC to lowering its own standards rather than making fish eries improve theirs (FIS, 2017).

It is also evident that the MSC benefits through license fee royalties for each new certified fishery. The PNA fishery alone is

BOX 3.6: Fish now, science later: One of the most controversial certifications in

Fishery	Ross Sea Antarctic toothfish fishery
Fishing Companies	Argos Georgia Ltd (UK) Sanford Ltd (New Zealand) New Zealand Long Line Ltd (New Zealand)
Certification	MSC, 2010
Retailers	High end seafood restaurants, such as NOBU; US supermarl Costco (Greenpeace, 2011, 2015; MSC, 2018; Nobu, 2018)
Main markets	US, Asia and Europe, where it is often called Chilean sea bass
Scandal	MSC certified despite lack of scientific understanding about th Deep in the Antarctic Ocean south of New Zealand lies the 1 Sea. It has been called the Last Ocean , because it is largely unt 16,000 species live in the Ross Sea; its waters are nutrient rich, l krill blooms that support vast numbers of fish, seals, penguins a The Antarctic toothfish are an important part of the Ross Sea predator, feeding on other fish and squid, but they are also in whales (The Last Ocean Charitable Trust, n.d.). According to Ocean Coalition (ASOC, 2018), very little is known about the li not known how often they spawn, and eggs and larvae have n Scientists and the industry still regard the Ross Sea Antarctic ploratory fishery meaning scientific information is still being g would constitute a sustainable fishery (CCAMLR, n.d.). Yet, despite this lack of scientific information, MSC made a cont certification of the fishery in 2010. Many NGOs, including ASO its decision to certify these fish stocks, but MSC upheld the de Many toothfish consumers are probably unaware they are eati ers give toothfish more marketable names, such as Chilean se seafood restaurants, such as Nobu in the US and London, and market chains in the US (Greenpeace, 2011). According to C Nobu, Wholefoods and Costco were still selling Chilean sea (MSC, 2018; Nobu, 2018)

outlined above, fishery certification schemes face a new challenge: NGOs, sci
seafood listings and even governments have been losing faith in, and raising
ects of fisheries certification and especially the MSC.

is, peer reviewed articles, reports and newspaper articles have been written
the MSC. The same cannot be said about FOS, which has seemingly attracted
irness, that could be largely due to MSC s transparency and active interaction
a much less transparent certification scheme; without available information on
ns, it is very hard to assess or criticise it (Ziegler, 2017).

een the target of far more public criticism. The overarching concern is that the
so, while some very good fisheries have been certified, so have some especially

ems with the MSC and FOS schemes

ests

auditors are paid by the fisheries they are assessing;

ing bodies have financial interest in certifying increasing numbers of fisheries.

ing and enforcement of standards

to identify and address unsustainable practices by fisheries;

oor quality and inconsistent assessments;

nuous improvement of fisheries practices once certified.

ensive and inaccessible procedures for objecting to certifications

input often dismissed;

process for annual audits.

evaluation of the schemes impact on sustainability

ating companies public documents lack meaningful quantitative data on
ess performance or progress.

al Impact Report assessment by MSC is not written by the independent
t by the MSC staff.

s causes of overfishing and ecosystem destruction

ystem based approach to fisheries assessment, i.e. schemes look at target
lation and do not take into account impacts on the whole ecosystem.

of the Canadian Northwest Atlantic swordfish fishery, one using longlines and
the same MSC certification but have very different levels of bycatch. While
rgeted and has virtually no bycatch, the longline fishery has extremely high
shark and turtle species listed on the IUCN red list as near threatened, vulnera

ble, endangered or critically endangered. The differences between these fishe
the certification level; ultimately, both fisheries carry exactly the same MSC e
though harpoon fishermen originally sought the certification to communica
ability to consumers (Christian et al., 2013).

In 2010, a widely publicised article written by prominent marine biologists (Ja
criticised the MSC, explaining: as the MSC increasingly risks its credibility, th
wild fish and healthy marine ecosystems . Another painful blow came from W
set up the MSC 20 years ago. At the end of 2016, the media made public a WW
critical of the MSC. The report which documents the struggle WWF had wh
standards and process were properly applied to the Indian Ocean tuna fish
lights a range of MSC failures. It states the MSC certification scheme has tr
including ineffective conditions and the fact that failing to fulfil them did no
The report also accused the MSC of receiving very large sums from the fishin

Most recently, in January 2018, 66 organisations issued a letter condemning
increasing number of certifications to fisheries that catch thousands of vulne
imals and cause irreversible harm to vulnerable ocean habitats (Make Stewa
the time the letter was issued, Dr. Iris Ziegler from Sharkproject emphasised:
its standards and processes, the MSC runs the risk of being identified as contr
unsustainable fishing and misleading consumers, rather than being a solutio
choice (Make Stewardship Count, 2018a).

On board a Spanish flagged bottom trawler in the North Atlantic *(credit Greenpeace / Kate Davison)*

In summary, there are fundamental problems w
tion systems for wild capture fisheries.[5] These i
of interest and prospective financial gains for b
ies and third party auditors, which manifest in
the standards. Other major issues contributing
schemes include a lack of mechanisms to revi
decisions; biased objection procedures; conditi
tion that neither lead to continuous improveme
during the certification period; failure to assess
on all species caught by the fishery; and, crucia
fiers are selected and paid for by the fisheries
also state the MSC system has compromised its
booming demand from Wal Mart and other chai

3.5. The way forward for fisher

There is no silver bullet to shift global fisheries to
path, but a number of significant changes are re
seafood certification schemes. Certification scher
dards and application processes to ensure only
ecologically and socially responsible way are rew

5 Many NGOs producing seafood guides assess the MSC s certified fish
er than simply accepting the MSC fishery as a sustainable or green c
the green rating and are occasionally given a red rating. The Monte
MSC Standard against its own Seafood Watch standard: it found tha

he certification process is rigorous. The plea for radical reform has been made by holders; yet, these fundamental and systematic problems remain unaddressed.

level of acceptance among NGOs or the scientific community. Due to its lack of older involvement, it is currently very far from being a credible seafood certifi drive change for the oceans. The MSC, on the other hand, could still be given a of fruitless efforts from so many NGOs.

SC should rid itself of the conflict of interest criticism by splitting the organ entities: the independent standard setting and oversight function could sit team, whereas a separate commercial arm could promote and increase logo Reform should: ensure the impartiality of certification bodies; simplify the e to small scale fisheries; ban destructive fishing techniques; exclude illegal ological impacts of the *entire* fishery and introduce incentives to continuously ulative assessment and introducing targeted measures to drastically reduce er Critical improvements required by NGOs are listed in Box 3.8.

quirements to improve MSC

an open letter to MSC to ask for some critical improvements to the certification process. h and analysis undertaken by NGOs and academics focused on marine conservation nd are aimed at improving Principle 2 of the MSC Standard as well as the certification ity and impartiality. The NGOs are calling for the MSC to initiate the following reforms est and ensure that:

pacts of a certified fishery are assessed and improved, and fisheries are not e lives and resources (this includes cumulative impacts of all MSC and non MSC cies caught and impacts on by catch).

e certified fishery methods, gear and catch are sustainable and that all main are managed equally to the target species.

ries do not destroy seafloor biodiversity, and that the MSC Standard is consistent y accepted fisheries management standards.

claim of MSC certified fisheries is evidence based and transparent for all of the sion making in the assessments and audits of fisheries.

ertification is resolved prior to recertification.

ssessment and audit process are impartial.

ly upholds the scientific rigour and goals of the program.

d two statements in 2018, in which it asked MSC to commit and accelerate key re n its reputation as the world s leading fisheries and certification system . The reforms ones listed by other NGOs. WWF also recommended additional oversight to ensure are fully resolved, that conformity assessment bodies (CABs) must be impartial and ients and that objection procedures must include opportunity for independent review

Count, 2018c, WWF, 2018

Besides certification, many alternative tools could radically drive change to systems. Of the estimated 30 million fishers globally, 90% are small scale (efforts must be targeted in a way that benefits them. Government payments to drivers of the unsustainable exploitation of the world s depleted fish populati receive about four times more subsidies than their small scale counterparts; dies promoting overfishing, according to a recent study by the University of bauer et al., 2017). If fisheries are to become sustainable, subsidies need to be shifted to supporting small scale fisheries that focus on sustainability and addition, standards for sustainability certification could be adapted to encou small scale, community based fisheries. Investors should rigorously check th in, move away from those that are operating irresponsibly and shift financial towards sustainable, small scale fisheries.

Fishermens cooperatives are another grassroots alternative to voluntary cert ample, Thorupstrand Kystfiskerlaug fishermen in Denmark take short fishin mental impact, energy efficient gear; they use smaller, traditional coastal vess the beach. They have chosen not to carry the MSC brand, instead developing th gic partnership with Coop: a large, consumer controlled Danish retail chain (H 2016).

The most important first step that a company can take towards responsible and adopt a responsible seafood policy. Such a policy does not entail avoiding and confining procurement to sustainable fisheries; rather, it involves a co improvement and transparency, with ambitious targets in the future. Such p sufficient traceability within the supply chain to ensure illegally caught fish sanctions against suppliers convicted of dealing in illegal fish and rewa performing well.

Destructive fishing methods in the Gulf of Thailand
(credit A. Perawongmetha/ Greenpeace)

sures, there needs to be improved government regulation of sustainable sea
osystem based approach, as well as greater enforcement of regulations and
ta collection on fish stocks. At an international level, agreements on creating
extremely effective in promoting the health of ocean ecosystems, as they can
cks and act as sanctuaries for biodiversity. Ultimately, robust government fish
licies are needed to ensure a sustainable seafood industry for generations to
k, 2017).

vement is through a combination of grassroots initiatives, strong national reg
l efforts to create marine reserves; shifting subsidies away from destructive
ling funds for better stock assessments; and capacity building among small
ame time and equally important fish consumption needs to be drastically
e countries; in the context of continually rising demand for fish, there should
uly sustainable seafood.

rs an alibi to retailers

ied but sustainability concerns are raised, retailers often refuse to delist a fishery.

Zealand hoki	
water Group Ltd	
2001, 2007 and 2012	
U, Japan and Australia. Commonly used in fish fillet and fish finger products; for example, cDonald s (McGrath, 2016; MSC, 2018e).	

MSC has certified hoki fishing as sustainable several times over the past 15 years. Since 2011, McDonald s so carried the MSC sustainability label on its fish products in Europe.

n 2016, a leaked New Zealand government document cast serious doubts on the sustainability of The document shows that the government was aware of made up data and illegal practices, such as umping of vast quantities of unwanted fish.

15% of McDonald s fish products in recent years were made from hoki; in 2016, the company told reporters they currently sourced 8% of their fish from New Zealand hoki.

te significant evidence presented to the contrary, a spokesman for McDonald s said they placed their n the MSC, which had asserted the New Zealand fish sustainable (McGrath, 2016).

Fishery	Antarctic krill
Company	Aker Biomarine
Certification	MSC, 2010 and 2016
Main markets	Krill from the Aker Biomarine Antarctic krill fishery is processed into products sold mainly in th European markets. This includes krill based health products, such as omega 3 supplements, a feed for farmed fish (MSC, 2018f). Companies selling krill supplements include Walgreens Boots Alliance (Boots in the UK), CVS ar Companies that stopped selling krill supplements following NGO campaigns are Waitrose, Sa and, most recently, Holland & Barrett (SumofUs, 2015; Taylor, 2018a).
Scandal	Krill are shrimp like crustaceans that swarm in dense shoals and are particularly found in A waters. They are being fished for food supplements, which are claimed to help with a range of from heart disease to high blood pressure, strokes and depression. A recent analysis of the g industry predicted it was on course to grow 12% a year over the next three years (Taylor, 201 play an essential role in the Antarctic food chain. They feed on marine algae and are a key s food for whales, penguins and seals. They are also important in removing GHG from the atm (Greenpeace 2018; Taylor, 2018b). Greenpeace, the ASOC and the Pew Environmental Group objected to the initial certificatio fishery, but their objections were not taken into account in MSC s decision (Greenpeace 2018 In 2015, a certification assessment report acknowledged there is no updated stock assessme available and a direct causal relationship between climate change, krill populations and its p (O Connell and Kremer Obrock, 2017). Yet, the Aker Biomarine krill fishery was re granted tification. A recent Greenpeace study provided further evidence that a combination of climate chang dustrial scale fishing is threatening the krill population, with a potentially disastrous impact predators and the pristine Antarctic environment (Greenpeace, 2018; Packham, 2018). NGO campaigns for retailers to remove krill supplements from its shelves hit a stumbling blo

Inside a dye factory in Shaoxing, eastern China
(credit Lu Guang/ Greenpeace)

Chapter 4.

Case study: Textiles

4.1. The problem

The textile industry is a heavily polluting, resource intensive sector with a s
Raw material sourcing, manufacturing and processing are largely located in
wages and lax environmental regulations. Supply chain risks include labour
mental impacts in the supply of raw materials (such as pesticide intensive c
conditions in garment factories and the environmental impact of packaging,
tion.

Every type of textile fibre carries its own specific environmental and social p
general issues common to the supply chain as a whole. This chapter first exa
tiatives designed to tackle environmental issues in the textiles sector as a wh
look at schemes specific to cotton and viscose. Given the sheer number of sus
in the textile industry, we have focused on a selection of the most common
have also focused on how they address environmental aspects, making only p
criteria.

More than 60% of the world s textiles are used for clothing (Ellen MacArthu
mand is increasing as a result of the growth of fast fashion: low cost clothin
to mimic the latest luxury fashion trends (Joy et al., 2012, p.275), which requ
terning and weekly delivery of new items to stores to keep consumers return
key role in fast fashion; clothing brands themselves admit it only takes ten wa
item shows signs of wear and tear (Joy et al., 2012, p.283).

About twice as much clothing was sold in 2015 than in 2000, while the num
worn has decreased by 36% in the past 15 years and less than 1% of the mat
ments is recycled into new clothing (Ellen MacArthur Foundation, 2017). Mea
ing continues to grow, driven by consumers in emerging markets in Asia and A
to continue on this path, by 2050 its share of the global carbon budget woul
would add about 22 million tonnes of microfibres to the oceans and it would
lion tonnes of oil for synthetic fibres (Ellen MacArthur Foundation, 2017).

According to the Clean Clothes Campaign, between 60 and 75 million people
tile, clothing and footwear sector worldwide in 2000 only 20 million peop
industry (Stotz and Kane, 2015).

China is by far the largest exporter of textiles; in 2014, it had a 35.6% share
100,000 garment producing factories and more than 10 million people empl
2015). The second largest is the EU (23.8% market share) and the third is Ind
porter is the EU (24.8%), followed by the US (8.4%) and China (6%) (WTO, 2015

Bangladesh s dependency on the clothing industry is particularly striking. In 2
exports were textiles, with a value of 20 billion USD (Stotz, 2015, p.1ff). The co

wages and poor working conditions especially since the Rana Plaza incident
actory collapsed, resulting in the death of 1,134 workers. The building s owners
visible cracks in the building in the months running up to the collapse.

ntal and social impacts
les supply chain

textile supply chains, negative impacts can occur at many stages: the grow
ginning of cotton and production of dissolving pulp from wood for viscose;
tiles through spinning and weaving; wet processing (a term which covers the
shing fabric); garment assembly, packing and shipping. After retail, there are
ocial impacts during the use and garment disposal stages.

rmed at a different location, so the industry is heavily dependent on transpor
enewable resources such as oil are used for the production of synthetics, and
water and chemicals are used for growing raw materials and wet processing.
itional problem; dyes and chemicals are washed into rivers and water bodies
areas. Most wet processing operations are located in less developed or devel
annot afford technology to properly treat the effluent; 20% of industrial water
processing of textiles alone (Ellen MacArthur Foundation 2017). The chemi
uction also contaminate soil, rendering it infertile in severe cases (Tobler Rohr
is more, the complex supply chain and a pervasive lack of transparency make
ustry accountable for its environmental and social impacts.

Denim washing factory worker in Guangdong Province, China
(credit Lu Guang/ Greenpeace)

4.3. Sustainability schemes for textiles

Growing consumer concern has led to a proliferation of sustainability initiat
especially following high profile NGO campaigns, such as Greenpeace s Detc
lenges clothing brands on their use of chemicals (Greenpeace, 2016).

The proliferation of voluntary initiatives in the textile sector can be overwhe
clothing brands alike. In addition, complex production processes involving up
across the garment industry make it difficult to grasp which parts of the sup
specific schemes and to what extent practices are being improved.

Of the more than 100 sustainability certification schemes in use in the textile
2018), this chapter provides a qualitative analysis of the best known initiativ
lems as well as some strengths. Some of the initiatives are not actual certifica
sultancy (Made by, ZDHC) and self assessment tools (such as the Higg Index)
The overall aim of companies is the same, though: by signing up to sustaina
seeking to create a positive image for their brand.

4.4. Pan-industry schemes

4.4.1. The Higg Index

The Higg Index was developed by the Sustainable Apparel Coalition (SAC), a
more than 100 brands, retailers, suppliers, NGOs and non profit organisation
was founded after the catastrophic incident at Rana Plaza in Bangladesh in 2
in Cambodia during which several garment workers were shot (Radhakrishna
represent more than 40% of the apparel industry. Its website lists 75 brands a
including Primark, Walmart, Macy s and C&A. It also counts 67 manufacture
Group, DuPont and Lenzing) and 31 academics, affiliates, governments and N
Cotton Initiative, NRDC, Fairtrade International, Solidaridad, WWF and the U
tion Agency) among its members (Sustainable Apparel Coalition, n.d. a; n.d. b)

Although the SAC and the Higg Index are not sustainability certification sche
vide tools to enable brands, retailers, and facilities (factories) of all sizes to accu
a company s or product s sustainability performance (Sustainable Apparel C
brands and retailers widely use their mere participation in the Higg Index as ev
mitted to reducing environmental impacts in their supply chains (Target, 2018

The Higg Index s product focused tool for comparing the sustainability of di
cose and cotton, is the Higg MSI (Material Sustainability Index). There are thre

- **Step 1:** Separating different fabrics;
- **Step 2:** Separating each fabric into different production stages;
- **Step 3:** Awarding scores for several environmental aspects, includi
  ing, water scarcity, chemical and fossil fuel use and depletion of oxyg
  fertiliser runoff, for example) (Higg MSI, n.d.).

ach appears quite comprehensive; for instance, identified production stages ric include the raw material source; yarn formation method; textile formation; d finishing. Certification status (e.g. OEKO-TEX, Fairtrade) is also noted. How ke the whole life cycle assessment into consideration, leaving out end of life, one of the more sustainable fibres (Higg MSI, n.d.) which is surprising, given e usually rated from an environmental perspective.

wo more product focused tools, the Higg Design & Development Module and , which is expected to launch at the end of 2018. Both seem to only be avail approved brands and retailers (Sustainable Apparel Coalition, n.d. d). Another brands is the Higg Brand & Retail Module (Higg BRM), which aims to help environmental, social and labour impacts of their operations (Sustainable Ap ssessment standards for Higg BRM are not publicly available and it is not clear erified. The aim of the module is to share the data internally with supply chain r transparency (Sustainable Apparel Coalition, n.d. e).

Environmental Module (Higg FEM) scores production facilities according to ormance. In 2017, the SAC launched Higg FEM 3.0, which focuses questions ty s outputs. The Higg FEM measures environmental management systems; ns; water use; wastewater; emissions to air (if applicable); waste management, anagement. It does not assess labour and social conditions at the facilities separate Higg Facility Social & Labor Module (Sustainable Apparel Coalition,

gation for facilities to publish their results, likely resulting in a reporting bias in th good environmental performance communicate their scores. If a company esults, its Higg Index score must be third party verified (Sustainable Apparel very clear how audits take place, nor how frequent they are.

quired to use the Higg Index and some have used it only a handful of times most Higg Index results remain confidential and have not been shared with he Higg Index Roadmap to Transparency, the aim is to finally have full public es by 2020 (Sustainable Apparel Coalition, n.d. f); Higg FEM data is expected 18 (Mowbray, 2016).

suffers from an acute lack of transparency. Although it is commendable that to Transparency has set an objective of achieving full transparency by 2020, ented remains to be seen. For example, it is still unclear precisely how much ilable; one source states there will be a transparent release of all Higg data he SAC website itself suggests that only company sustainability scores will be blic (Sustainable Apparel Coalition, n.d. f). Will the Higg Index provide com e full range of environmental performance indicators for all its members and y chain links between brands and their factories? Will it require more frequent than current annual self assessments? All this remains to be seen. The Higg t incentives and action plans to improve performance or sanctions if compa nprove, stating: FEM is a roadmap for continuous improvement, not an audit. you to determine how to interpret your score there is no failing grade! If you t is okay (Sustainable Apparel Coalition, n.d. f).

With some companies already using their SAC membership (and participat proof of commitment to environmental sustainability, despite the scheme s c the lack of clarity for consumers about what improvements companies are m chains, there is a clear risk of greenwashing.

4.4.2. MADE-BY and MODE Tracker

MADE-BY is an industry led sustainability initiative that Dutch based NGO 2004. With a mission to make sustainable fashion common practice, MAD evaluate environmental and social conditions in the fashion industry: the M isation offers consultancy, stakeholder engagement and partnerships and st works with over 100 brands and retailers. It has offices in Amsterdam, Londo expert network in China (MADE-BY, n.d. a).

The organisation offers five consultancy packages:

1. **Detox:** To reduce the use of hazardous chemicals in products and su
2. **Sustainable Collection:** Information, manuals and workshops on i emissions, occupational health and safety and environmental policy;
3. **Cotton Options:** A package that recommends companies partner Cotton Initiative (BCI);
4. **People:** To set labour standards;
5. **Leather:** To trace the supply chain and reduce the environmental i tion (MADE-BY, n.d. b).

MADE-BY published its Environmental Benchmark for Fibres in 2013 (MADE- cessing Benchmark[6] in 2014, following several NGO campaigns highlighting nature of the wet processing phase in textiles production (MADE-BY, 2014).

Similarly to the Higg Index MSI, MADE-BY s Environmental Benchmark for F ronmental impacts of 28 natural and man made fibres based on six parameter toxicity; eco toxicity; energy input; water input; and land use. This benchmar the production process from the origin of the raw material to the stage at be spun without considering impacts at the wet processing stage or during bution, use or end of life. The fibres are classified from Class A to E; Class A i fibres, such as recycled cotton; Class B includes Lenzing s branded lycocell (cludes Lenzing s Modal viscose and bamboo viscose (MADE-BY, 2013). Th undergoing a review; an updated version is scheduled for release in 2018 (Mad

MADE-BY s MODE Tracker is a performance tracking tool for brands that has 50 industry experts. At the time of writing, results for just six brands were MADE-BY website. Similarly to the Higg Index, participating brands are award on performance in eight cubes (areas):

6 MADE-BY s Wet Processing Benchmark attributes different colours to chemicals to denote hazard levels: red, ora chemical hazard information, meaning some hazards might not be included. Furthermore, it only takes into accou impact of effluent generated during wet processing. The stated aim of the benchmark is to provide a tool for facil

more sustainable materials and processing techniques;
and human rights;
: Reduced or less harmful use of chemicals, water, waste and energy;
transportation; Reducing environmental impacts from transport
g products**;**
Reducing post consumer waste;
Improving brand s external sustainability communication;
lity: Extension of product life (Use and Durability cube);
s: Impacts of brand operated facilities (MADE-BY, n.d. c).

MADE-BY and its MODE Tracker tool, it commits to submitting and verifying
of three out of eight cubes. This means there is no obligation for them to report
nufacturing and transparency. After verifying the submitted data, MADE-BY
etailers to one of three levels per cube. However, the standards for achieving
and set ambition) are fairly low and require only a minimal level of engage
a 100% score at all levels, it is considered to be the industry leader, or Pioneer .
quirements for achieving different levels annually, but states that these up
el 3, not the levels below (MADE-BY, n.d. c).

porting once a company becomes a member makes the initiative and its tool
t covers all parts of the supply chain. As a result, only one out of the six brands
ults public has decided to report on all eight cubes. MADE-BY (n.d. c) states it
nd independent evidence based verification based on a brand s existing data
an requiring completion of specific surveys or creation of new documents. The
details about how and how often verification takes place, or the specifics of

ed a score if the brand has not carried out activities in line with the framework
ver, because of the minimal reporting requirements, it is impossible to obtain
of the brands performance. As MADE-BY currently does not have any public
g these elements, our conclusion is that membership is insufficient proof of

TEX

3 independent textile testing and research institutes. It comprises seven certi
vices:

: for finished textile products;
N and **LEATHER STANDARD:** product labels;
X TO ZERO: for production facilities;
: for textile chemical suppliers;
pply chain database for brands, retailers and manufacturers (OE

TEX Standard 100 label, one of OEKO-TEX s member institutes must test the
esence of harmful substances. The Standard 100 label can be issued for textile
f production (yarns; fabrics; dyed or finished materials; accessories), as well as

OEKO-TEX®

fication is only possible if all components of an end product comply with the
ing accessory parts such as buttons, zips, linings and fasteners in addition to t
sewing threads, or prints and coatings. Limit values for harmful substances, i
are not legally regulated, are available in online catalogues; these include bann
genic and allergy inducing colourants and pesticides. The label only covers c
in the end product; it does not consider exposure to harmful substances durin
It must be renewed every year through testing, but after it has been renewed
procedure applies (OEKO-TEX, n.d. a; 2018a, p.12).

OEKO-TEX states that its STeP (Sustainable Textile Production) certification s
facilities at all processing stages of the textile chain (textile production; spinn
knitting mills; finishing facilities; manufacturers of ready made textile item
part of STeP, OEKO-TEX also offers a DETOX TO ZERO module, which enab
textile chain to assess the status of their chemical management systems and
water and sludge and to have these documented through independent verif
TOX TO ZERO is a status report that OEKO-TEX states can confirm compliance
from Greenpeace (OEKO-TEX, 2018d). Although this is not a certification sc
MRSL has a good scope and reporting limits.

While at first glance STeP appears to cover impacts across the entire textile p
look reveals gaps. Taking viscose as an example, STeP has a questionable appro
of viscose fibre manufacturing, such as xanthation the treatment of dissol
ful carbon disulphide (CS_2). It is not possible to produce viscose without CS2 u
However, the latest two versions of STeP Manufacturing Restricted Substanc
ban the intentional use of CS2. The 2017 standard at the same time provides
stipulate that [c]hemicals mentioned in this MRSL which cannot be eliminat
stituted due to current technology may be used as long as no substitution proc
that all efforts are made to minimise exposure of workers and environment
duced article (OEKO-TEX, 2017, p. 68).[7]

STeP requires this to be described and documented by a relevant authority, w
quirements on how the chemical needs to be managed or limited (OEKO-TEX
viscose producers, such as Chinese viscose producer Sateri (for its Fujian facili
and MADE IN GREEN labels in 2017 (Oeko Tex, n.d. c), without having to exc
ation or even setting limit values on this dangerous chemical (OEKO-TEX, 20
strates that STeP does not really apply to all stages of production and that it
driving ambition towards better chemical management. Our own research (
shows that CS2 could instead be managed in a closed loop production proc
Available Techniques (BAT),[8] which OEKO-TEX does not address. Nor does ST
terial sourcing; it merely vaguely stipulates that: When sourcing raw materia
nies should make sure to source only from suppliers that can prove they work
ably (OEKO-TEX, 2018b, p.49).

A STeP label is not meant to be displayed on products; rather, it is for use in b
munication. Applicant companies fill out a questionnaire, which an OEKO-T

7 The 2018 edition of STeP standard appears even less strict than the 2017 edition: it does not apply exclusion cri
eliminated or substituted but more broadly stipulates that if chemicals mentioned in the MRSL of STeP by OEKOTE
of workers and environment to these chemicals is not permitted (OEKO-TEX, 2018B, p.130).

tionnaire contains six modules:

agement;
l performance;
l management;
bility;
ement;
ealth and safety.

ssful, the company can then use the label for a period of three years. A STeP
the company following web based and onsite audit. Verification is carried out
oduction facility by the OEKO-TEX institute in charge.

option for companies to be assessed for internal purposes as a basis for im
which are only used for internal communication (OEKO-TEX, 2018b).

passes three different levels describing the extent to which the company has
duction and working conditions:

vel;
nplementation with further optimisation potential;
ary implementation in the sense of a best practice example.

s the following scoring results:

vel achieved;
n;
ation of the analysed company areas.

eable product label for different textile goods (e.g. yarn, fabric, garment), which
tified (i.e. free of harmful chemicals) and produced by STeP certified facilities
and socially responsible workplaces). MADE IN GREEN certification is open
pply chain, from manufacturers and traders to brands and retailers. The label
one year and must then be issued again. Each item with the MADE IN GREEN
roduct ID and/or QR code,[9] allowing consumers to trace how the article was
details on the various stages of production, as well as the countries in which
ed (OEKO-TEX, 2018c).

site is not user friendly, it does contain a wealth of information. The multiple level
esses many challenges in the textile supply chain but may lead to some confu
-TEX Standard 100, which only guarantees that no harmful chemicals remain
be wrongly leading consumers to the conclusion that products carrying the
ainably. For German speakers in particular, the name OEKO-TEX may lead to
rtified products are organic (*ko*). However, the OEKO-TEX Standard 100 does
the use of GM crops, pesticides or organic cotton; indeed, it does not guarantee

The STeP and MADE IN GREEN certification system could also easily provid
misleading impression that a certified company is sustainable overall. For exam
may only have one stage of the process or one factory certified, while performi

4.4.4. Zero Discharge of Hazardous Chemicals (ZDH

ZDHC

The stated aim of the ZDHC initiative which is not a certification regime or a
hazardous chemicals from the textile, leather and footwear industries by 2020.
brands in 2011 as an industry response to the Greenpeace Detox campaign (ZDH
members, among which 24 brand members include Adidas, Levi Strauss, H&M,
and Gap Inc. Associate contributors include the SAC, OEKO-TEX, the C&A Fou
Information Center and many others (ZDHC, 2018).

The ZDHC Programme has developed a collective MRSL, which restricts hazardo
used and discharged into the environment during manufacturing (ZDHC, 2015b
also released wastewater guidelines that provide a set of unified wastewater pa
test methods (ZDHC, 2016). These only apply to industrial wastewater discharge
wet processing facilities; wastewater discharge from raw material productio
leather processing, polymer production and other stages remains out of scope
to be tested and ZDHC member brands are allowed to publish the results, but p
to be mandatory (ZDHC, 2016).

ZDHC developed the MRSL, which is a list of chemical substances banned f
cilities that process textile materials, synthetic leather, leather, and trim parts
(ZDHC, 2017). MRSL compliance can be achieved at four levels (levels 0 to 3)
the reviewing process ranges from self declaration to a third party documenta
Self declaration is valid for two years; subsequently, third party verification m
n.d.). Although the MRSL does not yet apply to the production of fibre, ZDHC rec
to address chemicals used in viscose manufacturing. At the time of writing thi
level of ambition of this project had not yet been made public. The Changing
urged brands (and ZDHC) to move towards closed loop production to ensure th
from the use of hazardous chemicals in viscose manufacturing process.

Greenpeace has criticised the ZDHC MRSL for its limited scope (in terms of th
covers), as well as its lack of a fully hazard based approach; it excludes some ch
are flagged by GreenScreen, a globally recognised tool for identifying hazardo
ternatives (Greenpeace, 2016). Greenpeace s Detox list includes about 400 che
200 (Barrie, 2016). However, there are some new ZDHC tools and developmen
to address these concerns.

Greenpeace also points out that the more ambitious brands have developed
while the others rely on the ZDHC list (Barrie, 2016). For example, while H&M e
bleaching chemicals, ZDHC only refers to no intentional use and even allows
(H&M, 2016). Kirsten Brodde head of the Greenpeace Detox campaign, wh
performance towards eliminating hazardous chemicals across their supply
while the three highest scoring brands in the Greenpeace Detox ranking are n
low scoring Detox brands are also part of it, which suggests that ambition is b
companies rather than by the ZDHC initiative (Barrie, 2016).

le whether ZDHC is actively driving transformation across the apparel indus
leading the textile, leather and footwear industries towards zero discharge of
DHC, 2018a), it is actually taking a significantly less ambitious approach than
high scoring companies, such as H&M and Inditex, have shown that a more
emical management is possible. ZDHC should be setting the bar high from the
ilable technology and tracking the approach of industry pioneers.

el for viscose: A good scheme in need of an update

ned in 1992 as a voluntary scheme to promote the production and consumption of
vironmental impact (European Commission, 2017a). It is regulated through Regulation
n Parliament and Council and managed by the EC. Results are third party verified (Eu
). According to the environmental NGO EEB, the idea behind the EU Ecolabel is to go
sustainable consumption by identifying the top 10–20% of the most environmentally
ir category (EEB, 2018).

overs about 54,000 products and services (European Commission, 2018c) and takes
cycle of a product. It covers a wide range of different product types, ranging from
metics and textiles. The criteria are developed through a multi stakeholder process
Os and companies, and adopted by the EC. Every four years or so, the criteria are revised
nces and, by raising the bar for eligible products, improve environmental performance
pean Union, 2010; European Commission, 2017b).

ucts within the European Economic Area can apply for the EU Ecolabel, whether or not
n Commission, 2017b). As such, it can also serve as a benchmark for non EU producers.

EU Ecolabel set higher ambition and transparency than most schemes, the devil lies in
ple of viscose, the Ecolabel should include all stages of production: deforestation and
pulp, viscose fibre manufacturing and wet processing. On wood sourcing, standards
ulp fibres are required to be made from wood grown according to the UN FAO s prin
y management. The rest can come from any legal forestry or plantations (European

el states that at least half the pulp used should come from mills that generate electricity
s the use of chlorine bleaching. On fibre production, it only limits sulphur emissions
sets less ambitious levels than those defined by the EU Reference Document on BAT
rs (European Commission, 2007). This is confusing; given that the EU Ecolabel covers
ts on the market, it should, in principle, be broadly aligned with the EU BAT levels.11
ce Document, the EU Ecolabel does not set limits on emissions to water; these were
process in 2013 to minimise the number of criteri[a] (Dodd et al., 2013). Hence, the
d other European national ecolabels, such as the Blue Angel (Germany), Bra Milj val
which cover emissions to water.

cts the EU Ecolabel for viscose is less ambitious than the EU BAT, which were set
t is in urgent need of an update. The revision must take into account existing criteria
te labelling schemes and incorporate all relevant pollution parameters. At a mini
uld set ambition levels in line with the current EU BAT, or further align with techno
st decade to capture the most sustainably produced 10–20% of viscose production.

The assessment and verification requirements of the EU Ecolabel are based on self
testing to assess chemical management, fibre criteria[12] and the product s fitness for us
include providing documentation, analyses, test reports, safety data sheets, and other e
in the supply chain. Also, where appropriate, competent bodies may carry out contr
some NGOs question how rigorous the verification process is; the Clean Clothes Campa
statement by a company can sometimes replace controls (Dodd et al., 2013, p.49).

While the EU Ecolabel is a step into the right direction and, unlike many other scheme
mental impacts throughout the supply chain, each individual product label has to b
The EC should revise the Ecolabel criteria for viscose so that they are stricter and tru
relevant to viscose production.

4.5. Environmental impacts in cotton and viscose pr

The following section focuses on schemes and labels covering cotton and v
neither of these fibres is inherently unsustainable; however, when produced
considerable environmental and social harm. None of the schemes examined
pacts in full; indeed, some even appear to be actively hindering more sustaina

4.5.1. Cotton

The biggest cotton production areas are in China; the US; Pakistan; India; Br
key (Tobler Rohr, 2011, p.49). In 1960, the market share of cotton was almost 7
about 30% in recent years (Hughes, 2017).

Cotton cultivation consumes substantial amounts of chemicals and water, ye
areas where water is scarce (Tobler Rohr, 2011, p.49; Sumner, 2015, p.207f). W
cultural land that could be used for food crops is often used for cotton in dev
(H mmerle 2011, p.18) such as India and Pakistan. 75% of the global cotton cro
modified (Royal Society, 2018). GM cotton gives rise to many concerns, inclu
diversity and wildlife, as studies have shown that GM cotton fields have fewe
insects.

The heavy use of fertilisers, pesticides, insecticides and fungicides in cotton
land and water. In addition, cotton workers and people living or spending tim
exposed to harmful chemicals through inhalation and skin contact; heavy
icals has taken a toll on farmers physical and mental health. Pesticides in th
produced in the area, and cows grazing on contaminated grass can produce m
pesticides. The chemicals also affect wildlife (birds, fish, insects) and plants (W

The state of the Ganges river in India offers a cautionary tale about the impacts
and insecticide use. Flowing through one of the most densely populated regio
ily polluted by pesticides, fertilisers and effluents (Aktar et al., 2009). The ex
for herbicide tolerant cotton (a variant of GM cotton) has led to the pollution

12 i.e. the complete material composition of the product(s), identifying and showing compliance for textile fibres, c

nental effects on wildlife there. Monocultures and toxic pesticides have also in the river valley infertile.

cts of cotton production are well documented: In many countries, farmers get nsive GM seeds, pesticides and fertilisers sold by multinational corporations; r as promised, the indebted farmers risk losing their land (Shiva, 2013). As in , suicide has taken a heavy toll on cotton farmers in despair over the amount arel, 2015). Nearly 300,000 farmers in India are reported to have committed 2013 (Sainath, 2014).

is still a niche crop. In the 1990s, less than 1% of cotton was certified organ Rohr, 2011, p.58) a figure that remains roughly the same today. According e Centre, organic cotton represented 1% of the global cotton area (more than 4–2015 (ITC, 2017). In 2014, there were approximately 148,000 organic cotton anic Trade Association 2015).

e

of viscose fibre is about 7% relatively small compared to cotton or polyester ate viscose production will grow over the coming years. China more than dou uction from 2007 to 2013 (WFN, 2017, p.9) and is the biggest viscose produc ed by India and Indonesia.

from wood pulp: a naturally occurring, cellulose based raw material. Along es, viscose is responsible for deforestation and illegal forestry, leading to the million trees each year (Canopy Planet, 2015). This has particularly affected In st wood for pulp producers; in Sumatra, natural ed to make way for monocultures such as euca viscose production (WFN, 2017, p.10). Destruc tributes to climate change and has dramatically cluding endangered species such as the Suma .

ng a toll on Indigenous peoples and local com heir land rights and often fostering conflicts. e requires a range of toxic chemicals, such as CS_2 hese chemicals are not treated and disposed of e devastating impacts on factory workers, com cinity of production sites and the environment. ng process, workers are exposed to chemicals e accidents, such as explosions or leakages. Ex le a harmful chemical key to viscose produc serious health issues among factory workers, heart attack and stroke. Pollutants characteris er from viscose production present a high haz ng that a single exposure incident can result in death to fish or other aquatic organisms. This ildlife and local communities ability to access

River water next to a discharge pipe from a viscose factory owned by Aditya Birla is seen visibly steaming in Indonesia

clean drinking water and earn a living from activities such as fishing or aquacu 2017). The production of viscose can also be very energy intensive, which is the energy comes from non renewable sources.

4.6. Cotton: Is a weak scheme undermining a stronge

4.6.1. Better Cotton Initiative (BCI)

The BCI sustainability certification scheme was created through a series o that convened world experts on different commodities throughout 2005. Its organisations including Adidas; Gap Inc.; H&M; IKEA; Organic Exchange, Ox Cotton Initiative, n.d.). It is an associate member of the ISEAL Alliance and ea of sources, including donations and grants from private and public funders (su ment ministries, as well as fees from brands.

The BCI has undergone very rapid expansion since its creation. Between 20 area for BCI cotton expanded almost ninefold, growing by 38% between 2014 certified over 2.2 million hectares worldwide in 2015, representing 0.05% of th and almost 7% of the global cotton area. Over 800,000 producers participated 2 million metric tonnes of cotton lint were produced in 2015. The BCI aims to al cotton market by 2020. According to a 2017 report by the UN s Internation growth of the BCI programme is largely due to its less stringent requireme (ITC, 2017, p.16).

WWF states on its website that (in August 2016) 12.5% of global cotton is Bett 2017), which may lead consumers to believe that sustainability based on a BC ganic cotton. Although WWF acknowledges that cotton is the highest user of p to thousands of deaths by pesticide poisoning every year) and is associated w radation and numerous other negative effects, BCI does not forbid the use of h ficial fertilisers or GM cotton.

At the time of writing, BCI had 1,213 members. The 81 retailers and brands cer das; Benetton; H&M; Nike; Target, IKEA and Levi Strauss (Better Cotton Initiat BCI certified cotton are based on six pillars:

1. **Minimising the harmful impact of crop protection by restric pesticides:** The use of pesticides is allowed, except for substances l A and B of the Stockholm Convention. People applying the pesticides older, not pregnant or nursing and not ill, and they should use appro and safety equipment (BCI, 2013). BCI is technology neutral in rega (as it is a mainstream initiative) and it works with all farmers (BCI, 20
2. **Water efficiency**.
3. **Soil health:** Although it makes no negative statements about the us maintain soil.
4. **Conservation of natural habitats:** Requiring nothing more than national laws.
5. **Fibre quality:** A rather vague concept, which requires the adoption

imise the fibre quality and for farmers to harvest, manage and store way that minimises trash, contamination and damage (Better Cot 13a).
With weak and imprecise requirements that are easy to circumvent.

to grow Better Cotton, farmers must comply with a set of minimum require oduction criteria, management criteria and reporting on the results. Farmers nprove; according to BCI s Assurance Programme, the higher the improvement ce (Better Cotton Initiative, 2018a).

company becomes insolvent, resigns or is expelled. An expulsion can occur if neets the definition specified for the member s membership category (Better But the BCI only makes regular checks on the minimum requirements, not s that the scheme is not driving continuous improvements.

for BCI certified cotton are low and apply only to the beginning of the cotton BCI certificate as a guarantee of sustainability is misleading; BCI certification certified farms do not meet any international or national regulations and laws ot encourage the uptake of organic cotton.

Cotton farmers in India growing GE cotton. The use of genetically modified cotton is not prohibited by BCI *(Peter Caton/ Greenpeace)*

A revised BCI standard was announced in March 2018. The updated principles to improve standards on pesticide usage, water stewardship and equal pay, b licly available yet. On pesticide use, a BCI statement from March 2018 announ towards pesticide use and restriction (Better Cotton Initiative, 2018b), includi hazardous pesticides and banning pesticides listed in the Rotterdam Convent personal protective equipment when applying pesticides has also been inte (Better Cotton Initiative, 2018b).

The Clean Clothes Campaign has criticised the BCI certification scheme beca ment to organic cotton or minimum prices for cotton producers. The focus se many members as possible without raising the bar.

BCI might have also played a role in the decline of organic (and non GM) cotto an investigation by the French broadcaster France 2 (Lucet, 2017) reported tha had come at the expense of organic cotton. This would be regrettable, as it w impact of a much stronger certification scheme, discussed next.

4.6.2. Global Organic Textile Standard (GOTS)

The GOTS certification scheme, established in 2006, comprises four membe many), the Organic Trade Association (USA), Japan Organic Cotton Associa Association (UK). It works with other international stakeholder organisation farming and environmentally and socially responsible textile processing. The organic production of natural fibres and excludes GM cotton. Certifiers are fr other organisations (GOTS, n.d. a).

The GOTS lists 2,788 certified companies, but this does not mean a company covered; some products might qualify and others not. Companies that proc and non GOTS certified cotton include Aditya Birla Fashion and Retail Lim certifies products as either organic or as made with [X]% organic materials; organic label has to consist of at least 95% certified organic fibres, and produ ganic at least 70% (GOTS, 2017).

GOTS environmental criteria cover additional parts of the supply chain pr manufacturing and are compulsory. The social criteria apply to the proces trading stages. At all processing stages of GOTS certified products, the use o and various other chemicals is prohibited. The list is explicit and not open to i

All chemicals used must first be signed off by a GOTS approved certifier. Thi supply chain, organic and conventional fibres may not be mixed. Specific re wet processing and other stages must be followed. During processing and ma local binding environmental requirements apply; all companies must write a including target goals and procedures to reduce energy and water consumpt During the wet processing stage, full records on chemical use, energy, water water treatment must be kept. Wastewater is subject to local legal requiremen an internal or external functional wastewater treatment plant before [being] ronment (GOTS, 2017).

cal requirements, GOTS has one of the highest standards among sustainability GOTS label means all processing until the final product is GOTS certified. As an display the label if it has been GOTS certified, but if that same yarn is used certified facility, the final product cannot display the GOTS label.

emes, GOTS certification is strict regarding surveillance of its criteria. At ev ain, onsite checks are carried out by annually testing institutes that GOTS ap ecks are made, especially in cases where a risk has been identified.

rmative and clear. Its certification scheme has a clearly environmental pur n raised, however, about the scheme s lack of commitment to a living wage so has very weak social standards for the production of the raw material (its o processing). In addition, GOTS guidelines only exclude fibres that originate for which there is evidence of a persistent pattern of gross violations of the and/or of animal welfare principles or irrefutable evidence of a persistent pat hods (GOTS, 2017, italics added). This is too weak.

GOTS

th of the BCI, in spite of its clear shortcomings, raises serious concerns about cotton. With its support for GM cotton and tolerance of pesticide use, the BCI on that is truly better for the environment and to protect the health of cotton s to be crowding out and restricting the growth potential of more sustainable nd there is a real risk the organic cotton market could suffer as a result.

s promise to promote the production of genuinely better cotton, it would have nmitment to organic cotton production, explicitly prohibiting the use of GM imetable for the complete phase out of toxic pesticides and fertilisers in global he absence of these changes, it is likely to lead to greenwashing on an indus would be required for it to deliver on its promise; in its current state, it appears be scrapped.

lpful but partial scheme

nmental organisation Canopy was established in 1999 to protect the world s Markets Initiative, it was renamed Canopy in 2009). In 2013, the CanopySty d, focusing on preventing the logging of ancient forests for clothing (Canopy, only sustainability initiative that focuses on the pulp industry for the produc re, such as rayon, viscose and lyocell (Canopy, n.d. b).

Forest campaign, Canopy collaborates with more than 750 companies (Repas, artners (Wright, 2018), including H&M, Inditex, Levi Strauss, Marks and Spen Canopy, n.d. b). A handful of brands (including Eileen Fisher, Stella McCartney as leaders and visionaries, indicating that it distinguishes between brands ce (although this is not written explicitly). Global ecological hotspots listed on tropical forests of Indonesia, forests of the North American west coast, Cana azil s Amazon Rainforests (Canopy, n.d. c).

Canopy does not certify products, but its annual *The Hot Button Issue* report r ers according to their effect on ancient and endangered forests. The report is b ment criteria (seven categories and several subcategories), including adoption policy, traceability and transparency, innovation and completion of third par CanopyStyle Audit is conducted by auditors from the RA s certification divisio

In the case of sourcing from ancient, endangered and other controversial for awarded (Canopy, 2017, p.3). Particularly poor performers (such as Aoyang T largest viscose staple fibre producers) are highlighted and suggestions for imp ever, from its website (Canopy, 2017) it is not clear what steps the clothing br Canopy are expected to take as a result of this evaluation. Canopy also has no be transparent about which producers they are buying from.

While Canopy is not a sustainability label, it promotes the Forest Stewardsh the more sustainable choice for the sourcing of wood, compared to the Susta the PEFC, which it views as lacking credibility (Canopy, n.d. d). Its Hot Butt and 2017 (Canopy, 2016a, 2017) stipulate that a robust viscose sourcing polic means giving preference to fibre sourced from forests certified by the FSC. Ca the PEFC is shared by other environmental NGOs, including Greenpeace, whic have the ability to ensure responsible forest management (Greenpeace, 20 peace also withdrew its support for the FSC, stating: we no longer have confi consistently guarantee enough protection, especially when forests are facing peace, 2018).

In September 2016, Canopy released a revised version of the CanopyStyle Au cation Framework to keep textiles free of wood from ancient and endangere Sourcing from ancient and endangered forests, peatlands, HCS forests, Intac other HCV areas, as well as illegal deforestation, are all off limits (Canopy, 20 ducers are evaluated according to four criteria: commitment met, commitm ment not met and insufficient information available (Canopy, 2016b, p.14). In Canopy s guidelines prohibit violations against the rights of Indigenous pe workers, and ask companies to develop innovative and alternative fibres fr (Canopy, 2016b, pp.2–14).

Canopy s criteria and audits do not address the use of chemicals in the produ clearly that the verification process will not address the process which can le sions that impact overall environmental quality (Canopy, 2016b, p.14). This i duction of viscose fibre and dissolving pulp use large amounts of harmful che cose producers on just one part of the supply chain may give an unrealistic im as demonstrated in Box 4.2.

rla Group (ABG): Green claims lack substance

with a market value of 50 billion USD. Headquartered in Mumbai, it is one of India s wns over 40 subsidiaries operating in a wide range of industrial sectors, including alu neration; telecommunications, financial services and textiles.

ling producer of viscose and has factories located across Asia. Birla also owns factories s Domsj , a speciality pulp and bio refinery company that it acquired in April 2011. The ness is spread over eight countries and covers the entire viscose value chain, including of dissolving grade wood pulp; chemicals such as CS_2 and caustic soda; power gener on and final consumer products (Birla Cellulose, 2018a).

d s biggest producer of viscose, ABG aims to become the leading Indian conglomerate ctices across its global operations (Birla, 2016). In November 2017, Canopy ranked it work on conserving ancient and endangered forests in the sourcing of wood pulp, plac ducers that represented roughly three quarters of global viscose production (Aditya on, Birla released a press release stating: We are proud of the global industry leading l thank Canopy for acknowledging our sustainability efforts from forest to fashion. This stainability is core to our business strategy (Aditya Birla Group, 2017).

f numerous standards and sustainability certification schemes, actively using them as rs. These include OEKO-TEX certification for multiple plants operated by ABG s Grasim m Industries, 2017), and other Birla facilities and products (Aditya Birla Chemicals,

n credentials , our recent *Dirty Fashion* and *Dirty Fashion: Revisited* reports (Changing hone a light on the environmental damage caused by irresponsible production practices a (Grasim Industries in Nagda) and Indonesia (PT Indo Bharat Rayon in West Java) and re was blighting lives and destroying livelihoods. Following this, ABG started engaging Foundation and published its first plan to address pollution in viscose manufacturing . It remains to be seen how ambitious the company s final plan will be and whether it prehensive standard on viscose production: the EU BAT.

Discharge pipe with IBR factory in the background owned by Aditya Birla.

4.8. What can the textile sector learn from the failin successes of voluntary initiatives and certificat

As this analysis has shown, while there is a bewildering array of sustainabil cation schemes to choose from within the textile industry, there is currentl bel that ensures transparent, traceable and reliably high standards at every s However, sustainability schemes and voluntary initiatives in the textile ind ject to the same level of critique and public scrutiny as in the palm oil and f cases, companies have successfully managed to avoid individual responsibi dustry based approach ; the argument often goes that brands cannot create sy own but should help pay for them on an industry level (Hable, 2017). Even the which, in principle, would stand to benefit from schemes that reward high level the playing field often favour such industry wide sustainability initiati tion. The problem of this approach is that it enables free riders companies th tives without actually doing anything. Transparency in the sector still seem most progressive companies make their suppliers public, and even fewer are environmental performance.

For example, brands and retailers widely cite the SAC s Higg Index as a key p ronmental performance in their supply chains. However, it is impossible to m the SAC and using the Higg Index has improved the environmental performa because reporting on performance has so far been purely voluntary and resu gaze. Even the full module of the latest Higg Facility Environmental Module (able to SAC non members, which makes it difficult to understand how produc ed. There is a clear disconnect between the lack of publicly available data and number of SAC s 200 global member companies refer to their use of the Higg I tions and marketing to demonstrate their green credentials. This is all the m Higg Index being optional; being a SAC member does not create an obligation SAC has committed to full transparency by 2020, it remains to be seen how th

The SAC has also received assistance from ZDHC in developing the chemi of the Higg FEM (Sustainable Apparel Coalition, n.d. i), which Greenpeace h ed scope both in terms of the number of chemicals it covers and because it ard based approach. The Higg Index and ZDHC have the ambition to become If they manage to drastically improve transparency and increase the ambition management (for example, including the production of fibres) and other para tially live up to this ambition. The authors of this report see 2020 as the fin needs to take place.

Most other initiatives evaluated in this report also suffer from a variety of fl BY s MODE Tracker allows companies to pick and choose which criteria they a also receive a score based of fewer than half of the available criteria. Similarl tive only covers wood sourcing for viscose, not pollution from viscose manufa ing. While it is a very useful initiative for driving viscose manufacturers to cl chains, Canopy s producer rankings have so far excluded all other aspects, wh retailers a misleading picture of their sustainability performance and provid with an unwarranted opportunity to use their ranking to bolster their gree OEKO-TEX Standard 100 provides a useful indication of the chemical content

odules appear incomplete and possibly inconsistent when it comes to certify
ethods. This is illustrated by OEKO-TEX awarding Chinese viscose producer
IN GREEN certification even though it uses a toxic chemical that has been
wn MRSL (CS_2), but as this chemical is essential to viscose production it is al
ia on how it has to be managed.

hich is a relatively robust label due to its life cycle approach, has some short
d on the EU Ecolabel for viscose and revealed that its requirements fall short
approach as a result of the deletion of several parameters on viscose fibre man
issions to water. This makes the EU Ecolabel, which should in principle cover
on the market, less ambitious than EU BAT or some national ecolabels, such as
an. Given that some viscose manufacturers have recently committed to using
enchmark (Lenzing, 2018; Aditya Birla Group, 2018), this seems like an import
be remedied during the next revision of the Ecolabel.

rapid rise of the BCI, in spite of its clear shortcomings, gives rise to serious con
sustainable cotton. With its support for GM cotton and tolerance of the use of
ng to promote cotton that is truly better for the environment and to protect the
Serious reform would be required for it to deliver on its promise; in its current
able and should be scrapped.

s, some other initiatives exist in the textile sector that can provide companies
genuine ambition and transparency look like. For example, Greenpeace s De
s launched in 2011, has encouraged over 80 textile companies (covering over
tion) (ChemicalWatch, n.d.) to adopt a credible, individual and public commit
and release of all toxic chemicals from their global supply chain and products,
npeace, 2016). Greenpeace also publishes regular reports to evaluate progress
ormance in implementing their commitments the idea is that good compa
for their achievements and laggards exposed for the lack of ambition. While
wet processing, it does include a commitment to transparency and evaluates
achieving their targets.

s the Blue Map database, set up by the Chinese NGO IPE, through which com
time environmental performance of their Chinese suppliers including any
are being resolved. Many Western fashion brands already use the system and
Gap, Esprit and Puma are supplying data to IPE s Green Supply Chain Map,
n to their suppliers and provides real time factory level environmental perfor

mend the straightforward elimination of the worst schemes especially those
e from the industry itself and are taking market share away from more effec
e stricter requirements on the use of pesticides and ban the use of GM crops
h as MODE Tracker by MADE-BY need to seriously step up their level of ambi
aluation criteria to cease being just another initiative for companies to hide be
ould be adapted to reflect BATs and should develop stricter criteria; this would
tion scheme for the EU market and, potentially, a benchmark for producers
es should be very clear about what they certify and how performing well at
ain does not mean a company is sustainable overall. Participating companies

should be actively encouraged to identify complementary initiatives, which
come truly sustainable along the entire length of the value chain. Schemes su
ZDHC can only become truly become effective tools for driving sustainability
all assessment results mandatory and having stricter requirements for particip

A surfeit of stakeholders, weak legislation and governance and ever increasin
clothes, driven by advertising and fierce price competition, are resulting in
confusion for the conscious consumer. As there are no international regulat
tile supply chains and most voluntary schemes are currently weak and lack t
overhaul of the system is needed. Governments should take the lead by ma
line with the recent *OECD Guidelines for Responsible Supply Chains in the Gar
(OECD, 2018);* the EC is already under pressure to table a binding legislative p
(European Parliament, 2017b).

In addition, companies should become transparent about their supply chains
from. Transparency is a cornerstone of responsible business; not knowing w
no longer be an excuse for companies not to mitigate negative impacts in thei
place environmental and health and safety requirements for their suppliers.
cy and traceability would raise the stakes for consumer facing companies in
would be publicly accountable for what happens in their supply chains.

on for a palm oil plantation (credit Greenpeace/ Alex Yallop)

Chapter 5.

Conclusions and recommendations

5.1. Criticism of sustainability certification

Through case studies on palm oil, fisheries and textiles, this report has sho
sustainability initiatives in their current form are inadequate. Rather than dri
often provide cover for environmental destruction and human rights violati
studies, NGO and media reports over the past decade have reached similar c
intentions, these schemes have lost their way and have in the best case only
slowing environmental destruction or improving companies sustainability p
ation of palm oil certification schemes has not stopped the clearance of forests
certification of sustainable fisheries has not slowed down the collapse of fish
dustry continues to be one of the most polluting and rapidly growing sectors
existence of over 100 sustainability initiatives seeking to put it on a more su
cant overhaul of the system is needed to realign these initiatives with intern
sity and sustainable development goals. This section provides the final analys
on the way forward for certification in general and proposes alternative cour
sectors examined in this report, in the absence of effective voluntary initiative

The analysis shows that one major flaw is the voluntary character of these
in itself an obstacle to the implementation of higher standards that cover t
tire supply chain. The worst companies can often avoid responsibility by op
scheme and continue operating in impunity. The desire to address this has l
perceived imperative to make certification schemes inclusive, rather than sele
hindrance to driving greater ambition. When schemes and standards are cre
sensus among a wide range of industry players rather than by a vanguard o
an inherent danger that the parties will agree to keep the bar low to ensure e
usually just slightly above the lowest common denominator. Rather than a
better practices, this can actually delay progress and lock in irresponsible beh
production methods. The result: Less sustainable products might be awarded
the same consumer preference benefits as truly sustainable products from ge
panies. This is the case with the MSC, which has awarded the same label to
Canadian Northwest Atlantic swordfish, one of which is targeted and has vir
other of which has extremely high levels of bycatch of endangers sharks. This
driven by the desire to meet growing demand for certified products.

The multiplication of labels covering the same goods and services may also l
companies looking for the easiest label to achieve. This is clearly visible in the
market share of organic cotton initiatives is being eroded by a much weaker st
several palm oil schemes offer tailor made approaches depending on where
both from a geographic perspective and depending on its destination comm
fuels). Palm oil also offers an example of how governments of producing cou
laysia) can water down ambition by instigating their own weak standards

scheme barely goes beyond already weak legislative requirements, therefore the bottom when it comes to sustainability.

chemes analysed in this report are:

on requirements and a lack of clearly articulated outcomes;
g and enforcement mechanisms;
laints procedures;
bership and participation rules;
s for independently evaluating how much impact a certification ustainability;
est for the certifying organisations;
for continuous improvement.

s, addressed in the paragraphs below, are the existence of schemes that only for example, only part of the supply chain and lack of transparency and

that many of the schemes analysed suffer from an acute lack of transparen nt to which real efforts are being made on the ground and which companies This applies to labelling schemes as well as industry wide initiatives, such as many fashion brands and retailers. Using the Higg Index to measure compa mance is entirely based on self assessment, and publication of the results is company. The only condition is that if a company does decide to publish the dependently verified. This can lead to reporting bias, wherein only good per h questions remaining as to how fast the sector and individual companies are he scheme. This is supposed to change by 2020, but whether the transparency mains to be seen.

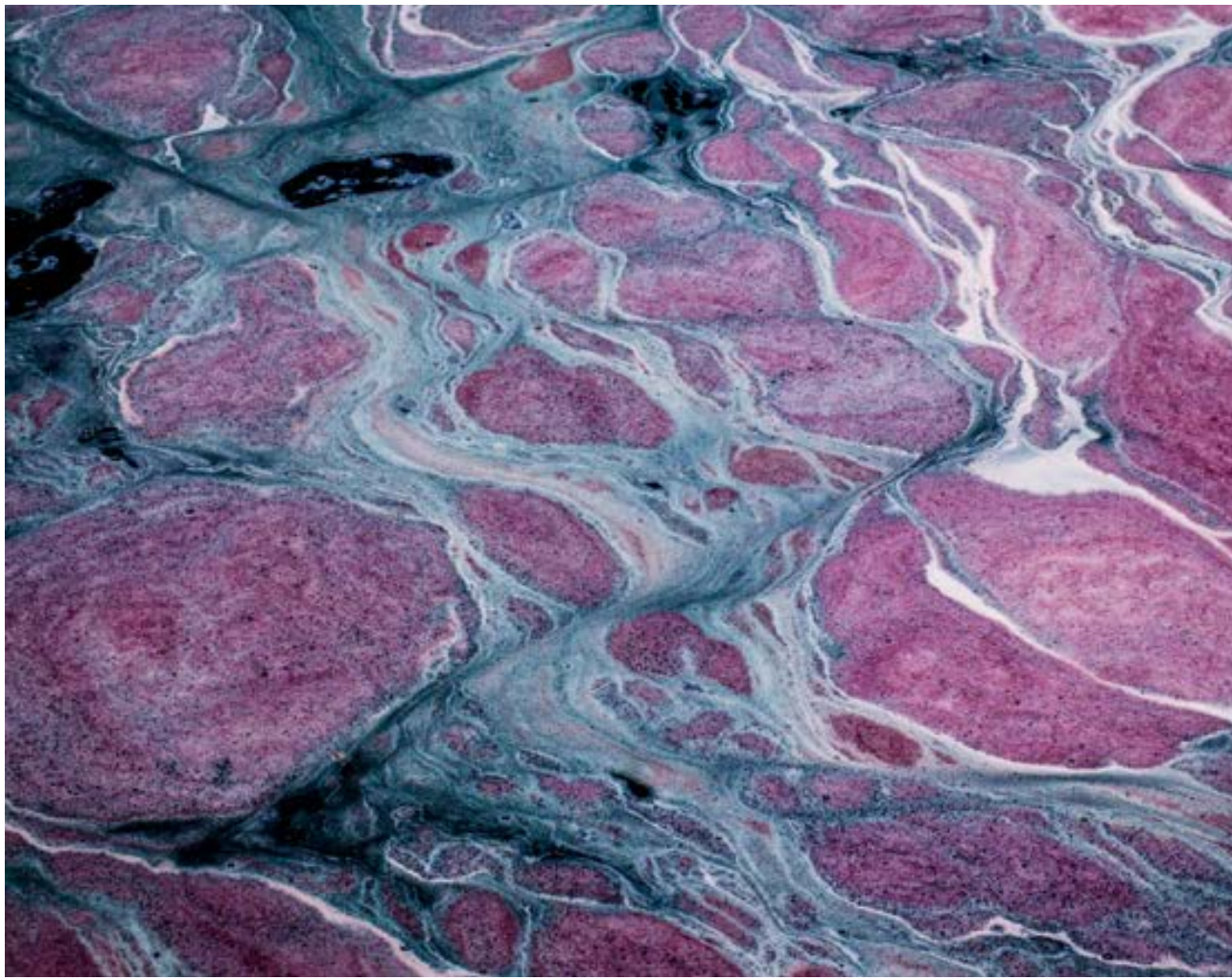
at even some well intentioned and successful initiatives, such as the Canopy de a misleading picture because they only cover one part of the supply chain. hich covers the sourcing of wood pulp but not the use of chemicals in the man s can give companies such as ABG an unjustified green glow, even though our revealed serious pollution issues around its factories (Changing Markets et al.,

oblems undermining the credibility of sustainability standards and schemes ew people are facing up to the reality that sustainability certification is fatal ty sustainability labels often encourage greater consumption; consumers as e planet by buying a certified product, when in fact buying a more sustainable uying less altogether would actually be better for the environment. This is of fisheries; demand for certified fish has grown significantly, in step with ris sh, and very few consumers are aware of the significant weaknesses in sus tion. As this report has shown, in many cases a company is able to maintain a articipating in a weak scheme, without actually implementing more sustain its supply chains. McDonald s, for example, was able to fend off criticism over oki fish it sold by referring to its MSC certification despite many objections to something fundamentally wrong with this state of affairs.

5.2. The way forward: Abolish the least ambitious schemes, reform

The general problem with certification is that all these schemes come in the co for commodities and insufficient national and international regulation to pro safeguard human rights. These schemes also exist within a framework of g consumption, where complex and opaque supply chains often obscure relevan the level of external scrutiny. Certification exists to address this problem in problem: For all three sectors featured in this report, most of the evaluated sc small part of overall production volumes, or only one aspect of the problem supply chain; only chemicals used at a specific stage of the production process

This report also shows that the schemes in question have very different f try wide initiatives while others are government led ecolabels; some focus o tainable agriculture, while others try to address the whole supply chain and m consumers and companies are confused.



Industrial wastewater containing hazardous chemicals in the Cihaur River, a tributary of the Citarum River, in Indonesia
(credit Andri Tambunan/ Greenpeace)

n all this is that there are too many schemes. This has reduced the level of am
fforts to move towards more sustainable production and consumption. Com
often picking and choosing what they want to comply with even within the
mbitious schemes (e.g. Malaysian and Indonesian palm oil schemes, BCI and

rt where the analysis shows all hope is not yet lost (e.g. MSC for fisheries, POIG
il and the EU Ecolabel or the Higg Index for the fashion industry) must reform
ance. To do so, they must put the following principles into practice, by 2020 at

be transparent and consumers should be able to easily identify what
criteria should be publicly available online and the scheme should be
hat it is certifying and what is excluded. The scheme should also clearly
hat individual companies are achieving and should not allow certification
at are clearly also engaged in unsustainable practices. The scheme should
ut what a specific company can still improve on and which criteria it does
oactively flag up instances when a company loses its certification. The
uld be presented in a clear, understandable and accessible format. Audits
le and specific about what was verified, how often and by whom. Finally,
ortance that the scheme has a public, widely available and transparent
which is open and financially accessible to local communities, Indigenous
s and NGOs. Information about pending complaints and details about
ints were resolved should also be published online.

valuated in this report had an inherent conflict of interest: Higher mem
in higher income. Similarly, the independence of third party auditors is
onable in light of their revenue model. An effective certification scheme
decouple membership revenue from certification and compliance out
ve multiple stakeholders, including independent scientists and NGOs
s not dependent on the success of the scheme. Ideally, an independent
the standards, while money for running the scheme should not come
mpanies. One solution proposed by the Forest Peoples Programme for
ver the cost of audits using money from a separate fund, which compa
lectively, while the RSPO or a fourth party should choose which audit
ed to which companies and arrange for them to be paid (Forest Peoples
7a). A similar solution has been proposed for the MSC (NPR, 2013).

ch

valuated are very partial and only certify a small part of the supply chain
he end product. An effective scheme should certify the whole life cycle
ich is the case with government led ecolabels. Partial schemes should

be very clear about what they certify and how performing well at one
chain does not reflect that the company is green (see Box 5.1). Scher
go beyond existing legislation and should not undermine or seek to re
regulation in any way.

Within a scheme, a company should not be allowed to pick and choo
out of criteria that they may, in some cases, need to comply with to
requirements for specific markets. For example, a GHG emissions cal
as an optional add on for palm oil certification to prove compliance
teria for biofuels. A scheme should only certify products that includ
product and are highly traceable. Traceability is especially problema
schemes, where trading of certificates arguably prevents companies
their supply chains. Schemes should only certify products that are
with damaging practices.

BOX 5.1: **Partial schemes: Handle with care**

Several schemes evaluated for this report only focus on one issue or part of a supply
can be useful and well thought out, they can also be a barrier to improving overall
halo effect , whereby a certain company or product is considered sustainable simpl
production has improved.

This report recommends that all stakeholders running or participating in such scheme
their partial initiative has on promoting overall sustainability and transparency within
clear communication, by the scheme and participating companies, about the stage of p
to. Participating companies should not be allowed to make vague claims about a com
due to its participation in a partial scheme, but should instead be actively encouraged
initiatives, which would enable them to become truly sustainable along the entire
Alternatively, the partial scheme in question should prepare a clear plan for extendin
the supply chain.

Aiming for continuous improvements, including greater trace

This report has revealed that many schemes settle for a lowest commo
proach because they aim to bring as many industry players as possible
that this is delaying the transition to a sustainable economy; it preven
competing with each other to deliver more sustainable products and fr
for their efforts via increased consumer demand and the accompanyi

Certification and industry wide sustainability schemes should always
regulatory requirements and international standards (such as ILO conve
only certify the best industry players, ensuring the level of ambition
reflects the top performing percentile of companies.

ry led initiatives should not allow each and every company to join; only
nstrably go above and beyond basic regulatory requirements and are
ntinuously improving should be able to gain entry. In rare cases when
med at increasing the performance of the industry as a whole (for ex
Index), it should have a high level of transparency and independently
tion on performance for every company involved. Information on how
improvements at factory or production unit level can also be supplied
at take part in the scheme. Finally, schemes should be dynamic in their
g scientific developments and regulatory improvements. Most of all,
ent backsliding.

form, based on the above principles, does not happen by 2020, the schemes
to operate; NGOs should no longer recommend them, governments should
l companies should cease using them as proof of sustainability.

n

gnificant overhaul of the existing sustainability certification system and en
ernments and NGOs to look beyond certification. In the era of digitalisation,
nge by becoming more transparent both about who they are buying from
tors in their supply chain perform. One interesting example is Chinese NGO
through which companies can track the real time environmental performance
s including any violations and how these are being resolved. Many Western
e this system and some (including Inditex, Gap, Esprit and Puma) supply data
ain Map, which publicly links them to their suppliers and provides real time
tal performance data (IPE, 2018). High levels of transparency and traceability
r consumer facing companies in Western markets, as they would be publicly
pens in their supply chains.

one is not enough. Companies should also drive sustainability by engagement
ith their suppliers, which includes clearly communicating sustainability ob
n achieve these. If their suppliers have been involved in repeated violations
rds or human rights, companies should use their purchasing power and stop
ervices from them.

rd would be ambitious national and international regulations to create a lev
companies involved. Unfortunately, this report has shown that not only volun
vernments themselves sometimes actively undermine ambitious action, the
eir own weak schemes (see Malaysia and Indonesia on palm oil) or offering
eet legislative requirements (see EU biofuels legislation). Once such schemes
ficult to change track; for example, the Indonesian and UK governments are
Indonesian ISPO scheme as a standard in a future EU–Indonesia trade agree
s shows that governments themselves are often guilty of weakening existing
vernments should stop supporting unambitious schemes, whether through
ade agreements or public procurement. They should acknowledge that volun
ficant limitations and take measures to ensure they are complemented by reg
tional standards. On the positive side, governments can support schemes that
y leaders; for example, by creating their own ecolabels, certifying front run

ners, using public procurement to give certified products a guaranteed market
a price premium.

Consumers can also play a role, starting by reconsidering their own purchasin
aim for truly sustainable products but the golden rule of sustainable consump
that are really needed, and to make sure existing products can be reused, exch
is especially relevant to clothing, where many consumers are ditching fast f
durable clothes, repairing and exchanging their clothes or opting to buy se
charity shops. Several retailers have understood this trend and are already sta
to their customers. On food, the situation is more complex, but several com
products given that certification does not currently guarantee sustainability
ganisations such as the Monterey Bay Aquarium (US), Seafood Watch (US) an
(Canada) offer rigorous science based guidebooks on sustainable fish choi
published a Red List of species that should not be consumed because of their
impacts. Several retailers are also developing their own sourcing policies th
more sustainable fisheries and ban the sales of overfished species or species ca
irresponsible fishing methods. In addition, a growing number of initiatives,
UK, support small scale local fisheries with small levels of bycatch.

Deforestation in Central Kalimantan, Borneo (credit Ulet Ifansasti/ Greenpeace)

n be done beyond certification owards sustainability?

nvestigated in this report, there is a clear environmental crisis that cannot be resolved e even if these were made to be more robust. The following actions have been identi co slow down environmental destruction and put these sectors on a more sustainable xamples of the types of actions companies and governments should be adopting; it is

mediate measure here is to reduce demand for palm oil by targeting non essential ng the EU biofuels policy would lead to significant alleviation of pressure to convert plantations; it is also a no regret measure, as it has been largely proven that biodiesel ns compared to fossil fuels. In addition, governments of countries with high rainforest mplement effective forest conservation policies, including introducing an immediate n and peatland conversion. In Brazil, such a policy has effectively stopped the unlim ation in the Amazon rainforest. Finally, palm oil producing countries and companies on and trade should implement efficiency improvements and put any new plantations egraded land.

importance of ocean conservation measures based on sound science and an ecosystem lers, the need for international measures is clear. One example of extremely effective cks and promote the health of ocean ecosystems is marine reserves. Today, only 3% of signated as marine protected areas; according to the sustainable development goals, O. Other important measures are implementing and rigorously enforcing science based egal fishing, abolishing harmful subsidies and shifting support from large scale industrial fisheries. The latter have already harvest three quarters of global catch and employ mber of people employed by large scale fisheries but only create 3% as discarded g fisheries and sustainable management can lead to the recovery of ecosystems and le supply of fish protein for vulnerable coastal populations.

ap regarding the textiles industry: No international regulations cover its global nature. e lead by mandating due diligence, in line with the recent *OECD Guidelines on Respon arment and Footwear Sector* (OECD, 2018). The EC is already under pressure to table al for such a system. In addition, companies should become transparent about their are buying from. Transparency is a cornerstone of responsible business; not knowing n excuse for companies to not mitigate negative impacts in their supply chain and put health and safety requirements for their suppliers. On chemicals, they can sign up to tment (put forward by Greenpeace); on fibre production, they can adopt the highest the EU BAT standard on viscose manufacturing recommended in Changing Markets *esponsible Viscose and Modal Fibre Manufacturing*. Companies must also have strict mplement regular audits.

panies should strive for greater oversight of and accountability for their supply chains They can commit to these by demonstrating greater transparency and continuous y signing up to a holistic approach across their operations.

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