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# WHAT'S IN STORE FOR THE PLANET:

## THE IMPACT OF THE UK SHOPPING BASKET ON CLIMATE AND NATURE - 2022

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## FOREWORD

The global food system is responsible for more than 30% of total climate change emissions and 60% of biodiversity loss, and retailers – the bridge between those who produce our food and the consumers who eat it – have an essential role to play in reshaping that system. WWF is committed to working with them to do so.

In November 2021 we announced the **WWF Basket** – our ambition to halve the environmental impact of UK shopping baskets by 2030. We published outcomes and measures to define the targets the retail industry must work towards and explain how we're measuring progress.

Five of the UK's leading supermarkets – the Co-op, M&S, Sainsbury's, Tesco and Waitrose, who together make up over 50% of the UK grocery market – signed up last year to our ambition to halve the environmental impact of UK baskets by 2030.

One year on, we are pleased to share our first report, showing how far the sector has come, how far it still has to go and providing our recommendations on how to get there.

There is a long way to go. In some areas the situation is deteriorating. But in others there is progress.

The commitment by these five retailers sets the right ambition, and our assessment shows that they are currently trending ahead of the industry.

Collaboration and collective action are at the heart of the WWF Basket. From now through to 2030, we will work with these forward-looking retailers, and others who step up to join, to address critical issues and drive action across seven priority areas: climate; deforestation and conversion of habitat; agriculture; diets; food waste; packaging; and marine. Action across other food businesses, from manufactures to farmers, food service to traders, must happen too.

And we will need rapid action by governments to deliver their climate and nature promises and support business and farmers in delivering this change. There is no food security without nature. The UK Government, led from the top, must strengthen both the ambition and pace of its transition to sustainable and regenerative farming, and far stronger global commitment is needed – not least from COP27 – to get deforestation out of our supply chains and set nature on the path to recovery by 2030.

A flourishing natural environment – supported by a sustainable food system – is the foundation of a healthy economy. We are at the start of a journey but – as the scale of the climate change and nature crises demonstrates – that journey is more urgent than ever..

**Tanya Steele**  
Chief Executive, WWF-UK

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This is the first report associated to the WWF Basket, which launched at COP 26 in November 2021,

building on from the WWF-UK and Tesco partnership ambition to make affordable, healthy, sustainable food available to everyone.

We want to thank the UK retailers who have submitted data to WWF to enable this report to happen - we are immensely grateful for your ongoing support:

Signatories to the WWF's Retailers' Commitment for Nature: Co-op, M&S, Sainsbury's, Tesco, Waitrose

Other UK retailers: Aldi, Lidl GB, Morrisons and Ocado Retail Limited

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The views expressed within this report are those of WWF UK. We recognise that providing feedback on or contributing to this report does not mean that other organisations adopt these same views.

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# THE WWF'S RETAILERS' COMMITMENT FOR NATURE - SIGNATORY STATEMENT



November 2022

Last year we came together to commit to halving the environmental impact of UK baskets by 2030 through taking action across our most material impact areas: climate, deforestation, diet, agriculture, marine, food waste and packaging. We have taken a science-based approach to prioritise our collective work, and in line with the findings of this report that supply chains can contribute up to 90% of supermarket greenhouse gas (GHG) emissions.

This requires our urgent attention and, with WWF and WRAP, we are supporting our suppliers to reduce their GHG emissions across our highest impact categories.

We also recognise that we cannot tackle the climate crisis without halting nature loss. We've accelerated action here, using our convening power to advocate for measures to tackle deforestation linked to our soy supply chains, and to reduce the environmental impact of agriculture both in the UK and overseas.

WWF's report leaves no one in any doubt that swift action is required, and highlights that achieving this goal is vital for the future of nature and our planet. We know we will need to collaborate on a scale the industry has not seen before and are encouraged that nine of the eleven major UK supermarkets have engaged with WWF this year to provide data for this report.

We take this opportunity to restate our commitment to work with the whole of society, including WWF, our customers, our suppliers and the Government to halve the environmental impact of the UK shopping basket by 2030.

We believe that this goal is achievable and is vital for the future of nature, our planet, our businesses and, crucially, our customers.

## Signatories:



**Shirine Khoury-Haq**  
(CEO, Co-op Group)



**Stuart Machin**  
(CEO, M&S)



**Simon Roberts**  
(CEO, Sainsbury's)



**Ken Murphy**  
(CEO, Tesco)



**James Bailey**  
(Executive Director, Waitrose)

# EXECUTIVE SUMMARY

## THE FOOD SYSTEM IS UNSUSTAINABLE

Transforming the global food system is key to averting the climate crisis and tackling catastrophic biodiversity loss.<sup>1</sup> The current impacts of our food system are simply unsustainable.

- 50% OF ALL HABITABLE LAND ON OUR PLANET IS USED FOR AGRICULTURE
- 30% OF HUMAN-MADE GREENHOUSE GAS EMISSIONS ARE CAUSED BY FOOD PRODUCTION
- 70% OF THE PLANET'S ACCESSIBLE WATER IS USED FOR AGRICULTURE
- 60% OF GLOBAL BIODIVERSITY LOSS IS CAUSED BY THE FOOD SYSTEM

The food we consume in the UK has a substantial environmental impact, both here and overseas, and UK food retailers have a pivotal role to play in reducing it.

## WWF'S RETAILERS' COMMITMENT FOR NATURE

Five leading UK supermarkets have pledged to work closely with WWF to achieve our ambition of halving the environmental impact of UK shopping baskets by 2030. They will report annually against the WWF Basket targets, and work with WWF-UK on areas where shared action can make the greatest difference to our ambition. Each of the retailers has made an ambitious commitment to reduce their greenhouse gas emissions to a level in line with the 1.5°C climate target by the same year.

The signatories are Co-op, Marks and Spencer, Sainsbury's, Tesco, and Waitrose. Convened by WWF-UK, the group has committed to collaborate and focus on key areas of priority for change, which so far include Climate, Deforestation & Conversion, and Agriculture.

One notable output in 2022 is a new shared set of Climate actions in collaboration with WRAP, released in 2022 – aligning around the same ask to suppliers to support Scope 3 emission reductions. There has also been focused work on Deforestation and Agriculture.

Other retailers are welcome to join the commitment, if they can pledge to work with us in this way.

Four other non-signatory retailers – Aldi, Lidl, Morrisons, and Ocado – also agreed to participate in data collection activities for this report.







## MEASURING COMPLEXITY: THE WWF BASKET

The food system is complex. To help target efforts where they will make the most difference, and to maximise transparency and accountability, environmental impact in the WWF Basket is assessed across seven target 'Areas'. Within each Area are several higher-level 'Outcomes' that will need to be achieved by 2030 in order to halve the environmental impact of UK shopping baskets. Each Outcome contains specific retailer progress measures for tracking performance and progress, both in terms of actions taken and impacts achieved.

Most progress measures are framed in absolute terms, with a clear target performance level and timeframe. In these cases, whatever the point of measurement, the distance to go to achieve the target is self-evident. By contrast, other progress measures are framed as percentage reductions – calculating the distance to go in these cases requires a baseline to measure against. The baseline year in these cases varies by Basket Area and depends both on data availability and pre-existing industry commitments that align well with the Basket. Some baselines may see revisions in future years as measurement and reporting improve.

These progress indicators are not the only areas in which actions are needed, but collectively tracking them each year will give a good indication of overall progress towards our shared goal.

## OUTCOMES & MEASURES TO 2030

AREA	UK BASKET OUTCOME	RETAILER PROGRESS MEASURES
 <b>CLIMATE</b>	GHG reduction across all scopes in line with 1.5-degree Science-Based Target (SBT). Within this area there are two retailer progress measures	% reduction of GHG emissions across scope 1 & 2 activities <sup>1</sup> % reduction of GHG emissions across all scope 3 activities
	100% deforestation and conversion-free agricultural commodity supply chains by 2025, with a cut-off date of 2020 at the latest	% of conversion-risk commodity in own supply chain that is verified deforestation and conversion-free
 <b>DEFORESTATION &amp; CONVERSION</b>	Requirement for first importers <sup>2</sup> to have deforestation and conversion-free supply chains by 2025, with a cut-off date of 2020 at the latest	% of conversion-risk commodity sourced from importers that have robust commitments and action plans to handle only deforestation and conversion-free material, across their entire operations, with a cut-off date no later than 2020
	50/50 plant/animal protein sales split	% of protein sales from animal-based and plant-based sources
 <b>DIETS</b>	At least 50% of whole produce and grains certified or covered by a robust environmental scheme	% of produce & grains sourcing in a robust environmental scheme
	100% meat, dairy and eggs, including as ingredients sourced to 'Better' standard	% meat, dairy and eggs sourced to 'Better' standards
 <b>AGRICULTURE</b>	At least 50% of fresh food from areas with sustainable water management	% of sourcing from regions with sustainable water management
	Agricultural emissions lowered inline with 1.5 - degree SBT	% of protein, produce & grain farms monitoring GHG footprint % reduction in sourcing from lowland peat % reduction in agricultural GHGs
	100% of seafood from sustainable sources	% Certified wild-caught & aquaculture material sourced
	Reduce fishmeal and oil usage to FFDR<1 by using sustainable fishmeal and fishoil replacements and increasing the use of trimmings	% farmed seafood products with FFDR (FFDRm and FFDRo)<1 and with all feed ingredients certified by ASC Feed standards or equivalent
 <b>FOOD WASTE</b>	Reducing food loss and waste in all aspects of the supply chain by 50%	% reduction in retail & manufacturing food waste % of products adhering to WRAP's best practice labelling guidance % reduction in pre-farm gate losses
	100% recyclable packaging	% packaging that is recyclable
 <b>PACKAGING</b>	40% reduction in material use	% reduction in packaging by weight and units
	All materials sustainably sourced and use of recycled content maximised	% packaging that is recycled content or sustainably sourced

<sup>1</sup> Full definitions of the three scopes of GHG emissions are provided in the Climate section. <sup>2</sup> Full definition of 'first importers' is provided in the Deforestation and Conversion section.

# THE DISTANCE TO GO



## BASKET OVERVIEW

Our ambition with this report has been to identify the distance we have to go to halve the impact of UK shopping Baskets by 2030, based on the most recent data submitted by retailers. Critical to this has been representing the majority of the industry, with data for 2022 making up 80% of the UK market share. After highlighting what the data in the report shows us, we have followed up by providing our suggestions on practical actions retailers, government and WWF can take to accelerate progress. We acknowledge there are other actors who can also influence progress, including brands, manufacturers, food service providers and traders.

It is evident that on some issues retailers are at the beginning of the journey; however, on others, they have already made significant progress – for example, efforts to reduce food waste, recyclability of packaging, and individual greenhouse gas (GHG) reduction commitments that pre-date the WWF Basket & the WWF's Retailers' Commitment for Nature.

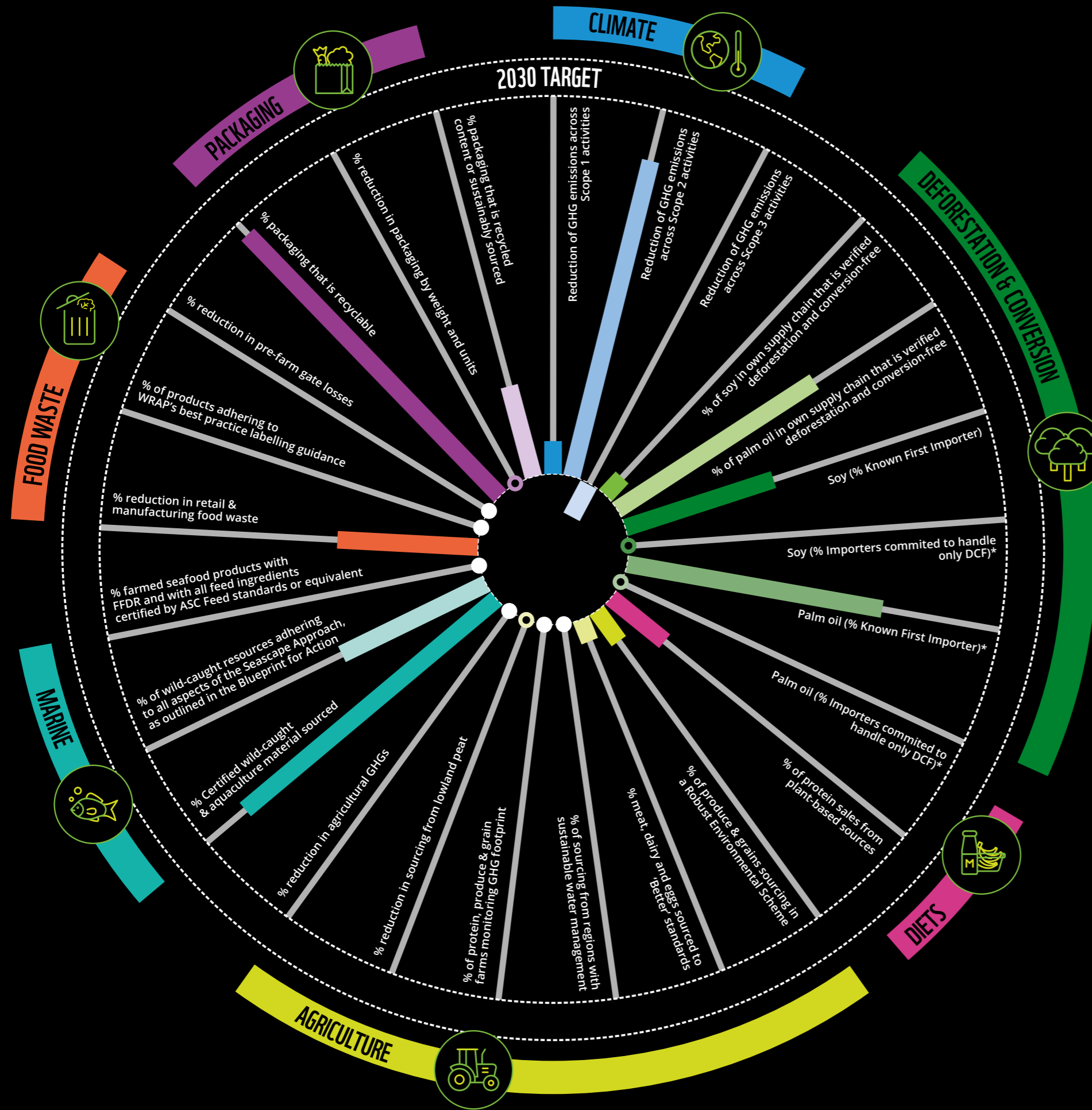
The case studies we've highlighted provide encouraging illustrations of work moving in the right direction. However, this first year's report also demonstrates that we need to go further and faster across multiple indicators.

To date, the Basket areas have been weighted equally, however the scale of the remaining challenges in some of these areas is evident in this report. For this reason, Climate, Deforestation and Agriculture have been the urgent areas of focus for WWF and the signatories to the WWF's Retailers' Commitment for Nature.

There are areas with significant data gaps where we can't indicate retailer status or an accurate reflection of the distance to go, such as measures within Agriculture and Food Waste. In these instances, we share our view on who can act most effectively to improve the availability, whether that entails guidance from WWF to provide definitions on measures, government intervention, or action from the retailers themselves. We believe seeing this for the first time is ultimately helpful across the board.

In areas where a few of the retailers have the data needed to report against a particular progress measure, we have used their submissions as the basis to estimate an aggregate figure. As retailers continue to work on their data, we'll aim to provide more reliably accurate figures for these areas as the initiative progresses.

In future years, we aim to show year-to-year change for all measures, which will help us assess the extent to which the pace of progress matches our level of ambition. We appreciate that linear progress may not always be the case.










# PROGRESS TO DATE TOWARDS 2030 TARGET

● Indicates where there has been either insufficient data to report on a given objective, or where a definition needs to be in place for retailers to report.

○ Indicates a target score of zero.



## HEADLINE MESSAGES FROM THIS YEAR'S REPORTING

BASKET AREA	HEADLINE MESSAGES
 <b>CLIMATE</b>	<p>Scope 1 and 2 absolute emissions have respectively been reduced by an average of 4% and 43% since retailer baseline years.</p> <p>Scope 3 emissions account for 97% of retailers' total greenhouse gas footprints.</p> <p>More supplier-specific data is needed in order to gain a reliable picture of supply chain emissions: in some instances a lack of data means actual levels of change are currently uncertain, which makes progress against targets challenging to interpret. This is something industry groups and government need to tackle.</p>
 <b>DEFORESTATION &amp; CONVERSION</b>	<p>6% of soy and 62% of palm oil in retailer supply chains was reported as verified deforestation and conversion free.</p> <p>No soy or palm oil importers are yet fully committed to handle only deforestation and conversion-free material.</p>
 <b>DIETS</b>	<p>9% of retailer protein sales are currently from plant-based sources and 91% are from animal-based sources<sup>3</sup>.</p> <p>Making healthy, sustainable food more available, affordable, accessible and appealing for consumers will be an increasingly important focus for retailers, food service and government.</p>
 <b>AGRICULTURE</b>	<p>Data collection on farm-level GHG emissions and water stewardship is at an early stage, so progress here remains hard to determine. However, there is not yet any evidence to show that agricultural GHGs are reducing in the UK.</p> <p>In the absence of an operationally ready definition of Robust Environmental Schemes, reporting is incomplete. 4% of produce is currently sourced from organic farms. WWF has committed to issue more detailed guidance on Robust Environmental Schemes to support industry progress.</p> <p>4% of meat, dairy and eggs are sourced to 'organic' standards and WWF will issue further definitions of 'Better' standards, using Eating Better's Sourcing Better framework.</p> <p>There is not yet any measurement of sourcing from lowland peat. WWF will be supporting industry to help build an understanding of what is grown on lowland peat soils.</p> <p>High ambition and participation in all four UK nations' emerging farm payment schemes are essential enablers of progress towards the overall Basket target.</p>
 <b>MARINE</b>	<p>86% of seafood is certified to an independent standard.</p> <p>The Seascope Approach has so far only been adopted by a minority of retailers. More visibility on environmental and social standards in fish supply chains is a key area to work on together going forwards.</p>
 <b>FOOD WASTE</b>	<p>A 19% reduction in retail and manufacturing food waste has been achieved since 2007.</p> <p>On-farm food waste has not been widely measured to date. It is currently difficult for retailers to gauge pre-farm gate food losses, so WWF is publishing guidance which will support farmers in collecting and reporting data.</p> <p>A methodology is being developed to measure how far best practice guidance on food waste-reducing packaging is being followed. There is scope for stronger interventions on consumer food waste from both industry and government.</p>
 <b>PACKAGING</b>	<p>The majority of packaging is widely recyclable.</p> <p>The quantity of packaging used by retailers has remained constant.</p> <p>23% of this packaging is recycled content or sustainably sourced.</p> <p>There is currently a lack of schemes to certify the sustainability of packaging material.</p>

<sup>3</sup> Animal-based sources are 'Meat', 'Fish', 'Dairy', and 'Eggs', while plant-based sources are 'Legumes, beans, and pulses', 'Meat alternatives', 'Dairy alternatives', 'Nuts and seeds', and 'Seaweed'.

**GLOBAL WILDLIFE POPULATION SIZES HAVE PLUMMETED BY 69% ON AVERAGE SINCE 1970. IF WE CONSIDERED HUMANKIND AS A SINGLE POPULATION, THAT WOULD BE THE EQUIVALENT OF US LOSING EVERYONE FROM EUROPE, THE AMERICAS, AFRICA, OCEANIA AND CHINA\***

\*WWF (2022) Living Planet Report 2022 – Building a naturepositive society. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (Eds). WWF, Gland, Switzerland





# CLIMATE



## WHY SHOULD WE FOCUS ON CLIMATE?

The science is clear: global greenhouse gas (GHG) emissions must be almost halved by 2030 if we are to limit global warming to 1.5°C above pre-industrial temperatures and avoid the worst impacts of climate change on people and nature.<sup>ii</sup> The food system accounts for 30% of global GHG emissions and therefore has a huge role to play.<sup>iii</sup> Retailers are in a unique position to drive decarbonisation across the whole food value chain, and many have set ambitious net-zero targets that will require significant efforts to meet during this decade. At the same time, here in the UK there are ongoing wider developments in policy and regulation, with the government announcing at COP26 in Glasgow that certain businesses will be required to publish net-zero transition plans.<sup>iv</sup>

## WHAT IS THE TARGET?

2030 OUTCOME	RETAILER PROGRESS MEASURE
GHG reduction across all scopes in line with 1.5-degree SBT. Within this area there are two retailer progress measures	% reduction of GHG emissions across scope 1 & 2 activities
	% reduction of GHG emissions across all scope 3 activities

**Climate is a current priority area within the WWF's Retailers' Commitment for Nature group with shared action on addressing Scope 3 emissions announced in November 2022, with WRAP.**

**SCOPE 3 EMISSIONS CURRENTLY ACCOUNT FOR 97% OF RETAILERS TOTAL GHG FOOTPRINT**



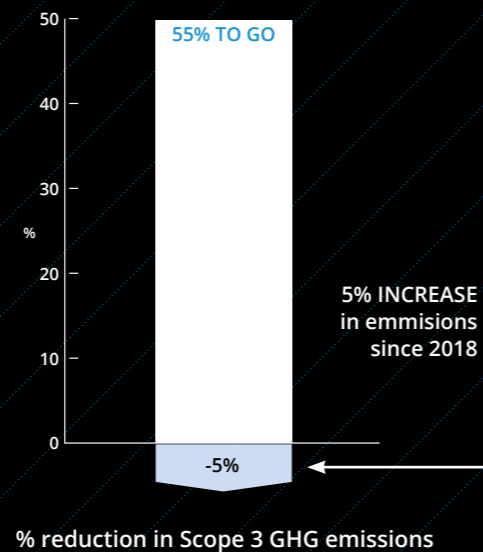
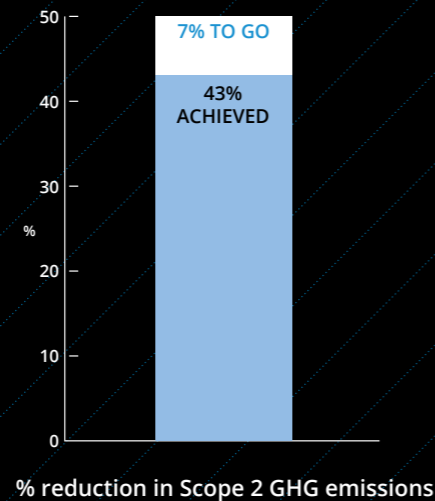
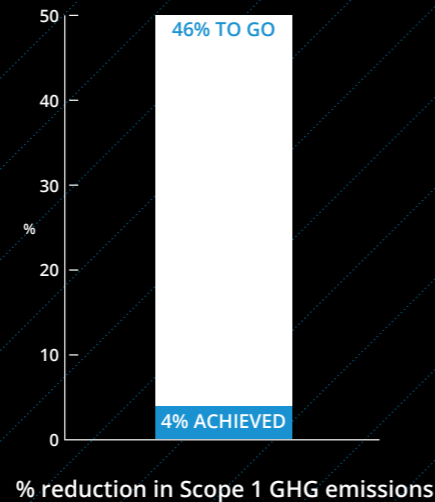
## DISTANCE TO GO

For the purposes of GHG monitoring, emissions are split up into scopes. The GHG Protocol definitions for the three scopes are specified below:<sup>v</sup>

- Scope 1 emissions are direct emissions from owned or controlled sources (e.g. gas boilers, vehicles, and refrigeration).
- Scope 2 emissions are indirect emissions from the generation of purchased energy.
- Scope 3 emissions are all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions (e.g. purchased products and food waste).

To monitor progress towards their net-zero targets, retailers have set individual baseline years that predate the WWF Basket. This first report shows that retailers have achieved an average reduction in Scope 1 and 2 emissions of 4% and 43% respectively against their respective baseline years. However, Scope 3 emissions across multiple years (on which three retailers reported this year) have seen an average increase of 5%. Since Scope 3 emissions currently account for 97% of the total GHG footprint of participating retailers, this is clearly an area in which urgent continued efforts are required. Scope 3 emissions also pose a measurement challenge, so we'll be working with industry on ways of producing consistent data across all emissions sources in future years. As retailers set their own science-based emission reduction targets, these will be used to assess progress in the future, but in this first year of reporting, a 50% reduction target has been used across Scope 1, 2 and 3 emissions to determine 'distance to go'.

## DISTANCE TO GO: CLIMATE



The range of retailers' reported scope 3 % change (between baseline and most recent years) was from a 8% decrease to a 14% increase

## NEXT STEPS TO MEET THE CHALLENGE

While there have already been strong commitments and good progress made on Scope 2, we are still near the beginning of the journey on Climate, particularly when it comes to Scope 3 emissions. Action is needed across each stage of the food value-chain, backed up by strong and clear policy from government, if emissions are to reduce at the pace required. We suggest the following:

- Not all retailers have yet set SBTs for Scope 3 emissions, and so far some are only aligned to a 2°C temperature rise. The next step is for SBTs aligned to a 1.5°C temperature rise to be set across all Scopes, including separate targets covering forestry, land-use and agricultural (FLAG) emissions.
- All signatories to the WWF's Retailers' Commitment for Nature are due to set these targets by the end of 2022. Retailers have an opportunity to take the lead in this area by publishing net-zero transition plans, including transparent information on their actions and investments in mitigation beyond their value chains.<sup>vi</sup> To bring down Scope 3 emissions, retailers can focus on reducing the carbon intensity of their product range. This includes delivering many of the actions covered in other Basket Areas, including promoting initiatives to shift diets away from meat, dairy and eggs, ensuring supply chains are deforestation-free, incentivising farmers to practise lower-carbon forms of agriculture, and delivering action across the value chain on food waste.
- For Scope 1 emissions, retailers are improving transport efficiency and pushing the development of low-carbon heavy goods vehicles (HGVs). There is an opportunity to electrify heating across retail properties and minimise the leakage of refrigerants.
- For lowering Scope 2 emissions, the next area of focus for retailers is on energy-efficiency measures and boosting renewable energy generation. This includes the installation of onsite renewables at facilities where possible, as well as market-based instruments such as power purchase agreements (PPAs) that directly drive new renewable electricity supply.
- The retail sector can continue to work collectively through forums like the British Retail Consortium, Courtauld 2030 and Institute of Grocery Distribution (IGD) to define consistent standards for supply chain GHG data, developing standardised datasets and methodologies that can be used across their supplier base, looking to measure supplier climate impacts and support decarbonisation. Government should support this by mandating consistent reporting to create a level playing field.
- The Climate Change Committee's assessment of the UK government's Net Zero Strategy found the agriculture and land use sectors to be among the worst performing. To increase ambition and improve delivery of emissions reductions in the agriculture and land use sectors, it's vital for government to release an Agriculture and Land Use Strategy in 2023. This must detail a clear vision for how the sectors can reduce emissions, sequester carbon, and achieve wider environmental goals. It should maximise the opportunity offered by replacing the EU's Common Agricultural Policy by not backtracking on the new land management system that rewards farmers for the climate and environmental goods they provide, and ensure targets are met without increasing our dependence on imports. It's important that retailers should work with government and support stronger policy to maximise ambition.

## UNDERSTANDING THE DATA

The Climate Basket Area is one that has received significant attention from retailers in recent years. Reporting of Scope 1 and 2 emissions is mandated in the UK through Streamlined Energy and Carbon Reporting (SECR), thus it is well established within the industry. Additionally, some retailers have begun to voluntarily report Scope 3 emissions to set SBTs through the SBT initiative. However, considerable work is still needed before Scope 3 disclosure accurately reflects the full GHG impact of retailers' value chains.

### % REDUCTION OF GHG EMISSIONS ACROSS SCOPE 1 & 2 ACTIVITIES

**Number of retailers reported - All (9 out of 9)**  
**Baseline year – retailer specific**

Scope 1 and 2 emissions data were well reported by retailers. Generally, there is good comparability within the dataset; although matters are made more complicated by the UK's current Streamlined Energy and Carbon Reporting (SECR) requirements, which led to some retailers reporting certain Scope 3 emissions like business travel in their Scope 1 and 2 disclosures.

Specifically, five retailers reported using the market-based approach and four using the location-based approach for Scope 2 emissions. Both approaches are allowable under the GHG Protocol, but this means data may not be directly comparable between retailers. In future years, we'll be asking retailers to report using both methodologies to ensure greater consistency.

### % REDUCTION OF GHG EMISSIONS ACROSS ALL SCOPE 3 ACTIVITIES

**Number of retailers reported – 3 out of 9**  
**Baseline year – retailer specific**

While measuring Scope 3 emissions is more challenging than Scopes 1 and 2, it is crucial for understanding retailers' overall climate impact. Retailers currently use generic industry-average sources and life-cycle analysis (LCA) databases for their reports, rather than using carbon intensities directly from suppliers. This means there is room to improve the data quality for Scope 3 emissions, which are currently uncertain. As retailers take increasingly aggressive action on Scope 3 emissions, primary data from their supplier base will become crucial.

Increases in Scope 3 emissions recorded in this first report were mainly driven by an increase in the emissions associated with purchased goods from suppliers. As mentioned, retailers predominantly use secondary carbon intensities, so this rise is likely driven by increased sales, or by an increase in the carbon intensity of the products sold, or a combination of the two. This could reflect increased sales in the retail sector overall, or sales shifts between reporting and non-reporting retailers. As retailers become able to provide more complete data in future years, we'll gain a more accurate picture of the sector's Scope 3 emissions. Product-specific carbon intensity data will be needed for any initiatives to reduce emissions taken by suppliers, or wider changes such as electricity grid decarbonisation, to be visible in the reporting data.

## CASE STUDY: SAINSBURY'S

### Climate Change – Scope 1 and 2 performance

In 2021 Sainsbury's announced an acceleration of their net zero target, with the aim to become net zero within their own operations by 2035 instead of 2040. Sainsbury's has already reduced carbon impact and GHG emissions by 20% within Scope 1 and 2 over the last 3 years (since their 2018/19 baseline). They have also committed to the long-term purchasing of renewable energy from new wind farms and solar projects, reducing their reliance on fossil fuels.

In January 2022 they completed their transition to using 100% renewable electricity across their entire estate, and last year they completed the installation of LED lighting in 100% of their supermarket estate, reducing lighting energy consumption by an average of 70%. Sainsbury's plan to install 100% LED lighting across their entire estate by the end of 2022/23.

Recently they have launched a research and development project to design, develop and deploy a new smart plug to power electric transport refrigeration units to help maximise carbon savings even further, making their delivery fleet more efficient. The decarbonisation of transport is a critical component of their target to reach Net Zero across their operations by 2035. To support this, Sainsbury's have been working with fleet electrification specialists Flexible Power Systems (FPS), utilising their expertise in the transition from diesel to zero-carbon transport. This work will inform how and when they should move their entire transport operation from diesel to alternative fuel and the infrastructure required to support this.



## CASE STUDY: CO-OP

### Co-op's Ten-Point Climate Plan & Climate Justice Campaign

Co-op's Ten-Point Climate Plan launched in 2021 and is firmly grounded by three core principles: following the science, working for a fair and just transition, and driving change through co-operation. The plan commits all parts of Co-op to reduce the impact of operations and services and sets out an ambition to reach net zero by 2040. Critical to the plan is Co-op's campaign for climate justice, elevating the voices of Co-op's climate-vulnerable producer communities and working together to mitigate the impacts of climate change.

As part of the campaign Co-op addressed world leaders and businesses at the UN Climate Change Conference, COP26, alongside a Fairtrade cocoa farmer, Bismark Kpabitey, to provide an industry perspective on the vital role that Fairtrade plays in tackling poverty and climate change. While chocolate is one of the UK's favourite foods, farmers growing cocoa face serious challenges – 75% of cocoa farmers live in extreme poverty and 30% of cocoa land will be unfarmable by 2050 due to the climate crisis. In partnership with Fairtrade, Co-op called for climate justice, campaigning for governments and businesses to step up and invest in climate resilience.

Co-op are investing in producers at the front line of the climate crisis. In 2021 Co-op announced a new long-term partnership with Fairtrade Africa, the Fairtrade Alliance for Climate-Smart Supply Chains (FACSCA), which will help drive forward the Producer Network's climate strategy and generate further action on the ground, benefitting producers at the front line of the climate crisis to adapt and mitigate the impacts of climate change. This commitment over the next three years will target 12 at-risk coffee, tea and flower producer organisations, reaching more than 16,000 farmers and 67,000 beneficiaries, supporting them to protect their livelihoods and environments, and protect key commodities for the future.



# DEFORESTATION & CONVERSION



## WHY SHOULD WE FOCUS ON DEFORESTATION & CONVERSION?

Deforestation and habitat conversion is a major driver of biodiversity loss, increased GHG emissions and harm to Indigenous Peoples and local communities. In the UK, increased consumption of animal protein and processed foods has been supplemented with the inexpensive versatile oil and protein properties of palm oil and soya beans. This has led to increasing demand for these fast-growing commodities, which have large overseas deforestation footprints. These commodities are primarily imported from regions where forests and other nature ecosystems are at high risk of being converted to upscale production, often at the expense of the human rights of Indigenous Peoples and local communities. It's a global priority to transform these supply chains into sustainable models of production that support the livelihoods of farming communities alongside natural habitats and resilient ecosystems.

A variety of industry, retailer and producer-led coalitions have developed frameworks for the responsible production of conversion-risk commodities. Globally, these include the Round Table on Responsible Soy (RTRS) and the Roundtable on Sustainable Palm Oil (RSPO). In the UK, all major food retailers are signatories to the UK Soy Manifesto, an industry commitment to work together to ensure all physical shipments of soy to the UK are deforestation and conversion free. Nevertheless, significant work is still needed from all actors to halt commercially driven global deforestation and conversion.

## WHAT IS THE TARGET?

The target has been specifically designed for palm oil and soy supply chains, so monitoring for this report is focused on these commodities only.

2030 OUTCOME	RETAILER PROGRESS MEASURE
100% deforestation and conversion-free agricultural commodity supply chains by 2025, with a cut-off date of 2020 at the latest	% of conversion-risk commodity in own supply chain that is verified deforestation and conversion-free
Requirement for first importers <sup>4</sup> to have deforestation and conversion-free supply chains by 2025, with a cut-off date of 2020 at the latest	% of conversion-risk commodity sourced from importers that have robust commitments and action plans to handle only deforestation and conversion-free material, across their entire operations, with a cut-off date no later than 2020

Definitions are aligned with Accountability Framework Initiative<sup>vii</sup> for deforestation and conversion free supply chains.

**Deforestation & Conversion is a current priority area within the WWF's Retailers' Commitment for Nature group.**

<sup>4</sup> The first company within a supply chain to place a product onto a specific market. First importers for soy and palm oil are taken to be the supplier who places the product on the UK market.

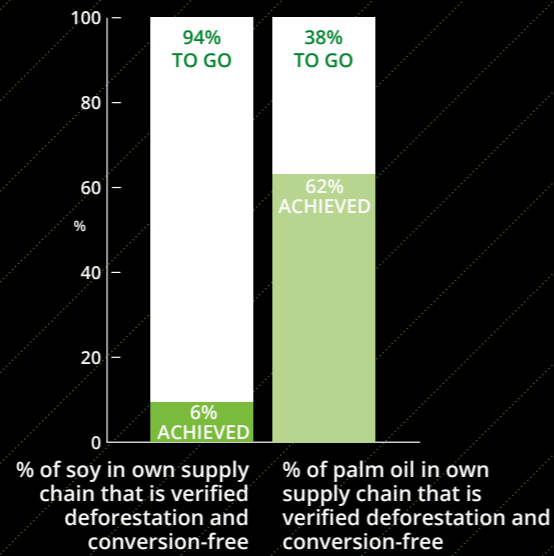
## DISTANCE TO GO

The Deforestation & Conversion Basket Outcomes set targets for 2025 rather than 2030, reflecting the urgency of the action needed to halve environmental impact by 2030. Progress so far on palm oil has been good, but there is further to go with soy: 62% of palm oil in retailer supply chains was verified deforestation and conversion-free, compared to 6% of soy.

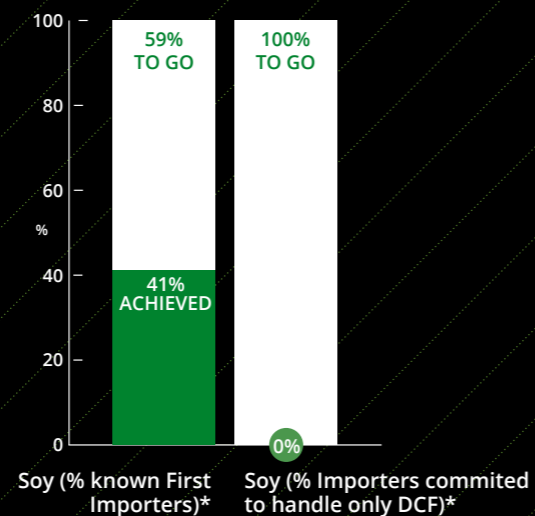
Retailers have yet to identify any soy or palm oil importers who are committed to handling only deforestation and conversion-free material across their entire supply chain. While some traders have signalled their intention to make such a move, none have so far provided a strategy that aligns with the retailers' commitment post 2025.

## DISTANCE TO GO: DEFORESTATION & CONVERSION

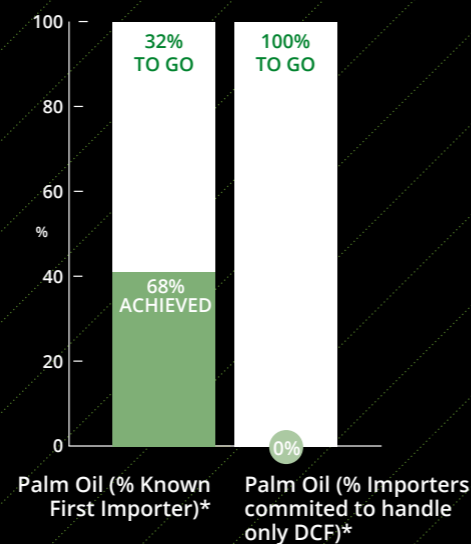
DCF soy and palm oil within supply chains



Known soy importers and level of DCF commitment



Known palm oil importers and level of DCF commitment



\*Sourced from importers that have robust commitments and action plans to handle only deforestation and conversion-free material, across their entire operations, with a cut-off date no later than 2020

## NEXT STEPS TO MEET THE CHALLENGE

Immediate global action is required to protect forest and biodiversity hotspots from passing planetary tipping points. This has only been exacerbated by the world's failure to reach 2020 ambitions on biodiversity loss, such as the Aichi Targets. Achieving deforestation and conversion-free commodity supply chains requires coordinated action from retailers, traders, civil society organisations, governments, and producers. Traceability for other high-risk commodities – including beef, timber, cocoa and coffee – should be expanded to account for the biggest drivers of ecosystem loss.

- There's a consensus among retailers that the use of 'credit-based' verification is not sufficient to prevent deforestation and conversion, and so more robust approaches are being explored.
- Retailers can continue working with suppliers to ensure that more robust accreditation approaches are used (this means shifting beyond 'mass balance approach' accounting, which is not sufficient to verify no conversion of natural habitats).
- There has been good progress made on palm oil supply chains, and it looks likely that the 2025 target may be met in this case for UK sources. However, there is currently no clear path for retailers who wish to source verified conversion-free palm from smallholders, so new approaches will be required for their inclusion. More work is urgently needed on soy. The UK Soy Manifesto remains the most promising tool to bring supply chain actors together, and retailers can continue to work in this forum, as well as engaging with their direct suppliers on contractual requirements while supporting the training and engagement needed to tackle demands across each stage of the chain. Beginning with own brand products retailers have gained insight into the challenges and need to create new pathways for wider market coverage for DCF commodities.
- Success on DCF supply chains will be realised through multiple actors, including traders, manufacturers and governments aligning behind this ambition. Retailers can continue to accelerate progress for sectoral DCF supply chains through action-oriented coalitions including indirect manufacturers and brands within their supply chains. Together retailers have the ability to influence first importers to increase trader transparency and support for a just transition to sustainable production in high-risk regions. For example, through the UK Soy Manifesto, signatories are encouraged to develop a strategy that supports all actors in the complex animal feed supply chains, to simplify progress and ensure investments in change are shared effectively.
- Investments in landscape initiatives that support sustainable livelihoods and resilience for producers beyond the scope of certification schemes are required. Some retailers have already begun to make these, providing critical support in high-risk sourcing regions. As the market more broadly follows them, these initiatives can be scaled up for greater impact.
- Government action and due diligence requirements will make a big difference. The UK government should expand provisions under the Environment Act to include 'legal' deforestation under producer country laws. The Act's current measures only apply to 'illegal' deforestation: this is not effective at stopping deforestation and protecting indigenous rights where enforcement is weak.

## HOW ARE CLAIMS ABOUT DEFORESTATION AND CONVERSION FREE PRODUCTS VERIFIED?

Chain of custody (CoC) models are used to verify reporting and claims about the sustainability of products. Different types of models exist and are used by retailers and suppliers to claim that a product is deforestation and conversion-free.

Three major types of CoC models exist for soy and palm oil verification – mass balance, identity-preserved and segregated –but each has significantly different impacts on the ground. Additionally, credit-based systems exist that allow retailers to purchase credits equal to the volume of soy and palm oil that they have purchased. Credit trading was designed to incentivise sustainable production and meet sourcing targets where there is no certified product available; however, the final product is neither physically linked to a production unit nor traceable. Credit trading is not an effective CoC model, as certified material is completely decoupled from sustainability data: this means that certified soy/palm oil volumes used in supply chains may have been sourced from recently deforested areas. Similarly, mass balance CoC models allow the blending of deforestation and conversion-free soy with at-risk soy, meaning the final product is unlikely to be physically free of deforestation and conversion. Only segregated and identity-preserved CoC models allow full traceability of conversion-risk commodities back to the original area of production.

Critically, globally available volumes of physically certified soy and palm oil are limited, and largely exclude production from smallholders. This makes it challenging to increase verified supply downstream of the supply chain. Further market transformation is required to achieve physically verified DCF production with the inclusion of smallholders, especially for palm oil.

## UNDERSTANDING THE DATA

This Basket Area had excellent data coverage, likely due to existing processes for reporting soy and palm oil volumes (e.g. RTRS/RSPO annual submissions) and industry initiatives such as the Soy Transparency Coalition and the Palm Oil Transparency Coalition. Data was mostly complete and provided in the same format, allowing us to calculate all progress measures with confidence and provide an accurate overall picture of the sector.

### % OF CONVERSION-RISK COMMODITY IN OWN SUPPLY CHAIN THAT IS VERIFIED DEFORESTATION AND CONVERSION-FREE

**Number of retailers reported – 7 out of 9**

This progress measure had good coverage, with seven out of nine retailers estimating the volume of soy and palm oil that is verified deforestation and conversion-free under a segregated or identity-preserved scheme. While all retailers participate in commodity coalition groups with brands, none yet work directly with branded products for either commodity.

#### Soy

The following statistics are from the eight retailers who calculated their soy footprint data (one retailer provided their footprint data but did not estimate the percentage that was verified deforestation and conversion-free). The following types of soy were included (following the tier guidance from the Consumer Goods Forum):<sup>viii</sup>

- Tier 1 for directly controlled soy (e.g. tofu and soy milk) was covered by 75% of retailers
- Tier 2 and Tier 3, for soy used in animal feed to produce raw meat, dairy and eggs, was covered by 100% of retailers
- Tier 4a, for soy in processed food derived from meat, was covered by 88% of retailers
- Tier 4b, for soy in processed dairy and/or egg-based foods, was covered by 75% of retailers
- Tier 5 (derivatives, e.g. lecithin) were covered by 38% of retailers

The missing data for these tiers does not make the progress measure unreliable. We received footprint data for nearly 1.4 million tonnes of soy and given that more than 90%<sup>ix</sup> of UK soy imports are used for animal feed, and that there was good coverage of the relevant tiers (2-4), we can be confident that these figures are representative of overall UK soy imports.

#### Palm Oil

Eight retailers reported palm oil footprint data, although only seven estimated the percentage that was verified deforestation and conversion-free. Palm oil in branded products was not included. The data we received covered 120,000 tonnes of palm oil, but this only represents 10% of the UK's palm oil footprint.<sup>x</sup> This reflects the fact that achieving supply chain-wide traceability remains a challenge, and there's a need for more investment in sustainable sources from consumers up the supply chain. Including branded products in reporting will be an important next step to take to close this gap and enable the transition to 100% clean suppliers.

### % OF CONVERSION-RISK COMMODITY SOURCED FROM IMPORTERS THAT HAVE ROBUST COMMITMENTS AND ACTION PLANS TO HANDLE ONLY DEFORESTATION AND CONVERSION-FREE MATERIAL, ACROSS THEIR ENTIRE OPERATIONS, WITH A CUT-OFF DATE NO LATER THAN 2020

**Number of retailers reported – 7 out of 9**

Several of the retailers highlighted that they were not aware of any first importers with a developed commitment to handle only deforestation and conversion-free material (that is segregated, or identity-preserved) across their entire supply chain. Systemic upstream changes are needed to address this issue.

It remains very difficult for retailers to be able to establish which importers their soy and palm oil are sourced from, and this is a key barrier to sourcing from verified 'clean' suppliers. With the bulk of both commodities embedded in products with mixed sources between the importer and final product, traceability to farm level remains a huge challenge.

## CASE STUDY: DEFORESTATION - THE RESPONSIBLE COMMODITIES FACILITY (RCF)

The RCF is an initiative to promote the production and trade of deforestation and conversion-free soy from Brazil.

Financial incentives to producers are a critical component of any pathway towards zero conversion in the Cerrado and other biomes. These support producers to:

- Protect native vegetation on their private property beyond legal requirements as per the Brazilian Forest Code
- Expand production only on existing cleared land (before a cut-off date of 2020 at the latest) and potentially on degraded agricultural land
- Halt any further encroachment upon remaining native vegetation, illegal or legal

This year, Sainsbury's, Tesco and Waitrose have collectively contributed US\$11million to the RCF Cerrado Programme 1, the first phase of the initiative.

Through the RCF they have created dedicated low-interest credit loans for farmers to protect remaining native vegetation in the Cerrado region. This incentive model has the potential to be significantly scaled up, and to support transformation of the sector on a landscape level.

The RCF aims to raise more funding over the next four years for the responsible production of soy to save the Cerrado, protecting biodiversity, water quality and enabling carbon sequestration, while triggering a more sustainable market transition.





# DIETS

## WHY ARE SUSTAINABLE DIETS IMPORTANT?

Food and drink have major environmental impacts, and at the same time the average UK diet does not meet government recommendations for healthy eating.<sup>5</sup> By choosing healthy and sustainable diets, we have a direct impact on how natural resources such as land are used across the globe. This is empowering, giving us agency as individuals in addressing the climate and nature crises. But diets are not just down to individual choice: they're influenced by the broader food environment, and this an area where retailers can make an important contribution.

Currently, the most impactful action we can take to decrease the environmental footprint of our diet is to rebalance our protein consumption toward plant-based sources (such as beans, legumes, nuts) and to eat less animal-sourced foods (meat, dairy and eggs). This is because the current animal agriculture system leads to more direct GHG emissions (enteric fermentation and manure management) and takes up far more land area (in particular for feed production) than plant-based alternatives. Recent research found that if everyone were to adopt a plant-based diet, the amount of land used for agriculture would decrease by 75%: this clearly demonstrates the potential of such a change. Freeing up land in this way would provide opportunities to sequester carbon, produce higher quality food using regenerative systems, and enhance biodiversity. At the same time, it would help to secure and return Indigenous land rights and improve health outcomes. On a global scale, the ability to shift our diets from animals to plants is one of the greatest tools we have available to halt climate and ecological breakdown.

None of the reasons listed above touch on animal welfare, which would also be greatly improved by a 'less and better' approach to animal agriculture. Despite pressure from the Climate Change Committee, there is no official UK policy on decreasing consumption of animal-sourced foods. Protein disclosure remains a relatively new concept, largely driven by civil society organisations including FAIRR and WWF – however multiple UK retailers have taken the initiative and begun to disclose their animal/plant protein split using existing datasets from their health programmes.

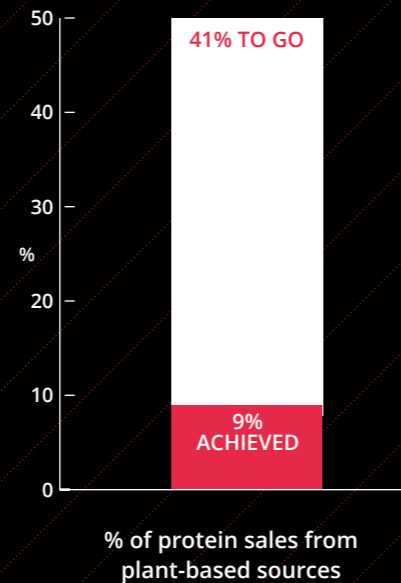
## WHAT IS THE TARGET?

2030 OUTCOME	RETAILER PROGRESS MEASURE
50/50 plant/animal protein sales split (volume)	% of protein sales from animal-based and plant-based sources

## DISTANCE TO GO

Plant-based sources currently make up 9% of retailer protein sales, with animal-based sources accounting for the remaining 91% – but this is an area receiving ever-increasing levels of attention, driven by increasing consumer acceptance and adoption of flexitarian and plant-based diets, and changes to the retail product offer including the development of plant-based meat and dairy alternatives.

## DISTANCE TO GO: DIETS



## NEXT STEPS TO MEET THE CHALLENGE

There are a range of interventions which would support dietary shifts towards protein diversification. These include nudges, information and policy changes, all of which should focus on promoting the availability, desirability and affordability of nutritious plant-based foods. Many of the strategies below represent uncharted territory for retailers, so it's likely that a 'test and learn' approach will be needed to identify what is feasible to implement and what works. Potential opportunities for individual retailers to consider could include:

- Increase advertising of plant-based products and reduce advertising of animal-based products. Focus marketing on normalising healthy, sustainable diets, to inform, nudge and support customers to make better choices.
- Ensure plant-based meat and dairy alternative products and plant-based ready meals are cheaper, or no more expensive, than meat and dairy options.
- Introduce more promotions on plant-based products, with a focus on permanent (e.g. meal deals) rather than time-limited offers, and reduce the volume of meat and dairy product promotions.
- Increase shelf space for plant-based products and put them in more prominent positions, moving animal-based products to lower shelves and reducing shelf space dedicated to them.
- Focus product development and innovation on whole plant-based foods such as beans, pulses and legumes.
- Champion the development of clear and transparent food product environmental labelling based on open source and non-proprietary data. Government can support the industry by mandating food environmental labelling and environmental impact reporting by food businesses.
- There is a clear policy gap in the UK's transition towards 'less and better' meat and dairy. As noted by the Climate Change Committee, government should encourage the shift away from animal-based products by setting reduction targets for meat, dairy, and egg consumption. It should do this while aligning dietary guidance (Eatwell) with health and sustainability goals, supporting retailers to promote affordable, healthier and more sustainable consumer diets.

## UNDERSTANDING THE DATA

### % OF PROTEIN SALES FROM ANIMAL-BASED AND PLANT-BASED SOURCES

**Number of retailers reported – 4 out of 9**

Measuring and reporting diet information is a new area for some retailers. Four of them reported on it in this first year, providing good coverage within each of the four disclosures. All four retailers included 'Meat', 'Fish', 'Eggs', 'Dairy', 'Meat alternatives', 'Dairy alternatives', and 'Beans, Pulses, & Legumes', with one including 'Nuts' in addition. All four retailers included both own-label and branded products as part of their disclosure, demonstrating they take responsibility for the full range of products they offer in store.

Retailers currently use different approaches to calculate plant-based proteins, which was not unexpected. Two retailers calculated their protein disclosure at a product level, while the other two calculated it at ingredient level.<sup>31</sup> Some do not yet cover all products in their reporting, for example excluding composite and prepared products (e.g. pizzas and ready meals), but their approach is in line with and informed by WWF's best practice *The Journey to corporate protein disclosure guidance*. Greater consistency and coverage is essential and should be achievable going forwards.



**CASE STUDY: PROTEIN DISCLOSURE**

**Two retailers – Sainsbury’s and Tesco – have already disclosed their protein sales.**

Sainsbury’s have started to disclose sales at the product level, meaning they measure sales of whole and processed protein products like chicken breasts, sausages and tinned chickpeas. They capture sales of meat and fish products, vegetarian products and vegan products, reporting 10% plant-based (vegan product) sales in 2020/21 & 2021/22, covering both their own-brand and branded products.

Tesco are taking an ingredient-level approach to measuring protein. This means that they measure the protein ingredients in composite and prepared products as well as in whole protein products. They reported 12% sales from plant protein in 2020/21 & 2021/2022, covering both their own-brand and branded products.

For more information and guidance on protein disclosure at a corporate level, please see [WWF-UK’s guidance here](#)



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**IF WE DON'T CHANGE OUR DIET IN THE UK  
IT'S LIKELY THAT EMISSIONS FROM  
AGRICULTURE WILL REPRESENT AROUND  
ONE-THIRD OF THE COUNTRY'S EMISSIONS  
BY 2050- EVEN WITH IMPROVEMENTS  
TO AGRICULTURAL PRACTICES**

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# AGRICULTURE



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## WHY SHOULD WE FOCUS ON AGRICULTURE?

Agriculture contributes 16-27% of global anthropogenic GHG emissions and is responsible for roughly 70% of global freshwater use.<sup>xii</sup> The two biggest sources of GHGs from agriculture are methane from livestock and manures, and the release of nitrous oxide from agricultural soils. Indeed, agriculture is responsible for 44% and 81% of all methane and nitrous oxide emissions, respectively.<sup>xiii</sup> At the same time, deforestation and habitat conversion for agricultural purposes is the leading cause of biodiversity loss globally. This land-use change also releases emissions from carbon stored in biomass and soil, further preventing land from capturing and removing carbon through nature-based solutions such as reforestation and peatland restoration.

A global pathway to sustainable agriculture will need to address interrelated threats to biodiversity, soils, water, air and the climate. At the same time, agriculture must align with the Sustainable Development Goals (SDGs) to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture.

## WHAT IS THE TARGET?

2030 OUTCOME	RETAILER PROGRESS MEASURE
At least 50% of whole produce and grains certified or covered by a robust environmental scheme.	% of produce & grains sourcing in a robust environmental scheme
100% meat, dairy and eggs, including as ingredients sourced to 'Better' <sup>6</sup> standard	% meat, dairy and eggs sourced to 'Better' standards
At least 50% of fresh food from areas with sustainable water management	% of sourcing from regions with sustainable water management
Agricultural emissions lowered in line with 1.5-degree SBT	% of protein, produce & grain farms monitoring GHG footprint % reduction in sourcing from lowland peat % reduction in agricultural GHGs

**Agriculture is a current priority area within the WWF's Retailers' Commitment for Nature group.**

## DISTANCE TO GO

So far, there is limited data for the Agriculture Basket Area. This is unsurprising, since this was the first time retailers had been asked for this information, plus it is challenging to measure. More data is needed before we can reliably report on the percentage of farms monitoring their GHG footprint, or the percentage of food sourced from regions with sustainable water management. We're optimistic that there will be progress on the former now retailers are aware of this requirement, while WWF is working on a tool to facilitate understanding of the latter.

WWF has recently commissioned work to define and provide metrics for Robust Environmental Schemes, supported through the WWF and Tesco partnership. In the meantime only data on organic production has been used. However, the wider context is that in 2020, the total area of land in higher-level or targeted agri-environment agreements in the UK had risen to a new high of 3.6 million hectares; while LEAF Marque state that in 2022, 48% of UK fruit and vegetables have been grown by businesses they certify. These schemes are likely to contribute to the 'robust environmental schemes' metric in future.

When assessing retailer sourcing of meat, dairy and eggs against Eating Better's Sourcing Better framework, the only certification used by retailers that meets either the 'better' or 'best' standards is for organically certified products. This only covers 4% of meat, dairy and eggs procured and sold by retailers according to the data provided, while most products sit within the framework's 'basic' category. Nevertheless, retailers do often have business-specific sourcing specifications that enhance 'basic' industry certification standards and schemes for certain products. Understanding how business-specific specifications integrate and compare with the Sourcing Better framework could be an area of future work which would reveal the true extent of progress towards the 'better' metric.

<sup>6</sup> WWF uses the 'Better' standard of the Sourcing Better Framework as the definition for Better meat, dairy and eggs. [https://www.eating-better.org/uploads/Documents/Sourcing\\_Better\\_Framework.pdf](https://www.eating-better.org/uploads/Documents/Sourcing_Better_Framework.pdf)


There was a lack of first-year data on reductions in farming on lowland peat, with this being a new metric for most businesses. Retailers reported a lack of understanding of what products are sourced from lowland peat soils, which contribute to 3% of UK reported GHG emissions. WWF are helping retailers understand what is grown on lowland peat with upcoming research (funded by the WWF and Tesco partnership). This research, which will be made publicly available, will acknowledge the productive value of lowland peat soils, consider how they can be managed sustainably, and recognise the risks of offshoring environmental harm if reductions in lowland peat sourcing in the UK are not managed responsibly.

It's clear that progress with Agriculture needs to accelerate significantly to reach the 2030 Basket outcomes. Over the coming year, retailers are encouraged to make it a priority to gain a clearer understanding of their supply chains, particularly where they are complex and unintegrated – this will help overcome data challenges and allow for an increased focus on action and impact.

To reduce agricultural emissions in line with 1.5-degree SBT, we have assumed that the following is required by 2030:

- 100% OF PROTEIN, PRODUCE & GRAIN FARMS MONITORING THEIR GHG FOOTPRINT
- 25% REDUCTION IN SOURCING FROM LOWLAND PEAT<sup>xiv</sup>
- 35% REDUCTION IN UK DIRECT AGRICULTURAL GHGS (AGAINST A 2018 BASELINE)<sup>xv</sup>

There was insufficient data to report on the following measures:

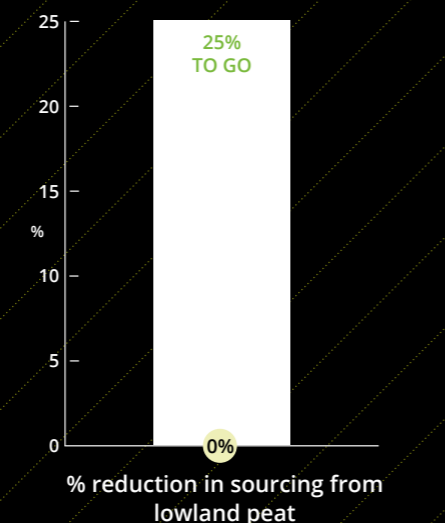
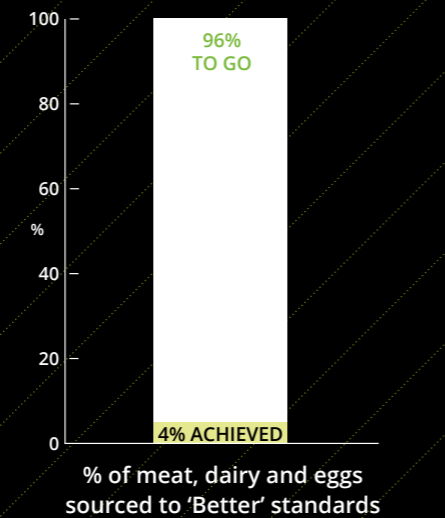
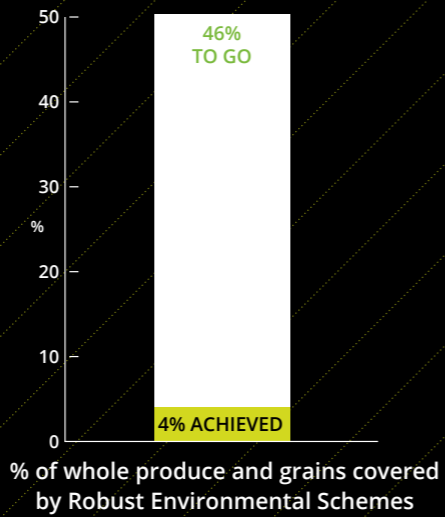


- % reduction in agricultural GHGs
- % of protein, produce & grain farms monitoring GHG footprint
- % of sourcing from regions with sustainable water management

Data from other sources shows that UK agricultural emissions are not currently reducing overall and are also increasing as a proportion of overall UK GHG emissions.<sup>xvi</sup>

On water management- Many retailers highlighted that they didn't have the ability to report on this measure this year, but confirmed that they were working on this for the future.

### DISTANCE TO GO: AGRICULTURE



**THE RECENT TREND FOR AGRICULTURAL EMISSIONS IS THAT THEY ARE STAGNATING, AND ARE INCREASING AS A PROPORTION OF OVERALL UK GHG EMISSIONS AS OTHER SECTORS DECARBONISE**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1051408/2020-final-greenhouse-gas-emissions-statistical-release.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1051408/2020-final-greenhouse-gas-emissions-statistical-release.pdf)  
Using this data, agriculture made up 6.5% of UK GHG emissions in 1990 and 11% of UK

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### NEXT STEPS TO MEET THE CHALLENGE

Agriculture is a particularly challenging sector to decarbonise, due to the inherent emissions involved in producing food. Action is needed across the entire supply chain to reduce the environmental burden of food production on biodiversity, soils, air, water and the climate.

**This is not an area retailers can fix on their own –government action is vital:**

- The UK has a golden opportunity to build up its food system resilience and competitiveness by accelerating the shift to nature-friendly farming and restoring nature at a landscape scale. Governments across the UK must deliver ambitious agricultural and environmental policy, regulation and support. This includes the Environmental Land Management scheme in England, the Sustainable Farming Scheme in Wales, and the equivalent processes emerging in Northern Ireland and Scotland. Similar reforms in agricultural subsidies will also be needed globally.
- The UK government's Net Zero Strategy needs to be more explicit in its commitments, sector-based targets and actions for the agriculture and land-use sector, through a decarbonisation strategy for this part of the economy.
- Governments should support consistent, mandatory data reporting across entire supply chains, including non-integrated global supply chains. Market-led data harmonisation metrics, approaches and frameworks have been slow to develop, and there is a lack of clarity over what constitutes best practice. Significant acceleration is needed to solve data challenges and start driving change towards the Basket ambitions, and government and policy leadership will be needed to overcome current barriers. The UK government should also support reporting by improving environmental reporting guidelines and requiring disclosure on nature-related risks in supply chains.
- The UK government must uphold its commitment to mandate UK companies to publish their net-zero transition plans, and work with the devolved administrations to ensure that all food, farming and land-use policies support the transition to a climate and nature positive future.

- To make sure that trade does not undermine the UK's high environmental production standards, the government should level the playing field by putting in place core environmental standards. These would apply to imports as well as domestic products, and they would require imports to meet comparable environmental standards to those that are mandatory for UK farmers.

**However, there are also several important steps retailers themselves can take:**

- Complex and opaque supply chains are a key reason for the current data gaps in the Agriculture Area of the WWF Basket. Retailers are ideally placed to begin to close these knowledge gaps, and we're optimistic that they'll be able to improve the detail of their reporting each year, accelerating progress towards targets.
- Retailers have an important role in some sectors when it comes to influencing farming and agricultural practice in both the UK and overseas, and they can use this to drive best practice around GHG monitoring and improving on-farm environmental standards. They can also consider factors such as water management in buying decisions, increasing the pressure for sustainable management.
- We're encouraging retailers to develop mechanisms that incentivise suppliers and farmers to use regenerative agricultural practices. These would be incorporated into supplier contracts, filter to the farm level and reward farmers (including financially) for action, whether their suppliers are in the UK or overseas. Suppliers could be incentivised to maximise the take-up of practices such as crop rotations, cover crops, agroforestry, reduced/minimum till, integrated livestock grazing and polycultures, building ambitious participation within the environmental elements of public farm payment schemes, where available, and securing added value beyond these. As well as reducing GHGs and helping to retain and store carbon, many of these on-farm interventions also have greater biodiversity benefits than current agricultural practices.
- The farm-level business case for many agricultural practices that reduce emissions, preserve natural resources, promote on-farm biodiversity, reduce inputs, sequester carbon, and ensure good soil health can be found in resources such as the WWF and Tesco Partnership's [WWF and Tesco Partnership's Farm-level Interventions to Reduce Agricultural Greenhouse Gas Emissions report](#). It makes sense for retailers to promote this best-practice guidance with suppliers and farmers.
- Influencing government policy and regulation is a key mechanism for delivering the changes needed in the food production system, which

ultimately flow to the farm level. Retailers can be powerful advocates on agricultural, land use and environmental topics. A particularly important area for advocacy is on policies to address some of the data challenges highlighted in the Agriculture section of this report, such as Defra's Food Data Transparency Partnership plans.

- In the absence of government policies on consistent data and reporting frameworks, retailers could require adherence to standardised data frameworks as they develop, such as the Global Farm Metric, and support harmonised data platforms, such as HESTIA.
- Retailers can also recognise how the implementation of nature and climate-positive production practices supports their own businesses by building the resilience of farms and food production systems to the impacts of climate change.
- Supply-side measures to improve products' environmental footprints need to be complemented by appropriate demand reduction for the most GHG-intensive products. For example, WWF's *Land of Plenty* target to reduce agricultural emissions by 35% by 2030 is based upon a minimum 30% reduction in meat and dairy production and consumption by 2030, although this will vary by the type of meat and how it is produced. Importantly, GHG emissions should not be the only metric by which to determine action.<sup>xvii</sup> Meeting this level of demand reduction will require significant upstream policy from government.
- For evaluating progress against the target on sustainable water management, retailers will need to collate spatial data on the volume of in-scope production by point (i.e. farm/producer), water body or catchment. Spatially mapped sourcing data can then be overlaid against WFD status (within the UK/EU), or, elsewhere, against a map of sustainable water management which is being developed by WWF. Overlaying spatial data of sourcing with the maps of WFD status or sustainable water management will be used to determine the % of sourcing coming from regions with sustainable water management. We have proposed that sourcing from catchments with Good Ecological Status should be required to meet the target. Our view is that participating in the WRAP Water Roadmap projects is the best way to improve sourcing catchments to achieve either Good Ecological Status or to become 'sustainably managed'.

## UNDERSTANDING THE DATA

This Basket area was particularly challenging for retailers to report on, and there is relatively limited data for most progress measures. However, retailers did provide significant amounts of useful information in a range of formats. This means that even where data were lacking this year, the insights from retailers will greatly aid future data collection. Overall, the Agriculture pillar of the WWF Basket contains some of the most challenging areas for measurement, where standardised approaches are least developed. Additionally, and as a consequence, some of the area Basket indicators will require refinement from WWF in terms of specifying what best reporting practice would look like, or in the provision of tools to aid consistent reporting – one example being the 'Robust Environmental Scheme' metric.

### % OF PRODUCE & GRAINS SOURCING IN A ROBUST ENVIRONMENTAL SCHEME

**Number of retailers reported – 6 out of 9**

Data is currently only available for whole produce, with retailers citing complex non-integrated global supply chains for grains as the reason for the relative lack of reporting. Organic was used as a proxy for Robust Environmental Scheme, as this certification has a series of explicit measures to protect soil health and biodiversity, and encourages the reduction of fertiliser, pesticide and herbicide inputs.

The result for this progress measure may have been higher if LEAF Marque data could have been incorporated, although WWF need to assess factors like the relative impact of 'essential' versus 'recommended' control points for biodiversity. Despite generally limited data from some retailers for UK-grown produce assured under the LEAF Marque Standard, one retailer is approaching 100% of UK-grown produce certified (encouragingly, this demonstrates that improvements in data reporting and scheme coverage are realistic).

The extent to which other certification standards such as LEAF Marque (alone, or with optional add-ons) or Global GAP can be considered robust should be the topic of further research. We believe there is scope for rapid improvements in data coverage (similar to changes seen in soy and palm oil transparency in recent years) now retailers are developing a better understanding of this reporting requirement.

### % MEAT, DAIRY AND EGGS SOURCED TO 'BETTER' STANDARDS

**Number of retailers reported – 5 out of 9**

More data is still needed this progress measure. The definition for 'better' proposed by WWF was Eating Better's 'Sourcing Better' Framework, which has cross-NGO support. Not all retailers currently support the 'Sourcing Better' Framework's definition of 'better', but none proposed an alternative definition for 'better' meat, dairy and eggs to use instead.

Within the 'Sourcing Better' Framework there are 15 targets that need to be met to adhere to either the 'basic', 'better' or 'best' standards.<sup>xviii</sup> There is no existing scheme that perfectly matches all these criteria for 'better', but organic certification is largely aligned with the framework's definitions of 'better' and 'best' and was used in the analysis. Retailers noted their commitment to Red Tractor or equivalent standards, although Red Tractor currently only meets the 'basic' requirement of the framework and rarely exceeds minimum legal requirements for environmental performance. LEAF Marque is not currently being used for meat, dairy and eggs, though it would align with many (though not all) of the environmental elements of the framework's definition for 'better'.

### % OF SOURCING FROM REGIONS WITH SUSTAINABLE WATER MANAGEMENT

**Number of retailers reported – 0 out of 9**

No retailer was able to directly report on this progress measure in this first year. This was anticipated, so we also asked for the percentage of fresh food for which the originating river basin could be identified. Only one retailer responded to this question with a value. A further three of the nine stated that they were working on developing systems to calculate this progress measure in future years. Once again, complex, opaque food supply chains are a challenge for this measure. WWF are well aware that this is a difficult area and are working to create a standardised approach towards it to support retailers in future.

## % OF PROTEIN, PRODUCE & GRAIN FARMS MONITORING GHG FOOTPRINT

**Number of retailers reported – 0 out of 9**

A lack of complete data meant that it was not possible to calculate an aggregate figure covering protein, produce and grains. Retailers cited complex, opaque food retailer supply chains as a key reason for this figure being difficult to report on. Generally, retailers focused on collecting data on the most GHG-intensive products first, with four retailers stating that 90-100% of their fresh milk producers had conducted a GHG footprint. WWF welcomes and supports this approach of initially focusing on priority sectors. No data was provided on grains. For meat and eggs, retailers provided rough estimates, at ~20-30% of producers monitoring GHG footprint.

## % REDUCTION IN SOURCING FROM LOWLAND PEAT

**Number of retailers reported – 3 out of 9**  
**Baseline: 2020**

Three retailers stated that there had been no reduction in sourcing of agricultural products from lowland peat. Only two had a policy in place to reduce sourcing from lowland peat. Overall, we can be confident that there has been no reduction in sourcing from lowland peat.

This was a new metric for many retailers. In recognising this, and the lack of sourcing data retailers had on products coming from lowland peat, WWF has commissioned research to help provide retailers with more information about their supply chain footprint on these soils.

## % REDUCTION IN AGRICULTURAL GHGS

**Number of retailers reported – 2 out of 9**  
**Baseline: 2018**

It is not possible to calculate this progress measure yet as we lack sufficient information to calculate sectoral emissions. However, given that retailers have only recently begun calculating emissions, and because the percentage of farms monitoring footprint also has minimal data, it is likely that no reduction has taken place so far.



## CASE STUDY: WWF & TESCO PARTNERSHIP

### Innovation Connections

With food production at the centre of many environmental issues, earlier this year Tesco and WWF launched a new accelerator programme which pairs pioneering start-ups with Tesco suppliers to fast-track sustainability innovation in the supply chain.

The accelerator programme addresses a key barrier that prevents promising sustainability innovations from being adopted at scale in food supply chains, by identifying suppliers who can help to scale up new ideas and technologies which can cut the environmental impact of food and support a resilient and sustainable UK food system.

With more than 70 applications, eight start-ups were selected to go through to a final pitch in front of a judging panel of experts from Tesco and WWF. The five start-ups that won funding as part of the programme are working with long-term Tesco suppliers to test and scale their innovation in our supply chain:

- AgriSound & AM Fresh (Tesco fruit supplier) – AgriSound will be working with one of our fruit suppliers, AM Fresh. By using sensors and bioacoustics to monitor the number of bees and other pollinators on farms, action can be taken in areas where there are not enough – helping farmers to protect biodiversity and increase produce yields without the need for additional fertilisers or pesticides.
- Chirrup.ai & Hilton (Tesco meat and fish supplier) – Chirrup.ai use a monitoring system that records birdsong as a science-based biodiversity indicator in grassland farming and agriculture.
- CCm, Andermatt, Farm Carbon Toolkit & Branston (Tesco potato supplier) – will demonstrate how the use of low-carbon fertilisers, produced using waste materials, will help our potato supplier Branston to reduce the carbon footprint of potato production – measured and assessed by Farm Carbon Toolkit.
- Farm Carbon Toolkit & Produce World (Tesco produce supplier) – using advanced carbon footprint software for horticultural growers, Farm Carbon Toolkit will analyse and help Produce World reduce their emissions and increase carbon sequestration on farm, while also identifying cost savings and efficiencies.
- Future by Insects, Fera, Hilton (Tesco meat and fish supplier) and Greencore (Tesco prepared meal supplier) – Future by Insects will be using tested methods to develop sustainable fish meal using food ingredient by-products from Greencore's production sites and microalgae grown using waste CO<sub>2</sub> that comes from manufacturing processes. They will also be working with Hilton to develop a sustainable feed for aquaculture, with the exact nutritional balance needed to help the fish thrive.



Andrew Hoad, Head of Waitrose's farm at its Leckford Estate

© WAITROSE

## CASE STUDY: WAITROSE

### Leckford Estate

Waitrose's farm on the Leckford Estate is reducing its reliance on artificial inputs and working in partnership with nature to enhance biodiversity. From using biomethane captured on farm as a fuel alternative to ensuring 40% of its land is given to allow natural biodiversity to thrive, Waitrose is also setting up its farm as a testbed for new agricultural innovation – sharing knowledge with its UK supplier network to support them as they trial innovative new ways of farming that will benefit their food production processes.

Already a LEAF demonstration farm, Leckford has recently recruited a Biodiversity Officer to ensure it is protecting and enhancing the rare and precious habitats on the Estate and to deliver multiple land use outcomes. And as the only retail member of LEAF's Beacons of Excellence group, Waitrose hopes to use all learnings gained from its farm to help it reach its target to source from a net zero farming supply base in the UK by 2035.

## CASE STUDY: M&S

### Farming with Nature on M&S Select Farms

In 2021, M&S enhanced their long-standing Select Farm standards by introducing their biodiversity-focused Farming with Nature programme to over 8,000 produce and livestock UK-based M&S Select Farms, aiming to help their farming base to become more resilient to the environmental challenges they face.

The programme includes three pillars of activity:

- Enhancing environmental outcomes – for produce farms, and in partnership with Linking Environment and Farming (LEAF), they introduced new modules on key environmental hotspots for M&S growers, building on the LEAF Marque standard. These covered Landscapes and Nature (2021) and Integrated Pest Management (IPM) (2022). For livestock, M&S are collecting environmental outcome data and surveyed 2,369 M&S livestock farms in 2021.
- Specialist support – M&S are funding a programme of support for M&S Select Farms delivered by specialists to share information and tools, and to enable peer exchange.
- Insights, innovation and solutions – M&S set up a network of 'indicator and innovation farms' covering the UK's main farming systems to trial and monitor new approaches to sustainable agriculture, communicating learnings with their wider farmer base.

A priority for 2023, M&S will continue to work towards their net zero 2040 target, building a programme for carbon reduction and climate resilience into their Select Farm standards.



© M&S

## CASE STUDY: WWF & TESCO PARTNERSHIP

### Healthy Soils

Healthy soils are vital for food production and security, but also to achieve net-zero goals, mitigate floods, and preserve biodiversity. In recognition of this, the WWF-UK and Tesco partnership commissioned the Sustainable Soils Alliance (SSA) to investigate the impact that large food businesses have on soil health. A key finding of SSA's research was a lack of cross-sector coordination on soil, despite multiple businesses procuring products ultimately grown on the same fields and farms. As a result, SSA, with support from WWF, created the [Soil Health Industry Platform \(SHIP\)](#). SHIP is the first collaborative initiative in the UK that focuses on soil, and aims to discuss, align and amplify the efforts of major food businesses to improve soil health and address soil damage in the UK supply chain. The group now comprises of 10 large food businesses including retailers, manufacturers and consumer-facing brands.



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# MARINE



## WHY SHOULD WE FOCUS ON MARINE?

Oceans cover 70% of our planet; they contain extraordinary biodiversity, and we rely on them to provide us with food and to store carbon – in fact, oceans have absorbed roughly 30% of the carbon dioxide and over 90% of all heat energy emitted since the industrial revolution, reducing global warming but at the same time increasing ocean acidification.<sup>xix</sup> When marine resources are harvested beyond a sustainable level and cannot replenish themselves naturally, cascading effects are triggered which can devastate marine ecosystems.

In 2019, roughly 93% of the world’s main fish stocks were either being maximally sustainably fished (57%) or were fished at biologically unsustainable levels (35%).<sup>7</sup> If we are to meet the UN Sustainable Development Goals (SDGs) as well as the proposed post-2020 global biodiversity framework goal to conserve 30% of our oceans by 2030, we must ramp up existing industry initiatives and adopt a Seascope Approach in our fish supply chains.<sup>8</sup>

## WHAT IS THE TARGET?

2030 OUTCOME	RETAILER PROGRESS MEASURE
100% of seafood from sustainable sources	% certified wild-caught & aquaculture material sourced  % of wild-caught resources adhering to all aspects of the Seascope Approach, as outlined in the Blueprint for Action
Reduce fishmeal and oil usage to forage fish dependency ratio (FFDR)<1 by using sustainable fishmeal and fish oil replacements and increasing the use of trimmings	% farmed seafood products with FFDR (FFDR meal and FFDR oil)<1 and with all feed ingredients certified by Aquaculture Stewardship Council (ASC) Feed standards or equivalent



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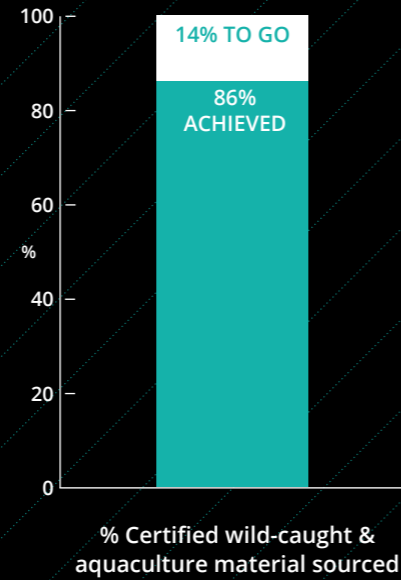
<sup>7</sup> <https://www.fao.org/publications/sofia/2022/en/>

<sup>8</sup> The Jurisdictional Seascope Sourcing Approach or the Seascope Approach aims to take the health of the oceans and the safeguarding of people into the heart of seafood production. For more information, see: <https://www.wwf.org.uk/food/seascope-approach>

## DISTANCE TO GO

Retailers are making good progress when it comes to marine certification, with 86% of wild-caught and aquaculture material already certified to at least one independent standard. However, beyond these certifications, retailers currently have little visibility over environmental and social standards in their fish supply chains. There was insufficient data to report on fish meal, fish oil, and other types of feed, and only two retailers have so far reported on the Seascope Approach, estimating that nearly half of their wild-caught tuna adheres to all the approach's aspects. It should also be noted that retailers were only able to report on their own-label products, although the request for data included branded products.

### DISTANCE TO GO: MARINE



Insufficient data to report on the following measures:

% of wild-caught resources adhering to all aspects of the Seascope Approach, as outlined in the Blueprint for Action



% farmed seafood products with FFDR (FFDRm and FFDRo) < 1 and with all feed ingredients certified by ASC Feed standards or equivalent



**IN 2019, ROUGHLY 93% OF THE WORLD'S MAIN FISH STOCKS WERE EITHER BEING OVERFISHED (36%) OR MAXIMALLY SUSTAINABLY FISHED (57%)**

© QUENTIN BATES / WWF

## NEXT STEPS TO MEET THE CHALLENGE

There are a range of actions that retailers and government can take to ensure that our seafood is sustainably sourced and our oceans can thrive. These primarily focus on increasing the transparency of fish supply chains through engagement, industry collaboration, and streamlined data collection. A number of retailers already support a range of these activities.

- Retailers have the potential to drive real change, investing in and supporting uncertified fisheries and farms to achieve certifications, including through means such as Fishery or Aquaculture Improvement Projects (A/FIPs), and/or progress the Seascope Approach. Information on improvement actions of fisheries and farms should be publicly available, regularly updated and independently verified.
- Retailers can raise awareness and demonstrate a responsible sourcing approach regarding illegal, unreported and unregulated (IUU) fishing and human rights abuses, which remain significant issues across marine supply chains globally; this includes through committing to and adopting the [PAS 1550](#), [Global Dialogue on Seafood Traceability \(GDST\)](#), and [Responsible Fishing Vessel Standard \(RFVS\)](#) recommendations throughout supply chains.
- Retailers can support innovations and practices in supply chains that reduce incidental bycatch of Endangered, Threatened and Protected (ETP) and other non-target species.
- Through supply chain engagement and data requests sent to suppliers, retailers can gather further information on own-brand products for all Marine progress measures and begin to gather data on branded products across the three Marine progress measures covered above.
- Governments and fisheries management agencies should support the industry by mandating remote electronic monitoring (REM) with cameras on board, helping supply chains to streamline data collection and increase transparency of sustainability information associated with seafood products across the industry.
- Governments should develop a climate-smart strategy for UK fisheries which prioritises the protection of marine carbon stocks and area-based conservation measures. It should also include reviewing fleet emissions and identifying where reductions can be made.
- Retailers should report the progress of MarinTrust and ASC standards for marine ingredients in feed.
- Forthcoming WWF guidelines for businesses on the implementation of Marine Basket measures should be helpful for retailers and their supply chains to follow. Existing guidelines include the [Tuna Sourcing Issue ID checklist](#), the [Seascope Approach](#), and the [Risky Seafood Business Report](#).



## UNDERSTANDING THE DATA

This was the first time retailers had been asked for this information in this format, and no retailers were yet able to provide data for branded products within the Marine Basket area. With greater supply chain engagement across the sector in future years, data coverage for this Basket area will improve.

### % CERTIFIED WILD-CAUGHT & AQUACULTURE MATERIAL SOURCED

**Number of retailers reported – 8 out of 9**

There was good coverage within this dataset, with seven retailers additionally reporting data on the individual certifications they use. Standards included within the dataset were Marine Stewardship Council, Responsible Fishing Vessel Standard, Aquaculture Stewardship Council, Global Good Agricultural Practices - Aquaculture Standard, Best Aquaculture Practices, Royal Society for the Prevention of Cruelty to Animals - Farmed Fish Welfare Standards, and Global Sustainable Seafood Initiative recognised certification. It should be noted that, although the progress measure treats all certifications collectively, each one has a different focus and scope.

### % OF WILD-CAUGHT RESOURCES ADHERING TO ALL ASPECTS OF THE SEASCAPE APPROACH, AS OUTLINED IN THE BLUEPRINT FOR ACTION

**Number of retailers reported – 2 out of 9**

As only two retailers were able to report on this measure, we have not created an aggregate figure. This progress measure currently only focuses on tuna, with WWF planning to expand guidance into other marine supply chains in future years of the Basket. For tuna, WWF have called on retailers “to adopt a holistic [seascape approach](#) for tuna management and sourcing”, with specific criteria set out in the [Tuna Sourcing Issue Identification Checklist](#).<sup>xx</sup> This is a broad progress measure that encompasses issues including human rights and governance as well as environmental indicators. As such, meaningful numeric reporting is challenging. For the first year’s reporting of the Basket, retailers were asked to indicate the percentages of their supply chain at each ‘stage of progression’ of the Seascope Approach, with only those that met the ‘Best case scenario’ stage deemed to comply with the metric. Reporting improvements across the industry are required next year to so we’re better able to monitor collective progress.

### % FARMED SEAFOOD PRODUCTS WITH FFDR (FFDRM AND FFDR0)<1 AND WITH ALL FEED INGREDIENTS CERTIFIED BY ASC FEED STANDARDS OR EQUIVALENT

**Number of retailers reported – 2 out of 9**

Only two retailers reported quantitative data on FFDR and fish feed, and unfortunately their methodologies were not comparable. We have therefore chosen not to report this progress measure this year. Industry alignment and supply chain engagement will make it easier to report against this measure, so it will be key for retailers to move forward collectively to improve data collection and access.

## CASE STUDY: SEASCAPE

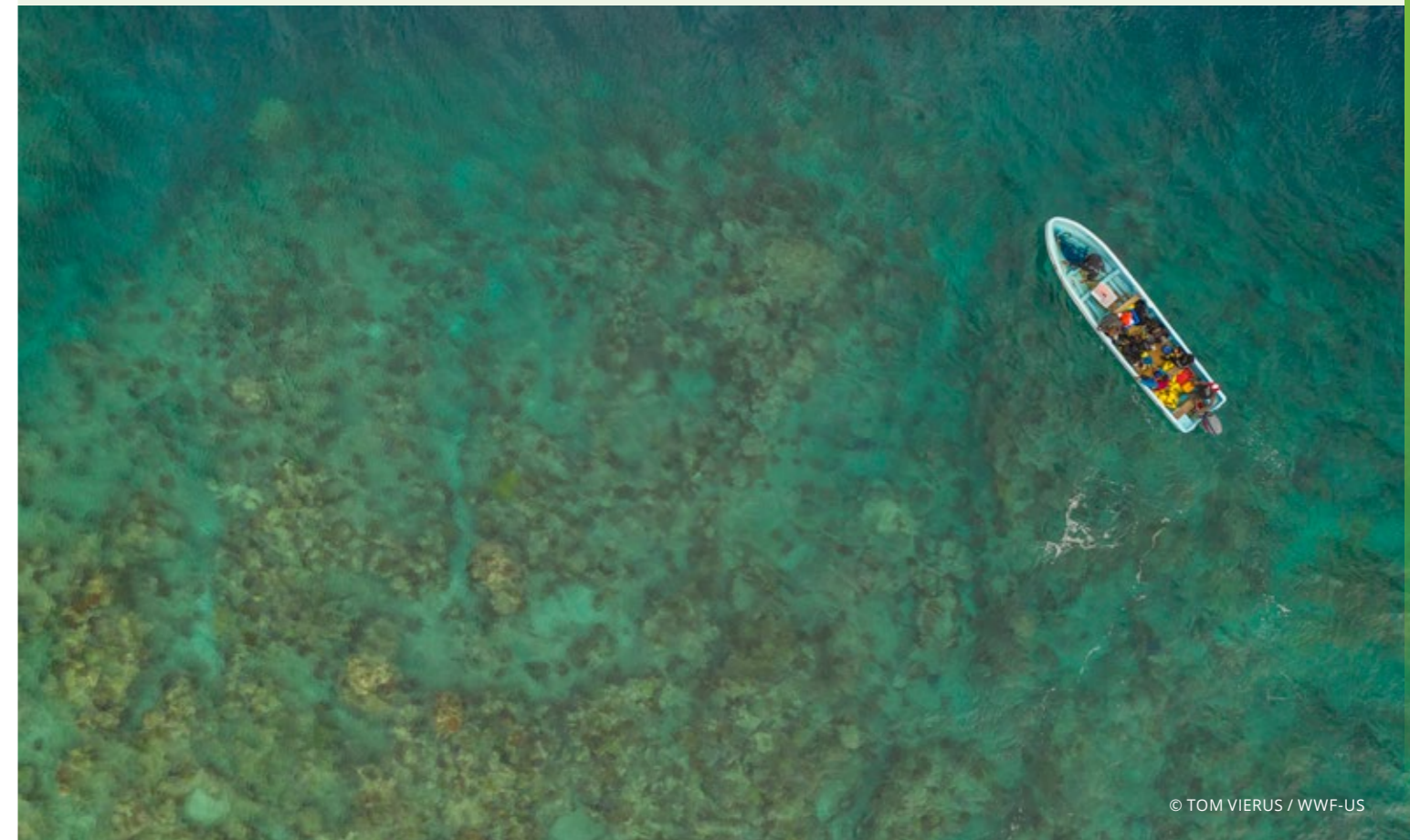
Certification is an important tool in the journey towards sustainable seafood production, but it alone cannot stop global overfishing, totally remove the risk to threatened wildlife or prevent illegal, unreported and unregulated (IUU) fishing. Seafood sourcing approaches and policies therefore need to move beyond certification, for a more holistic, scalable and impactful approach to address the triple challenge, and the Seascope Approach provides a possible solution. The approach integrates the management and policies of seafood production activities like fisheries and aquaculture into marine conservation and considers protection of species and habitats, as well as social welfare within a jurisdictional boundary.

### Tesco

WWF and Tesco announced in March 2021 their intention to adopt a Seascope or whole ecosystem-based approach to marine sustainability. Despite improvements in fisheries management, 93% of all fish stocks are either overfished or at a maximum sustainable level. Among the species most at risk is tuna, which is integral to the diets of millions of people across the globe. To help ensure a sustainable future for the species, Tesco has first adopted the Seascope Approach for its tuna sourcing and has set out a roadmap to transition to ecosystem-based fisheries management by 2030. In 2022, the [Tuna Sourcing Issue Identification Checklist](#) was developed by Tesco and WWF in consultation with tuna experts and suppliers, and has been specifically designed to align with and build on existing tools and guidelines already widely used by the industry.

### M&S

M&S has worked with WWF on sustainable fishing and aquaculture since 2004 and was the first retailer to sign WWF’s Seafood Charter in 2010. M&S and WWF worked on the first UK-based Fishery Improvement Project (FIP) in 2013. In 2022, M&S has enhanced its seafood sourcing policy to include the Seascope Approach. This includes assessing all sources of fish and shellfish annually against the 10 indicators in [WWF’s Risky Seafood Business report](#) which align with the marine aspects of the WWF Basket and Seascope Approach. This allows M&S to identify key issues and work with their supply chains to agree improvement actions. M&S report their progress to their customers using the interactive map.





# FOOD WASTE

## WHY SHOULD WE FOCUS ON FOOD WASTE?

Currently, an estimated 33-40% of all food produced globally is lost or wasted.<sup>xxi</sup> When food is wasted, so too are the embedded emissions and impacts associated with growing, harvesting, transporting, processing and preparing it, and the impacts of disposing of the wasted food are added to this. Food waste accounts for 8-10% of all GHG emissions and perpetuates overproduction and further expansion into nature in order to increase production volumes to allow for current levels of waste. By reducing food waste throughout the supply chain, we can minimise overproduction and decrease environmental impacts along the whole supply chain. Furthermore, in the UK, where 7 million people live in food poverty or insecurity, reducing food waste from farm to fork can play a significant role in improving food availability without necessitating further expansion into nature to increase food production.

To align with the SDG target of halving food waste by 2030, UK retailers and other food sector businesses have widely signed up to ambitious industry initiatives such as WRAP’s Courtauld 2030 and Food Waste Reduction Roadmap, as well as Champions 12.3 and the Consumer Goods Forum. These initiatives have delivered food waste reductions prior to the creation of the WWF Basket that can contribute to the 2030 target, and it’s important they too continue and increase. Additionally, attention is increasingly turning towards harder-to-measure areas of food waste, with retailers just beginning to address the issue of pre-farm gate losses, an area where measurement is challenging.

## WHAT IS THE TARGET?

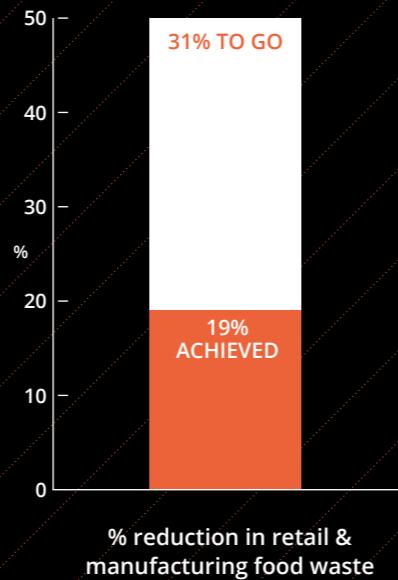
2030 OUTCOME	RETAILER PROGRESS MEASURE
Reducing food loss and waste in all aspects of the supply chain by 50%	% reduction in retail & manufacturing food waste % of products adhering to WRAP’s best practice labelling guidance % reduction in pre-farm gate losses



## DISTANCE TO GO

Retailers have made progress in reducing food waste in their own operations, particularly through redistributing edible surplus, achieving a 19% reduction in retail & manufacturing waste against the 2007 baseline. However, in order to achieve a 50% reduction by 2030 an escalation of work in this area is needed. The area with the furthest distance to go is farm stage food waste where a baseline has still not been established. Supporting farmers to measure and reduce on-farm food waste is a new area of work for many retailers, and as such there is insufficient data on which to report progress. In order to begin engaging in this area, setting a baseline and measuring progress towards the targeted 50% reduction, food system actors should start working towards the actions set out in [WWF's Hidden Waste Roadmap](#). Similarly, due to difficulties measuring progress in consumer food waste reduction in relation to retail actions, a progress report is not available this year, however we expect a scoring system to be in place for next years report.

## DISTANCE TO GO: FOOD WASTE



Insufficient data to report on the following measures:

% of products adhering to WRAP's best practice labelling guidance

% reduction in pre-farm gate losses- though many retailers do apply labelling approaches close to the WRAP approach.

## NEXT STEPS TO MEET THE CHALLENGE

Meeting the SDG target of halving food waste by 2030 will require concerted action across retailer supply chains, and in efforts to influence consumers. The interventions outlined below are a mixture of direct actions retailers can take across their supply chains and nudges to help households reduce food waste. They align closely with recommendations and guidance included in existing initiatives.

- Retailers can continue to pursue food waste reduction measures through existing initiatives such as WRAP's Food Waste Reduction Roadmap, Champions 12.3, and the Consumer Goods Forum.
- Public awareness of food waste is growing but remains a key barrier to the UK halving its food waste by 2030. Retailers should continue to support and increase the visibility of nationwide campaigns, such as Love Food Hate Waste and the annual Food Waste Action Week, to promote the issue of food waste and increase public awareness.
- To give consumers the best chance of reducing food waste, retailers can ensure all food & drink products follow WRAP's best practice labelling guidance as identified in the Basket.<sup>xxii</sup>
- Retailers are well aware of the significance of pre-farm gate losses, even though measurement is exceptionally challenging. WWF's report *Hidden Waste: The Roadmap to tracking and reducing food waste on UK farms* provides retailers with step-by-step actions to support farmers in beginning to measure, report and reduce waste.
- Government should make food waste reporting mandatory for medium and large businesses across the whole food and drink supply chain by 2025.
- Government should follow the Climate Change Committee's recommendation to ban biodegradable waste sent to landfill by 2025, but must ensure that food waste prevention is prioritised over valorisation (e.g. subsidies to prioritise redistribution of surplus over biogas from waste).

**IN UK PRIMARY PRODUCTION ALONE  
3.3 MILLION TONNES OF FOOD ARE WASTED.  
THIS WASTE IS RESPONSIBLE FOR  
10% OF UK AGRICULTURAL EMISSIONS  
AND REQUIRES AN AREA OF LAND  
HALF THE SIZE OF WALES**

## UNDERSTANDING THE DATA

Food waste data collection was aligned with data collection for Courtauld 2030, and the analysis has been conducted in collaboration with WRAP.<sup>xxiii</sup> Voluntary food waste reporting by retailers is well established, though the scope of it across the full supply chain varies by retailer. No retailer has yet managed the challenging task of obtaining pre-farm gate food waste data specific to their individual supply chain. A more national collaborative approach may prove the most effective method in the medium term. Some retailers are leading the way in these areas, and WWF is working to provide support to streamline data collection across the industry. Crucially, the data challenges should not be seen as a barrier to actions to reduce waste, as many of these actions are already well understood.

### % REDUCTION IN RETAIL & MANUFACTURING FOOD WASTE

**Number of retailers reported – 7 out of 9**  
**Baseline year: 2007**

The three stages of the food supply chain (as defined in the Food Loss & Waste Standard) relevant to this progress measure are 'Handling and storage', 'Processing', and 'Distribution and market'.<sup>xxiv</sup> Seven retailers disclosed their 'Distribution and market' food waste, meaning the dataset had good comparability. Additionally, there were examples of retailers leading the way in attempting to quantify 'Processing' food waste from their manufacturing suppliers. No retailers reported on 'Handling and storage' food waste, though this may reflect its inclusion in other categories rather than a measurement gap.

We have chosen to align the baseline year for this progress measure with WRAP's established industry-wide efforts, which in turn are aligned to the SDG target. The most recent retail & manufacturing food waste data published by WRAP covers the period of 2007-2018, and this was used to calculate a % change value of -18.6%. This approach assumes that the % change figure for retail and manufacturing overall is also reflective of progress by reporting retailers and their supply chains in particular. It also does not seek to account for change since 2018, which reflects the uncertainty around impacts of COVID-19 on food waste. In future years, as more retailers report to the Basket directly, the coverage and therefore accuracy of this measure will improve.

### % OF PRODUCTS ADHERING TO WRAP'S BEST PRACTICE LABELLING GUIDANCE

**Number of retailers reported – 1 out of 9**

In response to this year's reporting, many retailers reported that they have developed their own internal labelling policies regarding food waste reduction. These tend to be close to but do not necessarily fully align with WRAP's best practice labelling guidance.<sup>xxv</sup> The extent of these variations meant we were unable to measure progress against this target. WRAP's Retail Survey in 2019 is therefore the most recent fully consistent.<sup>xxvi</sup> As part of the 2019 Retail Survey WRAP developed a method of tracking the progress of each retailer in adopting the latest best practice guidance. The methodology of this tracking system will be available on WRAP's website, data from the most recent retail survey will be fed into it and the result for the sector as a whole will provide an aggregated baseline from which progress can be tracked going forward. Based on this year's data collection exercise, and following discussion with WRAP, we plan to align data collection more closely for the future.

Adherence to labelling guidance is an important action retailers can take to influence household food waste, but it is important to note that this indicator is chosen as one from a range of actions through which retailers can influence consumer food waste, and guidance in this area is likely to develop further in coming years. Progress in this measure will be presented alongside wider data relating to food waste in citizen homes for context. WRAP's latest estimate of household food waste in the UK was for 2018, and found that UK households generated 6.6 million tonnes of food waste.<sup>xxvii</sup> More recent attempts to update this figure were hindered by the COVID-19 pandemic. The government's Food Strategy included plans for national food waste collection which will enable more regular and consistent tracking of food waste data; however, this was the extent of government action on consumer food waste. To start seeing meaningful reductions in food waste and progressing towards the targeted 50% reduction by 2030 a greater focus on interventions is needed from government. Consumer food waste still accounts for 50% of food waste occurring within the UK. Further action and innovation is needed from across the supply chain and in government to implement impactful interventions to reduce food waste in homes.

### % REDUCTION IN PRE-FARM GATE LOSSES

**Number of retailers reported – 1 out of 9**  
**Baseline year: insufficient data to calculate to date**

This is widely acknowledged to be a very challenging area to measure – but it is critical the challenge of reducing pre-farm gate food waste is met. Only one retailer provided data for pre-farm gate losses for this year one exercise, and this was an estimate based on global growers who have reported farm-level losses rather than annual data. This reflects the approaches taken in third-party studies; there is currently no standardised method to collect real-time data on pre-farm gate losses – but this should change.

As alluded to in the 'Next steps to make progress' section, WWF is seeking an alternative approach to monitoring retailer performance on pre-farm gate losses in future years of the Basket. WWF's *The Hidden Waste Roadmap*, in alignment with Courtauld 2030 and the IGD-WRAP Food Waste Reduction Roadmap, provides guidance which will enable farmers to collect data on food waste and report into a national system, allowing national and sectoral farm waste rates to be tracked. Due to the complexity of the supply system, where farms supply to multiple retailers, it is not feasible to attribute waste reductions to specific retailers. WWF is in the process of developing a method which allows retailers to report actions taken from the roadmap, enabling the tracking of each retailer's level of support provided to farmers to measure, report and reduce food waste on farms. This is an exciting area where our capacity to measure and act is progressing rapidly and should enable a much better understanding in future reporting years.

### CASE STUDY: WAITROSE

#### Removing "Best Before" dates

This year Waitrose pledged to remove Best Before dates on nearly 500 products, a move that WRAP estimates could save the equivalent of 7 million shopping baskets of food going in the bin if widely adopted. By removing dates on root vegetables, fruits such as grapes, citrus, apples, and even indoor plants, Waitrose aims to reduce the volume of food waste occurring in UK households, inviting customers to instead use their own judgement on whether certain food types are still good to eat. The supermarket will continue to keep 'Use by' dates on pack for customer safety.

A number of other retailers have also taken this action, and we hope it is widely adopted across the sector.



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# PACKAGING



**RETAILERS REPORTED THAT 96% OF THEIR PACKAGING IS RECYCLABLE, HOWEVER THE OFFICIAL RECYCLING RATE IS SIGNIFICANTLY LOWER AND HIGHLIGHTS A GAP BETWEEN RECYCLABLE AND RECYCLED IN PRACTICE- IMPLEMENTATION OF THE GOVERNMENT'S PROPOSED PACKAGING WASTE REFORMS WILL BE CRITICAL FOR ADDRESSING THIS GAP**

## WHY SHOULD WE FOCUS ON PACKAGING?

Food packaging plays a key role in minimising food waste through supply chains, extending the shelf life of products and maintaining food safety. It also provides important information to the consumer on ingredients, allergens and nutrition, helping to inform consumer choices. However, the materials used in food packaging can have negative environmental and social impacts through the sourcing, processing and production stages (e.g. GHG emissions and pollution from the mining of metals, or deforestation resulting from the demand for paper) and disposal (e.g. GHG emissions from waste management, or plastics leaking into the environment).

Efforts to date have tended to focus on plastic packaging, with UK retailers widely signing up to WRAP and the Ellen MacArthur Foundation's Plastics Pact to drive progress towards a circular economy for plastics, with packaging being a core element of the pact. WWF's Basket aligns with a wider shift to look at the packaging problem more broadly and acknowledges the need to reduce material consumption for all forms of packaging, while ensuring that materials that are used are reusable and recyclable. This broader view also ensures that chasing progress for a single material will not have adverse consequences elsewhere in the packaging system. The Basket outcomes reflect these heightened levels of ambition.

## WHAT IS THE TARGET?

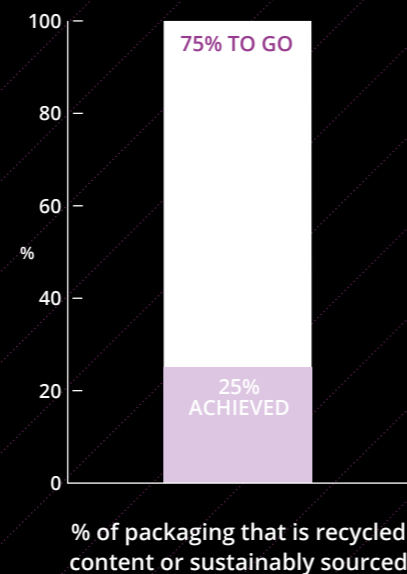
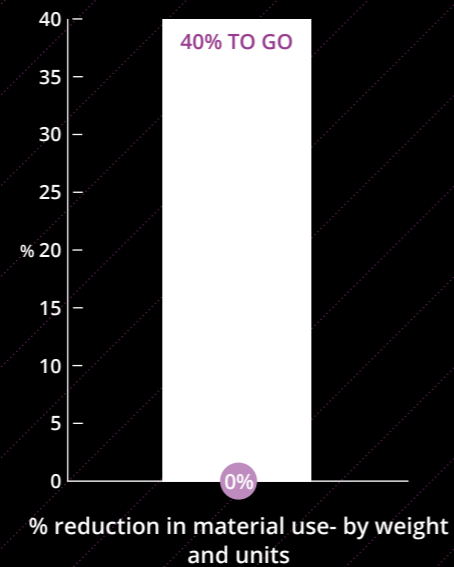
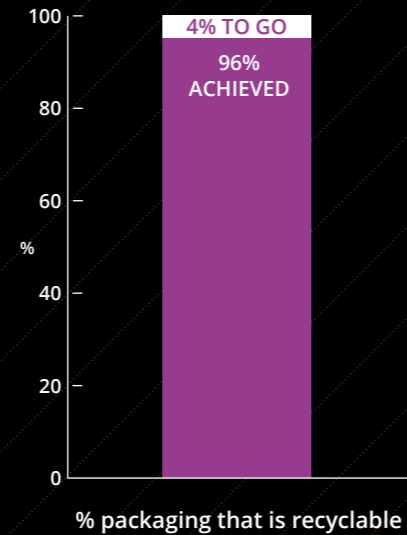
2030 OUTCOME	RETAILER PROGRESS MEASURE
100% recyclable packaging	% packaging that is recyclable
40% reduction in material use	% reduction in packaging by weight and units
All materials sustainable sourced and use of recycled content maximised	% packaging that is recycled content or sustainably sourced



## DISTANCE TO GO

Retailers have made significant progress in recent years on packaging, particularly on the recyclability and recycled content for plastics. In fact, retailers reported that 96% of the packaging they use is recyclable (see 'Understanding the data' for more information) and 23% is either recycled content or sustainably sourced. Packaging by weight, however, hasn't seen an overall reduction since 2018, so this is an area for future focus. Retailers' ability to report on their own-brand packaging was very good, while it is currently more challenging to report on third-party products.

### DISTANCE TO GO: PACKAGING



## NEXT STEPS TO MEET THE CHALLENGE

In recent years, retailers have invested considerable time and resources into addressing some of the environmental issues of their packaging portfolios. It's important this work continues – there are a number of interventions that will enable retailers to meet the Basket's outcomes, particularly if they are supported by strengthened government policy.

- Retailers can aim to eliminate all unnecessary single-use packaging. This includes selling uncut fresh produce loose where possible, unless it is shown that plastic packaging reduces overall food waste.<sup>xviii</sup>
- There is an increasing trend of replacing single-use plastic packaging with single-use non-plastic packaging. However, 'replace' is not a category on the waste hierarchy, and material switching can simply shift the environmental and social burdens to other supply chains and lead to worse outcomes overall. Retailers should scrutinise the impacts of material switching away from plastics to other materials and consider actions higher up the waste hierarchy such as reduction and reuse. While plastic pollution continues to prompt public outrage, the less immediately visible, upstream impacts of other material supply chains can have a devastating impact on people and nature.
- The sector can work together to increase the rollout of reuse and refill schemes, working towards a minimum of 25% reusable packaging overall. To support retailers in their efforts and to send a clear signal to businesses, government should introduce reuse targets for packaging within the Environment Act secondary legislation.
- Progress to date on recyclability is high, but retailers may be able to do even more to ensure packaging is optimised for evolving recycling collections and consumer understanding. This could include greater consistency in the range of materials used, ease of separation where packaging uses multiple materials, or design to facilitate post-consumer sorting
- Recyclability is a necessary precursor to recycling, but it does not solve the issue in itself. To help citizens recycle and ensure that packaging is actually recycled, packaging value chains should invest in UK recycling infrastructure, enabled by reforms to the extended producer responsibility scheme, the introduction of a deposit return scheme, and the harmonisation of household recycling collections across the widest possible range of materials. Government can additionally support both retailers and citizens by rolling out household kerbside collections of flexible plastic packaging ahead of the planned implementation in March 2027. In the absence of kerbside collection, most retailers have introduced take-back schemes for these materials, and they are proving popular with consumers. Retailers, NGOs and other stakeholders in the packaging value chain can support and drive the development of independent certification schemes for both virgin and recycled materials. These include the Aluminium Stewardship Initiative (ASI) and Responsible Steel, as well as new standards for glass and plastic packaging materials.

## UNDERSTANDING THE DATA

Packaging data collection was aligned with data collection for Courtauld 2030, and the analysis has been conducted in collaboration with WRAP.<sup>xxxix</sup> It covers all packaging materials and all packaging types (primary, secondary and tertiary). Retailers were asked to report on both own-label and branded packaging; however, some only reported own-label packaging.

In addition to the three progress measures, retailers were asked to report on their reusable packaging. However, this data is there is not yet enough coverage or comparability for this data to be monitored across industry. Furthermore, the desired impact of reusable packaging, namely a reduction in overall material use, should be reflected over time by ‘% reduction in packaging by weight and units’.

### % PACKAGING THAT IS RECYCLABLE

**Number of retailers reported – 8 out of 9**

These are self-reported recyclability figures from retailers, with all retailers basing their assessments on the On-Pack Recycling Label (OPRL) classification system. However, ‘recyclable’ does not necessarily equate to ‘recycled in practice’, as is demonstrated by the gap between the government’s official 2021 packaging recycling rate (provisional) of 63.2% and the 96% recyclability figure reported here.<sup>xxx</sup> This is especially relevant to flexible plastic packaging such as salad and fruit bags, confectionery wrappers, and biscuit flow wrappers. These packaging formats make up 22% of the total volume of UK plastic packaging (and more by unit) but they are not yet collected through household kerbside collections. Currently, the OPRL scheme signposts households to the retailers’ own voluntary take-back schemes with the labels ‘Recycle at Recycling Point’ and ‘Recycle with Bags at Large Supermarket’. However, only 6% is actually recycled, and this underlines the difference between claiming packaging is recyclable vs. the reality of what is actually recycled. The 96% figure, while encouraging, is thus not in itself representative of what is easily recyclable for citizens at kerbside, nor what is actually recycled.

### % REDUCTION IN PACKAGING BY WEIGHT AND UNITS

**Number of retailers reported – 6 out of 9**  
**Baseline year: 2018**

Most retailers were able to report on own-label and branded packaging, with some pointing to data collected by third-party organisations as part of Packaging Recovery Notes (PRNs) as a means for collecting and disclosing this data.

Aggregated baseline year data was provided on a like-for-like basis by WRAP (i.e. reflecting the same retailer coverage as was achieved for the Basket, though without sharing individual historical data). In future years, if more retailers report to the Basket, the baseline will be updated to reflect all reporting retailers. Additionally, retailers are likely to continue improving data systems in the future, and historical datasets will need to be updated to reflect any methodological changes.

### % PACKAGING THAT IS RECYCLED CONTENT OR SUSTAINABLY SOURCED

**Number of retailers reported – 5 out of 9**

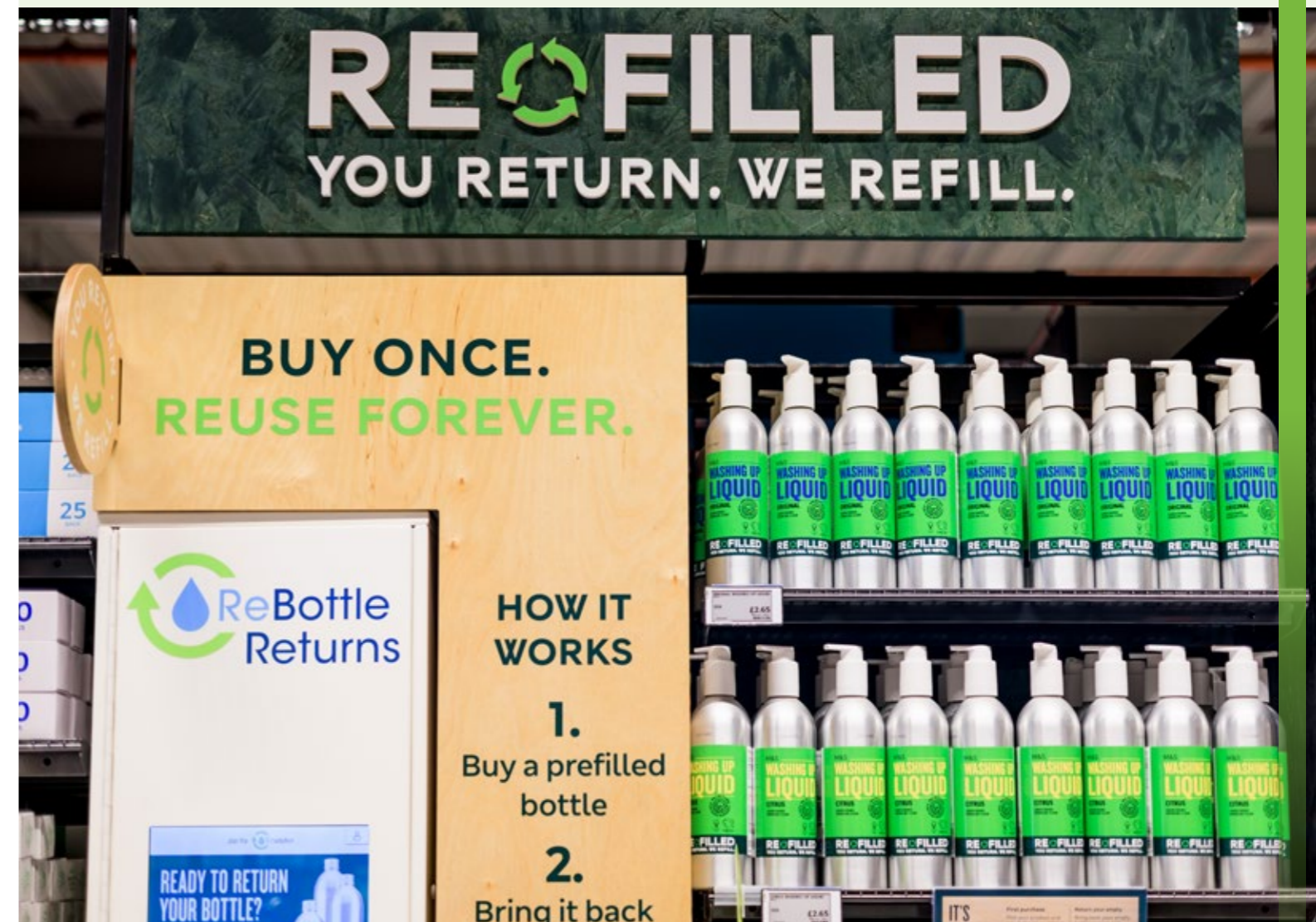
Data on recycled content had good coverage within the five reporting retailers, with all including both branded and own-label packaging. However, there was less useful data on sustainably sourced material. To collect this data, retailers were asked to report the % of their packaging (by material) that is certified by independent certification schemes. Three retailers reported quantitative data for paper and cardboard packaging materials, with retailers using the Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) certifications to assess sustainable sourcing. These results suggest that there is either a lack of credible schemes on the market to certify packaging materials as sustainably sourced, or there is a need for more engagement from packaging producers and retailers with existing and nascent certifications. The latter may be caused by a lack of availability of certified materials to satisfy demand or a cost barrier as they are more expensive.

WWF has developed principles for standards and certification schemes that need to be satisfied for us to actively endorse them.<sup>xxxix</sup> These are general principles for the production and capture of natural resources; they are not specific to sustainable sourcing of forest products or hard commodities, where we believe the lack of a clear definition of ‘sustainably sourced’ presents an industry gap. As consensus builds on what an ambitious definition of ‘sustainable’ looks like for different materials, we expect both data quality and the real-world impact of meeting this Basket requirement to increase.

## CASE STUDY : M&S

### Packaging reduction and Refill & Reuse trials

In the recent relaunch of ‘Plan A’, M&S committed to removing 1 billion units of plastic packaging by 2027. Through redesign, the retailer removed 75 million pieces of plastic in 2021/22 and are on track for a further 75 million this year, carefully ensuring they do not increase food waste. An example is removing plastic bags from all their bananas. They are also championing reuse and refill as one of the most sustainable packaging solutions. In December 2019, M&S launched its packaging-free refillable grocery concept, ‘Fill Your Own’, for 60 lines including pasta, rice, cereal and nuts. So far, they have saved 350,000 plastic units and have now expanded the concept to 15 stores; M&S continue to learn and make operational changes as they go. The retailer is also trialling other refillable concepts in different product categories: ‘Refilled’ is a refillable cleaning and laundry range; customers purchase pre-filled aluminium bottles and return them to the store for refilling when empty. The trial was launched in two stores in April 2022 and is now present in five stores in total.



## SUMMARISING THE FIRST YEAR OF DATA COLLECTION

This is the first year in which participating retailers have reported against their environmental impacts for the WWF Basket. This report aggregates the data provided to create an assessment of collective progress in the sector, and to gauge the distance still to travel to meet our 2030 ambition.

This report looks forward, focusing on presenting the 'distance to go' towards the Basket ambitions – but it's important to emphasise that many retailers have been working on these challenges for some time. In cases where targets are defined relative to a starting level (and which thus require baseline data) we explain how this has been defined.

Certain aspects of the data collection exercise have initially been challenging for retailers, especially where reporting against a specific new progress indicator, or where the best ways to monitor impact across the supply chain for a specific issue are still being developed. Standardised reporting methods should make this more straightforward in future and support a more comprehensive and realistic view of overall sector progress. It's also worth noting that to date, retailers have often focused their sustainability efforts on different elements of their respective supply chains, meaning that some have more information in certain areas than others. The extent and detail of data submitted therefore varied by both topic and retailer. Finally, while the WWF Basket is designed around the food system, some reported retailer impacts may include some non-food products in the Climate, Deforestation and Conversion, and Packaging outcome areas.

**ULTIMATELY, THE WWF BASKET IS ABOUT DRIVING CHANGE. THE AMBITION SET OUT WITH THE SIGNATORIES OF THE WWF'S RETAILERS' COMMITMENT FOR NATURE IS HIGH, AND GIVEN THE GLOBAL SITUATION WE'RE IN, IT NEEDS TO BE. THE TIME FOR ACTION IS NOW.**



# GLOSSARY, ACRONYMS AND REFERENCES

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## GLOSSARY OF TERMS

TERM	DEFINITION
Accountability Framework	A resource to help companies produce and source commodities while protecting forests and other natural ecosystems. It guides the establishment of effective policies and implementation systems to achieve supply chains free from deforestation and conversion.
Animal-based protein products/sources	As outlined in the WWF Protein Disclosure Guide, <sup>12</sup> these are considered to be: <ul style="list-style-type: none"> <li>• Meat, poultry and game including beef, lamb, pork, chicken, bacon, sausages, burgers</li> <li>• Fish and seafood</li> <li>• Dairy including milk, cheese, yoghurt, butter, cream</li> <li>• Eggs</li> </ul>
Better Environmental Standards	Relates to the 'Better' category of the Sourcing Better Framework <sup>19</sup> for reducing the environmental impact of Meat and Dairy.



TERM	DEFINITION
Chain of Custody Models (CoC)	<p>A general term to describe the approach taken to demonstrate the link (physical or administrative) between the verified unit of production and a particular claim about the final product (e.g., Fairtrade, Organic, Deforestation &amp; Conversion Free). Different types of models exist and are used by retailers and suppliers to claim that a product is deforestation and conversion-free. For more details on the Chain of Custody system see ISEAL Guidance.</p> <p>Three major types of CoC models exist for soy and palm oil verification, mass balance, identity-preserved and segregated, but each have significantly different impacts on the ground. Additionally, credit-based systems also exist that allow retailers to purchase credits equal to the volume of soy and palm oil that they have purchased. Only segregated and identity-preserved CoC models allow full traceability of conversion-risk commodities back to the original area of production. Currently, only segregated and identity-preserved certified soy/ palm oil can be considered verified deforestation and conversion free for retailer supply chains. The volumes of these verified sources are very limited and largely exclude do not include production from smallholders.</p> <p><b>Identity Preservation (IP)</b> An IP tracking system ensures that certified product from a certified site is kept separate from other sources of the product. If used through the whole supply chain, it allows certified products to be uniquely traced through the production process from a production site and batch (sustainability certificate holder) to the last point of transformation or labelling of a product (or use of a claim).</p> <p><b>Segregated (SG)</b> This type of tracking system ensures that certified product is kept separate from non-certified sources through each stage of the supply chain, allowing assurance that the ingredients within a particular product originate from certified sources, though it may not be possible to identify which molecule came from which certified source.</p> <p><b>Site-level Mass balance</b> This tracking system maintains segregation until the manufacturing or processing stage in the supply chain, when the certified product can then be mixed with non-certified product, and the proportions of certified and non-certified product at the overall site level are recorded and reconciled. Mass balance is not sufficient to prove physically deforestation and conversion free for the WWF basket metric.</p> <p><b>Area Mass balance</b> Also known as 'Group-level' or 'multi-site' mass balance. In this model physical mixing or volume reconciliation of certified and non-certified product is allowed at any stage in the production process provided that the quantities are controlled in documentation. The volume of certified product purchased by the group/ area is controlled and an equivalent volume of product leaving the group/area can be sold as certified. Mass balance is not sufficient to prove physically deforestation and conversion free for the WWF basket metric.</p> <p><b>Credit Trading</b> Also known as 'Book and claim' or 'certificate trading'. In this model certified material is decoupled from sustainability data. Certified and non-certified product flows freely through the supply chain. Sustainability certificates or credits are issued at the beginning of the supply chain by an independent issuing body and can be bought by market participants, usually via a certificate or credit trading platform. Credit trading is not sufficient to prove physically deforestation and conversion free for the WWF basket metric. Credit trading is also not strictly a Chain of custody model as there is no link between sustainability data and certified volumes.</p>

TERM	DEFINITION
Cut- off date	The cut-off date specifies the permissibility of deforestation or conversion based on the timing of such events on the ground. Clearance of natural forest after the cut-off date renders the affected area or production unit, and the commodity produced there, non-compliant with no-deforestation commitments. – Accountability Framework 2020 definition: <a href="https://accountability-framework.org/wp-content/uploads/2020/03/OG_Cutoff_Dates-Mar2020.pdf">https://accountability-framework.org/wp-content/uploads/2020/03/OG_Cutoff_Dates-Mar2020.pdf</a>
Deforestation	The loss of natural forest as a result of: <ul style="list-style-type: none"> <li>• conversion to agriculture or other non-forest land use;</li> <li>• conversion to a plantation; or</li> <li>• severe or sustained degradation</li> </ul>
Forage Fish Dependency Ratio (FFDR)	The quantity of wild fish used per quantity of cultured fish produced.
First Importer	The first company within a supply chain to place a product onto a specific market.
Food loss & waste	<p>Food and/or inedible parts sent to any of the following destinations: 25</p> <ul style="list-style-type: none"> <li>• Anaerobic digestion/ co-digestion</li> <li>• Composting/ aerobic processes</li> <li>• Incineration/ controlled combustion</li> <li>• Land application</li> <li>• Landfill</li> <li>• Sewer/ wastewater treatment</li> <li>• Not harvested/ ploughed-in</li> <li>• Other</li> <li>• Refuse/ discards/ litter (including dumping and unmanaged disposal).</li> </ul> <p>It is equivalent to the term 'Food Waste' used by WRAP and others in the UK. This definition excludes any material that is sent for:</p> <ul style="list-style-type: none"> <li>• Redistribution to people (e.g. through a charity or commercial redistributor)</li> <li>• Animal feed</li> <li>• Bio-based materials / biochemical processing (e.g. feedstock for other industrial products).</li> <li>• These are often referred to in the UK as 'food surplus.'</li> </ul>
Plant-based protein products/ sources	<p>As outlined in the WWF Protein Disclosure Guide, these are considered to be:</p> <ul style="list-style-type: none"> <li>• Legumes, beans and pulses including lentils, chickpeas, baked beans, kidney beans, butter beans, black beans, fava beans, lupin beans</li> <li>• Meat alternatives including soy (tempeh, tofu), wheat (seitan), pea protein, mycoprotein-based products</li> <li>• Dairy alternatives including plant milk and yoghurt, vegan cheese, butter and cream</li> <li>• Nuts and seeds</li> <li>• Algae (seaweed)</li> </ul>

TERM	DEFINITION
Recycled content	In its broadest sense, recycled content is the proportion of packaging which comes from recycled materials. WRAP currently aligns its recycled content definition with the ISO14021 definition which clarifies post-consumer material as material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.
Retail & manufacturing food waste	All food waste in the value chain excluding pre-farm gate losses and consumer food waste.
Science-based targets	These provide a clearly defined pathway for companies to reduce greenhouse gas emissions. Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.
Scope 1 emissions	Direct emissions from owned or controlled sources (e.g., gas boilers, vehicles, and refrigeration).
Scope 2 emissions	Indirect emissions from the generation of purchased energy.
Scope 3 emissions	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions (e.g., purchased products and food waste).
Seascope Approach	The Jurisdictional Seascope Sourcing Approach or the Seascope Approach aims to take the health of the oceans and the safeguarding of people into the heart of seafood production. <sup>xxxiii</sup> The approach integrates the management and policies of seafood production activities like fisheries and aquaculture into marine conservation and considers protection of species and habitat, as well as social welfare within a jurisdictional boundary, which can be at a national, regional, or international level.
Verified deforestation and conversion free scheme	<p>In the case of soy, to be in alignment with WWF for the purpose of this data collection exercise, certification standards must:</p> <ul style="list-style-type: none"> <li>Follow the FEFAC Soy Sourcing Guidelines 2021 including its “conversion-free” desired criterion #34;</li> <li>Follow the Accountability Framework guidance on certifications;</li> <li>Have a cut-off date for all ecosystem conversion of 2020 at the latest.</li> </ul> <p>In addition, only segregated or identity preserved certification models should be used to provide evidence of physical deforestation- and conversion-free products (mass balance or book and claim certification is not enough). The WWF approved schemes are segregated or identity-preserved certified materials under the following schemes: Roundtable on Responsible Soy (RTRS), Proterra, Donau Soy and Europe Soy, US Soy Sustainability Assurance Protocol. A number of traders' own schemes (e.g., Cargill Triple S) claim they are aligned with FEFAC (+34), and certified volumes do meet a cut-off date – but there are significant challenges on their transparency and concern about the quality of their monitoring practices and they are rarely segregated, or identity preserved.</p> <p>In the case of palm oil, to be in alignment with WWF, certification standards must:</p> <ul style="list-style-type: none"> <li>Follow the Accountability Framework guidance on certifications;</li> <li>Have a cut-off date for all ecosystem conversion of 2020 at the latest.</li> </ul> <p>In addition, only segregated or identity preserved certification models should be used to provide evidence of physical deforestation- and conversion-free products (mass balance or book and claim certification is not enough). The WWF approved schemes are segregated or identity-preserved certified materials under the following schemes: Roundtable on Responsible Palm Oil (RSPO) and ISCC Plus.</p>

## LIST OF ACRONYMS

ACRONYM	DEFINITION
A/FIP	Fishery or Aquaculture Improvement Project
ASC	Aquaculture Stewardship Council
ASI	Aluminium Stewardship Initiative
CGF	Consumer Goods Forum
DCF	Deforestation and conversion free
E.L.Ms	Environmental Land Management schemes
ETP	Endangered, Threatened and Protected
FFDR	Forage Fish Dependency Ratio
FFDRm	FFDR meal
FFDRo	FFDR oil
FSC	Forest Stewardship Council
GAP	Good Agricultural Practices
GDST	Global Dialogue on Seafood Traceability
GHG	Greenhouse Gas
HESTIA	Harmonized Environmental Storage and Tracking of the Impacts of Agriculture
HGV	Heavy-Goods Vehicle
IGD	Institute of Grocery Distribution
IUU	Illegal, Unreported and Unregulated
LCA	Life-Cycle Analysis
OPRL	On-Pack Recycling Label
PEFC	Programme for the Endorsement of Forest Certification
PPA	Power Purchase Agreement
PRN	Packaging Recovery Note
REM	Remote Electronic Monitoring
RFVS	Responsible Fishing Vessel Standard
RSPCA	Royal Society for the Prevention of Cruelty to Animals
RSPO	Roundtable on Responsible Palm Oil
RTRS	Round Table on Responsible Soya
SBT	Science-Based Target
SDG	Sustainable Development Goal
SECR	Streamlined Energy and Carbon Reporting

## REFERENCES

- i WWF Thriving within our planetary means: reducing the UK's production and consumption footprint by 2030, <https://www.wwf.org.uk/what-we-do/uk-global-footprint>
- ii IPCC (2022) Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 2022, <https://www.ipcc.ch/report/ar6/wg3/>
- iii Crippa et al. (2021) Food systems are responsible for a third of global anthropogenic GHG emissions, <https://www.nature.com/articles/s43016-021-00225-9>
- iv HM Treasury (2021) Fact Sheet: Net Zero-aligned Financial Centre, 2021, <https://www.gov.uk/government/publications/fact-sheet-net-zero-aligned-financial-centre/fact-sheet-net-zero-aligned-financial-centre>
- v GHG Protocol (2013) Technical Guidance for Calculating Scope 3 Emissions, 2013, <https://ghgprotocol.org/scope-3-technical-calculation-guidance>
- vi SBTi (2022) Net-Zero: Urgent Beyond Value Chain Mitigation Is Essential, 2022, <https://sciencebasedtargets.org/blog/net-zero-urgent-beyond-value-chain-mitigation-is-essential>
- vii Accountability Framework Initiative, <https://accountability-framework.org/the-framework/contents/definitions/>
- viii CGF KPMG (2016) Calculation guidelines for the measurement of embedded soy usage in consumer goods businesses
- ix WWF (2020) Riskier Business : The UK's Overseas Land Footprint
- x Our World in Data (2021) If the world adopted a plant-based diet we would reduce global agricultural land use from 4 to 1 billion hectares, <https://ourworldindata.org/land-use-diets>
- xi WWF The Journey to Corporate Protein Disclosure, <https://www.wwf.org.uk/sites/default/files/2022-03/Protein-Disclosure-Guide.pdf>
- xii IPCC (2019) Special Report: Climate Change and Land, 2019, <https://www.ipcc.ch/srccl/>
- xiii IPCC (2019) Special Report: Climate Change and Land, 2019, <https://www.ipcc.ch/srccl/>
- xiv CCC (2020) Land use: Policies for a Net Zero UK, 2020, <https://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/>
- xv WWF Land of Plenty, <https://www.wwf.org.uk/updates/land-of-plenty>
- xvi CCC (2020) The 6th Carbon Budget, LULUCF <https://www.theccc.org.uk/publication/sixth-carbon-budget/>
- xvii WWF Land of Plenty, <https://www.wwf.org.uk/updates/land-of-plenty>

- xviii Eating Better (2021) Sourcing Better Framework: A pathway to less and better meat and dairy, [https://www.eating-better.org/uploads/Documents/Sourcing\\_Better\\_Framework.pdf](https://www.eating-better.org/uploads/Documents/Sourcing_Better_Framework.pdf)
- xix Gruber et al. (2019) The oceanic sink for anthropogenic CO<sub>2</sub> from 1994 to 2007, 2019, <https://www.science.org/doi/10.1126/science.aau5153>
- xx WWF Tuna Sourcing Issue Identification Checklist, [https://www.wwf.org.uk/sites/default/files/2022-03/WWFUK\\_TUNA\\_ID\\_CHECKLIST\\_F\\_MAR2022.pdf](https://www.wwf.org.uk/sites/default/files/2022-03/WWFUK_TUNA_ID_CHECKLIST_F_MAR2022.pdf)
- xxi WWF (2021) Driven to Waste: The Global Impact of Food Loss and Waste on Farms, 2021, <https://www.worldwildlife.org/publications/driven-to-waste-the-global-impact-of-food-loss-and-waste-on-farms>
- xxii WRAP Food waste prevention - Labelling guidance checklist, <https://wrap.org.uk/resources/guide/label-better-less-waste-food-date-labelling-guidance-checklist>
- xxiii WRAP The Courtauld Commitment 2030, <https://wrap.org.uk/taking-action/food-drink/initiatives/courtauld-commitment>
- xxiv FLW Protocol FLW Standard, <https://flwprotocol.org/flw-standard/>
- xxv WRAP Food waste prevention - Labelling guidance checklist, <https://wrap.org.uk/resources/guide/label-better-less-waste-food-date-labelling-guidance-checklist>
- xxvi WRAP Retail Survey 2019, <https://wrap.org.uk/resources/report/retail-survey-2019>
- xxvii WRAP (2021) Food surplus and waste in the UK – key facts, 2021, <https://wrap.org.uk/sites/default/files/2021-10/food-%20surplus-and-%20waste-in-the-%20uk-key-facts-oct-21.pdf>
- xxviii WRAP Reducing household food waste and plastic packaging, <https://wrap.org.uk/media-centre/press-releases/no-plastic-packaging-sell-fresh-uncut-produce-loose-says-wrap-report>
- xxix WRAP The Courtauld Commitment 2030, <https://wrap.org.uk/taking-action/food-drink/initiatives/courtauld-commitment>
- xxx Defra (2022) UK statistics on waste, 2022, <https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste#packaging-waste>
- xxxi WWF WWF principles to actively endorse and recognize effective and credible standards standards and certification schemes, [https://d2ouvy59podg6k.cloudfront.net/downloads/wwf\\_principles\\_for\\_standards\\_and\\_certification\\_schemes\\_external\\_version.pdf](https://d2ouvy59podg6k.cloudfront.net/downloads/wwf_principles_for_standards_and_certification_schemes_external_version.pdf)
- xxxii WWF What is the Seascope Approach?, <https://www.wwf.org.uk/food/seascope-approach>



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