Climate Risks and Opportunities: What are they and how exposed is my company?

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Presenters

Dr. Dale Tromans

- PhD in palaeoclimatology with nine years of experience in climate data analysis.
- Helps clients identify physical and transition climate risks and meet various reporting standards aligned to ISSB and TCFD frameworks and global climate regulations.
- Conducts physical climate risk assessments up to 2100, to meet regulations and identify adaptation measures.
- Evaluates climate hazards like extreme heat, flooding, and wind changes.

Grace Cook

- Ten years in the Consumer Goods Industry, specialising in sustainability and packaged goods.
- Helps organisations manage transition risks and integrate climate risk into governance.
- Conducts climate risk assessments aligned to ISSB and TCFD frameworks and California climate regulations.
- Assesses regulatory, technological, and market shifts impacting clients.

This webinar will cover

1. An introduction to Ramboll
2. Why should you care about climate risks and opportunities?
3. What are climate-related risks and opportunities?
4. What should you tell your board and leadership?

About Ramboll

We are an independent engineering, architecture and management consultancy company founded in Denmark in 1945 to help Europe rebuild after WWII.

We combine insights with the power to drive positive change to our clients, in the form of ideas that can be realised and implemented.

Much like the organisations we support, we are a globally connected company that is committed to using our talents to help clients create a cleaner, healthier, and safer world.

300
Global offices in 35 countries

+ 18,500
Employees

€ 2.3 B
Global revenue, in 2023 across all markets

Multidisciplinary services across seven markets:

- Buildings
- Environment & Health
- Water
- Management Consulting
- Energy
- Transport
- Architecture & Landscape

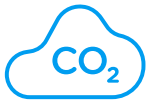
A deep expertise and a broad perspective
Sustainability backed by technical excellence

What truly sets us apart is the depth and breadth of our technical expertise. With thousands of engineers, scientists and sustainability specialists across key disciplines and sectors, we deliver visionary solutions grounded in real-world feasibility.

Technical and design expertise

Globally, we have 18,000 specialists, combining technical and design expertise across multiple sectors, including industry and manufacturing, real estate and infrastructure, energy and transport.

Climate



We combine deep sectoral knowledge with climate science and innovation to ensure our clients have access to leading expertise in all facets of mitigation, resilience and adaptation.

Environment

Ramboll is a global leader in biodiversity and ecosystems management with over 3000 environment, nature and water specialists spread across the globe.

Policy and legal insights

Our Brussels office and our legal experts specialise in all policy and legislation related to the low carbon, circular and just transition, guiding both public sector e.g., EU Commission and private sector clients.

Economics & finance

Our management consulting division bridges the gap between finance and technical services in line with, for example, the EU's Sustainable Finance Strategy. Our consulting unit also works with our technical specialists to put real financial numbers to sustainability action.

2. Why should you care?

Misconceptions about climate change and the physical and transition risks it poses

"Only physical climate risks such as floods, storms and heatwaves are relevant"

"Existing risk management frameworks adequately cover climate risks"

"Climate risk is a distant concern for the future"

"Transition risks are just about regulations and carbon taxes"

"Opportunities are sparse and typically focussed on renewable energy"

Regardless of your position, you should be thinking about climate risks

CSO

Are our climate transition strategies aligned with sustainable sourcing and packaging goals, and are they board-approved?

Compliance / Legal

What's our exposure to evolving food safety and climate-related regulations (e.g., ISSB, CSRD, California SB 261)?

CFO

Could our current facilities or supply chain investments become stranded assets due to climate risks? How are we valued against peers with resilient, low-carbon operations?

Operations

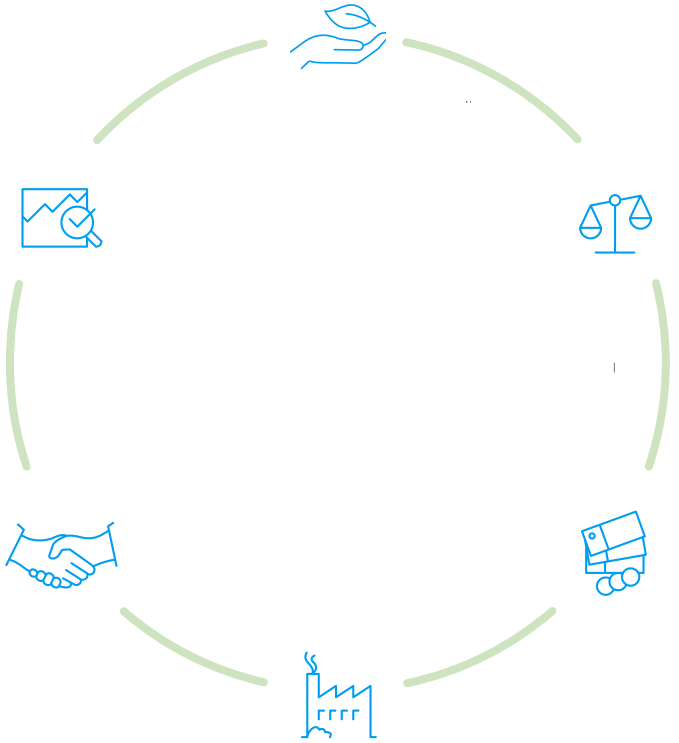
Are we prepared for disruptions to agricultural supply chains, water scarcity, or extreme weather impacting logistics and storage?

Sales / Marketing

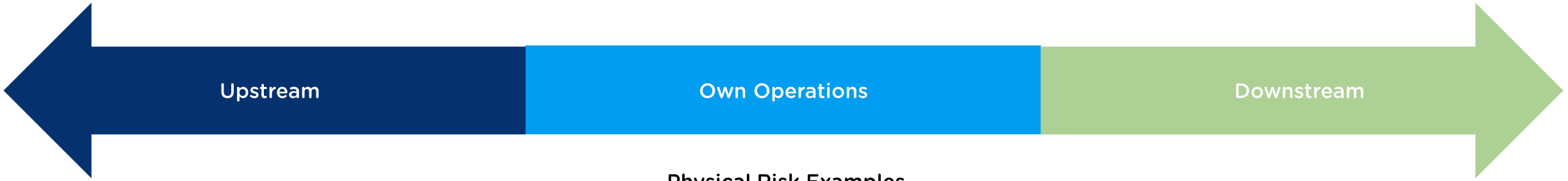
Will our product pipeline and innovation meet future consumer demand for sustainable, low-impact food and beverage products?

Investors

Can we demonstrate climate resilience and transparency in how we address transition and physical risks across our portfolio?



While risk assessments often begin with your own operations, climate risk affects the whole value chain



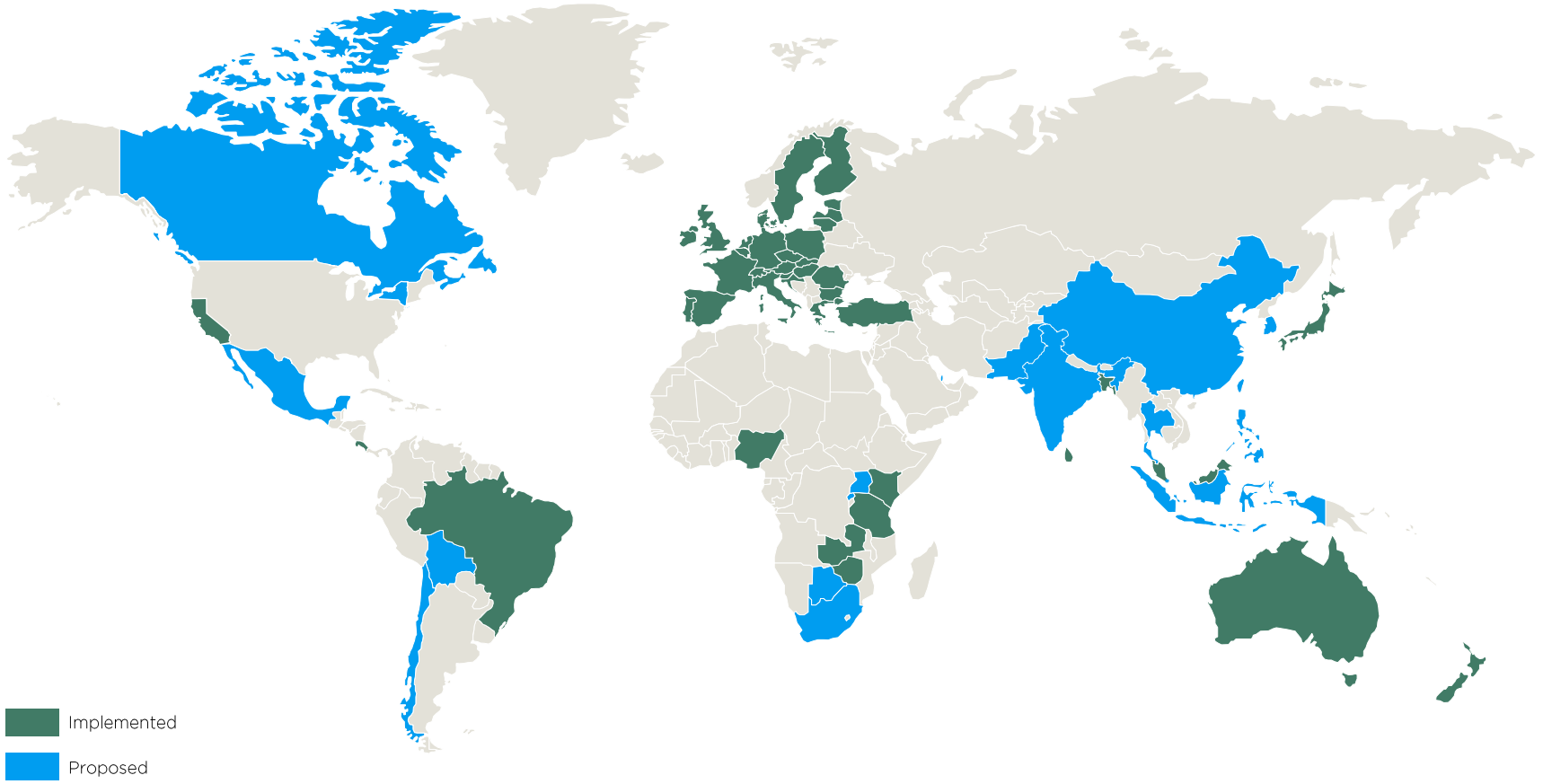
Physical Risk Examples

Upstream	Own Operations	Downstream
2024 heatwaves in West Africa caused cocoa production losses, contributing to a **300% increase in global cocoa prices** by April 2024. This impacted ingredient costs for confectionery and beverage brands worldwide.	**The 2022 UK heatwave caused poultry and dairy farm losses**, as extreme temperatures led to heat stress in livestock and lower productivity, impacting supply continuity and costs for UK producers.	**2023 UK floods disrupted distribution networks**, leading to supermarket delivery delays and stock shortages of perishable products.

Transition Risk Examples

Upstream	Own Operations	Downstream
EU Deforestation Regulation (EUDR) affecting suppliers of commodities to the UK. This can impact the costs and availability of goods such as soy, palm oil, coffee, cocoa and derivatives of these products.	The **EU Emissions Trading System (EU ETS)** applies to large food manufacturers with high energy use. Risk of higher energy costs for day-to-day activities and the need to switch to more efficient energy systems.	**Pressure from consumers** to supply carbon-neutral or net zero products. Consumer shifts toward plant-based or low-emission food products could reduce demand for higher-emission products, resulting in excess inventory and lost market share.

Global climate disclosure mandates encourage companies to mitigate risks and seize opportunities with public scrutiny



Companies in scope of each countries' disclosure requirements vary along with implementation timelines, but they all align to the major frameworks namely ISSB (TCFD).

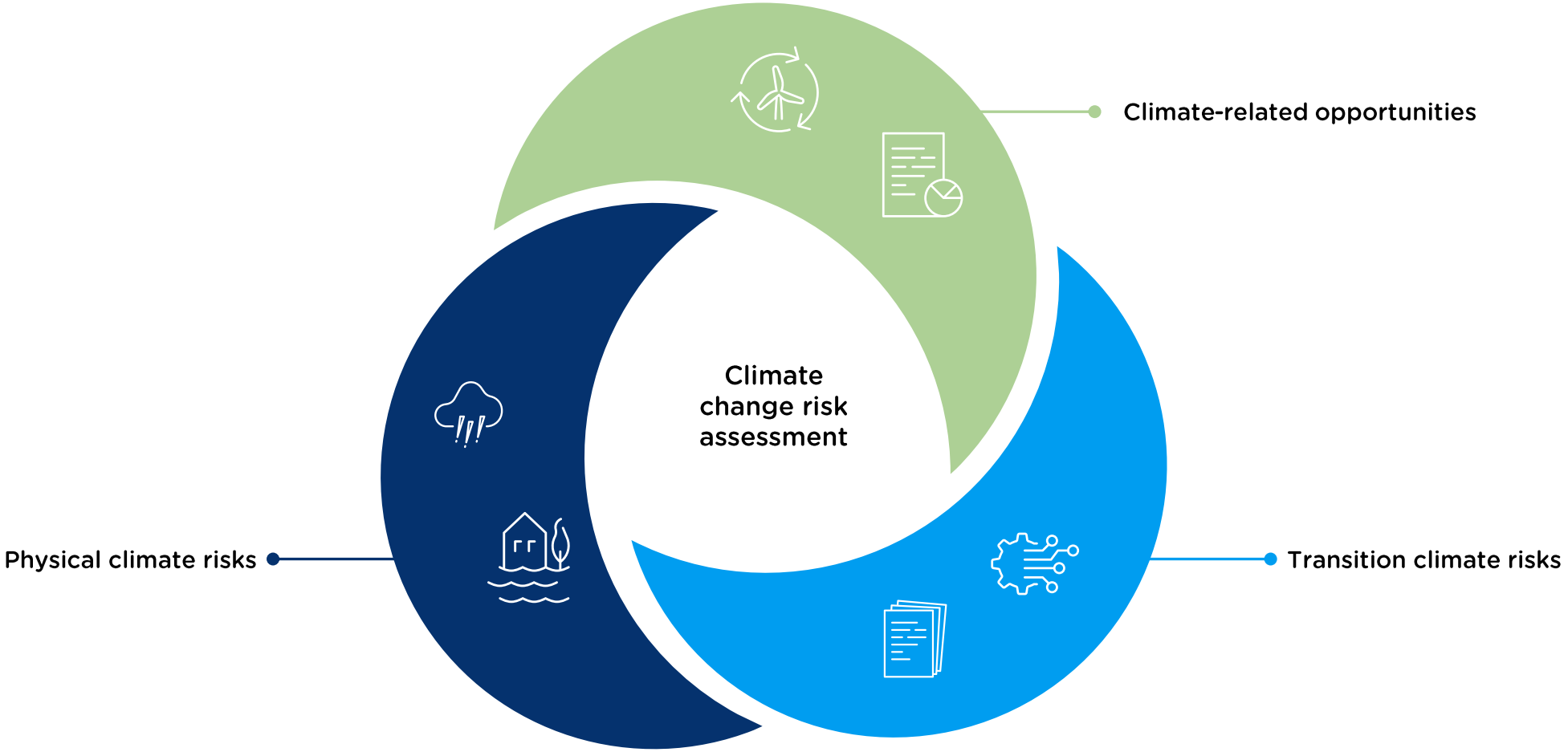
Mandatory dates for climate-related disclosures by country

UK	2022
Australia	2025
Brazil	2026
India	2026
Nigeria	2028

Source: S&P Global | Last updated: May 2025

3. What are climate-related risks and opportunities?

Physical and transition climate risks and opportunities are interlinked



Physical risks - categories and hazards

Acute

Floods

Hurricanes

Wildfires

Heat waves

Drought

Chronic

Rising sea levels

Increased temperature

Changes in precipitation

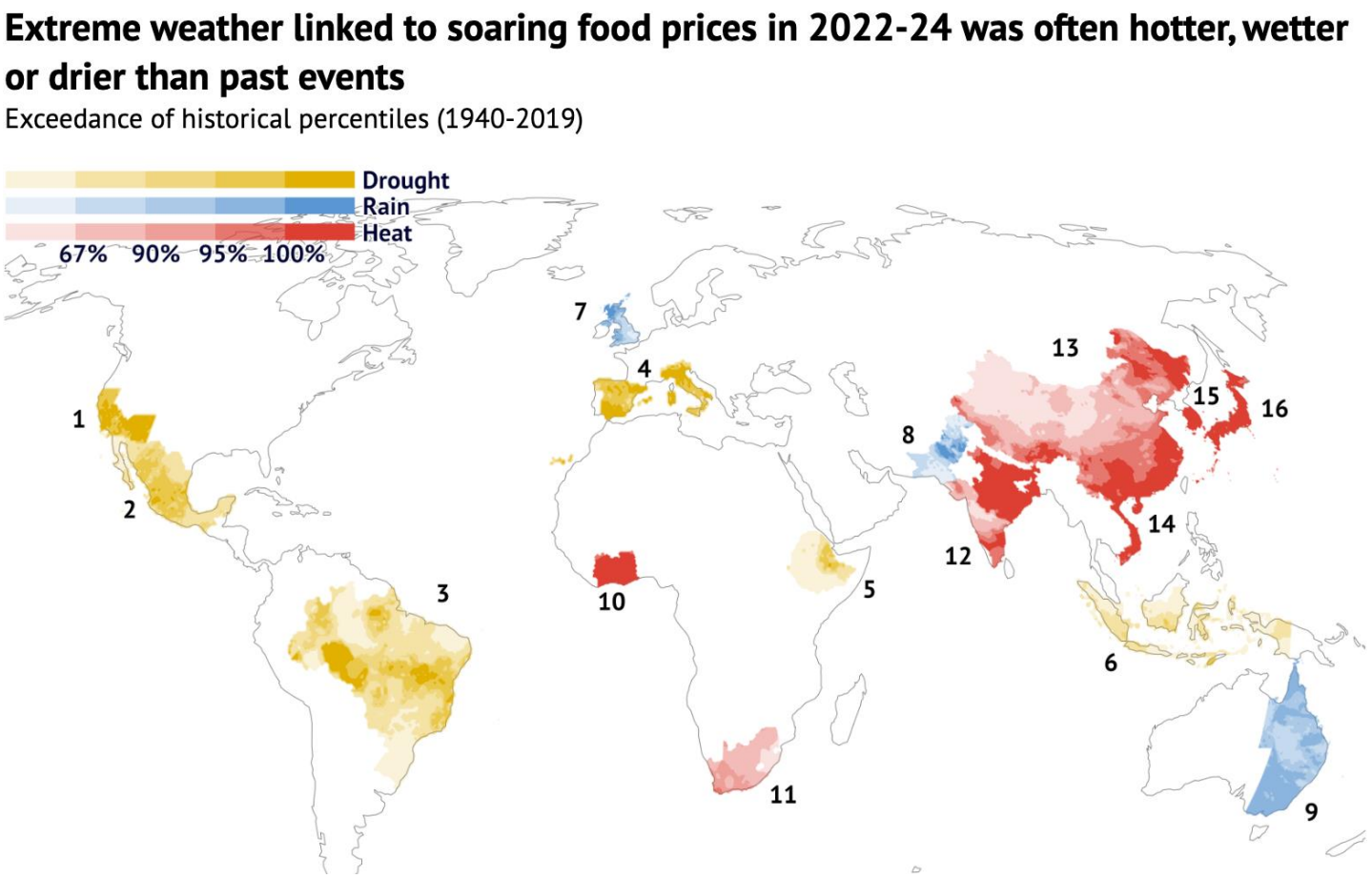
Heat stress

Water stress

Examples to illustrate physical risks and their effects on the food and drink sector

	Acute – heat waves	Acute - drought	Chronic – average temp.	Chronic – sea level rise
What is the risk?	Increased frequency and severity of extreme heat waves during growing seasons	Prolonged reduction in water availability for production of food and drinks	Continued rising of average temperatures shift growing zones and timings	Sea level rise and saltwater intrusion affecting management of coastal agriculture and farming
What is the effect?	Increased crop failure, reduced yields, labour health risks, increased need for infrastructure	Irrigation restrictions, perennial crop losses, increased costs for water	Changing growth seasons and condensed areas of focus for key crops (e.g. coffee)	Loss of arable land in coastal areas and reduced productivity from poor soil quality

Examples of physical climate risks are already affecting food and beverage value chains and are projected to increase



What is the risk?	What is the effect?
UK (7): 2023 and 2024 heavy rainfall impacting crop yield	Potato prices rose by 22% as a result of poor crop yield
China & India (13, 14): 2022–23 wheat crop failures due to record heatwaves	Sudden crop failure, reduced yield, export bans, food price inflation
Mexico (1, 2) & Spain (4): 2023 drought reduced maize and olive oil production	Irrigation restrictions, perennial crop losses, and upstream supply shocks
Brazil (3): Changing climate threatens coffee and sugar production regions	Productivity decline, increased insurance and adaptation costs
Indonesia (6): Jakarta and other lowland farming zones face rising water tables	Loss of arable land in coastal regions, food security risks

Source: Carbon Brief

Transition risks - categories and drivers

Policy and legal

Carbon pricing and emissions regulations

Stricter environmental laws

Climate-related litigation

Market

Changes in customer preferences

New competitors

Consolidation

Technology

Unsuccessful R&D

Technology switching costs

Reputation

Sector stigmatisation

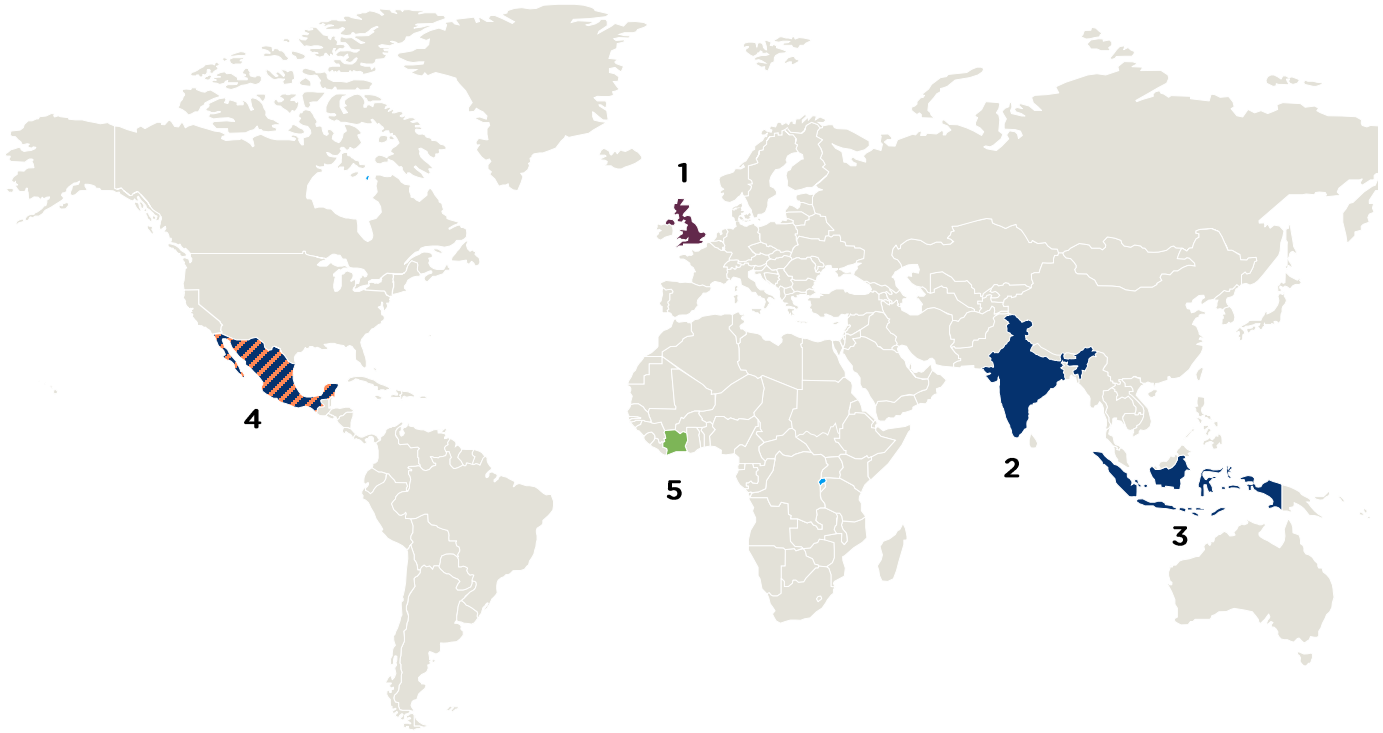
Unmet targets

Examples to illustrate transition risks and their effects on the food and drink sector

	Policy & Legal	Market	Technology	Reputation
What is the risk?	Governments introduce emissions standards or carbon pricing in agriculture and food production	Buyers and consumers shift demand to lower-emission food (e.g. plant-based, regenerative ag)	Adoption of low-carbon ag technologies (e.g. methane reduction, precision ag) is uneven or capital-intensive	Scrutiny of corporate climate and nutrition strategy intensifies
What is the effect?	Cost increases for producers; shifts in sourcing and compliance needs	Reduced market share for high-emission products (e.g. red meat, monocultures)	Competitive disadvantage for laggards; operational disruptions during transition	Investor or consumer backlash from perceived inaction

Examples of transition risks for all categories across continents and their effects on food and drink

Highlighted transition risks across categories show effects on product and resource supplies, market access, and compliance



What is the risk?	What is the effect?
UK (1): Tesco, Sainsbury's have committed to net zero emissions by 2050, pushing suppliers to reduce their scope 3 emissions	Ingredient suppliers must decarbonise supply chains or risk delisting
India & Indonesia (2, 3): In 2022, India banned wheat exports, and Indonesia briefly banned palm oil exports during a price surge	UK and EU ingredient buyers faced supply and cost volatility for essentials like edible oils and grains
Mexico (4): Breweries in Mexico City have faced government-imposed water use restrictions due to local drought and overuse	Local operations face water rationing, reputational pressure, and potential relocation or shutdown costs
Côte d'Ivoire (5): Tech allowing traceability at cocoa farms, agroforestry, and reduced emissions	Suppliers without credentials risk exclusion from preferred sourcing lists or whole markets

Climate-related opportunities - categories and drivers

Resource efficiency	Products/ services	Resilience	Markets	Energy source
Energy efficiency	Low carbon products	Supply chain reliability	Market expansion	Fossil fuel energy reduction
Process efficiency	Competitive advantage	Reduced fossil fuel energy exposure	Strengthened relationships	Energy reduction

Examples to illustrate climate-related opportunities for the food and drink sector

	Resource efficiency	Products / services	Resilience	Markets	Energy source
What is the risk?	Retrofitting factories to reduce water and energy use	Expanding low-carbon product lines (e.g. plant-based foods, upcycled ingredients)	Investing in climate-smart agriculture or controlled-environment growing systems	Tapping into export markets with strong green standards	Switching to on-site renewables for power
What is the effect?	Lower OPEX, improved margins	Market growth, customer loyalty	Increased yield stability, supply chain resilience	New revenue streams	Reduced energy costs, improved energy security
Real-world example	Nestlé UK invested in water reuse systems at its Fawdon site, reducing water consumption by 40%	Unilever reports €1B in sales from plant-based meat & dairy alternatives under brands like Knorr & Hellmann's	Bardsley England (UK apple grower) uses AI and data analytics to reduce weather-related losses	UK-based Oatly expanded to the EU with climate-labelled products meeting carbon disclosure preferences	Heineken UK runs its Manchester brewery with 100% renewable electricity

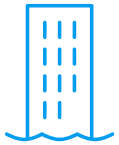
4. What should you tell your board and leadership?

What should you tell your board and leadership?

Our clients have identified these key business benefits from conducting a climate change risk assessment and provided examples of how these have been realised.

Improved decision-making and updated governance

With exposure to future carbon pricing understood, leadership adjusts capital planning to prioritise lower-emissions assets and avoid future regulatory costs.



Cost savings & operational resilience

Site-level risk analysis reduces insurance costs through physical upgrades to mitigate flooding and fires; energy transition supports early electrification lowering energy costs and boosting resilience.

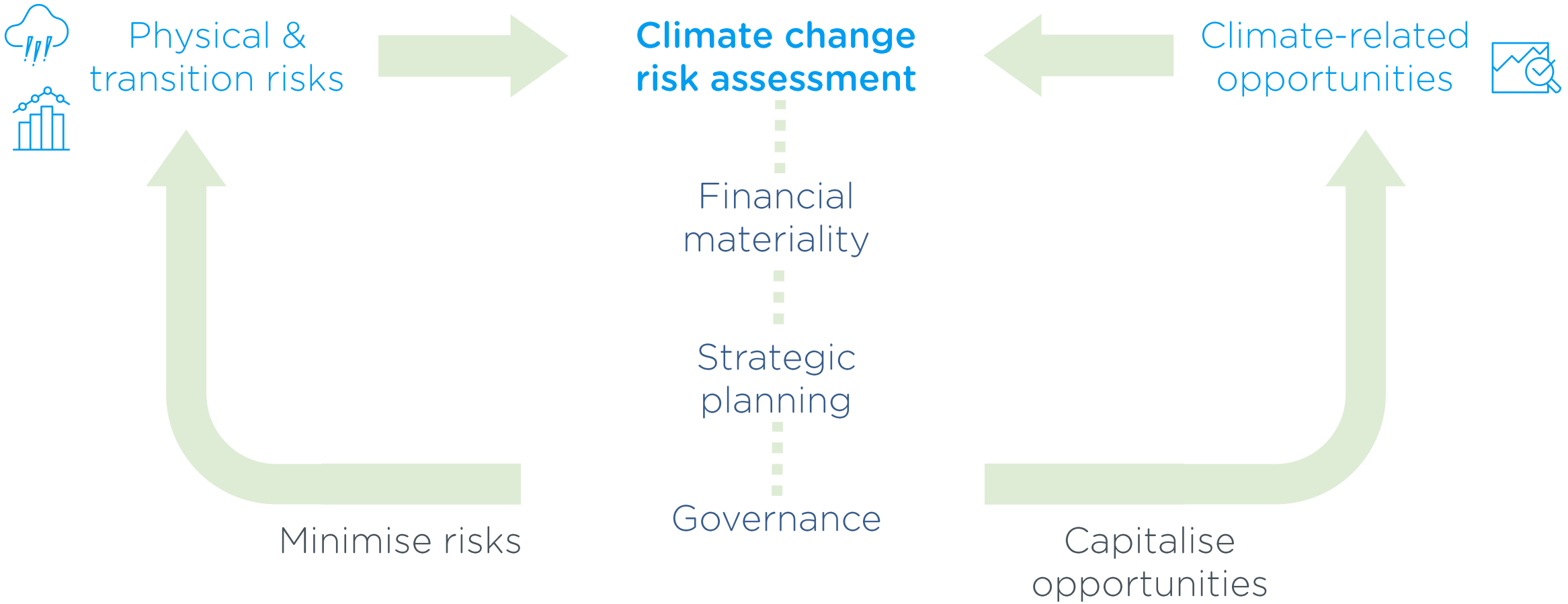
Competitive & financial advantages

With customers screening for emissions intensity, the company locks in preferred supplier terms, reducing future cost exposure and gaining a competitive edge.

Regulatory & reputational benefits

By voluntarily disclosing risks and mitigation strategies now, the company builds investor and employee trust and avoids reputational damage.

How do CCRA outcomes integrate into your organisation?



Where should you go from here?

Situation	Complication	Result

You are **here**

ACT

Conduct a climate change risk assessment

DELAY

Continue to be unaware of exposures and hope to not need a CCRA

Investors call

Regulations pass

Climate impacts

RESPOND

✓ Risks documented

✓ Mitigation plans in place

✓ Stakeholder trust maintained

REACT

✗ Risks unknown

✗ No mitigation plans in place

✗ Stakeholder trust lost

Let's revisit those topics

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Next Ramboll Webinar:

Title: 'Levelling Up Life Cycle Assessments: Essential Strategies for the Food and Drink Sector'
When: 25th September 2025 (13:00:14:00 BST)
Sign up on FDF website

Focuses on making the most of Life Cycle Assessments (LCA) within the food and drink sector including:

- ✓ The latest trends and developments in LCA
- ✓ How to make the most of LCA in your value chain
- ✓ Expanding LCA to cover broader topics like social and biodiversity impacts

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Thank you!

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ideas.
Sustainable
change.

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