

CLIMATE RISK SCENARIO ANALYSIS

Understanding Climate Risk

Climate Related Disclosure

Coca-Cola European Partners recognises the importance of disclosing climate related risks and opportunities in line with the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD).

- Climate change has been identified as a key risk for Coca-Cola European Partners. It is one of 19 risks that have been identified as part of CCEP's Enterprise Risk Management Framework (see page 43 of CCEP's [2018 Integrated Report](#)).
- We have adopted science-based carbon reduction targets and have integrated them into our [sustainability action plan](#).
- We continue to include climate related disclosure - including a full overview of our greenhouse gas emissions and a progress update against our carbon reduction targets in our Integrated Report which is published annually.
- We provide comprehensive disclosure through our annual [CDP Climate Response](#).

Enhancing our Understanding of Climate Related Risks

To enhance our understanding of the impact that climate change could have on our business we have recently undertaken further analysis of the risks and opportunities arising from climate change. This work was undertaken in partnership with The Coca-Cola Company and delivered by DNV GL, with the following objectives:

- To define the most material physical and transition risks for Coca-Cola European Partners and the broader Coca-Cola system.
- To identify the most appropriate climate scenarios to be used for climate scenario analysis.

The results from this work are informing our strategic decisions and helping us prepare for the potential impacts of climate change in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

Physical and Transition Risks

Physical Risks - higher concentrations of greenhouse gasses in the atmosphere lead to a variety of physical climate impacts including: higher mean average temperatures, more acidic oceans, changing weather patterns and rising sea levels. These physical effects will be more severe if the world continues with no or limiting actions to prevent climate change (i.e. under a business as usual scenario). The physical effects will be limited if strong or aggressive mitigation action is taken to force a transition to a low carbon economy. The physical effects from climate change can broadly be split into two main categories - specific extreme weather events (acute) and longer term shifts in climate patterns.

Our business could be impacted by physical events related to climate change. This would be felt most strongly under a 'business as usual' future.

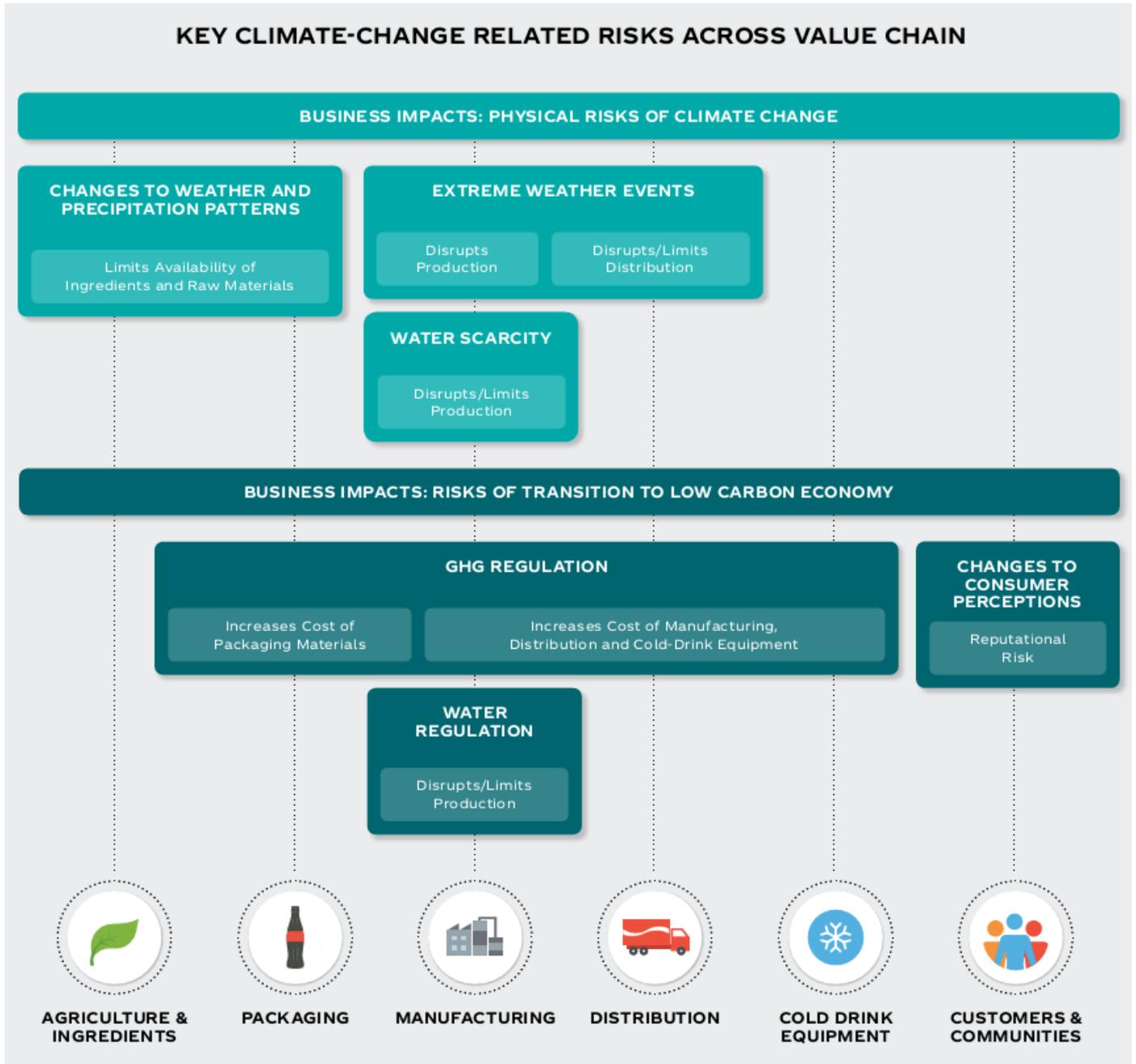
- As a beverage company, CCEP is heavily reliant on the quality and availability of key ingredients (e.g. citrus, sugar) and water.
- Climate change has the potential to drastically impact the availability of water – and also to drastically change the agricultural landscape. Our ability to mitigate against these changes becomes minimized when physical effects are so significant they cause changes to availability of raw materials at a global level.
- Increased water scarcity and water stress could have major implications for our business in the future.
- Extreme weather events could disrupt CCEP's manufacture and distribution.
- Under a future scenario where the physical effects of climate change become increasingly severe, supply and production may be strongly impacted.

Transition Risks - encouraging a transition to a low-carbon economy and taking mitigating actions to limit any physical effects of climate change will require regulatory, market and technological changes, as well as changes to the way consumers and society view how business contributes to climate change. These transition effects will be more severe if a more aggressive approach is taken to reduce carbon emissions. These transition effects can also bring risk & opportunities for business and present potentially significant financial impacts. We believe that our business is well placed to succeed under the potential future where the world transitions to a low carbon economy. However Coca-Cola European Partners could also be impacted by the transition to a low-carbon economy. This would be felt most strongly under a rapid transition. For example, changes to regulations relating to water use and withdrawal, and GHG emissions could have implications for our business.

CLIMATE RISK SCENARIO ANALYSIS - CONTINUED

Material Risks

We have explored a wide range of potential physical and transition risks to our business and our value chain from climate change. As a result we have identified eight material risks:



Extreme weather causes disruption to manufacturing - our business is reliant on bottling facilities to produce our products. Bottling facilities can be impacted by extreme weather events including storms and floods, which exposes us to the risk of our manufacturing facilities being damaged. As a result, we may not be able to produce in line with customer demand; we may suffer reputational damage; may experience increased capex costs to repair facilities and/or experience injuries or fatalities from damage.

Extreme weather causes disruption to distribution - our sales are dependent on being able to distribute product from bottling plants to consumers. For this, we require road and rail access. Key logistics routes are impacted by extreme weather events including storms, floods and hurricanes. This exposes us to the risk of our key transportation and logistics routes being damaged and limited or having no access for our distribution fleet. As a result, we may be unable to supply to key markets and/or not be able to produce in line with customer demand.

CLIMATE RISK SCENARIO ANALYSIS - CONTINUED

Water scarcity causes disruption or inability to produce – approximately 90% of our product is water. Our business is heavily reliant on water availability and so impacted by changes to precipitation patterns which could exacerbate water scarcity, which exposes us to the risk of a shortage of a key raw material (i.e. water). As a result, we may; be unable to source key raw materials; not be able to produce in line with customer demand; see costs increase in line with the price of raw materials and/or experience stranded assets of key manufacturing sites if unable to produce.

Changes to weather & precipitation patterns impact cost & availability of ingredients - to produce our products we rely on the availability & quality of key ingredients at a price that keeps our products profitable. The availability, quality & price of ingredients is impacted by chronic changes to weather and precipitation patterns, which exposes us to the risk of shortages of key raw materials. As a result, we may not be able to source a key raw material, may not be able to produce in line with customer demand and/or experience increased cost of raw materials.

GHG regulation increases costs across our value chain - our business emits GHGs across our value chain. Our business could be impacted by regulation leading to a price on carbon, which exposes us to the risk of increased cost related to packaging, manufacturing, distribution & cold drinks equipment. As a result, we may see an increased cost of production and/or may not be able to produce in line with demand if our products become cost ineffective and/or we fail to comply with regulation.

GHG regulation increases cost of packaging materials - our business makes use of various packaging materials and delivery options. Packaging materials have differing carbon footprints, which expose CCEP to the risk of increased costs, depending on the future mix of materials in our packaging portfolio. As a result, we may be unable to produce in line with customer demand if increased production costs put inflationary pressure on product prices or decrease margins.

Water regulation disrupts production - approximately 90% of our product is water and our business is heavily reliant on water availability. Our business would therefore be impacted by changes in the price of water and by any restrictions on water use. This exposes us to the risk of a shortage of a key raw material (i.e. water). As a result, we may; be unable to source key raw materials; not be able to produce in line with customer demand; see costs increase in line with the price of raw materials and/or risk key manufacturing sites becoming stranded assets if unable to produce.

Climate change damages the reputation of the beverage sector - the Coca-Cola brand is reliant on its brand value and positive reputation. Changes to climate and water scarcity have potential to impact consumers' perceptions of beverage companies like CCEP, especially given that our business is a large water consumer and user of packaging materials. This exposes us to the risk of changing consumer attitudes towards our products. As a result, we may experience reputational damage and/or decreased demand for products.

Scenario Analysis

Over the next year we will undertake further work to assess how our business may be impacted in the longer-term from climate related risks. We will undertake this work using climate-related scenario planning on the basis of two future scenarios – a “business as usual scenario” and a “2°C scenario”. We have identified the following scenarios to be most suitable for this work.

Business as Usual Scenario

We have identified the **International Energy Agency's World Energy Outlook 'New Policies' Scenario** as the “business as usual scenario” to use. This scenario incorporates the policies and measures that governments around the world have already put in place, and also the likely effects of announced policies, including the Nationally Determined Contributions. The scenario assumes only “cautious” implementation of current commitments and plans. This is done in view of the many institutional, political and economic obstacles which exist, as well as in some cases, a lack of detail in announced intentions and about how they will be implemented. Under this scenario we would envisage global energy demand growing by more than a quarter to 2040, due to rising incomes and a global population growing by 1.7 billion people, mostly in urban areas of developing economies. The increase in energy demand would be about twice as large if it were not for continued improvements in energy efficiency. The scenario assumes that low-carbon technologies, led by renewables and natural gas, meet more than 80% of the increase in global energy demand. The scenario also envisages:

- Global temperature increases by 2.7°C by 2040.
- Population growth slows, growing by 0.9% per year to 9.2 billion in 2040.
- Annual global GDP growth is 3.7% to 2025, slowing to 3.4% from 2025-2040.
- Carbon pricing ranges from \$10-25/tCO₂ in 2025 and \$24-48/tCO₂ in 2040.

CLIMATE RISK SCENARIO ANALYSIS - CONTINUED

2°C Scenario

We have identified the **REMIND Integrated Assessment Model 2°C Scenario as the “2°C Scenario”** to use. This scenario has been used by the United Nations Environment Programme Finance Initiative (UNEP FI) and a number of financial institutions to model default risk as a result of climate change. The model has been built by The Potsdam Institute for Climate Impact Research which has developed scenarios using integrated assessment models, which combine representations of global land-use and energy systems with internally consistent socio-demographic and economic projections to understand strategies and impacts related to climate policy and technology transition over the course of the 21st century.

The model assumes that current policies are continued until 2020, at which point a carbon price begins to be implemented at a level that ensures the world does not exceed 2°C warming. The main policy instrument after 2020 in this scenario is a global carbon price that is consistent across regions. The scenario is a “middle-of-the-road” scenario, where social, economic, and technological trends do not shift markedly from patterns of the recent past.

Developing and developed region per capita GDP increases through the century, with developing countries reaching current OECD levels by the second half of the century.

Under this scenario, the energy sector mix shifts rapidly, as the world transitions away from fossil fuels and to renewable technologies. In general, land use changes provide a carbon sink. Forested lands, both managed and natural, increase slowly throughout the century under the 2°C scenario. Deforestation reverses after 2020. Due to land scarcity, and the area requirements for both afforestation and bioenergy plantations, non-energy crop and livestock prices increase steadily, doubling by the end of the century. The scenario also envisages:

- Global temperature does not exceed 2°C.
- Population peaks at 9.5 billion in 2070.
- Annual global GDP growth is 1.5% to 2100.
- A global carbon price implemented after 2020 is the sole policy instrument for transition risk, starting at \$2/tCO₂ in 2020, increasing to \$68 in 2030 and \$111 in 2040.
- Use of fossil fuels continues throughout the century, although at declining rates, with the exception of coal, which rapidly declines to under 2% of the total energy mix by 2030.