

FALCON COFFEES

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

2023 INTERIM REPORT



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INTRODUCTION

Falcon Coffees is a green coffee trader that sources coffee from 21 producing countries on behalf of over 1000 coffee roasters worldwide, collaborating with hundreds of thousands of smallholder farmers globally.

Our work is compelled by the idea that participating in and preserving coffee supply chains has the potential to drive enormous socio-economic change, while harnessing environmental stewardship across the geo-political landscape of coffee growing regions that is home to the vulnerable communities and fragile ecosystems on which the coffee industry relies.

As an agricultural commodity grown at altitude, coffee is particularly sensitive to climate change. While the impacts of climate change vary across the 21 producing countries from which we source, none of them are immune to its impacts. Our ability to understand and respond to these impacts are integral to our long-term success.

Our objective is to change the way coffee is traded for good, by shifting economic values from short-term profiteering to long-term sustainability through collaboration.

‘In 2022, we supported 24 different sustainability focused impact initiatives globally, spanning our countries of sourcing activity and including initiatives on water conservation, climate-smart coffee processing practices, carbon sequestration, and much more.’

We believe deeply in the preservation of coffee growing communities and taking responsibility for our impact on them and the ecological environments where they live and farm.

In 2022, we supported 24 different sustainability focused impact initiatives globally, spanning our countries of sourcing activity and including initiatives on water conservation, climate-smart coffee processing practices, carbon sequestration, and much more.

Impact metrics (KPIs) and details on several of these initiatives can be found on our website at:

www.falconcoffees.com/portfolio



IN THIS REPORT

The Taskforce on Climate-related Financial

Disclosures (TCFD) was created in 2015 “to improve and increase reporting of climate-related financial information”. The TCFD “developed a framework to help public companies and other organizations more effectively disclose climate-related risks and opportunities through their existing reporting processes.”

Starting in 2023, Falcon Coffees will be publishing a report following the TCFD framework. We hope this publication provides enlightening guidance on our approach to our climate-related risks and opportunities and gives greater insight into how we are tackling the realities of climate change within the coffee industry.

Source: <https://www.fsb-tcfd.org/>

2023 CLIMATE CHANGE GOVERNANCE

Board Oversight on Climate-Related Risks & Opportunities

Falcon's Executive Team comprises the CEO, CFO, COO and CTO who report to the Board of Directors. The CEO, CFO and COO are all on the Board of Directors.

Climate related issues are managed at the highest governance level in the company, by Falcon's Chief Executive Officer (CEO), who is a member of our board and who is responsible for Falcon's vision and sustainability strategy. Our CEO is responsible for presenting to the board, including high level financial, business and strategic updates, and covering climate-related issues on an as needed basis.

Our CEO's climate responsibility includes the oversight of climate related risk and the approval of major climate-related initiatives.

The financial aspects of our climate related issues are managed at the highest financial governance level in the company, by Falcon's Chief Financial Officer (CFO), who is a member of our board and who is responsible for managing annual budgets as well as major capital or operational expenditures.

As an agricultural commodity, our business of trading and importing green coffee is inextricably linked to climate and climate change.

As Falcon looks ahead toward a low-emissions operating model, climate mitigation activities and



KONRAD BRITS
CEO and Founder



HELEN MARSHALL
CFO



**AGNIESZKA
KRASUSKA - COO**

major expenditures may become an increasingly meaningful aspect of our financials and, as a result, we feel strongly that CFO engagement is key to achieving our climate goals.

Management-level Governance

Each quarter, a board subcommittee which includes our CEO, CFO, and COO are presented with a climate report, which is developed by our Director of Sustainability and may include: assessments or updates on climate risks and opportunities, budgets, targets, value chain engagement, the risk management process, as well as strategic recommendations.

STRATEGY

As an agricultural commodity, our business of trading and importing green coffee is inextricably linked to climate and climate change. Climate change has the potential to create material risks and opportunities for Falcon over both the short and long term.

Each year, Falcon submits a comprehensive climate related report to CDP, a nonprofit which runs a “global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts”.

Our annual report provides detail around the ways in which Falcon assesses its climate risk. Much of this content is publicly accessible: for further reading, see CDP’s website.

Additionally, in 2023, Falcon partnered with responsAbility and the Consortium of International Agricultural Research Centers (CGIAR) for the

development of an analysis of Falcon’s top six coffee growing origins by revenue. The report analyzed both short and long-term climate suitability for coffee, which extended into existing and potential interventions that Falcon can promote to further Climate Smart Agriculture (CSA). A summary of this work can be found on the next page.

There are two general types of risk relevant to Falcon’s ongoing assessments: transition risk and physical risk. Transition risks are those related to shifts in the regulatory, technological, and social landscapes that are likely to occur in the transition to a low carbon economy.

Physical risks are those related to the acute or chronic impacts of climate change. For examples of each of these types of risk and their impact to our business as well as a summary of Falcon’s perceived top three climate-related risks and opportunities, please see our [CDP report](#).

Table 1. Potential climate suitability, hazards and CSA interventions for climate-resilient coffee production in Ethiopia, Rwanda, Honduras, Brazil, Colombia, and Peru.

Country	District	Long-term suitability (2021-2040)	Potential short-term climate hazards (2023-2029)			Suggested additional CSA interventions for minimizing climate hazards**
			Severity of impacts on rainfall and temperature*	CSA interventions in place	Negative impacts on crop production	
Peru	Cusco Junin	Reduced suitability	Lower total rainfall in wet season Higher total rainfall in dry season Higher mean annual temperatures	Agroforestry, crop residue management and use of manure	Potential	Agroforestry, integrated nutrient and pest management, improved infrastructure and drainage systems, coffee tolerant varieties, legume incorporation, diversify production.
Brazil	Patrocinio	Mostly suitable	Lower mean annual temperatures Lower total rainfall in dry season	NA	Unlikely	Efficient irrigation systems, mulching, shade management, cover cropping, use of Biochar, use of certified seeds, coffee seedlings grafting.
Ethiopia	Guji Jima	Mostly suitable	Higher total rainfall variation wet season Higher mean annual temperatures Lower total rainfall in wet/dry season	Agroforestry, composting, and crop residue management	Unlikely	
Honduras	Cortes Copan Ocotepeque	Mostly suitable	Lower total rainfall in wet season Lower total rainfall in wet season Lower annual mean temperatures	Agroforestry, crop residue management and use of manure	Unlikely	
Colombia	Antioquia Caldas	Likely suitable	Higher total rainfall in dry season Higher total rainfall wet/dry season	NA	Likely	
Rwanda	Gatsibo Ngoma Karongi Nyamasheke	Likely suitable	Higher mean annual temperatures Higher total rainfall in the wet/dry season	NA	Likely	Agroforestry, crop residue management and use of manure (ISFM), contour terracing and water management, diversification, adopting more climate resilient coffee varieties

*Short-term hazard severity on:

Changes in rainfall

- **Low:** Change in total rainfall by 500-1000 mm in the wet and dry seasons of the year
- **Medium:** Change in total rainfall by 1000-1500 mm in the wet and dry seasons of the year
- **High:** Change in total rainfall by >2000mm in the wet and dry seasons of the year

Changes in temperature:

- **Low:** <3°C difference in comparison to the optimal (18-21 °C);
- **Medium:** 3-6°C difference in comparison to the optimal (18-21 °C);
- **High:** > 6°C difference in comparison to the optimal (18-21 °C)

**Subjected to further on-the-ground analysis.



STRATEGY

Emissions Reduction Initiatives

As of 2023, Falcon's Scope 3 calculation has boundaries of Falcon's operational control. Given our operational structure, coffee production is excluded from current Scope 3 calculations.

While we believe there is not currently a methodology available to accurately and effectively measure Scope 3 emissions for coffee production, academic literature estimates that over 30% of a supply chain's total emissions occur on farm (Killian et al, 2013).

With this guidance, there is a rationale for implementing GHG emission reduction initiatives within coffee production in our supply chain. In 2023, Falcon Coffees established the goal of increasing our sustainably sourced coffee purchases to meeting or exceeding 90% of our total volume over the next three years.

These coffees, whose standards will meet or exceed the Global Coffee Platform's (GCP's) [Sustainability Reference Code](#), are, on average, lower in emissions than their conventional counterparts (Rikxoort et al., 2014, Nojonen et al., 2012).



RISK MANAGEMENT

As a trader of specialty coffees, a significant part of Falcon’s value lies in our ability to identify, assess, and respond to risks and opportunities across our value chain. We have a comprehensive, multi-disciplinary, company-wide approach to managing climate-related risks and opportunities throughout the calendar year.

I. Identifying Risks and Opportunities

Falcon identifies climate-related risks and opportunities primarily through two channels.

The first channel is a team of Falcon’s origin and trade experts, who are each dedicated to operations in key regions spanning five continents. This team is responsible for collecting and aggregating upstream and downstream intelligence

about climate-related issues and opportunities within their regions that have the potential to impact coffee supply chains.

These risks and opportunities are largely short and medium term and can include both acute and chronic weather, pests, disease, and more. Much of this raw data is aggregated by our trade experts in a fortnightly report that is shared both internally and, selectively, externally.

The second channel is through our sustainability team, who collect data on our climate risks and opportunities from an array of sources including academic and governmental resources, internal research, and industry partnerships.

Largely medium and long term, the risks and opportunities identified may be based not only on climate intelligence, but also on the shifting regulatory landscape.

II. Assessing Risks and Opportunities

Climate-related risks and opportunities are assessed at Falcon based upon both their financial and strategic impact. We may assess these risks and opportunities against both their likelihood but also their potential impact to revenue or margin.

Frequently, however, the assessments focus on the strategic impact. Once identified, risks and opportunities are assessed in two ways.

The first is via a strategic team including trade, operations, finance, and risk management. Meeting at least monthly, this group assesses intelligence from our fortnightly reporting as well as other sources.

Their assessment may be made based on the anticipated timeframe of a physical condition (e.g., drought) as well as a risk or opportunity’s scope (e.g., regionally isolated or country-wide) or prevalence (e.g., intermittent or widespread). Assessments may also include impact to supply (e.g., short or long-term reduction, shifts in harvest timeframes based on climate change), impact on quality, or impact on price volatility.

The second is led by the sustainability team, who assesses their identified risks and opportunities based upon their financial and strategic impact, both through an annual review cycle and as key risks and issues arise.

III. Responding to Risks and Opportunities

Falcon’s response to climate-related risks and opportunities varies, stemming from earlier assessment, but may in some ways reflects the classic risk management framework of acceptance, avoidance, transference, and reduction.

Falcon may accept, for example, a reduction in the coffee quality from a producer partner due to a short term, acute, climate-related issue such as a frost event in Brazil, if the long-term producer partnership is of such strategic value that supporting it with revenue is deemed of more value than damaging the relationship by avoiding business through an entire annual harvest.

The downstream implications may include reduced margins. Alternatively, Falcon may choose to reduce their risk in a region with long-term, chronic, widespread climate-related issues, such as coffee

tree disease, by, in part, reducing their overall volume purchased from that region and seeking volume from other regions as an alternative.

Alternatively, the response to climate-related opportunities can often occur through deepening upstream or downstream partnerships by making climate-focused investments in coffee origins.

Our response to risks and opportunities may impact the current sustainability roadmap and our budgeting and reforecasting cycle, which is developed annually and evaluated at least every quarter.

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While Falcon sources from over twenty coffee origins each year, there are a few of particular strategic value. The impact and risk of climate-change in these countries is something that Falcon monitors closely and this informs the mitigation measures we take.

Close Up On Colombia

Risk type & Primary climate-related risk driver

Chronic physical. Changing precipitation patterns and types (rain, hail, snow/ice)

Primary potential financial impact

Increased direct costs

Company-specific description

Shifting rainfall patterns in Colombia are causing unpredictability in harvest cycles. Colombia has seen a historical increase in rainfall and is predicted to have a further increase in rainfall in the years ahead. The World Bank Climate Change Group (CCG) has reported a statistically significant increase in rainfall, particularly between the months of March and December, recorded between 1950 and 2006. Looking forward, a report prepared by CGIAR for Falcon has projected the regions of Antioquia and Caldas, both top coffee sourcing regions for Falcon, to see a higher mean rainfall by 7-8mm annually, specifically in the first few months of the calendar year, for 2021-2040.

Colombia is both the third largest coffee producing country in the world and one of Falcon’s top five origins for coffee by exported volume. The impact of the unpredictable, increased precipitation has been noticeable for Falcon. In 2021 and 2022, for example, a much longer than average La Nina episode brought heavy rains in Colombia. Long periods of unpredictable precipitation negatively impacted the flowering of coffee trees, which subsequently produce lower volumes of cherries. It also negatively impacts the maturation time of the fruit, as the trees require dry hot weather to stress them into production. Further, unpredictable rains make the required processing step of coffee drying longer and more complicated, which drives up labour costs for producers. The annual coffee volume of Colombia has dropped by roughly 3mm bags during this prolonged La Nina episode.

The overall impact is a strained upstream supply chain. With this additional rainfall, coffee can be both lower in quality and more expensive to produce, which strains a coffee producer’s working capital. Producers will have more difficulty in the timing and pricing of sales contracts and may experience a higher risk of rejected coffees or defaulted contracts. This strains Falcon’s operation through higher costs and increased credit requirements and can challenge our downstream customers as they experience strains on product margins.

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Time horizon	Long-term
Likelihood	Likely
Magnitude of impact	High
Description of response and explanation of cost calculation	<p>Falcon's response to the increases in Colombia's current and future precipitation is to invest in risk reduction activities that combat the issues facing production and quality brought on by climate change.</p> <p>Given the strategic value of Colombia as a coffee growing region, we believe that there is a means of mitigating the climate-related risk in some of our supply through a deepening of producer partnerships and an investment in those partnerships. As an example, in 2021 we established a joint venture with Siruma Coffee, a producer organisation working in the regions of Cauca, Tolima, and Caldas.</p> <p>Through our joint venture, Siruma provides agronomy training and support to their producers which allows them to combat the challenges plaguing production and coffee quality in their area. As their partner, Falcon has committed to purchase 100% of the specialty coffee produced within the organisation. This guarantee of sales at a price premium can be vital to producer organisations who require working capital from local lenders. Acting as collateral, it allows the producers access to the cost-effective funding that they need to invest in their agronomy support.</p> <p>The value of the work that Siruma has been doing has attracted more industry attention and participation. In 2021, we also partnered with Kaffa Roasters (Finland), Siruma, and Alto Occidente on a multi-faceted initiative to take this work further through the installation of improved solar drying bed infrastructure in the San Lorenzo region. This project aims to provide access to the materials, climate-smart infrastructure and training needed to combat increased precipitation and improve coffee production and quality.</p> <p>As an agricultural product that is particularly sensitive to climate change, the coffee sector has a strong need for climate change research and development if it hopes to adapt in the years to come in Colombia. Feeling a strong need to support this work, Falcon also annually supports a non-profit agricultural resource organization called World Coffee Research (WCR). WCR works to make climate-smart varieties available and accessible to farmers to enhance coffee productivity, quality, and climate resilience.</p>



METRICS AND TARGETS

Falcon has been measuring its emissions since 2019 and have disclosed these and other metrics in a CDP disclosure for the past three years. Falcon's emissions boundaries are currently operational control, though we continue to explore the data available to expand our calculations further upstream.

Metrics	2022	2021	2019 Base Year
Total Scope 1 emissions (MT CO ² eq)	12.31	12.31	6.47
Total Scope 2 emissions (MT CO ² eq) (location-based)	8.01	7.44	9.59
Total Scope 2 emissions (MT CO ² eq) (market-based)	1.72	1.71	1.47
Total Scope 3 emissions (MT CO ² eq)	5976.08	6917.33	7574.83
Scope 1 and 2 intensity (MT CO ² eq per MT)	0.0004656	0.0003921	
Scope 1 and 2 intensity change from previous year	18.75		
Total energy consumption (MWh)	90.62	80.88	
Renewable energy consumption (MWH/%)	25.25%	26.48%	
2022 Emissions reduction initiative (MT)	-79.00		

Standards:

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol Agricultural Guidance: Interpreting the Corporate Accounting and Reporting Standard for the Agricultural Sector

The Greenhouse Gas Protocol: Scope 2 Guidance

Citations

Killian, Bernard et al. *“Carbon Footprint Across the Coffee Supply Chain: The Case of Costa Rican Coffee”*.
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Agronomy for Sustainable Development, 34 (4), 2014, 887-897.



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