

Overview

We're on a mission to make it easy for institutions, advisors and investors to integrate sustainable solutions into their portfolios.

Mackenzie's range of sustainable solutions offers diverse approaches to tackling environmental, social and governance (ESG) issues.

Range of Approaches to Sustainable Solutions

Sustainable Core	Sustainable Thematic
Investments that prioritize companies with positive ESG practices that are expected to enhance value	Investments that target specific ESG macro-trends that generate competitive returns
Mackenzie Global Sustainable Balanced Fund Mackenzie Betterworld Global Equity Fund and Mackenzie Betterworld Canadian Equity Fund Mackenzie Global Sustainable Bond Fund and Mackenzie Global Sustainable Bond ETF	Mackenzie Greenchip Global Environmental All Cap Fund Mackenzie Greenchip Global Environmental Balanced Fund Mackenzie Global Green Bond Fund Mackenzie Global Women's Leadership Fund and Mackenzie Global Women's Leadership ETF

Exclusions

At Mackenzie, sustainable investing solutions exclude companies with involvement in controversial weapons, adult entertainment or pornography, gambling, tobacco or private prisons. To learn more about our exclusions, see our **Sustainable Investing Policy**.

Sustainable Thematic Funds

Fund	Inception Date	Assets Under Management (C\$M)*
Mackenzie Greenchip Global Environmental All Cap Fund	Sept 28, 2018	1,878.9
Mackenzie Greenchip Global Environmental Balanced Fund	April 9, 2021	70.0
Mackenzie Global Green Bond Fund	Oct 19, 2021	34.7

^{*} Assets under management as at Dec. 31, 2021.



Opportunities in Sustainable Thematic Investing

Scientific research shows that changes in the climate are widespread, rapid, becoming more intense and affecting every part of the world. According to the Intergovernmental Panel on Climate Change, global warming of 1.5°C and 2°C will be exceeded this century unless immediate, large-scale reductions in greenhouse gas emissions occur soon.¹

Greenhouse gas measurement is a useful tool, but it must be used thoughtfully, and the "footprint" of different portfolios must be considered in the right context.

The transition to a green economy will require annual investment in clean energy to more than triple by 2030, to around \$4 trillion per year.² Capital investment must increase dramatically in the coming years.

At Mackenzie, we believe we are in the early days of a Great Energy Transition; one that will take decades to play out and will significantly change how we produce and consume energy and other resources. The transition is being driven by resource scarcity, demographic

changes and the existential threat of climate change. We believe that investing in companies that produce environmentally superior products and services is essential to building a more sustainable and resilient economy. Similarly, the market for green bonds is growing exponentially – this debt is certified by a third party and used to finance climate or environmental-related projects.

As concerns over climate change have increased, many investors have also started to consider the greenhouse gases (GHGs) that companies emit. Carbon footprint analysis and screening has become a new tool that investment managers use to compare the environmental impact and progress that companies are making. For example, the GHGs of one metal producer can be compared to the GHGs of another. All else being equal, footprint management should lead capital to businesses able to reduce energy and other resources in their manufacturing processes. Mackenzie has begun to implement the use of footprint data across all its strategies. At the same time, Mackenzie is aware that footprint screening can have unintended consequences, particularly when applied at the portfolio level. When the analysis shifts from comparing the footprint of similar businesses to comparing

different sectors, capital could start shifting away from environmental solutions. It is easy to imagine that the manufacturer of wind turbine towers made from steel has a higher "footprint" than a bank, as one example. Greenhouse gas measurement is a useful tool, but it must be used thoughtfully, and the "footprint" of different portfolios must be considered in the right context.

The numbers are very clear: annual global investment in thematic solutions must triple from current levels in the next decade if we are to have any chance of staving off the worst effects of climate change. Having an allocation to thematic environmental strategies is becoming an important diversification tool that we believe will likely contribute to superior long-term investment outcomes.

For our mutual funds and ETFs, we show various metrics including but not limited to portfolio ESG risk scores from Sustainalytics. We also include several ESG metrics, explained in detail in the table on page 10. These measure how a fund's risk profile may be impacted by various ESG factors.

- 1 Source: IPCC news release on Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.
- 2 Source: International Energy Agency report "Net Zero by 2050."



United Nations Sustainable Development Goals

Climate change, poverty, systemic racism and inequality are huge issues identified by the United Nations, which investors can help to resolve.

The Sustainable Development Goals (SDGs) were adopted by United Nations member states in 2015. They form a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. The goals are part of the 2030 Agenda for Sustainable Development. Learn more about the UN SDGs here.

How We Contribute

Mackenzie uses the ISS ESG SDG Solutions Assessment, which reports on a portfolio's contribution or obstruction to the achievement of 15 sustainability objectives, based on the products and services of the portfolio companies being analyzed. The social and environmental objectives in the ISS ESG tool are closely aligned with the 17 UN SDGs. Learn more about the ISS ESG SDG assessment here.











































Mackenzie Greenchip Global Environmental All Cap Fund

OBJECTIVE

This fund seeks to provide long-term capital appreciation by investing primarily in listed equity securities of issuers located anywhere in the world that operate in the environmental economy. The portfolio manager seeks to identify undervalued securities that will benefit from the long-term trends of changing demographics, resource scarcity and environmental degradation.

FUND STRATEGY

The Fund generally maintains a portfolio of companies of any market capitalization whose revenues are generated selling environmentally superior products and services from the following sectors: clean energy, energy efficiency, clean technology, water, sustainable agriculture and transportation.

Sustainable thematic investing gives investors geographical and industry exposures that are not typically within investor portfolios. Coupled with that, environmental sector growth, technologies and regulatory policies can often be misunderstood, and securities may therefore be mispriced, offering opportunities for gains.

The Mackenzie Greenchip team prioritizes investment in climate solutions. The team seeks to contribute to achieving net-zero carbon emissions in the real economy by 2050. This product has a medium risk rating and is ideal for investors wanting to invest more sustainably while participating in the rapid growth of the environmental or "green" economy.

CONTRIBUTION TO THE UN SDGS

The Fund is assessed to identify the positive or negative contribution of a holding's products or services towards the UN SDGs.

86% vs 56%

Positive Impact to the UN SDGs



Mackenzie Greenchip Global Environmental All Cap Fund makes more of a positive contribution to the UN SDGs than its benchmark. These values have been adjusted to account for availability of ratings.

\$177,400 vs \$134,909

Attributable Revenue per USD\$1M Invested1

Mackenzie Greenchip Global Environmental All Cap Fund positively contributes USD\$177,400 in attributable revenue towards the UN SDGs for every USD\$1 million invested, which is higher than its benchmark.











ESG INDICATORS AS OF DECEMBER 31, 2021

Sources are depicted in the ESG Metrics Definitions table on page 10.

Environmental Indicators



Weighted Average Carbon Intensity (tCO₂e/USD\$M)

WACI measures the Fund's exposure to carbon-intensive companies by calculating tons of carbon dioxide equivalent emitted per million U.S. dollars of revenue (tCO₂e/USD\$M). Climate-oriented solutions tend to be more carbon intensive than their benchmarks, hence the Fund's higher score.

Environmental Indicator



41% vs **29%**

Percentage of Portfolio with Decarbonization Targets

41% of the Mackenzie Greenchip Global Environmental All Cap Fund has corporate targets aligned with the Science Based Targets initiative (SBTi), which is higher than its benchmark.

41% vs 44%

Paris Alignment

41% of the Mackenzie Greenchip Global Environmental All Cap Fund's weighting is aligned to limiting global warming to below 2°C above pre-industrial levels, as per the goals of the Paris Agreement. As the benchmark contains more large cap names than the Fund (which is all cap), this would explain why Paris-aligned commitments are lower.

Social Indicator



54% vs 53%

Board Diversity

54% of the Mackenzie Greenchip Global Environmental All Cap Fund's weighting is made up of companies with more than 30% women on their boards of directors. Boards with greater diversity allow a wider range of perspectives in boardroom discussions.

Governance Indicator



Portfolio Weight with High or Severe ESG Controversies

This fund has no exposure to companies with high or severe ESG controversies (i.e., company activity or news that could hurt the company's outlook, reputation or stock performance). This speaks to risk management at each portfolio company.

MI Greenchip Gbl Env All Cap Benchmark

CASE STUDY: ENGAGEMENT WITH A PORTFOLIO COMPANY

Canadian Solar

One of the Fund's largest holdings is Canadian Solar, a China-domiciled, Canadianheadquartered producer of solar modules and developer of solar farms. After a December 2017 bid by the Chair and Chief Executive Officer to take the company private, the Mackenzie Greenchip team raised governance issues with the Board. The bid price was far less than our estimate of fair value, and the long evaluation process distracted the Board and concerned investors. We engaged with directors, encouraging them to reject the offer because we felt it did not fairly treat minority shareholders. The Chair and CEO ultimately withdrew the bid, and the Board and management refocused their attention on running the company. The team continues to engage with the company on material ESG factors.

Mackenzie Global Green Bond Fund

OBJECTIVE

This fund seeks to provide income with the potential for long-term capital growth by investing primarily in fixed-income securities of issuers anywhere in the world. The fund managers focus on sustainable and responsible debt issuance.

FUND STRATEGY

Mackenzie Global Green Bond Fund combines qualitative, quantitative and fundamental research with the analysis of ESG factors in investment selection. The Fund invests primarily in labelled green bonds and other debt instruments that are used to finance environmental and sustainable solutions, diversifying across credit quality, yields, structures, sectors, currencies and countries. Green bonds are used to finance projects with a specific climate or environmental focus.

This product is ideal for investors wanting income or lower-risk investments with a positive environmental impact.

The Mackenzie Fixed Income team analyzes material environmental factors of an issuer, including carbon emissions, especially in carbon-intensive industries. The team believes that issuers with high carbon emissions and no transition plan expose investors to higher credit risk. By analyzing and investing in green bonds, the team taps into opportunities in the transition to a low-carbon economy.

CONTRIBUTION TO THE UN SDGS

The Fund is assessed to identify the positive or negative contribution of a holding's products or services towards the UN SDGs.

85% vs **59%**

Positive Impact to the UN SDGs



Mackenzie Global Green Bond Fund makes more of a positive contribution to the UN SDGs than its benchmark. These values have been adjusted to account for availability of ratings.

\$294,887 vs \$157,449

Attributable Revenue per USD\$1M Invested1

Mackenzie Global Green Bond Fund positively contributes USD\$294,887 in attributable revenue towards the UN SDGs for every USD\$1 million invested, which is higher than its benchmark.









Global Green Bond Fund contributes most to the following SDGs:





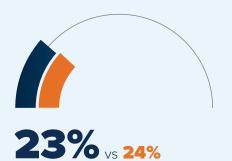




ESG INDICATORS AS OF DECEMBER 31, 2021

Sources are depicted in the ESG Metrics Definitions table on page 10.

Environmental Indicator



Percentage of Portfolio with Decarbonization Targets

23% of the Mackenzie Global Green Bond Fund has corporate targets aligned with the Science Based Targets initiative (SBTi).

MI Gbl Green Bond Benchmark

Governance Indicator



Portfolio Weight with High or Severe ESG Controversies

This fund has no exposure to companies with high or severe ESG controversies (i.e., company activity or news that could hurt the company's outlook, reputation or stock performance). This speaks to risk management at each portfolio company.

The Mackenzie Fixed Income team regularly assesses our portfolios for alignment with the **Transition Pathway Initiative** (TPI), to review progress made by the world's highestemitting public companies on the transition to a low-carbon economy. Additionally, they check alignment of issuers to the Climate Action 100+ Net-Zero Company Benchmark, which assesses the performance of high emitters against goals for emissions reduction, governance and disclosure. As a crossreference to their own internal ESG rankings, they review all holdings against Sustainalytics ratings.

CASE STUDY: ENGAGEMENT WITH AN ISSUER

Suzano

Suzano is the world's largest producer of eucalyptus pulp, used to make various types of paper. The Brazilian company's forest base covers 2.3 million hectares. In 2020, the company removed 15 million tons more carbon dioxide equivalent (tCO₃eq) from the atmosphere by sequestration than it emitted, because of its ongoing forestry management operations. Suzano's goal is to go even further in the coming years, targeting a net removal of 40 million tons by 2025, including direct and indirect emissions.

The Mackenzie Fixed Income team met with company management in 2021 to discuss their approach to ESG-labelled debt in the capital structure. Suzano issues green bonds (which are used to finance environmentally friendly projects) as well as sustainability-linked bonds (which are bonds where the coupon is adjusted depending on the achievement of sustainability targets). Currently, 30% of its debt is labelled green or sustainability-linked, and the company plans to have 100% of its debt carry an ESG label.



ESG Fund Ratings

Mackenzie Greenchip Global Environmental All Cap Fund	Mackenzie Global Green Bond Fund
MSCI ESG Fund Rating	maskenzie Global Green Bolla Fulla
AA (Leader)	N/A
	1
Morningstar Sustainability Rating	
Risk Rating	
Medium	Low
Benchmark	
MSCI ACWI	Bloomberg Barclays MSCI Green Bond Index (hedged to CAD)
Morningstar Sustainability Metrics*	
PORTFOLIO ENVIRONMENTAL RISK SCORE	
PORTFOLIO: 7.59	PORTFOLIO: 4.77
BENCHMARK: 4.21	BENCHMARK: 3.03
PORTFOLIO SOCIAL RISK SCORE	
PORTFOLIO: 6.66	PORTFOLIO: 5.68
BENCHMARK: 9.83	BENCHMARK: 5.77
PORTFOLIO GOVERNANCE RISK SCORE	
PORTFOLIO: 5.93	PORTFOLIO: 4.95
BENCHMARK: 7.77	BENCHMARK: 4.82
FOSSIL FUEL INVOLVEMENT	
PORTFOLIO: 9.25%	PORTFOLIO: N/A**
BENCHMARK: 7.61%	BENCHMARK: 15.60%
CARBON SOLUTIONS INVOLVEMENT	
PORTFOLIO: 24.55%	PORTFOLIO: N/A**
BENCHMARK: 10.01%	BENCHMARK: 10.56%
+ Contain delite and the second of the secon	•

^{*} Sustainability metrics are defined on the right.

Each Fund's ESG characteristics and performance may differ from time to time. Each Fund's MSCI ESG rating and Morningstar Sustainability Rating does not evaluate the ESG-related investment objectives of, or any ESG strategies used by, the Funds and is not indicative of how well ESG factors are integrated by the Fund. Other providers may also prepare fund-level ESG ratings using their own methodologies, which may differ from the methodologies used by Morningstar or MSCI as applicable.

Please refer to the simplified prospectus for the Funds for further information about each Fund's investment objectives and strategies.

Ratings and Scores

In this report, we publish Mackenzie mutual fund and ETF ratings from MSCI, Morningstar and Sustainalytics, where available.

MSCI ESG Fund ratings are based on MSCI's ESG methodology to determine how effectively a fund is taking advantage of opportunities and mitigating risks in its portfolio. Ratings are assigned the following letter grades: CCC, B (laggards), BB, BBB, A (average) and AA, AAA (leaders).

Morningstar sustainability ratings are based on Sustainalytics scores. This rating scores how a fund is managing its ESG risks relative to its peers, with five globes being the top rating.

The following terms are also used within the Morningstar sustainability metrics we highlight for each fund:

- Portfolio risk scores: These scores highlight risks associated with various ESG factors. They range from 0 to 100; however, the scores for most funds usually fall between 1 and 25. A lower number is generally better.
- Fossil fuel involvement indicates the percentage of a fund's assets that are involved in the extraction, generation and production of thermal coal and/ or oil and gas. A lower percentage is better for those wanting to avoid fossil fuels completely. However, many utilities focusing on renewable energy and decarbonization still have power plants operating on coal or natural gas. Therefore, a portfolio could have a higher number and still be making positive contributions to climate change.
- Carbon solutions involvement indicates the percentage of the portfolio's assets involved in activities such as: renewable energy generation, products and services; energy efficiency and related processes and products; green buildings and related technologies; and green transportation, including vehicles, technologies, services and infrastructure. A higher percentage is better for environmentally focused investors wanting to support decarbonization.

^{**} Score not yet available.

ESG Metrics Definitions

ESG Metrics	Definitions	Source
MSCI ESG Fund Ratings	MSCI's ESG Fund Ratings are meant to measure environmental, social and governance (ESG) characteristics of a fund's constituents. MSCI uses a rating system, ranging from CCC (laggard) to AAA (leader), which considers individual holding scores, ESG momentum and ESG tail risk. The rating is determined based on a weighted average of the company-level ratings of the underlying holdings of the particular fund. These ratings are updated monthly. We have reported ratings as of the beginning of February. Under MSCI's ESG Fund Ratings methodology, a portfolio must meet an eligibility criterion of at least 65% of assets under management covered in order to have a public rating.	MSCI Inc., 2022
Morningstar Sustainability Rating (globes)	As per Morningstar's methodology , the sustainability rating is a measure of how well a portfolio, and its holdings, are performing through an ESG issues lens in comparison to its peer group. Higher number of globes indicates that portfolio has lower ESG risks. The rating is determined based on a weighted average of the company-level ratings of the underlying holdings of the particular fund. Ratings are as follows: High = 5 globes, Above Average = 4 globes, Average = 3 globes, Below Average = 2 globes, Low = 1 globe. These ratings are updated monthly. We have reported ratings as of the beginning of January. Under Morningstar's Sustainability Rating, a portfolio must have at least 67% of assets under management covered in order to have a public rating.	Morningstar, Inc., 2022
Impact to the UN SDGs	Companies are assessed based on their positive contribution (limited/significant), no net impact and negative obstructions (limited/significant) of their products and services towards meeting the United Nations Sustainable Development Goals (UN SDGs) as per ISS ESG's methodology . Data is updated on an annual basis through the integration of the newest annual/segment reporting by a company. Data is as of end of Q4 2021. Under our internal methodology, at least 70% of a portfolio's weight must be eligible and covered in order for the metric to be reported.	ISS ESG, 2022
Weighted Average Carbon Intensity (WACI) tCO ₂ e/ USDM	WACI, a carbon-intensity metric, measures a fund's exposure to carbon-intensive companies expressed in tonnes of carbon dioxide equivalent (tCO ₂ e) per million dollars US of revenue (USDM). This metric acts as a comparable between the fund and the benchmark, utilizing S&P Global Trucost's Scope 1 and Scope 2 greenhouse gas emissions data. Data is as of end of 2021. Under our internal methodology, at least 70% of a portfolio's weight must be eligible and covered in order for the metric to be reported.	S&P Global Trucost, 2022
Global Standards Screening	Assessment of a company's impact on stakeholders and to what extent they may contribute, cause or be linked to violations of internationally determined norms and standards as per the United Nations Global Compact (UNGC). This assessment utilizes Sustainalytics' Global Standards Screening (GSS) methodology . Sustainalytics conducts ongoing analysis and reports updates quarterly. Notable updates may be made throughout the quarter if deemed significant. Data is as of end of Q4 2021. Under our internal methodology, at least 70% of a portfolio's weight must be eligible and covered in order for the metric to be reported.	Sustainalytics, 2022

ESG Metrics	Definitions	Source
Board Diversity (Women)	Board diversity is demonstrated through company filings; depicted as the percentage of women on a company's Board of Directors. Company filing is done on an annual basis. Data is as of end of Q4 2021. Under our internal methodology, at least 70% of a portfolio's weight must be eligible and covered in order for the metric to be reported.	Company filing data has been sourced from Bloomberg (2022)
Diversity at the Executive Level	Number of women executives is demonstrated through company filings. This metric is depicted as a percentage of total executives. An executive may be defined by a company, the individuals that are on its board or executive/ management committee. Company filing is done on an annual basis. Data is as of end of Q4 2021. Under our internal methodology, at least 70% of a portfolio's weight must be eligible and covered in order for the metric to be reported.	Company filing data has been sourced from Bloomberg (2022)
ESG-Labelled Debt Exposure	 ESG-labelled debt includes four categorizations: Green Bonds: Debt that is used to finance various climate or environmental-related projects. To become a "labelled" green bond, issuers must apply for certification by a recognized third party. Social Bonds: Bonds that must be used to achieve positive social outcomes or address various social issues. Sustainable Bonds: Bonds that are used to finance projects that combine both environmental and social issues, or address aspects of both. Issuing this sort of debt allows both corporations and governments to impact a wider range of initiatives. Sustainability-linked Bonds: Bonds which have a variable component based on their ESG scores or certain set goals the company is attempting to achieve. These bonds usually have a mechanism that gives a strong incentive to the issuer to meet pre-defined sustainability targets, providing strong alignment between the sustainable and financial objectives of the issuer. ESG-labelled debt indicators depend on the release of sufficient evidence of underlying security documentation at the time of issuance. As additional information becomes available, indicators may be updated thereafter. All data is as of end of Q4 2021. This metric is not subject to our coverage threshold of 70% and is applicable for fixed income instruments only. 	Bloomberg (2022)
Science Based Targets	Science-based targets are emission reduction targets that are aligned with climate science to reduce emissions in line with net zero and/or the Paris Agreement goals. The Science Based Targets initiative (SBTi) validates the pathway of science-based company targets. SBTi updates their database on a rolling basis, depending on when targets have been validated and when commitments have been made. All data used is as of the end of Q4 2021. This metric is voluntary for a company and our coverage threshold of 70% is not applicable.	Science Based Targets, 2022



To enable comparisons between our portfolios, we adjust our portfolio metrics to approximate 100% ratings coverage for all dataset utilized within our ESG Analysis for equity and corporate fixed income instruments. Due to the nature of ESG Data coverage, non-eligible securities, such as Cash & Equivalents, ETFs, Government Securities, Commodities, Derivatives, Short Positions, and Mutual Funds have been excluded from the analysis, as they are not applicable and/or available. The ESG-Labelled Debt indicator is applicable for fixed income instruments only – including corporate and sovereign securities. As per our methodology, we have only reported ESG metrics for funds with above 70% portfolio weight coverage taking into account only the eligible securities. This threshold is not applicable for our ESG-Labelled Debt or Science-Based Targets metrics.

Commissions, trailing commissions, management fees and expenses all may be associated with mutual fund investments. Please read the prospectus before investing. Mutual funds are not guaranteed, their values change frequently and past performance may not be repeated.

This document may contain forward-looking information which reflect our or third party current expectations or forecasts of future events. Forward-looking information is inherently subject to, among other things, risks, uncertainties and assumptions that could cause actual results to differ materially from those expressed herein. These risks, uncertainties and assumptions include, without limitation, general economic, political and market factors, interest and foreign exchange rates, the volatility of equity and capital markets, business competition, technological change, changes in government regulations, changes in tax laws, unexpected judicial or regulatory proceedings and catastrophic events. Please consider these and other factors carefully and not place undue reliance on forward-looking information. The forward-looking information contained herein is current only as of December 31, 2021. There should be no expectation that such information will in all circumstances be updated, supplemented or revised whether as a result of new information, changing circumstances, future events or otherwise.

The content of this Impact Report (including facts, views, opinions, recommendations, descriptions of or references to, products or securities) is not to be used or construed as investment advice, as an offer to sell or the solicitation of an offer to buy, or an endorsement, recommendation or sponsorship of any entity or security cited. Although we endeavour to ensure its accuracy and completeness, we assume no responsibility for any reliance upon it.

MSCI ESG Research LLC's ("MSCI ESG") Fund Metrics products (the "Information") provide environmental, social and governance data with respect to underlying securities within more than 23,000 multi-asset class Mutual Funds and ETFs globally. MSCI ESG is a Registered Investment Adviser under the Investment Advisers Act of 1940. MSCI ESG materials have not been submitted to, nor received approval from, the US SEC or any other regulatory body. None of the Information constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy, nor should it be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information can be used to determine which securities to buy or sell or when to buy or sell them. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information.

Source: S&P Trucost Limited © 2022 Trucost

© [2022] Morningstar. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Past performance is no guarantee of future results.

Data provided by ISS ESG: All rights in the data provided by Institutional Shareholder Services Inc. and its affiliates (ISS) remain with ISS and/or its licensors. ISS makes no express or implied warranties of any kind and shall have no liability for any errors, omissions or interruptions in or in connection with any data provided by ISS.