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Are Indian ESG Funds Sustainable?

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Abstract

Mutual funds are the entities or investment vehicles which pool investment of various investors to invest in the securities which achieve the overall objective of the risk and return laid out under their mutual fund scheme or Investment policy statement of the said scheme. A portfolio manager would determine the risk and return of any stock or asset under consideration before investing in any funds. They would compute measures that account for risk, like Jensens' Alpha (Jensen, 1968), Treynor's Ratio (Treynor, 1968), and Sharpe Ratio (Sharpe, 1966) to assess target asset's performance in terms of their capacity to choose stocks and assets and to time the market.

Those mutual funds, which prioritise their investments on the basis of either environmental factors or factors affecting the society and governance issues of the company are known as ESG funds. Hereinafter, these core factors are referred to as “3 core factors”. ESG funds operate with the aim of pushing invested organisations towards better and sustainable governance with an improved environment to benefit future generations of humans. It thus combines the fundamentals of investment and performance evaluation approaches with a major emphasis on issues concerning the society, its surrounding environment and the corporate governance issues of the legal entities.

Through the paper we evaluate the performance of ESG funds in India compared with Indian stock market and growth of the Indian ESG funds as reflected in its Average Assets under Management (AAUM). The paper further evaluates if there is a burden of these three core factors on the performance of aforementioned funds and is it real or illusory.

Keywords: ESG Funds, Sustainable Funds, Socially Responsible Investment

INTRODUCTION

Industry set up of ESG Mutual Funds

ESG funds are sometimes referred to as socially conscious investments. The goal of ESG investors is to purchase stock in businesses that have proven they are dedicated to raising their game in these three ESG domains.

In India, first ESG Fund was set up in 2013 and thus this specific type of fund is in its nascent stage having completed just 10 years since inception. There are only 8 Mutual Fund Houses in India that offer a total of 18 ESG oriented Schemes. It may be noted that most of these schemes are less than 5 years old.

In ESG Fund Scheme there are 2 different scheme options namely Direct Scheme and Regular Scheme, which function as distinct schemes.

With Direct Growth Schemes, there is no distributor or middleman broker/dealer to ease the transaction; instead, an investor must invest directly with the Asset Management Company (AMC). In a Regular Growth Scheme, the investor makes their investment through a distributor, broker, or banker who receives compensation from the AMC, which is charged to the plan, in the form of a distribution fee or commission.

India's Legal Environment for ESG Mutual Funds

Regulations issued by SEBI mandates mutual funds can introduce only one ESG-investing scheme under the Equity Schemes thematic area.

Following that, on July 20, 2023, SEBI published a circular, establishing a distinct class of mutual fund schemes for investing in aforementioned three core factors. It is in reaction to the financial market's increasing need for ethical and sustainable investing solutions. The circular states that the ESG category will support sustainable financing, with an emphasis on improved compliances and risk alleviation related to practice of green washing. ESG schemes offered by different mutual funds should benefit from this transformation, and in the next five to ten years, it is anticipated that the assets under management would expand significantly.

Global Outlook vs Indian Outlook

The United Nations' 2006 report on Principles for Responsible Investment popularised the term "ESG," which has since taken centre stage in discussions among investors and corporate leaders regarding the fundamental ideas behind each of these standards.

ESG has become the bulwark of new Sustainable investment paradigm of the new world order that is focused on improving the long term environment, social and governance of the financial world and a responsible way of living.

Developed nations like United States of America (U.S.A), Europe and other developed nations have since taken the lead and have had ESG funds being launched from 2006 onwards. There has been substantial progress in the assets that are managed by the ESG funds and is projected to double by 2026 according to report of PWC.

Table No.1: Global ESG AUM by Region (US$ in Trillion)

Region	**2015**	**2020**	**2021**
Asia Pacific	0.2	0.7	1.0
Europe	1.1	4.7	12.8
Africa and Arab Nations	Nil	0.1	0.1
Atlantic Nations	0.8	3.8	4.5
Total	**2.2**	**9.4**	**18.4**

Source:

Indian Outlook

Ministry of Corporate Affairs of India took the initiative for issuing guidelines on corporate social responsibility which was not mandatory in nature. It marked the start of ESG reporting for corporations in the country. Following this, in 2012, the SEBI formulated guidance note on ESG disclosure, advising companies listed on Indian stock markets to include information on their ESG performance in their annual reports. ESG

Funds by SBI Magnum and the earliest ESG mutual fund scheme were introduced on January 2, 2013. Before 2018, there was just one fund in this category. In 2019, 2020, and 2021, respectively, 1, 6, and 1 additional funds were introduced.

While AUM under Global ESG funds has been increasing at a significant pace, however, the growth of AUM under ESG Funds have not had the same results. AUM under Indian ESG Funds has declined from INR 12,369 crores at the end of 2021 to INR 10,635 crores at the end of June 2022 showing decline of about 14% during the eighteen month period.

Table no. 2: Growth in AUM with ESG Funds in India

Year	No. of Schemes (Cumulative)	AUM in Crores (INR)
Jul-19	3	2,703
2020	15	9,411
2021	17	12,369
2022	17	10,741
Jun-23	17	10,635

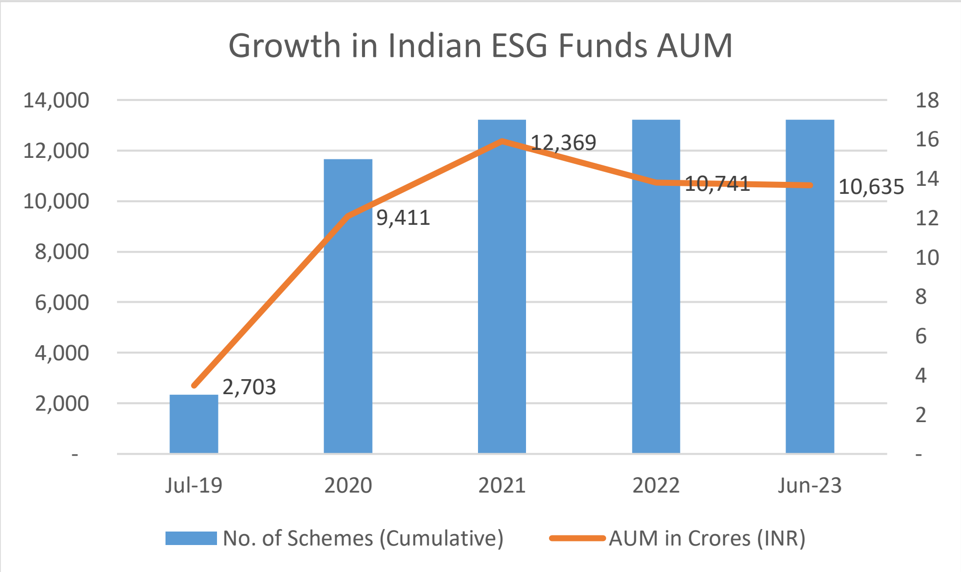

Fig. 1 : Growth in AUM of Indian ESG Funds

Why 21st March 2021 onwards?

There are 9 Mutual Funds (MF) in India and 17 MF schemes have been launched by these 9 funds. Last of 17th MF scheme was launched on 18th March 2021 and started trading from 21st March 2021. The period from 21st March 2021 to 6th October 2023 is the common trading period for all the mutual fund schemes and thus data for the said period has been analysed to evaluate and draw inferences.

LITERATURE REVIEW

Risk-adjusted metrics such as the Treynor Ratio (Treynor, 1968), Jensen Alpha (Michael Jensen 1968), and Sharpe Ratio (Sharpe, 1966) have been extensively utilised to assess the performance of ESG mutual funds.

The relationship between financial performance and corporate social performance was first investigated by Waddock, S. A., and Graves, S. B. (1997). It was observed that in an environment where they were under increasing pressure, strategic managers were continuously confronted with the choice of allocation of limited business resources. The result that corporate social performance (CSP) was favourably connected with past financial performance confirmed the hypothesis that there was a positive correlation between spare resource availability and CSP. The finding that CSP and future financial success were positively connected added credence to the theory that CSP and excellent management were positively correlated.

The preferences of institutional investors for business social performance were studied by Cox, Brammer, and Millington (2004). Using over 500 UK enterprises as a sample, the study looked into the institutional shareholding structure in the country and how it related to companies' socially conscious behaviour. Based on an analysis of how investment screens affected company selection, long-term institutional investors rejected companies with the lowest CSP and instead made their selections mostly through exclusion.

The impact of socially conscious investment on portfolio performance was investigated by Kempf, A., and Osthoff, P. (2007). A growing quantity of investors are constructing stock portfolios using socially conscious filters. A straightforward trading strategy is to buy stocks with high social responsibility ratings and sell stocks with poor social responsibility ratings, based on the KLD Research & Analytics social responsibility ratings. It was discovered that this particular method produced significant unusual returns—up to 8.7% annually.

Even after accounting for acceptable transaction expenses, the abnormal returns persisted.

Halbritter & Dorfleitner (2015) have attempted analyse social responsibility angle of ESG funds. An analysis of ESG investment that was critical in nature and analysed the empirical data that was available at the time on the relationship among corporate social responsibility and financial performance of mutual funds based on environmental, social, and corporate governance (ESG) ratings. The sample comprised ESG data for the US market from 1991 to 2012 from ASSET4, Bloomberg, and KLD. The results indicate that when trading a portfolio of high- and low-rated companies in terms of environmental, social, and governance concerns, investors should no longer expect extraordinary returns.

Servaes, H., Lins, K. V., and Tamayo, A. (2017) have analysed the performance of companies in financial crisis of 2008-09. During the 2008–2009 financial crisis, companies with high levels of corporate social responsibility (CSR) showed a four–seven percentage point increase in stock return compared to those with low levels of social capital. High-CSR businesses raised more financing and saw higher levels of growth, profitability, and sales per employee than did low-CSR businesses. The previously mentioned statistics demonstrated that a company's trust with its stakeholders and investors—established through investments in social capital—paid off when the overall level of trust in firms and markets encountered a negative shock.

Chan, K., Cheng, L. T. W., Broadstock, D. C., & Wang, X. (2020). Have critically examined how the COVID-19 pandemic-related global financial crisis affected ESG performance. There was a unique opportunity to find out whether investors viewed ESG performance as a risk-reduction strategy or a prediction of future stock success because of the exceptional circumstances. The results showed that high-ESG portfolios typically performed better than low-ESG portfolios. It was also proved that ESG performance reduced financial risk during financial crises. The study proves that the impact of ESG performance was lessened during non-covid times, indicating its incremental importance. They used a novel dataset that included China's CSI300 constituents.

Ved Dilip Beloskar & S. V. D. Nageswara Rao (2023) have researched and assessed Socially Responsible Investments (SRI) using Environmental, Social, and Governance (ESG) standards. Using a sample of ESG-rated firms listed on the Bombay Stock Exchange (BSE), the study aims to examine the investment performance, trading volumes, and return volatility of ESG equities in an emerging market like India during the COVID-19 crisis. It was noted that ESG performance provided downside protection during difficult circumstances. Additionally, it was noted that ESG performance did not seem to negatively impact investment performance during the COVID-19 epidemic and actually reduced stock return volatility.

Since the aforementioned field is still in its infancy, there isn't much literature on the performance of ESG funds in India. Although the first ESG scheme was introduced in January 2013, it wasn't until 2020 that six more schemes were introduced, which helped to stimulate the ESG sector. The Securities Exchange Board of India's (SEBI) legislative rules, which permitted mutual funds to offer just one scheme per MF company, hindered the segment's ability to grow and penetrate new markets. However, a SEBI notice dated June 20, 2023 lifted the aforementioned restrictions, which should allow MF companies much more leeway to introduce additional ESG plans with a variety of investment strategies.

RESEARCH GAP

Thus, there is a diversity of findings and opinions which needs further research especially with regards to Indian ESG funds. We analyse and evaluate the data of ESG funds to determine whether :-

1. Every ESG fund outperforms the S&P BSE 100 Index (market) and the S&P BSE ESG 100 Index (benchmark), correspondingly, in terms of return.
2. The S&P BSE ESG 100 Index has a higher risk-adjusted return than the S&P BSE 100 Index (market).
3. Returns of Indian ESG Funds do not suffer any cost of ESG when compared to the returns of (S&P BSE 100 Index) market
4. Average Assets under Management (AAUM) with Indian ESG Funds increases with same or higher CAGR then increase in AAUM under all Mutual funds of India.

RESEARCH OBJECTIVE

The study's goal is to ascertain whether or not ESG investments are viable on their own. We identify three hypotheses based on the reported research gap. They are as follows:

Hypothesis 1:

H0: Every ESG fund outperforms the market, as measured by the S&P BSE 100 Index.

Ha: Every ESG funds do not outperforms the market, as measured by the S&P BSE 100 Index.

Hypothesis 2:

H0: The S&P BSE ESG 100 Index's risk-adjusted return exceeds that of the S&P BSE 100 Index (market).

Ha: The S&P BSE ESG 100 Index's risk-adjusted return do not exceeds that of the S&P BSE 100 Index (market).

Hypothesis 3:

H0: Returns of all ESG Funds do not suffer any cost of ESG when compared to the returns of market

Ha: Returns of some ESG Funds do suffer a cost of ESG when compared to the returns of market

Hypothesis 4:

H0: Average Assets under Management (AAUM) with Indian ESG Funds increases with same or higher CAGR then increase in AAUM under all Mutual funds of India

Ha: Average Assets under Management (AAUM) with Indian ESG Funds does not increase with same or higher CAGR then increase in AAUM under all Mutual funds of India

These research objectives help to identify performance of Indian ESG Funds and add to knowledge base whether Indian ESG Funds and Indian ESG Index outperform the Indian (S&P BSE 100 Index) market, growth of AAUM under Indian ESG Funds and if there is cost of ESG objective on the performance of Indian ESG Funds when compared with the market. their expectation about the prospects of ESG funds in India. Indian investors and market expect ESG Funds to outperform the market and their expectation about the

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prospects of ESG funds in India. Our research will help the investors to quell the popular myths about Indian ESG funds by quantifying the true impact of ESG on the ESG fund returns by comparing the S&P BSE ESG 100 Index with returns of S&P BSE 100 Index (market).

METHODOLOGY

Quantitative ratios will be computed based on Absolute risk and systematic risk and will be measured by Average returns, Standard Deviation, Beta and based on these measures, we will compute Sharpe Ratio, Treynors' ratio and Jensens' Alpha to measure the performance of the fund, Index and the market.

We have obtained the data of NAV of all the 17 Indian ESG schemes from Bloomberg for the period from 21st March 2021 to 6th October 2023 and downloaded the values of S&P BSE ESG 100 Index (Benchmark Index) and S&P BSE 100 Index (market) from Bombay Stock Exchange (BSE) website. Thereafter, we computed the Average daily returns and annualised the same using CAGR (Compounded Annual Growth Rate). We also computed the daily standard deviation and annualised the same.

We have assumed Risk free rate of return at 7.25% p.a. which was State Bank of India Fixed Deposit rate for tenure of 1 year to 2 year period for amount upto INR 2 crores as on 30th June 2023.

Daily NAV are converted into HPR (Holding period return – daily) and then multiplied by 365 to derive Annualised Rp. Risk is computed by calculating the Standard deviation of HPRs and then multiplying the same with ($\sqrt{365}$).

Beta of the mutual fund = Covariance (Rp,Rm)/ Variance of market

Covariance (Rp,Rm) is computed by using the Covariance formulae in excel file to (Rp, Rm).

DATA ANALYSIS

We have computed the daily HPR (Holding Period Return) and then annualised by multiplying the same with 365 days.

Hypothesis 1:

H0: Every ESG fund outperforms the market, as measured by the S&P BSE 100 Index.

Ha: Every ESG funds do not outperforms the market, as measured by the S&P BSE 100 Index.

Table 3: Mutual Fund Schemes with Annualised Return and incremental return over Market return

	Return	**Incremental Return**	
Sr. No.	**Annualized Mean (Rp)**	**(Rp-Rm)**	**Count {(Rp-Rm)>0}**
	OPEN ENDED ESG REGULAR GROWTH		
1	19.49%	0.56%	1
2	12.29%	-6.64%	0
3	18.35%	-0.58%	0
4	15.64%	-3.28%	0
5	38.45%	19.52%	1
6	15.86%	-3.07%	0
7	15.38%	-3.54%	0
8	19.04%	0.12%	1
	OPEN ENDED ESG DIRECT GROWTH		
9	20.54%	1.61%	1
10	17.12%	-1.80%	0

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11	14.38%	-4.55%	0
12	20.41%	1.49%	1
13	16.24%	-2.69%	0
14	40.74%	21.81%	1
15	18.38%	-0.54%	0
16	17.78%	-1.14%	0
17	21.58%	2.66%	1
18	17.79%	-1.14%	0
19	18.93%	0.00%	0
			7

Table 4: Mutual Fund Schemes with Annualised Risk and Return and Risk adjusted measures

	Return	**Risk**	**Market risk**	**Performance Evaluation Tools**		
	Annualized Mean (Rp)	**Annualized Std Dev (σ)**	**Beta (β)**	**Sharpe Ratio**	**Treynor Ratio**	**Jensen's Alpha**
	OPEN ENDED ESG REGULAR GROWTH					
1	0.1949	0.1689	0.9492	**0.7246**	**0.1289**	**0.0116**
2	0.1229	0.1602	0.7862	0.3147	0.0641	-0.0414
3	0.1835	0.1421	0.7440	**0.7812**	**0.1491**	**0.0241**
4	0.1564	0.1672	0.9284	0.5018	0.0904	-0.0245
5	0.3845	0.2212	1.0814	**1.4100**	**0.2885**	**0.1857**
6	0.1586	0.1708	0.9557	0.5040	0.0901	-0.0255
7	0.1538	0.1811	0.9771	0.4490	0.0832	-0.0328
8	0.1904	0.1598	0.8457	**0.7379**	**0.1394**	**0.0192**
	OPEN ENDED ESG DIRECT GROWTH					
9	0.2054	0.1708	0.9392	**0.7780**	**0.1414**	**0.0232**
10	0.1712	0.1562	0.8538	0.6320	0.1156	-0.0010
11	0.1438	0.1607	0.7818	0.4435	0.0912	-0.0200
12	0.2041	0.1422	0.7455	**0.9256**	**0.1766**	**0.0446**
13	0.1624	0.1677	0.9314	0.5358	0.0965	-0.0189
14	0.4074	0.2214	1.0836	**1.5125**	**0.3091**	**0.2084**

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15	0.1838	0.1708	0.9555	0.6520	0.1165	-0.0002
16	0.1778	0.1808	0.9744	0.5827	0.1081	-0.0085
17	0.2158	0.1592	0.8443	**0.9001**	**0.1698**	**0.0447**
18	0.1778	0.1734	0.9989	0.6076	0.1055	-0.0113
19	0.1893	0.1715	1.0000	0.6809	0.1168	0.0000

From Table 1 it can be observed that only 7 out of 17 schemes are providing Annualised returns over and above the market returns (Rm). From Table 2, it is noted that on calculating the Risk Adjusted Return measures like Sharpe Ratio, Treynor's Ratio and Jensens' Alpha, it is observed that only 8 out of 17 ESG Schemes perform better than market. Thus, it is evident that Null Hypothesis is rejected and Alternative Hypothesis stands validated.

Hypothesis 2:

H0: Every ESG fund outperforms the market, as measured by the S&P BSE 100 Index.

Ha: Every ESG funds do not outperforms the market, as measured by the S&P BSE 100 Index.

From Table 1 above, it can be observed that Annualised return of S&P BSE 100 ESG Index is 17.785% compared to S&P BSE 100 Index which earned 18.926%. Thus, it is evident that Null Hypothesis is rejected and Alternative Hypothesis stands validated. Thus, it can be seen that Benchmark Index of ESG is earning less than the market Index.

Hypothesis 3:

H0: Returns of all ESG Funds do not suffer any cost of ESG when compared to the returns of market

Ha: Returns of some ESG Funds do suffer a cost of ESG when compared to the returns of market

From Table 1 it can be observed that only 10 out of 17 schemes are providing Annualised returns less than the market returns (Rm). Thus, it is evident that Null Hypothesis is rejected and Alternative Hypothesis stands validated. Returns of 58.82% of the ESG schemes earn less than market returns for the same period that reflects that there may be a cost of ESG which pull the returns on the scheme down.

Hypothesis 4:

H0: Average Assets under Management (AAUM) with Indian ESG Funds increases as Percentage of total AAUM under all Mutual funds of India over the period from July 2019 to June 2023

Ha: Average Assets under Management (AAUM) with Indian ESG Funds is not increasing as Percentage of total AAUM under all Mutual funds of India

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Table 5: AUM in Crores (INR) for ESG Schemes and All MF Schemes

Year	ESG Schemes AUM in Crores (INR)	Incremental AUM in ESG Schemes	All MF Schemes AUM in Crores (INR)	Incremental AUM in All MF Schemes	Total ESG AUM as % of Total MF AUM	Incremental AUM as % of Incremental AUM ALL MF Schemes
Jul-19	2,703	-	25,81,026	-	0.1047%	-
2020	9,411	6,708	30,96,274	5,15,249	0.3039%	1.30%
2021	12,369	2,958	37,91,811	6,95,536	0.3262%	0.43%
2022	10,741	-1,628	40,76,171	2,84,360	0.2635%	-0.57%
Jun-23	10,635	-106	44,82,313	4,06,143	0.2373%	-0.03%
CAGR (OVER 47 MONTHS)	**41.87%**		**15.13%**			

Source: Morningstar for ESG Schemes and AMFI for All MF Schemes

From the above Table 2, it is noted that while AUM with ESG Schemes have grown by 41.87% (CAGR) compared to 15.13% (CAGR) for all MF schemes, it does not reflect the complete picture due to low base of AUM under ESG Schemes. Thus, on comparing the AUM of ESG Schemes as % of Total AUM under All MF Schemes, we learn that it has increased from 0.1047% to 0.2373% over the period of study. It had increased to 0.3262% in December 2021 and thereafter the same is on decline to 0.2635% and 0.2373% in December 2022 and June 2023 respectively. Thus, Null hypothesis is accepted and Alternative hypothesis is rejected.

CONCLUSION/ FINDINGS

From our study we can conclude that :-

All ESG funds do not generate higher return than S&P BSE 100 Index (market).

Risk adjusted return of S&P BSE ESG 100 Index (Benchmark Index) is not greater than S&P BSE 100 Index (market)

Returns of some ESG Funds do suffer a cost of ESG when compared to the returns of market, and

Average Assets under Management (AAUM) with Indian ESG Funds increases as Percentage of total AAUM under all Mutual funds of India over the period from July 2019 to June 2023

It is evident that ESG Schemes are attracting more investments during the period under study however, the returns on all the schemes have not been higher than returns on the market. As a result of ESG Schemes' inability to generate returns which exceed market returns consistently, AUM in ESG Schemes has been declining over the past one and half year in comparison to AUM in All MF Schemes in the market. We also note that some of the ESG Schemes do suffer the cost of ESG or sustainability cost.

FUTURE RESEARCH OR LIMITATIONS OF STUDY

In July, 2023, SEBI had issued new Circular introducing a new category of MF Schemes for ESG investing. The growth of ESG schemes was limited due to earlier policy of allowing only one Scheme for each Mutual Fund House. However, with the new circular, old restrictions have been removed and more freedom is provided to MF houses. This will encourage the growth of ESG schemes and allow the same to attract more schemes with varied investment strategies.

ESG schemes are still in its nascent stage in India as is evident from its AUM which is just 0.2373% of all AUM with All MF Schemes. With more schemes and more Mutual Funds participating in the new Category 'ESG', there will be scope for more study and examination on the way ahead and category comparison with world at large.

Annexure 1

List of 17 Mutual Fund Schemes covered for research and the Benchmark and reference Sr. number

Name of Fund	
Type of Scheme	**Sr. No.**
OPEN ENDED ESG REGULAR GROWTH	
SBI Magnum Equity ESG Fund Regular Growth	1
Axis ESG Equity Fund Regular Growth	2
ICICI Prudential ESG Fund Regular Growth	3
Mirae Asset Nifty 100 ESG Sector Leaders Fund of Fund Regular Growth	4
Quant ESG Equity Fund Regular Growth	5
Kotak ESG Opportunities Fund Regular Growth	6
Aditya Birla Sun Life ESG Fund Regular Growth	7
Invesco India ESG Equity Fund Regular Growth	8
OPEN ENDED ESG DIRECT GROWTH	
SBI Magnum Equity ESG Dir Gr	9
Quantum India ESG Equity Fund Direct Growth	10
Axis ESG Equity Fund Direct Growth	11
ICICI Prudential ESG Fund Direct Growth	12
Mirae Asset Nifty 100 ESG Sector Leaders Fund of Fund Direct Growth	13
Quant ESG Equity Fund Direct Growth	14
Kotak ESG Opportunities Fund Direct Growth	15

Aditya Birla Sun Life ESG Fund Direct Growth	16
Invesco India ESG Equity Fund Direct Growth	17
S&P BSE 100 ESG INDEX (Benchmark Index)	18
S&P BSE 100 INDEX (Market)	19

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