



Do Thai Investors Care about ESG?

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Agenda

ESG as a means to corporate sustainability

Material ESG criteria for investment analysis

Key ESG Issues in Thailand

Appendix



CSR Development

Level 3

Level 2

Level 1

Level 0

การดำเนินธุรกิจอย่าง ยั่งยืน(Sustainable Business) ความรับผิดชอบต่อ สังคมของกิจการ

(Corporate Responsibility)

การลงทุนในชุมชน (Community Investment)

การบริจาค (Philanthropy)

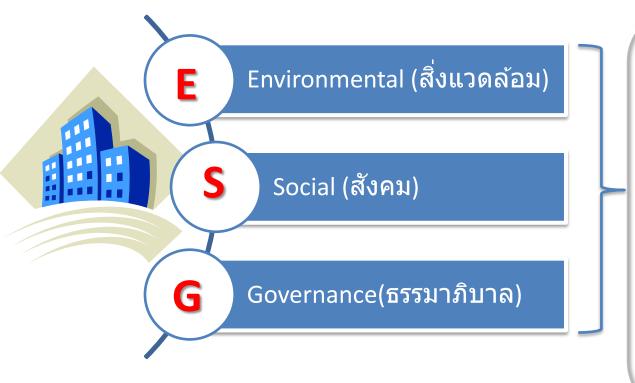
Direct Philanthropic Spending

Company's long-term strategic involvement in community partnerships to address social issues chosen by the company to protect corporate interests and enhance reputation

A form of corporate selfregulation integrated into a business model. An enterprise that has minimal negative impact on the global or local Environment, Social and Governance (ESG)



ESG Analysis



- A systematic consideration of relevant and material ESG issues rather than to a cursory inclusion of one or more of them.
- Complement, not a substitute for.
- Not fit well with shorttermism in investing.



Examples of ESG Issues

| Environmental Issues | Social Issues | Governance Issues |
|--|---|--|
| Climate change and carbon emissions Air and water pollution Biodiversity Deforestation Energy efficiency Waste management Water scarcity | Customer satisfaction Data protection and privacy Gender and diversity Employee engagement Community relations Human rights Labor standards | Board composition Audit committee structure Bribery and corruption Executive compensation Lobbying Political contributions Whistleblower schemes |

Source: www.cfainstitute.org

• ESG issues are often interlinked, and it can be challenging to classify and ESG issue as only an environmental, social, or governance issue



Why ESG matters?

- Corporates, ignoring to integrate ESG factors into their business strategies, are more exposed to tail risks affecting their earnings and sustainability.
 - The nature of tail risk: Low probability, but Unpredictable Loss
 - Interactions to Stakeholders are important to minimize such risks
 - Corporate Governance may be subjective, but it reflects the firm's visions and business sustainability.
 - Reputation is hard to regain trust if deteriorated by the firm or their management's actions.

Hence, systematically considering ESG issues will likely lead to more complete business strategies, from corporate side, and better-informed investment decisions from investor side.



Challenges to ESG Issues

- 1. Difficult to assign a monetary value to ESG issues and to integrate them into quantitative models.
 - Operational efficiencies contribute the improved margins and bottom-line. (e.g. energy savings, cost-efficiency program) >> the great starting point for corporates.
 - Empowered human capital: Increased productivity and stronger reputation.
 - Corporate governance for top-down communication and culture creation.
 - Stakeholder management to reduce legal risks > Extra items on profit-loss statements.
- Limited disclosures
- 3. Short term financial performance forces
- 4. ESG Integration or not? Incentives for Corporates to act?
 - Value keeps emerging, in line with the growing AUM of ESG investors
 - You create value.... We invest accordingly and give you the feedback.



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The Six Methods for Considering ESG Issues

1. Exclusionary Screening

 Avoiding securities of companies or countries on the basis of traditional moral values and standards and norms.

2. Best-in-Class Selection

- Preferring companies with better or improving ESG performance relative to sector peers.
 - I. Investing more in companies with better ESG performance levels
 - II. Momentum relative to sector peers

3. Active Ownership

- The practice of entering into a dialogue with companies on ESG issues and exercising both ownership rights and voice to affect changes.
- The actions can be:
 - Vote in AGM/EGM
 - Write a letter to the company
 - Meet with company representatives



The Six Methods for Considering ESG Issues

3. Active Ownership (cont.)

- The actions can be:
 - File a shareholder resolution
 - Attempt to gain a seat on board
 - Call for an extraordinary/ special meeting of the shareholders
 - File a complaint with the regulatory/authority
 - Issue a statement to the news media

4. Thematic Investing

- Investing that's based on trends, such as social, industrial and demographic trends.
- Examples: Clean tech, silver age, green real estate, health care, sustainable forestry.

5. Impact Investing

 Investing with the disclosed intention to generate and measure social and environmental benefits alongside a financial return.

6. ESG Integration

Systematic and explicit inclusion of ESG risks and opportunities in investment analysis.



ESG Integration – 5ive Areas

1. Economic Analysis

- Economic Growth is determined by:
 - The availability of environmental resources
 - Trends in society
 - National and Corporate governance

2. Industry Analysis

- Social trends driving changing consumer preferences
- Product safety standards can adjust the competitive landscape for a company (Samsung vs Huawei)
- What ESG factors will drive or constrain preferences and demand trends?

3. Company Strategy

- How the company is seeking to exploit the opportunities and manage the risks presented by the economy and industry in which it operates.
- The management has to consider a range of stakeholders in its strategic decisions in order to manage ESG risks and opportunities.



ESG Integration – 5ive Areas

a) Porter's Five Forces

| Industry force | Examples of company ESG performance |
|--------------------------|--|
| Intensity of competition | Can the company manage reputation risks and |
| | opportunities? |
| Threat of new entrants | Does it have motivated and innovative human |
| | capital or disruptive technology? |
| Supplier power | Does it have access to constrained raw |
| | materials, credit and a secure license to |
| | operate? |
| Buyer power | Does it enjoy customer satisfaction and loyalty? |
| Threat of substitute | What is the environmental profile of its |
| | products/services? Does it have a secure supply |
| | chain? |

b) SWOT Analysis

| SWOT | Examples of ESG factors |
|---------------|---|
| Strengths | Customer loyalty, product sustainability, motivated staff, operational efficiency |
| Weaknesses | Unknown supply chain risks, unmanaged externalities/liabilities |
| Opportunities | Legislation, resource depletion, disruptive technology |
| Threats | Legislation, resource depletion, disruptive technology |



ESG Integration – 5ive Areas

4. Financial Reports – adjusted to reflect ESG factors

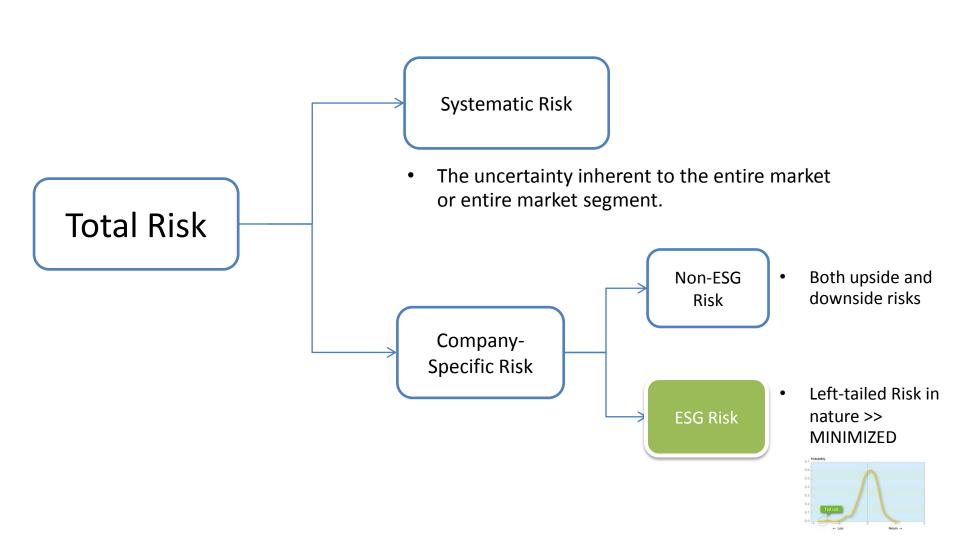
and lower company's fair value.

Income Statement - Revenue Increase or decrease to reflect the level of ESG opportunities or risks Income Statement – Cost Raw materials – the scarcity of main inputs, supply chain risks, stakeholder relationships, regulations Labor – prospective employees attracted by company's reputations, labor efficiency R&D – expenses relative to total revenue – to gauge commitment to R&D and technology differentiation Non-recurring/exceptional – litigation events, provisioning Balance Sheet – Asset Intangible assets – capacity for innovation, employee loyalty and company brand Balance Sheet – Liability Company's leverage policy to indicate governance and management quality Balance Sheet – Book value and impairment charge

The asset revaluation results in lower future earnings, a smaller balance sheet, additional operating costs



Valuation Implications





Valuation Implications

Discounted Cash Flow Model

$$V = \sum_{i=1}^{n} \frac{CF_i}{(1 + r + RP_{ESG})^i}$$

P/E Multiples Model

$$\frac{P_o}{E_o} = \frac{(Dividend\ Payout)(1+g)}{(r+RP_{ESG})-g}$$

- Add RP_{ESG} = Risk Premium for ESG factors
- The more ESG risks, the less valuation.
- Corporates ,which are able to minimize ESG risks, are valued at higher price, compared to peers. (ceteris paribus)
- Also, when there's material ESG risk event for any particular company, higher discount rate
 is applied as well as multiples de-rating.



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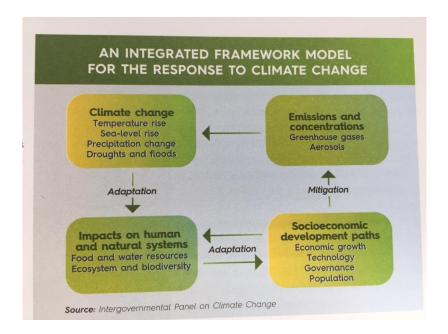
Appendix



Key ESG Issues in Thailand

- 1. Carbon Emissions (E)
- Waste Management (E)
- 3. Energy Efficiency Alternative resources (E)
- 4. Roles to Stakeholders (S)***
 - Treatment to all parties along the entire value chain
- 5. Community Relations (S)**
- 6. Labor Standards (S)
- 7. Bribery and Corruption (G)***
- 8. Political Contributions/Linkages (G)***
- 9. Good Governance (G)***
 - Insider Trading
 - Conflict of Interests
 - SEC roles vs investors





- The Paris Agreement to limit global warming to <u>less than two degrees</u> above pre-industrial levels – the threshold where many see irreversible damage and extreme weather effects kicking in.
- Thailand has pledged to cut Greenhouse Gas Emissions by 20-25% by 2030.
- 3 key economic mainstays disrupted
 - Agriculture estimated loss of 15-55% by 2080
 - Tourism
 - Trade



Renewable energy

OPPORTUNITIES:

Renewable energy generation

Renewable energy distribution & management

Renewable energy storage

DRIVERS:

Government policy Rising demand for energy Falling cost of renewable technologies Rising extraction costs of fossil fuels Depleting fossil fuel stocks

INVESTMENT RISKS:

Government policy

Technology risk

Concentrated sector risk

Sensitive to fossil fuel prices

High beta

Smaller firm bias in listed assets

Project risks in project based assets

INVESTMENT VEHICLES:

Energy security pressures

Fixed income (green bonds; securitised bonds; covered bonds)

Listed equity (active & passive funds

including best in class) Private equity (funds & fund of funds)

Infrastructure (funds, project equity, project debt)

YieldCos

Partnerships with development banks, IFIs, government agencies

Energy security pressures



Energy efficiency

OPPORTUNITIES:

Buildings

Industr

Transport

Information & communications technology

DRIVERS:

Energy efficiency policies
Competitive drive to cut costs
Manage rising input costs due to resource scarcity
New technology advancements
Data storage technology
Consumer choice/demand

INVESTMENT RISKS:

Policy risk

Potential delay / uncertainty in

Technology risk

Operational risk

Smaller firm bias in listed assets

Project risks in project based assets

INVESTMENT VEHICLES:

Fixed income (green bonds; securitised bonds; covered bonds)
Listed equity (active funds & indices including best in class)
Private equity (funds & fund of funds)
Infrastructure (funds, project equity, project debt)
Partnerships with development banks, IFIs,



Waste

OPPORTUNITIES:

Waste minimisation and control

Waste material recycling

Water recycling

Environmental pollution control

DRIVERS:

Waste management regulations

Cost savings on resource use and recovery

Food waste reduction (estimates of 30-40% waste between harvest and consumption)

Advances in waste management, waste water, waste to energy

INVESTMENT RISKS:

Operational risk

Technology risk

Policy risk

High capex requirements

Smaller firm bias in listed assets

Project risks in project based assets



INVESTMENT VEHICLES:

Fixed income (green bonds; securitised bonds; covered bonds)

Listed equity (active funds & indices including best in class)

Private equity (funds & fund of funds)

Infrastructure (funds, project equity, project debt)

Partnerships with development banks, IFIs, government agencies

Real Assets (including infrastructure and real estate)



Forestry

OPPORTUNITIES:

Plantation forestry Managed natural forests Carbon sequestration

DRIVERS:

Policy (REDD and REDD+, green procurement and building policies)
Population growth and deforestation
Consumer demand for greener materials
Scarcity in supply
Low correlation with economic fluctuations
Inflation protection

INVESTMENT RISKS:

Illiquidity (for unlisted)

Timber price changes / log values

& land value

Policy risk, land tenure agreements

Risk of political interference

Social risk, where community pressure against timber plantations could impact on operational efficiency

Environmental - natural hazards (fire, floods, drought)

INVESTMENT VEHICLES:

Listed equity (active & passive funds including best in class) Unlisted timberland/forestry (funds & direct)



Agriculture

OPPORTUNITIES:

Sustainable agriculture Resource efficiency

DRIVERS:

Rising demand due to population and middle class

Pressure to increase farm yields,
increase meat production

Policy drive to reduce emissions as agriculture and land-use change account for 1/3rd of GHG emissions

> Reduce chemical inputs and energy use in farming systems, promoting the efficient use of water, the use of complementary planting/permaculture



INVESTMENT RISKS:

Global demand and commodity price exposure

Increased uncertainty for crop yields across regions

Increase in rainfall variability and depletion of water

Rising fertiliser costs

Higher transport costs reduce margins

INVESTMENT VEHICLES:

Listed equity (active funds & indices including best in class)

Unlisted specialist agriculture (funds & direct)

Unlisted specialist resources (funds & direct)



Environmental Expenditure

(percent of revenue from sales)





SCG eco value Products and Services

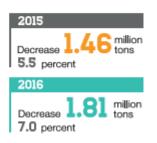




GHG Emissions

(compared with BAU 2007)





Strategies







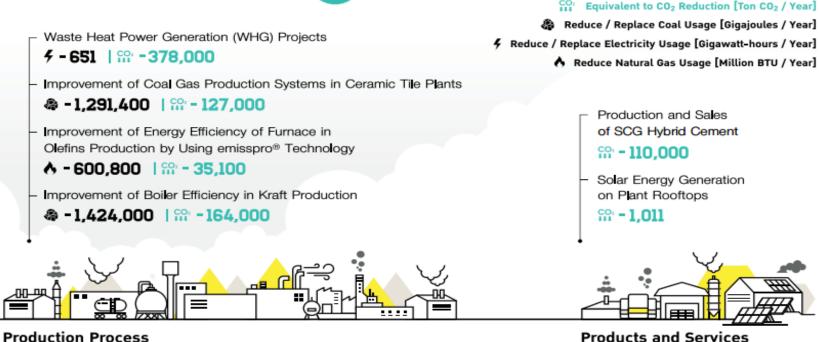
- 1. Mitigate impact of fossil fuel use
- 2. Enhance the capacity for alternative energy
- 3. Increase energy efficiency
- 4. Manufacture products and services for GHG emission reduction
- 5. Make the workforce aware of energy use

Source: SCC Sustainability Report 2016





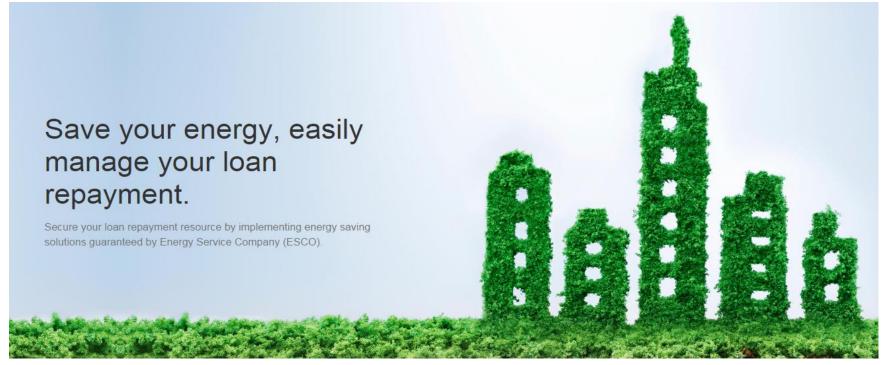
Highlights of GHG Emissions Reduction Projects



By 2020, SCC aims to reduce GHG emissions per production unit by 10 percent from the base year 2007.

Source: SCC Sustainability Report 2016





Qualifications

- Entrepreneurs who use more than 12 hours of electrical lighting per day
- · A project that aims to manage energy efficiency with guaranteed energy savings or a warranty
- ESCO: the supplier who conducts the project must be ESCO, a supplier who is approved by the bank
- The project, and the customer who qualifies for a loan and 100% of the total investment of the project, must be qualified according to the bank's requirements

Source: KBANK 26



Key ESG Issues in Thailand - Governance

CG mutual fund close to fruition

- Bangkok Post
- 14 Mar 2017
- DARANA CHUDASRI

The imminent creation of a mutual fund group by an alliance of asset management firms to promote companies that demonstrate good governance will invest in active funds, passive funds and exchange-traded funds, says Voravan Tarapoom, chairman of the Association of Investment Management Companies (AIMC).

The corporate governance (CG) initiative of 15 asset management firms, in cooperation with the Institute of Directors (IoD) and other organisations, will set a criteria for stocks to qualify for the funds, including winning awards for CG, eco-friendly businesses, social contributors and companies that have introduced anti-graft practices.

"The 15 firms all believe the CG funds will help the development of the securities industry and the stock market here," Mrs Voravan said. "We plan to set a strict criteria for the type and amount of stocks we will invest in, and also for the appropriate universe of securities."

The fund will be open to investors by year-end, she said.

Veera Vutthikongsirigool, first senior executive vice-president at Krungthai Asset Management, said every mutual fund set up under the collaboration will invest the similar universe of securities, so that universe must have a sufficient number of securities to serve investment demand.

Smith Banomyong, chief executive of SCB Asset Management (SCBAM), said the initial fund will invest in stocks selected by an independent body. The criteria can focus on various angles apart from CG, such as environmental, social and corporate governance (ESG) or anti-corruption, applying the criteria set by the IoD or the Stock Exchange of Thailand (SET), he said.

Peerapong Jirasevijinda, chief executive of BBL Asset Management (BBLAM), shared his experience in setting up Thailand's first CG mutual fund, BKIND. BBLAM requested listed companies fill out a survey, allowing the firm to create a short list of eligible stocks before making a final investment decision based on each company's quality of ESG and long-term yields.

"We also have to follow up on the performance of these companies to make sure they are continuing to apply ESG and CG practices," Mr Peerapong said. "We alert firms in our fund if they are failing to follow the ESG protocols, and if they can't improve themselves on time we will cut them out of the portfolio."

There are over 90 securities in BKIND's eligible universe.

Initially the consortium agreed to use a minimum of three stars in the IoD's 2016 CG report as the first bar for inclusion. Some 455 companies met this minimum. The fund will then cross-check to find listed companies also recommended by the Collective Action Coalition Against Corruption, which has some 120 firms, and the Thailand Sustainable Investment list, which has 51 companies.

The 15 firms in the CG initiative are Krung Thai Asset Management, Krungsri Asset Management, Kasikom Asset Management, CIMB Principal Asset Management Thailand, TMB Asset Management, SCBAM, BBLAM, Bangkok Capital Co Ltd, UOB Asset Management, One Asset Management, MFC Asset Management Plc, Talis Asset Management and Asset Plus Fund Management, Phatra Asset Management.

The AIMC will announce the list of those stocks that pass the initial selection process to encourage other companies to adopt CG practices

Source: Bangkok Post



Key ESG Issues in Thailand - Governance



The SEC, in cooperation with the Office of Insurance Commission, Social Security Office, Government Pension Fund, Association of Investment Management Companies, Federation of Thai Capital Market Organizations, Association of Provident Fund, Thai General Insurance Association, and The Thai Life Assurance Association, officially launched the Investment Governance Code (I Code) to assist institutional investors in adopting investment management best practices, together with 26 asset management companies and 27 insurance companies announcing the intention to bring I Code into practice, on 23 February 2017 at the Grand Hyatt Erawan Bangkok Hotel.

Last updated on 27 February 2017

Source: SEC



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TISCO ESG Investment Fund for Society



Investment Process



Valuation Analysis

Economic and Industry Analysis < 100 companies

Company Level – Business Strategy

ESG Criteria Screening > 100 companies

Thai Equity Universe (SET&mai) > 500 Companies

4.) Monitor and Rebalance portfolio and review ESG universe on a timely basis



3.) Construct portfolio with 20-30 stocks, regarding to valuation and diversification.



2.) Fundamental Screening, by considering profitability, financial strengths, market capitalization and liquidity.



1.) Create Investment Universe, regarding to ESG criteria.



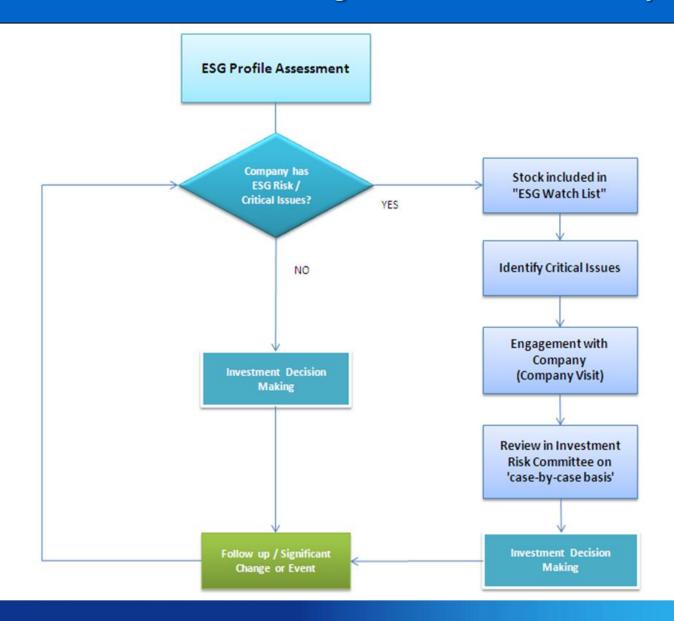
ESG-Integrated Investment Analysis

ESG Risk Assessment Framework

| ESG Risk Assessment | ESG Theme | ESG Key Issues Sectors | Energy | Materials | Industrials | Consumer | Health Care | Financials | Information Technology | Telecommunication Services | Utilities |
|------------------------|-------------------------|---------------------------------------|--------|-----------|-------------|----------|-------------|------------|---------------------------|-------------------------------|-----------|
| | | Carbon Emissions | X | X | Х | X | | X | Х | | X |
| | Climate Change | Energy Efficiency | | Х | Х | Х | | X | Х | | |
| | | Insuring Climate Change Risk | | | | | | X | | | |
| | | Water Stress | | X | Х | X | | | X | Х | |
| | Natural | Biodiversity and Land Use | Х | X | | | | | | | |
| Environmental | Resource Use | Raw Material Sourcing | | X | | Х | | | | | |
| Issues | | Financing Environmental Impact | | | | | | Х | | | |
| issues | Waste | Toxic Emissions and Waste | X | X | Х | X | Х | | | | X |
| | Management | Packaging Material and Waste | | X | | X | | | | | |
| | | Electronic Waste | | | | | | | X | | |
| | Environmental | Opportunities in Clean Technologies | X | X | Х | X | | X | X | | |
| | Opportunities | Opportunities in Green Building | | | | | | X | | | |
| | | Opportunities in Renewable Energy | X | | | | | | | | X |
| | Human Capital | Labor Management | | X | Х | X | | X | | Х | X |
| | | Health and Safety | Х | Х | Х | Х | | X | | | |
| Hun | | Supply Chain Labor Standards | | | | Х | | | Х | | |
| | | Controversial Sourcing | | | | Х | | | Х | | |
| | Product Safety | Product/Services Safety and Quality | | | | Х | Х | | | | |
| | | Chemical Safety | | Х | | Х | | | Х | | |
| | | Financial Product Safety | | | | | | X | | | |
| | | Privacy and Data Security | | | | X | | | Х | | X |
| | | Insuring Health and Demographic Risk | | | | | | X | | | |
| | Social Opportunities | Access to Communications | | | | | | | Х | Х | |
| | | Access to Finance | | | | | | Х | | | |
| | | Access to Health Care | | | | | Х | | | | |
| | | Opportunities in Nutrition and Health | | | | Х | | | | | |
| Governance- | Business Ethics | Corruption and Instability | Х | Х | Х | Х | Х | Х | Х | Х | Х |
| related Issues | CG | Corporate Governance | Х | Х | Х | Х | Х | Х | Х | Х | Х |



Procedures for ESG-Integrated Investment Analysis





TISCO ESG Investment Fund for Society vs SET Index



Source: As of February 24, 2017, Bloomberg

For further inquiry, please feel free to contact us: niphot@tisco.co.th





