Impact Consortium Report by Data and Indicator Working Group

November 28th, 2025
Working Group on Data and Indicators



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List of Discussion Members and Others of Data and Indicator Working Group (as of April 2025)

Chair	Imata, Katsuji	President, Social Impact Management Initiative							
Co-chair	Yamaguchi, Shintaro	Professor, Faculty of Economics, The University of Tokyo							
Vice-chair	Sueyoshi, Kotaro	Managing Director, Sustainable Business Promotion, Mizuho Financial Group, Inc.							
Discussion	Aoyagi, Keitaro	Metrics Work Consultants Inc.							
members	Arima, Satoru	Daiichi Sankyo Co., Ltd.							
	Igarashi, Takeshi	KIBOW Impact Investment Fund							
	Ohta, Yoko	Financial Engineering & Technology Research Center of Nomura Securities Co., Ltd.							
	Okada, Kunihiko	Sekisui Chemical Co. Ltd.							
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	Koyama, Naoki	The Dai-ichi Life Insurance Company, Limited							
	Seki, Saori	Daiwa House Industry Co., Ltd.							
	Hamaguchi, Minoru	Asset Management One Co., Ltd.							
	Hayashi, Toshikazu	Nissay Asset Management Corporation							
	Hoshi, Naoto	UniFa Inc.							

Development Bank of Japan Inc.

Matsuyama,

Masayuki

(Honorifics omitted, Japanese alphabetical order)

Members Members of the Impact Consortium

^{*}Replaced Takaba, Minako (same company) in December 2024

Report by Data and Indicator Working Group

Summary

- The Data and Indicator Working Group reviewed various data and indicator sets deemed essential for identifying, measuring, and managing impact. By sharing use cases and insights, as well as stakeholder needs, the working group has identified areas where further sophistication of data and indicators is needed and outlined recommendations for the design and structure of a desirable database.
- This report aims to serve as a reference for data users, such as businesses and investors, and to deepen their understanding of the current state and challenges associated with data and indicators. It has been prepared with the aim of facilitating future discussions on the development of the data and indicator environment with a view toward engaging a broad range of stakeholders.
- Businesses tend to prefer comparisons with baseline data, such as industry averages or other benchmarks that reflect the current state of the subject area, due to the highly unique nature of the impact they generate. In contrast, investors prefer comparisons across companies and therefore seek a certain level of standardization in indicators to enable consistent assessments.
- In the process of impact identification, measurement, and management, we have identified that there are three key "workspaces" where data and indicators play an essential role for businesses and investors: they are (a) identifying impact goals during strategy formulation; (b) determining baseline values during preassessment; and (c) measuring impact during post-assessment (comparing outcomes and outcomes to assess the achieved impact).
- Various indicator sets, guidelines, statistical analyses, and tools compiled by government agencies and domestic and international organizations to date include resources that can be utilized for identifying, measuring, and managing impact. In particular, we have seen advancements in tools and resources related to the Sustainable Development Goals (SDGs).
- While businesses and investors address a wide range of social and environmental issues, the survey conducted within the working group highlighted particularly

high levels of interest in areas such as climate change; biodiversity and environmental conservation; health and medical care; infrastructure development; and urban planning. Examples of initiatives in these fields were observed among the organizations represented by the discussion members.

- The development of data and indicators at the international level, particularly in the context of the SDGs, has been primarily focused on addressing challenges faced by developing countries. There is an opportunity for Japan to contribute to global discussions and initiatives by proposing data and indicators tailored to issues unique to developed countries.
- To support the design of a desirable database, two key products have been outlined: the "Impact Data Nagivation Guide," which showcases information on existing databases and categorizes and organizes them based on their intended use; and the "The List of Key Indicators and Baseline Values," aimed at making impact-related performance indicators more accessible. We believe that working on these products will lead to the formation of desirable data and indicator sets.

Main Text

1. Introduction: About The Data and Indicator Working Group

As the importance of addressing social and environmental challenges such as climate change and declining birthrates coupled with an aging population continues to grow, so too does the significance of initiatives and investments aimed at solving these issues and generating impact. Efforts such as the formulation and disclosure of value creation processes by businesses and the promotion of impact investing by investors are advancing. As a foundation for these initiatives, data and indicators that enable the appropriate identification, measurement, and management of impact are essential. However, it has been widely pointed out that practical data and indicators are insufficient or unclear due to the diverse needs of various stakeholders.

The "Basic Guidelines on Impact Investment (Impact Finance)" published by the Financial Services Agency in March 2024 define impact investment as "investment aimed at securing a certain level of 'investment return' while also seeking to achieve 'social and environmental effects'." One of the fundamental elements of impact investment highlighted in the guidelines is the need to "identify, measure, and manage effects." While the guidelines emphasize the desirability of using quantitative metrics to ensure objectivity, they also recognize the practical challenges. These include the administrative burden on businesses, the lack of available data, and the existence of projects in social issue domains that are not easily quantifiable. Consequently, the guidelines encourage dialogue and deliberation between businesses, investors, and financial institutions to determine the appropriate metrics for identifying impacts, considering the progress of various policies and initiatives related to information and data.

Based on this perspective, the Data and Indicator working group was established as a subcommittee under the umbrella of Impact Consortium. Its purpose is to examine the development of a database that enables both businesses and investors to accurately identify, measure, and manage impact. The working group aims to achieve this by sharing use cases and insights related to various data and indicators deemed necessary, organizing stakeholder needs, and identifying areas where further enhancement of data and metrics is anticipated. From August 2024 to April

2025, the working group convened a total of six meetings, consisting of three working group meetings and three discussion member meetings, during which deliberations were conducted.

This report is intended to serve as a reference for businesses and investors who are already engaged in or are planning to undertake projects that create impact. Its goal is to deepen understanding of the current state and challenges related to data and indicators, while also considering future discussions on the development and enhancement of data and indicators for a broader range of users. Chapter 2 organizes the needs for referencing specific data and indicators at various stages of the impact identification, measurement, and management process. Chapter 3 introduces examples of domestic and international databases that can be referenced for each stage. Furthermore, based on the survey conducted by the working group, the report highlights areas of high interest among businesses and investors in Japan, such as climate change and health and medical care. It presents use cases of initiatives in these fields, organizes the data and indicators deemed necessary for impact investing, and proposes the concept of a database ("Impact Database Directory") that can effectively facilitate the referencing of such information.

This report covers a wide range of asset classes, reflecting the diverse strategies and characteristics of investment entities. These asset classes include equity (both listed and unlisted), debt instruments (such as loans and bonds), and real assets, among others. For the purposes of this report, the terms "finance" and "investment" are used broadly to encompass not only listed and unlisted investments but also lending activities and similar areas, without restricting the scope to specific asset categories. To ensure clarity, this report uses the term "impact indicators" instead of "outcome indicators", which are sometimes used interchangeably.

Data is conceptualized into distinct categories. Macro data refers to statistics and information that provide insights into national or regional challenges and overall conditions. Sector-specific impact measurement indicators, such as key performance indicators (KPIs), are used to assess impact within fields. Micro data encompasses primary data that evaluates the impact of individual investments. In this report, the term "database" is defined as a structured collection of such data organized systematically.

2. The Purpose of Impact Identification, Measurement, and Management, and the Required Data and Indicators

(1) The Purpose of Impact Measurement

All projects and investments are carried out with reference to the PDCA (Plan-Do-Check-Act) cycle, and this principle applies equally when aiming to generate impact. Specifically, in the "Plan" stage, the desired impact is "identified." In the "Do" stage, projects and investments are implemented to create value, including impact. In the "Check" stage, the realized impact is "measured." Finally, in the "Act" (A) stage, the measured impact is reported, analyzed, and used to consider improvements. Within this cycle, impact measurement is not an end but a means to an end. Therefore, it is crucial to ask why the impact is being measured and how the measured impact will be utilized.

The rationale for conducting impact measurement may vary across different entities. For businesses, it can generally be categorized into two primary objectives: ①internal purposes, such as management, planning, and continuous improvement of operations, and ② external purposes, such as reporting to investors and other stakeholders. In practice, businesses are expected to utilize indicators that are suitable for both internal and external purposes. Given that these indicators are designed to demonstrate the nature and scope of the impact being generated, both internally and externally, there is often significant overlap between the indicators used for these two objectives.

- ① Management, Planning, and Improvement of Operations (Internal Use)

 For businesses that incorporate the creation of specific impacts as a key element of enhancing enterprise value within their management strategies, it is crucial to use impact measurement to verify whether those specific impacts are indeed being realized. Furthermore, by measuring the various impacts generated by their operations, businesses can gain deeper insights into their customers and the nature of their activities. This understanding can potentially lead to improvements in existing products and services, as well as the exploration and development of new business opportunities.
- ② Reporting to Investors and Stakeholders (External Reporting Purpose)

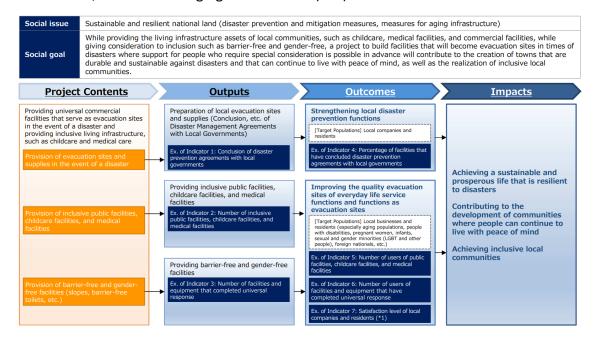
For businesses, disclosing measured impacts can serve to highlight the attractiveness and social value of their operations to various stakeholders, including customers, partners, employees, and investors. Moreover, since economic activities inherently rely on the sustainability of society and the environment, the disclosure of impact within the value creation process can help fulfill accountability to these stakeholders.

It is important to note that the purpose of impact measurement for investors differs from that of businesses due to distinct requirements and underlying contexts. For investors, the primary focus tends to be on verifying the extent to which their intended impacts are being realized and assessing their contribution to achieving those impacts through their investment activities. As such, the objectives of impact measurement for investors do not necessarily align with the purposes outlined for businesses.

- (2) Key Considerations for Impact Identification, Measurement, and Management
- ① Developing Indicators Aligned with the Impact Pathway

Effective impact measurement begins by identifying desired outcomes and establishing indicators to assess their achievement. For instance, if the goal is to enhance regional disaster prevention capabilities, an appropriate indicator might be the percentage of facilities with disaster prevention agreements with local governments. Indicators may vary, and there is no single correct choice. Exploring alternative indicators and determining data collection methods are critical steps. Additionally, structuring outcomes incrementally along an impact pathway allows for the identification of weaknesses and adjustments if a project underperforms. It is also important to distinguish between outputs (direct results of activities) and outcomes (longer-term effects), though there is currently no standardized approach to distinguishing between outputs and outcomes, as definitions and methodologies vary widely depending on the context.

(Figure 1: Examples of processes leading to impact and relevant indicators - Sustainable and resilient national land use (disaster prevention and mitigation measures, measures for aging infrastructure) -1)



② Comparison with Baseline Values and Cross-Entity Comparisons

Impact does not have a universally established definition, but one commonly accepted approach is to view it as the "difference in outcomes with and without the intervention of businesses or investors" (intervention effect). This report adopts this perspective.

Businesses, leveraging their unique strengths, often address diverse social and environmental challenges, resulting in highly individualized impacts. Consequently, businesses tend to focus on comparisons with baseline values, such as preintervention conditions or industry averages, rather than comparisons with other companies.

On the other hand, investors emphasize cross-entity comparisons to guide their investment decisions. This creates a need for some degree of standardization. Additionally, the scope—or boundary—of measurement, such as the specific projects, organizations, or value chains being assessed, becomes a crucial factor in

¹ Financial Services Agency, Annex 4 to the Social Bond Guidelines: Examples of Indicators for Social Benefits of Social Projects https://www.fsa.go.jp/en/news/2022/20221111-2/01.pdf

ensuring comparability. Efforts to standardize indicators are already underway, improving cross-entity comparability. This enhances investors' ability to make informed decisions and allows businesses to better convey their impact performance.

One potential approach to balance these needs is adopting a dual structure for indicators. Standardized indicators, or "compulsory routine," can address investors' requirements by aligning indicators with financial value and sector-specific classifications. At the same time, customized indicators, or "free routine," can reflect a business's unique initiatives and creativity, offering room for differentiation. However, businesses must ensure that customized indicators do not lead to "impact washing," where indicators are designed solely to present the business in an overly favorable light. When communicating impact to investors, businesses should evaluate and disclose both positive and negative impacts to provide a balanced and transparent narrative. Additionally, incorporating the perspectives of beneficiaries or stakeholders affected by the business's activities is essential for ensuring an authentic and comprehensive assessment of impact.

③ Understanding Data Used for Impact Identification, Measurement, and Management

When reporting using impact indicators, businesses are expected to demonstrate the degree of achievement of their intended outcomes. For investors and other users of this information, key considerations include whether the specified outcomes align with the business's objectives, whether the selected indicators are appropriate, and whether the collected data is reliable.

In investment decision-making, impact data is often evaluated alongside financial data. Financial data, governed by accounting standards, ensures consistency in recognition timing and measurement methods, making it highly reliable for analysis. Impact data, however, focuses on measuring the results of specific projects or activities, which may not align with fiscal years. Its recognition timing is typically project-based, leading to challenges in comparing impact data and financial data over the same reporting periods.

Currently, international disclosure standards for non-financial data, including impact data, are being developed, and data providers are increasingly offering robust solutions. In the context of ESG investing, such non-financial data is already being

utilized for risk and opportunity analysis, and the number of vendors providing this data is growing. In the realm of impact investing, impact data has traditionally been measured and utilized by businesses to assess the degree of outcome achievement for specific projects, often tailored to individual circumstances. However, as the needs of businesses and investors evolve, there is growing potential for third-party providers to process and generate impact data, enabling broader and more standardized use in the future.

4 Data Reliability

In conducting impact identification, measurement, and management, it is often challenging to comprehensively obtain high-precision data or establish the conditions necessary for estimating causal relationships. As such, when making decisions based on analytical results, it is important to understand the limitations of the available data's accuracy and recognize the varying degrees of reliability in the analysis.

For instance, sustainability information disclosed by businesses includes both mandatory disclosures, such as securities reports, and voluntary disclosures, such as sustainability reports and integrated reports. Among these, information included in securities reports, which is subject to assurance by independent auditors, is generally considered more reliable than data disclosed in voluntary reports.

To enhance transparency and reliability, it is advisable to provide a detailed explanation and disclosure regarding the accuracy of such data and the reliability of the analysis, including specific information about the nature of the data wherever possible.

(3) The Three Key "Workspaces" where Data and Indicators Play an Essential Role for Businesses and Investors

Businesses and investors, guided by their organizational purpose, utilize various databases to refine the processes of impact identification, measurement, and management. As outlined in Figure 2, the key "workspaces" where data and indicators are required can be categorized into three main stages: identifying impact goals during strategy formulation ("workspace" 1), determining baseline values during planning and pre-evaluation ("workspace"2), and measuring impact during post-evaluation by comparing baseline values with actual outcomes ("workspace" 3). It is worth noting that, from an impact accounting perspective, the need to reference databases is not confined to these three "workspaces".².

When identifying impact indicators ("workspace"1), businesses often refer to guidelines, indicator examples, principles, and use cases compiled by economic organizations, government agencies, or impact investment groups. For determining baseline values ("workspace"2 and 3), they may rely on initial project data or industry averages from surveys, statistics, or research by relevant agencies or organizations. These references are essential for setting benchmarks and evaluating progress.

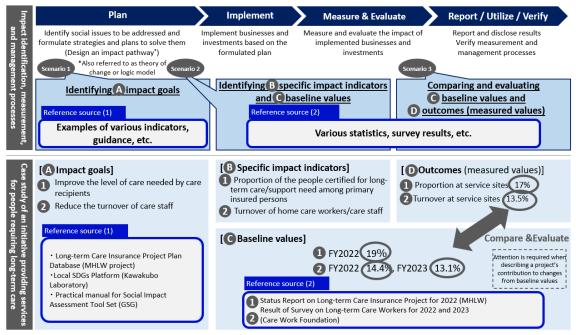
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² Impact accounting involves the creation of financial statements (impact statements) that reflect a company's financial, social, and environmental performance in order to help investors and managers make decisions. In this process, impact is converted into monetary value by referring to databases such as those containing monetary value evaluation factors (Global Value Factor Database). Companies and investors around the world are piloting impact accounting. In Japan, Eisai Co., Ltd., Sekisui Chemical Co. Ltd., Yamaha Motor Co., Ltd., KDDI Corporation, OMRON Corporation, Nissin Foods Holdings Co., Ltd., Gojo & Company, Inc., and Ubie, Inc. are leading the way in introducing impact accounting.

For example, Sekisui Chemical Co. Ltd. is working to convert sustainability-contributing products into economic value through impact assessment and to disclose "Stakeholder Comprehensive Income," which visualizes the impact on all stakeholders in monetary terms.

On the other hand, attempts have been made to quantitatively demonstrate the relationship between non-financial indicators and enterprise value by analyzing the enterprise value of individual companies.

(Figure 2: three key "workspaces" where data and indicators play an essential role for businesses and investors)



3. The Current State and Availability of Impact Indicator Databases

Examples of representative databases referenced for identifying impact indicators and baseline values are summarized in the appendix of this report.

Among these, two notable examples are introduced on this report: (1) the IRIS Catalog of Metrics (international), and (2) the Local SDGs Platform and SDG Action DB (domestic).

Generally, global indicator frameworks often focus on challenges faced by developing countries. As a result, some indicators may not align fully with the social challenges specific to Japan.

(1) Example of International Indicator Database: IRIS Catalog of Metrics

The Impact Reporting and Investing Standards (IRIS) was launched by the U.S.-based Rockefeller Foundation, Acumen, and B Lab as a project aimed at standardizing indicators to improve communication between businesses and investors regarding impact performance. Since its establishment in 2009 by the Rockefeller Foundation, the Global Impact Investing Network (GIIN) has managed and refined IRIS. The system provides a standardized "Catalog of Metrics" for businesses to report their impact to investors.

In 2019, GIIN expanded IRIS from being a catalog of metrics into a more comprehensive system called IRIS+³. This enhanced system provides various features, including the ability for investors to explore a recommended set of indicators (Core Metrics Set) based on IRIS's classification of impact areas (as shown in Table 1).

More recently, GIIN has focused on developing tools such as the IRIS+ Impact Performance Benchmarks, which enable investors to compare impact performance across specific sectors, including financial inclusion, energy, and agriculture.

The foundation of the IRIS+ system lies in the IRIS catalog of metrics, which has been under development since 2008. This catalog is detailed in a 2011 paper by GIIN CEO Amit Bouri (Bouri, A, 2011⁴), where the aim of standardizing indicators for businesses to report their impact to investors is emphasized. The approach draws inspiration from frameworks like the International Financial Reporting Standards (IFRS) and U.S. Generally Accepted Accounting Principles (USGAAP). Although frameworks like the IFRS Sustainability Disclosure Standards did not yet exist at the time, the paper suggests a forward-looking intention to develop similar standards for regular impact reporting. Bouri, A. (2011) highlights the significance of standardizing indicators through IRIS, noting that it enables businesses to better communicate their impact performance to investors. For investors, the widespread adoption of standardized reporting enhances comparability across businesses, ultimately contributing to more efficient resource allocation within the impact investment market.

The IRIS catalog of metrics (IRIS Version 5.3, released June 2022) includes a total of 736 indicators⁵. Each of these indicators is linked to one or more impact area classifications defined by GIIN (as outlined in Table 1). The catalog encompasses not only outcome-related indicators but also those measuring activities and outputs. It includes metrics related to products and services as well as those addressing operational aspects of a business. Additionally, it features financial indicators typically found in balance sheets and income statements, offering a comprehensive framework for impact measurement.

³ GIIN IRIS+ https://iris.thegiin.org/standards/

Bouri, A. (2011), "How standards emerge: The role of investor leadership in realizing the potential of IRIS", Innovations: Technology, Governance, Globalization, Vol.6, No.3, pp. 117-131
 Downloaded on July 24, 2024.

(Table 1: Classification of IRIS Impact Categories and Number of Metrics Included)

Impact Category	Impact Theme	Number of		
		Metrics		
Agriculture	Food security, Smallholder agriculture, Sustainable agriculture	37		
Air	Clean air	0		
Biodiversity & Ecosystems	Biodiversity and ecosystem conservation	11		
Climate	Climate change mitigation, Climate adaptation and resilience	11		
Diversity & Inclusion	Gender lens, Racial equity	24		
Education	Access to quality education	45		
Employment	Quality jobs	13		
Energy	Clean energy, Energy access, Energy efficiency	27		
Financial Services	Financial inclusion	68		
Health	Access to quality healthcare, Nutrition	14		
Infrastructure	Resilient infrastructure	20		
Land	Natural resources conservation, Sustainable land management, Sustainable forestry	18		
Oceans & Coastal Zones	Marine resources conservation and management	0		
Pollution	Pollution prevention	1		
Real Estate	Affordable quality housing, green buildings	18		
Waste	Waste management	18		
Water	Water, sanitation, and hygiene (WASH), Sustainable water management	44		
Cross-Cutting	N/A	367		
Total		736		

(Note) In the IRIS Catalog of Metrics, indicators are linked to multiple impact categories. However, the "number of metrics" column in the table reflects a count based on the "Primary Impact Category" designation. Additionally, the labels "Biodiversity" and "Biodiversity & Ecosystems" were considered as referring to the same impact categories and therefore combined.

(Source) Data from GIIN (2022)

(2) Examples of Domestic Indicator Database: Local SDGs Platform and SDG Action DB

The Sustainable Development Goals (SDGs) were adopted unanimously by United
Nations member states at the September 2015 UN Summit as part of the "2030
Agenda for Sustainable Development." Serving as the successor to the Millennium
Development Goals (MDGs) established in 2001, the SDGs represent international
targets aimed at achieving a sustainable and better world by 2030. Unlike the MDGs,
the SDGs are universal in nature, addressing challenges not only in developing
countries but also in developed countries.⁶⁷.

The SDGs are structured into three levels: 17 goals, 169 targets, and approximately 230 indicators. It is important not only to focus on the 17 goals but also to assess progress at the target and indicator levels to gain a clearer understanding of how much progress has been made toward achieving these goals.

The approximately 230 indicators proposed by the United Nations Statistical Commission (hereinafter referred to as global indicators) are designed from a global perspective and are not always well-suited for use in Japan's national or local SDG initiatives. In response to this concern, a "Local SDGs Indicator List for Regional Revitalization8" has been developed to make these indicators more applicable and practical for use at the national and municipal levels in Japan.

During the introduction of the Local SDGs Indicator List at within the working group, the indicators were categorized into the following three types:

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⁶ Ministry of Foreign Affairs, JAPAN SDGs Action Platform https://www.mofa.go.jp/policy/oda/sdgs/index.html

⁷ The Principles for Responsible Investment (PRI) has published a report titled "Investing with SDG outcomes: a five-part framework," recommending that institutional investors understand the positive and negative outcomes from their investments and related activities and seek to shape outcomes in line with the SDGs in order to support meeting the SDGs.

PRI, Investing with SDG outcomes: a five-part framework

https://www.unpri.org/sustainable-development-goals/investing-with-sdg-outcomes-a-five-part-

 $[\]underline{https://www.unpri.org/sustainable-development-goals/investing-with-sdg-outcomes-a-five-part-framework/5895.article}$

⁸ Local Government SDGs Promotion Evaluation and Study Group <Working Group on Local Indicators to Promote the SDGs in Local Governments> (Secretariat: Secretariat for Promotion of Regional Revitalization, Cabinet Office) (Revised edition, September 2022) https://www.chisou.go.jp/tiiki/kankyo/kaigi/sonota/sdgs_shihyou_risuto_2.pdf
For regional revitalization, the Group aims to create synergetic effects from integrated economic, social, and environmental efforts by leveraging the SDGs.

- Type 1: Local indicators that primarily reference global indicators (including minor modifications).
- Type 2: Local indicators that reinterpret global indicators within the context of Japanese society.
- Type 3: Local indicators independently added to address challenges unique to Japan.

(Table 2: Examples of Local Indicators by Type)

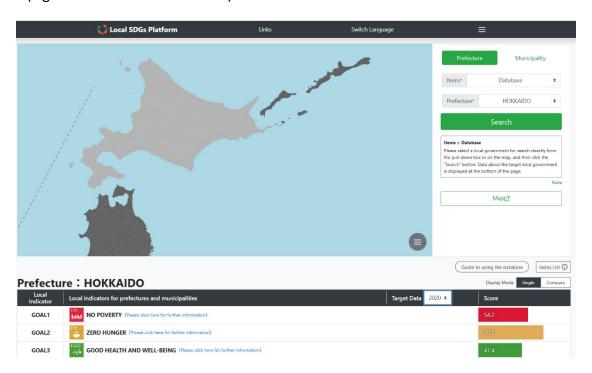
Goal	Target	Global Indicators	Local Indicators	Туре
11 Make cities and human settlements inclusive, safe, resilient and sustainable	11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 The proportion of the urban population living in slums, informal settlements, or inadequate housing	LI11.1.1.1 Homelessness rate	Type2
	11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	11.5.1 Measure the number of people who died, went missing, or were directly affected by disasters per 100,000 population	LI11.5.1 The number of deaths and missing persons due to natural disasters per capita (5-year average)	Type1
	-	-	Ll11.x.1 Vacancy rate	Туре3

To facilitate the transition from leveraging SDGs indicators to taking concrete action, a database has been established and is actively managed, aggregating information on progress, best practices, and implementation strategies. Among these databases are the Local SDGs Platform and the SDG Action DB.

1 Local SDGs Platform

The Local SDGs Platform, developed and operated by Keio University's Kawakubo Laboratory in collaboration with the Cabinet Office, publicly shares the progress of SDGs initiatives measured using the aforementioned local indicators in municipalities across Japan. Designed to support the activities of municipal stakeholders nationwide who are engaged in city-building driven by the SDGs, the platform

includes a directory of municipalities working on SDGs, as well as a database of unique indicators developed by various municipalities. As of the end of December 2024, the platform is being utilized by 36 prefectural governments and 300 municipal governments.



(Figure 3: Local SDGs Platform⁹)

2 SDG Action DB

The SDG Action DB is a database hosted on the online SDGs platform "Platform Clover." It aggregates learning materials, use cases, and evaluation metrics (such as KPIs) related to SDG initiatives across sectors, including academia, industry, civil society, and government. The database allows users to search for diverse types of information tailored to their needs from three perspectives: Study, Action, and Follow-up & Review. It has been developed and made publicly available by Keio University's Kawakubo Laboratory as part of the research project "Sustainability

⁹ Local SDGs Platform https://local-sdgs.jp/?lang=en_us

Transformation and Local SDGs¹⁰" funded by the Environment Research and Technology Development Fund (ERTDF)¹¹, as well as research outputs from the SDGs Indicator Review Committee established under the General Incorporated Association SDGs Management.

This database contains a wide variety of data categorized by sector, including industry, government, academia, and civil society. For instance, the "Industry Indicator List" includes approximately 60,000 indicators extracted from integrated reports, sustainability reports, and other disclosures of companies listed in the "Kaisha Shikiho" (Japan Company Handbook). Users can search the indicators by criteria such as company names or indicator names.

(Figure 4: List of Industry Indicators on the SDG Action DB¹²)
List of Industry Sector)

Number of Indicators: 59678

Reference: SDG Compass(GRI, UNGC, WBCSD), Sustainability Reports of Companies Featured in the Kaisha Shikiho (Japan Company Handbook)

Search company name

Search Indicator name

Enter or choose a company name

Sort by SDGs Goal

Sort by Indicator

Sort by Indicator

Search indicator name

https://www.erca.go.jp/erca/english/index.html https://www.erca.go.jp/erca/english/activities/ac 10.html

Research on sustainability transformation and local SDGs https://platform-clover.net/feature/local-sdgs-research

¹¹ A competitive research funding system aimed at contributing to and informing environmental policy. Research proposals are solicited from a wide range of researchers in industry, academia, private sector, and government based on priority issues and themes that contribute to their resolution, and research and development is conducted on issues selected through screening by external experts and relevant stakeholders.

¹² SDG Action DB https://www.sdg-db.net/

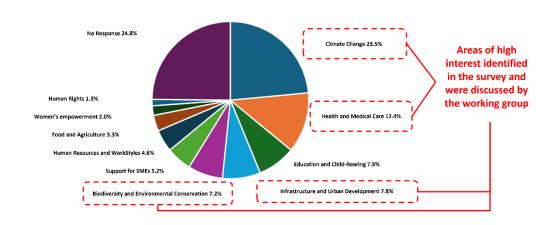
The development of local SDGs indicators in Japan is currently limited to a subset of indicators deemed important, for which government statistical data is available. Therefore, there are many cases where businesses independently establish their own indicators to address significant social issues that are not covered by the local SDGs indicators. Analyzing these independently established indicators and identifying those with high disclosure rates could be an effective bottom-up approach to organizing and expanding the scope of relevant indicators.

4. Impact Data and Indicators that are in High Demand in Japan

(1) Areas of High Interest

Businesses and investors address a wide range of social issues; however, during a survey conducted by the working group, the areas that garnered particularly high interest included: climate change; healthcare and medical services; infrastructure development and urban planning; and biodiversity and environmental conservation. These priority areas were subsequently discussed and shared through use cases within the working group.

(Figure 5: Survey Results on Issues of High Interest among Participants of the First Working Group Session)



A similar trend was observed in a survey examining the focus areas of current impact investment targets¹³.

¹³ GSG Impact Japan, Current State and Challenges of Impact Investing in Japan (FY2024 Survey) https://impactinvestment.jp/user/media/resources-pdf/gsg-2024 en.pdf

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- (2) Examples of Initiatives in Areas of High Interest
- ① Climate Change and Related Issues (The Dai-ichi Life Insurance Company, Limited) Dai-ichi Life Insurance Company has established its "Policy on Impact Driven Investments¹⁴" in October 2024, categorizing impact-oriented investments and loans into three distinct categories: (i) sustainability-themed investments and loans; (ii) broad-based impact investments and loans; and (iii) narrow impact investments and loans. As an institutional investor, the company aims to provide appropriate financial support to address societal challenges. For (i) sustainability-themed investments and loans, medium-term investment and lending targets are set, reflecting the company's commitment to sustainable development. Meanwhile, for (iii) narrow impact investments and loans, which focus on driving "structural changes in society" and fostering "innovations that contribute to solving social challenges," the company has deliberately chosen not to set quantitative targets for investment and lending amounts to prioritize the quality of impact. By maintaining a balance between the quantity and quality of impact, Dai-ichi Life emphasizes engagement with investees across all impact-oriented investments and loans, striving to promote the creation of meaningful and measurable impact.

¹⁴ The Dai-ichi Life Insurance Company, Limited, Policy on Impact-driven Investments https://www.dai-ichi-life.co.jp/english/dsr/investment/pdf/ri-report 014.pdf

(Table 3: Results of thematic investments and definition of impact investments 15)

Types of Investment	Definition	Target Asset of Investment	Cumulative Investment	Future Initiatives
Sustainability • Thematic Finance and Investment Details: P.38~39	Finance and investments to asset that is contributing to address social challenges	Green bond/loan Social bond/loan Transition bond/loan Sustainability bond/loan Project finance for sustainable energy etc.	Approximately 2.5 trillion yen	Enhancing new investments (Acceleration of Impact disclosure)
Impact Investment (Broadly defined)	Finance and Investments that identify the environmental and social impacts of issuing companies or products funded by raised capital, and implement the measurement and management of impact creation	Sustainability link bond/loan Transition link bond/loan Positive Impact Finance Positive Impact Real Estate Financing based on DL Sustainability Finance Framework Details: p.40	Approximately 120billion yen	Enhancing new investments and engagement (KPI follow)
Impact Investment (Narrowly defined) Details: P.41~42	Investments aimed at fostering innovation that contributes to structural changes in society and the resolution of social issues. ※Refer to the criteria below	Public Equity Private Equity Funds etc.	Approximately 63 billion yen Approximately 183 billion yen in total	Enhancing new investments and engagement (KPI follow)

Criteria of Impact Investment (narrowly defined) (All of the following required)

- Proper indicator to monitor can be set for social impact
- Possessing "Innovativeness" or "uniqueness and a certain level of entry barriers" with the potential to generate the social impact expected by <u>Dai-ichi</u> Life
- The management of the potential investee company must have a strong commitment to generating the social impact expected by <u>Dai-ichi</u> Life
 The impact business must either be the primary business or have the potential to become the primary business in the future

The company actively measures the positive impact generated across all of its impact-oriented investments and loans. It discloses impact indicators aligned with specific sustainability challenges, such as addressing climate change, enhancing the sustainability of natural capital, and improving quality of life. Furthermore, the company works to continuously encourage its investees to disclose impact-related information through ongoing engagement efforts, thereby fostering the expansion of positive impact.

¹⁵ The Dai-ichi Life Insurance Company, Limited, Responsible Investment Report 2024 https://www.dai-ichi-life-hd.com/en/sustainability/report/2024/pdf/index 001.pdf#page=140

(Figure 6: Positive Impacts via Investments)

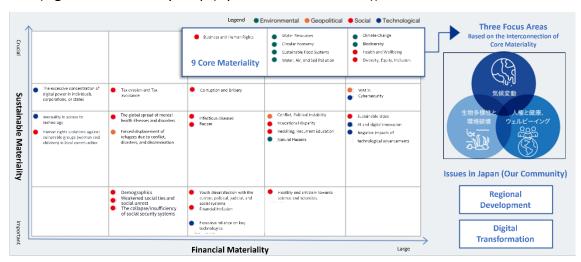
Contribution to GHG reduction				
Contribution to and reduction	GHG reduction achieved through investment in renewable energy			
	generation projects and green bonds.			
About 2million tons CO₂e/year	⇒Equivalent to the emissions of 770,000 households (≒equal to the number of households in Fukushima Prefecture) in Japan.			
Improvement of sustainability	of natural capital			
Supply of safe water	The number of people who have gained access to essential water supply			
750,000	through Investments in bonds used for desalination plant projects and wat			
About 750,000 people/year	purification initiatives.			
Area covered with greenery	The area of land greened through investments in bonds dedicated to			
	greening initiatives.			
About 22,000 ha	⇒Equivalent to approximately four times the area inside the Yamanote Lir			
Improvement of QOL				
Vaccination for children in emerging	The combined for each considered through investments in boards allocated			
	The number of people vaccinated through investments in bonds allocated to healthcare services in emerging countries.			
About 620,000 people/year	to hearthcare services in emerging countries.			
Provision of microfinance	The second of th			
	The number of people who received financial support through investment in companies providing microfinance in emerging countries.			
	in companies providing inicionnance in enterging could les.			

The company places a particular emphasis on addressing climate change as its highest priority and, it has established financial targets for investments and loans aimed at contributing to their resolution. Additionally, it has set a goal to achieve a positive impact by reducing greenhouse gas (GHG) emissions by 2.6 million tons of CO2e annually by fiscal year 2026, demonstrating its commitment to expanding its impact in this critical area.

The company believes that generating impact can enhance enterprise value and has begun positively evaluating indicators such as GHG emission reductions in its assessment of investee companies.

② Biodiversity and Environmental Conservation (Asset Management One Co., Ltd.)
Asset Management One Co., Ltd. has developed a materiality map based on two key axes: sustainable materiality and financial materiality. Using this framework, the company has identified three focus areas for research and analysis: climate change; biodiversity and environmental degradation; and human rights, health, and well-

beings.16



(Figure 7: Materiality Map (Updated in March 2024))

Among these, in the research and analysis of biodiversity and environmental degradation, the company is analyzing the impact of its investment activities and portfolio on natural capital, particularly focusing on Japanese equities, one of its key assets, using the TNFD-LEAP framework¹⁷.

The company first discovered (L: Locate) that approximately 90% of its managed Japanese equities are linked to sectors with a strong impact on natural capital, namely capital goods; consumer discretionary; and information technology. It then assessed (E: Evaluate) that these three sectors could negatively affect natural capital through their production and operational processes, potentially causing issues such as water pollution and soil contamination.

The company then evaluated (A: Assess) that the loss of natural capital could significantly diminish enterprise value over the medium to long term. As a last step, it is preparing (P: Prepare) to integrate considerations of climate change and its relationship with investee companies into its investment activities.

¹⁶ Asset Management One Co., Ltd., Sustainability Report 2024 https://www.am-one.co.jp/english/information/sustainability/

An integrated approach developed by the Taskforce on Nature-related Financial Disclosures (TNFD) for assessing nature-related issues, including contact with nature, dependence on nature, impacts, and risks and opportunities.

https://tnfd.global/publication/additional-guidance-on-assessment-of-nature-related-issues-the-leap-approach/

(Figure 8: Analysis Using TNFD-LEAP¹⁸ (As of November 2024))

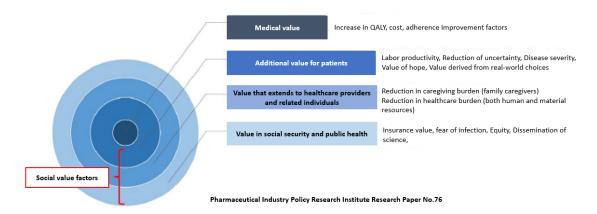
③ Health and Medical Services (Daiichi Sankyo Co., Ltd.)

Daiichi Sankyo Co., Ltd., as a pharmaceutical company, operates under its corporate purpose of "Contribute to the enrichment of quality of life around the world" and its mission to "Create innovative pharmaceuticals addressing diverse medical needs."

The core value of pharmaceuticals lies in their medical benefits, such as extending life expectancy and improving quality of life. From these benefits, additional value for patients, ripple effects on those involved in treatment, and social value in areas like social security and public health can also emerge.

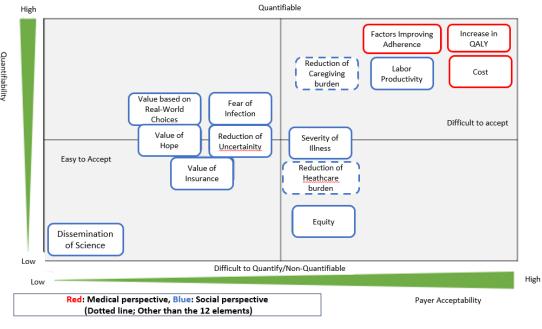
¹⁸ Asset Management One Co., Ltd., Appendix for Sustainability Report 2024 https://www.am-one.co.jp/english/information/sustainability/

(Figure 9: Categorization of Social Value Elements)



Furthermore, when considering impact evaluation indicators, it is emphasized that, in addition to quantifiability, the ease of acceptance by payers such as health insurance associations and insurance companies is a crucial factor.

(Figure 10: Quantifiability and Payer Acceptability of Impact Evaluation Indicators)



Additionally, as a pharmaceutical company focused on science and technology, it regards its employees as vital capital. It has clarified its desired outcomes for human capital (human capital outcomes) in alignment with its business strategy and is working to maximize the potential of its human capital.

The company aims to create a virtuous cycle where the enhanced value of human capital, strengthened through its business and initiatives, is reinvested as input. This, in turn, reinforces the value creation process itself, driving the realization of its business strategy and corporate purpose.

④ Infrastructure and Urban Development (Daiwa House Industry Co., Ltd.)

Daiwa House Industry Co., Ltd. operates across a wide range of sectors, including housing, construction, and real estate. The company pursues its business activities guided by its purpose, or "Our Hopes for the Future," of "Creating the fundamental societal infrastructure and lifestyle culture rooted in regeneration, ensuring a world where we live together in harmony embracing the Joys of Life."

The company defines the medium- to long-term impacts generated through the accumulation of outcomes from its value creation process as "impact." The purposes of impact measurement are identified as: Utilizing the identification of impact indicators for investment decision-making and progress management; Enhancing employee satisfaction; and contributing to opportunities for reviewing and refining the business portfolio.

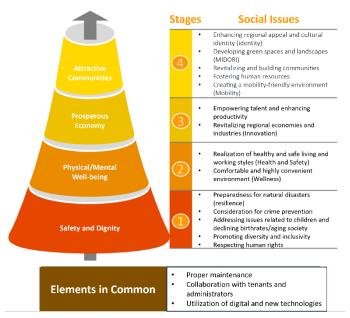
Furthermore, the company has developed a "Framework for Evaluating Social Impact Real Estate¹⁹" as part of its efforts to evaluate the impacts of real estate on society and the environment and to build a better future. This framework aligns with guidelines such as the Ministry of Land, Infrastructure, Transport and Tourism's "Social Impact Real Estate Practice Guidance," and its alignment has been verified through third-party opinions²⁰.

²⁰ Third-party opinion on the Framework for Evaluating Social Impact Real Estate by Daiwa House Group

¹⁹ Daiwa House Industry Co., Ltd., Framework for Evaluating Social Impact Real Estate https://www.daiwahouse.co.jp/tochikatsu/souken/business/pdf/pdf socialimpact.pdf

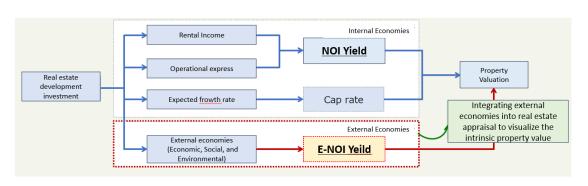
 $[\]underline{\text{https://www.jcr.co.jp/download/ee74ff7567af3f66a65eeb7b7e5df73b769187d66f99f13fb4/24d0993.}}\\ pdf$

(Figure 11: Solving Social Issues through Real Estate in Four Stages Presented in the "Practical Guidance for 'Social Impact Real Estate'" by the Ministry of Land, Infrastructure, Transport and Tourism²¹)



Furthermore, the company evaluates the degree and effectiveness of its impact, encompassing both the creation of positive impacts and the reduction of negative impacts, by dividing them into three structures: economic, environmental, and social. It analyzes and monetizes external economic factors (non-financial values) and calculates the External Net Operating Income (E-NOI) yield by dividing these monetized values by the real estate price. This E-NOI yield is then used as an impact indicator for quantitative evaluation.

(Figure 12: E-NOI Yield in Real Estate Development)



²¹ Ministry of Land, Infrastructure, Transport and Tourism, Practical Guidance for 'Social Impact Real Estate'

https://www.mlit.go.jp/report/press/tochi fudousan kensetsugyo05 hh 000001 00101.html

The company aims to make the "intrinsic value of real estate" more visible by evaluating real estate not only from the perspective of financial investment returns but also by incorporating social impacts into a multifaceted assessment. This approach seeks to enhance contributions to the SDGs and improve the effectiveness of stakeholder engagement. As a concrete example of this evaluation practice, the company has initiated an impact assessment for the "(provisional name) Miki Regional Exchange Hub²²" within the Liveness Town Project, a suburban residential community initiative aimed at addressing local challenges.

(3) Impact Indicators and Enterprise Value

1 Identification and Disclosure of Impact Indicators by Businesses

Businesses disclose sustainability information based on materiality, which includes two key perspectives: Materiality in corporate finance (the impact of environmental and social factors on the company's financial performance); and materiality in environmental and social contexts (the impact of the company on the environment and society). Among these, general investors tend to focus on the former, seeking information about a company's growth, performance, and financial condition to make investment decisions. Therefore, when investors use a company's impact indicators for investment decisions, it is crucial that these indicators are linked to enterprise value enhancement. Therefore, it is desirable for businesses to not only disclose the indicators themselves but also actively share the impact pathways²³ that lead to enhanced enterprise value, presenting them in a compelling manner to investors.

Impact is assessed through a variety of quantitative and qualitative indicators, depending on the sector, and both types of indicators are critical for the identification, measurement, and management of impact. The relative importance of quantitative versus qualitative indicators varies based on the investment target and methodology. For instance, investments in publicly listed companies often prioritize

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²² Announcement of the "Miki Regional Exchange Base (tentative name)," a project subject to the Framework for Evaluating Social Impact Real Estate

https://www.daiwahouse.co.jp/about/release/house/20241224080707.html

Third-party opinion on social impact real estate evaluation for Miki Regional Exchange Base (tentative name) by Daiwa House Group

 $[\]frac{https://www.jcr.co.jp/download/cdcec8a5573ba5dddddb2bbd5d4fc5b53c65bc5a2ec2bdd8be/24d142}{3.pdf}$

White paper on social impact real estate evaluation

https://www.daiwahouse.co.jp/tochikatsu/souken/business/pdf/pdf_socialimpact_wp.pdf

²³ Referred to as impact pathway, logic model, theory of change, etc.

quantitative indicators, as these enable standardized comparisons across a broad range of entities. Investments in privately held companies, on the other hand, tend to place greater emphasis on qualitative indicators, particularly in cases where investors engage in hands-on support or tailored stakeholder engagement.

② Identification and Disclosure of Impact Indicators by Investors

While it is ultimately the business operators who create impact through their activities, investors also have a role to play by disclosing the impact generated through their investment portfolios in a manner that resonates with their capital providers, such as asset owners and beneficiaries.

To compute the portfolio-wide impact by aggregating individual business impacts, it is essential to ensure that the disclosed indicators and the granularity of information from each business are aligned. Sustainability disclosure standards are being progressively developed, starting with the climate change domain, under international frameworks such as the ISSB²⁴ Standards and Japan's specific sustainability disclosure framework, the SSBJ²⁵ Standards. These efforts are enabling investors to calculate and disclose indicators such as portfolio-level GHG emissions, also known as financed emissions. From the perspective of impact investing, it is also conceivable for investors to calculate and disclose voluntary indicators, such as the contribution to GHG reductions achieved through investments in renewable energy projects or technologies that support GHG emission reductions²⁶.

Advanced examples of investors disclosing portfolio impacts based on their materiality are emerging across various fields. Since capital providers seek both impact and profitability, it is crucial for disclosed impact indicators to be linked to enterpirse value enhancement. Investors themselves are expected to determine relevant impact indicators by considering their own materiality, investee disclosures, and expert analyses.

https://www.env.go.jp/content/000265710.pdf

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²⁴ International Sustainability Standards Board https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/

²⁵ Sustainability Standards Board of Japan (SSBJ) https://www.ssb-j.jp/en/ssbj_standards.html

²⁶ The Ministry of the Environment formulated the "Guide for Investors and Startups: Calculation and Evaluation of GHG Impact in Climate Tech" as a framework for investors and startups to calculate and evaluate the environmental impact of Climate Tech startups during investment due diligence (November 15, 2024).

3 Analysis of the Relationship between Impact Indicators and Enterprise Value The use of impact disclosures and engagement with investors faces challenges such as the limited availability of standardized impact indicators and a lack of empirical research on the relationship between impact and enterprise value. In response, Nomura Securities Financial Engineering Research Center is developing solutions that leverage generative AI to create an "Outcome Label Catalog" and to visualize the value of non-financial information embedded in stock prices (PBR)²⁷.

As an analytical approach, the methodology begins by defining comparable non-financial indicators based on beforementioned IRIS+, resulting in the creation of an "Outcome Label Catalog" with 183 outcome labels. Using this catalog, the presence or absence of disclosures related to each outcome label was assessed based on the "Approach and Initiatives on Sustainability" sections of corporate securities reports²⁸. Subsequently, a model²⁹ was developed to estimate PBR (price-to-book ratio) using financial indicators and outcome labels, enabling the visualization of the non-financial information value embedded in stock prices³⁰. A table summarizing the contribution and disclosure rates for each outcome label, specifically in the climate change domain, is provided in Table 4.

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https://www.nomuraholdings.com/jp/services/zaikai/journal/w 202311 01.html

²⁷ Nomura Securities Co., Ltd., Visualizing sustainable growth and quantifying the impacts reflected in share prices

²⁸ The target consists of 628 Japanese companies that had a market capitalization of 100 billion yen or more and disclosed their "Sustainability Related Financial Information" in their securities reports (as of the end of December 2023).

²⁹ The Center developed a quantitative model that explains PBR based on financial indicators (projected ROE, projected revenue growth rate, projected DOE, and financial leverage) and the disclosure status of outcome labels (183 items) using a machine learning model.

³⁰ Share prices and financial figures as of the end of May 2024 are used.

(Table 4: Level of Contribution and Disclosure Rate for Outcome Labels (Excerpt from the Climate Change Category))

Category	No.	Outcome Label	Contribution	Energy (7)	Materials (68)	Capital Goods & Services (161)	Essential Goods (96)	Healthcare (43)	Financial Services (67)	Information Technology (81)	Communication Services (31)	Public Utilities (15)	Real Estate (12)
	28	Clean energy generation through low-carbon and zero-carbon methods	0.000			2%				2%		7%	
	29	Utilization of carbon emissions trading	0.000		1%	1%					3%		
	30	Carbon-absorbing urban development	0.000			!%							
	31	Promotion of low-carbon construction materials	0.000			1%							8%
	32	Promotion of electric vehicle adoption	0.000	29%	7%	2%	13%		2%	4%			
	33	Promotion of hybrid vehicles	-0.024		3%	2%	1%		5%				
	34	Promotion of fuel cell vehicles	0.000	14%		2%	5%					7%	
	35	Promotion of public transportation usage	0.000			6%	2%			1%		7%	
	36	Promotion of cycling and walking	0.000			1%						7%	
	37	Promotion of car-sharing services	0.000		1%	1%	5%						
	38	Development of transportation infrastructure	-0.003	14%		11%	11%			2%		7%	
	39	Urban planning aimed at reducing traffic volumes	0.000										
	40	Electrification and Efficiency Improvement of Heat Supply	0.000			2%	1%					7%	
Climate Change	41	Investment in urban development aimed at achieving a low-carbon society	0.026			2%	1%					13%	17%
	42	Reduction of carbon emissions across the supply chain	0.032	57%	51%	43%	44%	49%	26%	40%	13%	33%	25%
	43	Design and construction of factories based on green building principles	0.000		4%	6%	1%			1%			8%
	44	Environmental education and awareness activities for employees and communities	0.000			1%	1%						
	45	Enhancing Carbon Dioxide Sequestration through Soil Management	0.000										
	46	Promotion of Carbon Capture Using Plants and Seaweed	0.000					2%			3%		
	47	Carbon Dioxide Sequestration through Underground Storage	0.000										
	48	Development and Utilization of Carbon-Absorbing Materials	0.000		9%	2%	3%			1%			
	49	Reduction of Carbon Emissions in Industrial Processes	0.000	14%	41%	14%	13%	11%	2%	10%			25%
	50	Gathering and Dissemination od Hazard and Risk Data	-0.011	14%	4%	16%	14%	11%	5%	1%	19%	20%	8%
	51	Infrastructure Development for Climate Change- Related Disasters	0.000		1%	4%	4%	4%		1%			

(Note 1) The target consists of 628 companies listed in the Tokyo Stock Exchange that had a market capitalization of 100 billion yen or more (as of the end of December 2023) and disclosed their "Sustainability Related Financial Information" in their securities reports.

(Note 2) The numbers in parentheses next to each industry represent the number of companies belonging to each GICS sector. The percentages in the table represent the proportion of companies within each GICS sector that were determined to disclose information on the corresponding outcome labels.

(Source) Prepared by Nomura Securities Co., Ltd. based on NRI, FactSet, security reports by the target companies, and IRIS+ Thematic Taxonomy

Outcome labels with a high "Overall Disclosure Rate" in Table 4 are considered highly comparable, as they are disclosed by a significant number of companies. For this analysis, a disclosure rate is classified as high if more than 10% of the 628 companies surveyed provide information on the label.

According to the analysis, outcome labels that positively contribute to "PBR" include "No. 41: Investment in urban development aimed at achieving a low-carbon

society" and "No. 42: Reduction of carbon emissions across the supply chain." Conversely, outcome labels such as "No. 33: Promotion of hybrid vehicle adoption" were found to have a negative contribution to PBR.

However, in the context of climate change, the mention of topics such as "Promotion of hybrid vehicle adoption" in securities reports does not necessarily imply that equity investors perceive the company's value negatively. Thus. further examination of the analysis results is required. That said, if the number of investors and companies focusing on positive impact continues to grow in the future, investment behavior emphasizing impact is likely to increase, which would enhance the relevance of this analysis over time.

As mentioned in "2(2) (2) Comparison with Baseline Values and Cross-Entity Comparisons," if commonly used indicators are treated as standardized indicators and efforts are made to refine them, prioritizing actions based on "Disclosure Rate" and "Contribution" could be a practical approach, as illustrated in Table 5.

(Table 5: Proposed Actions Based on Disclosure Rate and Level of Contribution)

	Disclosure Rate	Contribution Level	Solution
1	High	Positive	Implement linking with the indicator catalog. Work on establishing baseline values for these indicators (such as sector-specific benchmarks or current status reference values)
2	Relatively low	Positive	The disclosure rate may be high in some sectors. Implement linking with the indicator catalog and proceed with establishing baseline values.
3	High	0 or Negative	Implement linking with the indicator catalog. If disclosure based on common indicators progress, the perception of the markets can potentially shift.
4	Relatively low	Negative	Assess the level of importance. For outcomes deemed significant, linking them with the indicator catalog and advancing disclosure based on common indicators could potentially alter the perception of the capital markets.

For example, in Table 4, "No. 42: Reduction of carbon emissions across the supply chain" falls under Category "1," where both the disclosure rate is high, and the contribution is positive. Therefore, it would be reasonable to prioritize the development of baseline values and related refinements for this indicator.

- 5. The Fundamental Products for a Desirable Database
- (1) Purpose and Objectives

Measuring and evaluating societal and environmental impacts are crucial for

businesses when formulating or disclosing their value creation processes, as well as for investors engaging in impact investing through dialogue with businesses.

Therefore, a database that can be referenced for identifying impact indicators and baseline values would be highly beneficial for effectively measuring and managing impacts.

Currently, several challenges have been identified regarding data and indicators related to impact measurement:

- There is a lack of data and indicators that are considered highly relevant to the needs of businesses and investors as they advance impact measurement efforts.
- While various databases exist, they remain scattered, making access difficult (e.g., public data sources).
- Even when data and indicators are accessible, baseline values and practical
 use cases are often unclear, complicating the process of identifying,
 measuring, managing impacts, and applying them to impact investing.

To address these challenges, it is desirable to establish a database that allows efficient access to relevant data and example indicators. Such a database would support businesses to formulate and disclose their value creation processes and investors to engage in impact investing through dialogue with businesses. Such a database, developed through public-private collaboration, should be aligned with Japan's social challenges to promote corporate strategies and impact investing that address these issues. By enabling both businesses and investors to reference the same database, this initiative is expected to foster dialogue based on a shared language addressing Japan's social challenges. Furthermore, its utilization within Impact Consortium could contribute to the broader dissemination and advancement of impact investing practices.

(2) Fundamental Approach

(1) Impact Database Navigation Guide

As detailed in "3. The Current State and Availability of Impact Indicator Databases", numerous databases are already available, offering a wealth of resources on impact-related topics. These resources include guidance materials, sample indicators, principles, methodologies, use cases, research findings, and statistical data, all of which can be leveraged by businesses and investors.

Initially, consolidating information from these existing databases and categorizing it based on specific use cases is anticipated to improve accessibility and usability for practitioners in the field of impact.

Additionally, reference needs are likely to differ based on attributes such as user type—whether a business operator or investor—as well as industry or sector. To address this, it would be prudent to gather feedback on the usability of the organized database from a broad range of market participants and stakeholders impacted by these activities.

Moreover, it may be beneficial to develop a centralized resource that compiles foundational content, use cases, and other essential materials, making it easier for practitioners who are new to impact identification, measurement, management, or impact investing to access and utilize these resources effectively.

② The List of Key Indicators and Baseline Values

As previously mentioned, businesses leverage their unique characteristics to tackle diverse social and environmental challenges, resulting in highly individualized impacts. For this reason, they often focus on comparing their own performance over time or against industry averages, rather than benchmarking against other companies. However, the baseline values needed for such comparisons are not always readily available from existing public statistics or other sources. To address this, it is important to establish baseline values, particularly for frequently used indicators, to enable more consistent and meaningful evaluations.

On the other hand, investors tend to prefer cross-company comparisons when making investment decisions, leading to a preference for a certain degree of standardization in the indicators adopted by businesses. Improving the comparability of impact indicators across companies could not only accelerate the growth of impact investing but also enable businesses to more effectively communicate their impact performance to investors. From this perspective, it is desirable to develop a standardized list of key indicators, along with associated baseline values and practical use cases.

When developing a standardized set of key indicators, it would be prudent to consider the following three perspectives:

(i) Relevance to key issues in Japan

Key social and environmental challenges demand proactive efforts from stakeholders. Developing a database of indicators, baseline values, and use cases tied to Japan's specific issues can facilitate discussions on the alignment between these challenges and stakeholders' businesses or investments, while also driving updates to the database itself. Importantly, the perspectives of beneficiaries and affected stakeholders should be incorporated to ensure the database is inclusive and impactful.

(ii) International consistency

Ensuring international alignment is essential, and the SDGs provide an effective foundation for developing indicators. While global efforts often focus on challenges in developing countries, Japan can contribute to the global discussions by proposing data and indicators addressing issues specific to developed countries.

(iii) Relationship with Enterprise Value

From the perspective of impact investing, the relationship between impact indicators and enterprise value is critical. Research, including efforts introduced in "4(3) ③ Analysis of the Relationship between Impact Indicators and Enterprise Value," is advancing to explore the correlation between impact indicators and factors like enterprise value or stock prices. For example, incorporating indicators with demonstrated correlations to enterprise value into a standardized list could help businesses integrate these into their value creation processes, refining the focus on indicators with tangible impact on corporate performance. Additionally, marking indicators adopted by ISSB or SSBJ as sustainability disclosure items within the list could enhance its usability for investors.

Furthermore, providing examples of initiatives linked to relevant indicators as references for developing logic models could enhance usability.

It would be practical to start with high-priority areas where the need is most urgent given the difficulty of developing indicators, baseline values, and use cases for a wide range of social challenges all at once,

6. Conclusion

In recent years, purpose-driven management has gained attention as businesses

face mounting social and environmental challenges, particularly those stemming from population decline. There is growing recognition that solely pursuing profits makes it increasingly difficult to build sustainable business models or maintain long-term societal relevance. Focusing on "impact" offers a logical approach to connecting purpose-driven strategies and business plans with investors' corporate analysis and evaluations.

This working group has facilitated discussions and introduced initiatives related to impact from both business and investor perspectives, using data and indicators as a focal point. Through these dialogues, it is expected that a shared understanding of impact, serving to connect businesses and investors, will gradually be fostered.

This report builds on this approach by addressing the current state and challenges of data and indicators. It proposes key frameworks, including an "Impact Database Navigation Guide" to organize existing data based on usage, and "The List of Key Indicators and Baseline Values" designed to make impact performance more actionable for investment decisions.

When viewing impact as a connection point between businesses and investors, having both parties refer to a shared database is valuable for establishing a common language. While this report is still at the stage of presenting a blueprint for an ideal database, it incorporates this perspective and aims to encourage further exploration and development in this area.