Exhibit

Examples of opinions and comments received from industry organizations and companies about Appendix B

（reference materials）

Position of this Exhibit

Since June 2021, the Study Group on Disclosure Policies for Non-financial Information has reviewed the prototype published by the group of five in December 2020 and ISSB prototype published in November 2021 (the collective term for a prototype of general requirements and for a climate-related disclosure prototype published by the IFRS Foundation), and presented "Preliminary Thoughts on the TRWG Sustainability Disclosure Prototypes" on 25 March 2022.

Furthermore, on the basis of the “Preliminary Thoughts on the TRWG Sustainability Disclosure Prototypes” , we have worked on reviews of the Exposure Draft of the General Requirements for Disclosure of Sustainability-related Financial Information (S1 standard) and that of the Climate-related Disclosures (S2 standard).

In the process of this review, the secretariat of the Study Group conducted a questionnaire survey of more than 400 industrial organizations regarding industry’s opinion on the ISSB/TRWG prototypes and the Exposure Draft while informing them about the IFRS Foundation's initiative to develop international sustainability standards, the contents of the TRWG prototypes and the Exposure Draft. To date, the Study Group secretariat has received opinions and comments from approximately 50 industry organizations and companies.

This Exhibit is an excerpt and compilation of comments and opinions received by the Study Group secretariat that are relevant to Appendix B. Although not all of the opinions and comments are reflected in the content of the "General Comments" and "Answers to Questions", we have kept the opinions and comments as close to the original text as possible, with minimum rhetorical correction, as we believe it would be useful for the ISSB to see what kind of opinions were received from the industry.

The opinions and comments expressed in this paper are those of individual industry organizations and companies, and include opinions that are not consistent with the views of the industry. In addition, the Study Group secretariat has not examined the accuracy, completeness, or objectivity of the opinions, nor has it attempted to unify these opinions.

Therefore, it should be noted that the opinions expressed in this paper do not represent the opinions of the Study Group or the unified views of each industry.

CONTENTS

Main comments received about Appendix B in general

Comments and opinions from industry organizations and companies about Appendix B (Appendix B Industry-based disclosure requirements) in general are as follows.

1． On the approach to revising the SASB Standards to improve their international applicability

○ The SASB standards, which was the basis for the industry-based disclosure metrics, was based on the premise of voluntary disclosure in the first place, and it was possible to state the reason for this in the event that a response to each item could not be disclosed. Also, since many of the metrics were in accordance with U.S. law, it was possible to disclose using laws other than those listed in the standard because the entity was located outside the United States. We recommend that such treatment be maintained even if the SASB standard is to be included in the S2 standard.

○ Since the SASB regularly reviewed disclosure items and solicited opinions on those items, we recommend that the ISSB also regularly review items listed in Appendix B and solicit opinions on them. It is necessary that the same flexible operation will be continued as in the past.

○ We understand that the ISSB ensure comparability by developing detailed industry-based metrics in its disclosure standards. However, the establishment of industry-based metrics based on the SASB standards may force disclosure that is not in line with the actual conditions in each region and may make disclosure difficult for companies outside the U.S. Unlike the cross-industry metrics in the main body of S2 standard, we recommend that industry-based metrics should be applied in a flexible manner, by allowing disclosure in accordance with the flexible interpretation by each company, rather than requiring disclosure strictly in line with the disclosure items.

○ With regard to industry-based metrics, since it relies heavily on the SASB standards, there is a strong impression that it is based on the state of the industries in the U.S. The following issues are considered to be extremely important; (1) whether the industry classification is appropriate in the first place, (2) how to ensure adjustments when disclosure items related to individual industries do not match the actual conditions in each country, and (3) how disclosure should be made when companies are engaged in multiple industries.

○ As a general rule, local U.S. systems and standards of specific organizations recognized in various places should be excluded from being adopted as references for "metrics or its judgment criteria”. It is appropriate that “(quantitative) metrics or its judgment criteria" that cannot be set without relating local systems of a specific country/region or organization, including the U.S., rather than international standards (ISO, IEC, etc., which are internationally recognized as international standardizing bodies by WTO/TBT) should be voluntary disclosure and explanation items, considering the positioning of international standards.

○ General trading companies are engaged in business across a wide range of industries, and often work with key partners as minority shareholders in the industry. In such cases, there may be cases where relevant information is

available based on the contracts already concluded with the partner companies. Therefore, it is desirable that industry-based metrics be applied on a "Comply or Explain" basis.

○ It is reasonable that the industry-based metrics should be positioned as guidance for providing examples of identifying metrics that each industry considers material, and the items that do not always accurately represent the contribution to carbon neutrality should be deleted. At least, it should be clarified that these metrics are not mandatory disclosure. ISO 14030-3, which is currently under development and specifies green activity indicators (taxonomy) by industry sector in the same manner as this proposed standard, considers the thresholds as examples instead of applying uniformly, considering the local features and characteristics of the industry sector.

○ Disclosure is required for metrics that are not legally required to be measured in Japan. We believe that these parts should be "may disclose" instead of "shall disclose".

２． Approach to the Selection of Industrial Classification

○ We are concerned that if a company is engaged in businesses that fall under multiple industry categories for which industry-based disclosure requirements are indicated, it would be an excessive burden to address all of the requirements for each industry category. For this reason, we propose the formulation of a guidance document that indicates the approach to the selection of industry-based metrics for companies that operate multiple businesses.

○ Although the climate-related items in the SASB standards have been adopted and are specified as "shall disclose", we believe that clarification and guidance is needed on (1) how to disclose items when the industry classification is not consistent with that of each region, and (2) whether companies that fall under multiple industry categories, such as conglomerate companies, need to disclose information on all of their business.

○ As a conglomerate, we are involved in most sectors and industries, and there would be enormous time and personnel costs to disclose everything uniformly. Therefore, the usefulness of disclosing detailed information should be weighed against the cost on the preparer.

○ Does every company have to fit its business into one of the sectors in the "industry-based" disclosure? Since there is no applicable sector for the business we are engaged in, if this disclosure is mandatory, it is necessary to establish an appropriate sector.

○ If there is no industry classification example, how should we consider, for example, the "wholesale industry" to which a trading company belongs?

○ If a single industry is designated/selected to one company, it would be difficult for general trading companies to make appropriate disclosures, and it would be desirable to be able to select and disclose multiple industries based on materiality.

○ The industry categories indicated in industry-based disclosure requirements are broad to some extent, and it may be difficult/unnecessary for companies within an industry to disclose all items. It would be desirable to allow each company to choose which disclosure items to address, depending on the business and necessity.

3．On metrics that differ from climate change objectives

○ The Appendix B of this Exposure Draft includes in its scope metrics indirectly related to climate change, such as water quality. However, if the discussion of topics other than climate change is scheduled to be held in the future, it may be possible to conduct the study again without requiring them at this time from the perspective of consistency.

○ Since ensuring consistency of disclosure content is also an important perspective, it would be desirable to exclude these metrics that have little to do with climate change from the scope of the proposed standard. It would not be possible to ensure consistency of disclosure content if it were to be changed depending on future discussions, and the burden on the corporate side would be significant if it were to be revised. Therefore, it would be a realistic response to limit the scope to metrics directly related to climate change.

○ Although all the metrics are related to climate change, disclosure requirements such as the rate of sustainability certifications and life cycle management measures are included in the proposed standard. It is desirable to delete some of the disclosure requirements that are not directly related to climate change in order to weigh the usefulness of the information against the cost of preparing it.

4．Information on the Basis for Conclusions of the SASB Standard

○ If the ISSB set industry-based metrics derived from the SASB Standards, we believe that, at least, clarification of the location of the information on "Basis for Conclusions on industry-based metrics of SASB Standards". Regarding Appendix B, the explanation of each item and Basis for Conclusions are insufficient as to why each item of the disclosure topic has been set. Furthermore, it is difficult to confirm the basis for setting each item in the Basis for Conclusions of the SASB Standard. We recommend that the ISSB clearly indicate either the basis for conclusions that the SASB has established for each item or where the information is located.

（supplement）

- The industry-based metrics in this Exposure Draft take the SASB Standard as a starting point. (Basis for Conclusions on IFRS S2 "Climate-related Disclosures" [draft], paragraph BC125)
- We assume that companies that have already applied the SASB Standards and companies that have obtained and applied the information provided by the SASB Standards understand the Basis for Conclusions of the SASB Standards before applying the SASB Standards.
- On the other hand, companies that intend to apply industry-based metrics for the first time based on this Exposure Draft have not been provided with sufficient information on the Basis for Conclusions.
- In order to close such an information gap, it could be helpful for entities to understand Basis for Conclusions for industry-based metrics.
- If the ISSB has difficulty in presenting a “Basis for Conclusions” for industry-based metrics, we recommend that the ISSB clarify the location of information on the “Basis for Conclusions” for the SASB Standard, at the very least.

Comments by Industry

CONSUMER GOODS SECTOR

Appliance Manufacturing

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Product Lifecycle Environmental Impacts	Percentage of eligible products by revenue certified to ~~the ENERGY STAR® program~~ an energy efficiency Certification	Quantitative	Percentage (%) by revenue	CG-AM-410a.1
	Percentage of eligible products certified to an Association of Home Appliance Manufacturers (AHAM) sustainability Standard	Quantitative	Percentage (%) by revenue	CG-AM-410a.2
	Description of efforts to manage products' end-of-life impacts	Discussion and Analysis	n/a	CG-AM-410a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Annual production [2]	Quantitative	Number of units	CG-AM-000.A

＜Comments＞

	Comments
CG-AM-410a.1	Sales ratio alone does not provide an appropriate comparison because some regions and countries do not have energy efficiency certification or have different target products of the certification. Thus, it does not distinguish between "negative effects due to the absence of a certification system" and "negative effects due to the lack of certification.
CG-AM-410a.2	It is inappropriate to include the AHAM Sustainability Standards in the international standards because some regions, countries or products do not have a certification system based on AHAM. AHAM is only the voluntary standards even in the United States. Even if you reference this indicator, you are required to disclose not only the whole sales of the products but also individual sales of those products which a certification system covers, however such use of disclosures are limited. It is appropriate to disclose "various sustainability and environmentally conscious systems including eco-labels, etc. on a voluntary basis based on those systems.
CG-AM-410a.2	The use of the American Home Appliance Manufacturers' Association (AHAM), a specific national organization, to evaluate the environmental impact of product lifestyles is not fair from a

	global perspective.
CG-AM-410a.2	The American Home Appliance Manufacturers Association (AHAM), which is mentioned as an accounting indicator, is a voluntary standard limited to a specific region. Therefore, it not suitable as an indicator targeting the global market. We should use regulations and standards utilized in each country and region.
CG-AM-410a.3	Since the requirements are broad and the content differs for each product, it is not clear to what level of detail is necessary to disclose. In fact, end-of-life initiatives are prioritized differently in each country and region due to differences in laws and social infrastructures as noted in the difference in legal characteristics between the EU's WEEE Directive and Japan's Home Appliance Recycling Law. In addition to these considerations, multiple specific examples are necessary to utilize the indicator, and as stated in the "Discussion Analysis," there are still many issues to be considered in the implementation of the indicator.
CG-AM-410a.3	"Efforts to manage the impact of the product in the disposal phase" is vague in the required disclosure and should be clarified first.
CG-AM-000.A	Appliances have multiple categories, each of which has a wide variety of products with different performance and functionality. Therefore it is not appropriate to use a single value regarding them as annual production as an indicator for evaluation. Appliances can contribute to "electrification" as an important approach to decarbonization, then it is important to clarify how their production is evaluated in climate change adaptation.
CG-AM-000.A	Although "annual production volume by product type" is listed as an activity indicator, the definition of product type is ambiguous, and also there are performance differences among product types even for the same type of product. It is not appropriate to index them all together as a quantity and use them for comparison. Appliances can be said to contribute to "electrification," an important approach to decarbonization, but it should be clarified how their production volume is evaluated in climate change adaptation.

Building Products & Furnishings

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management in Manufactur-ing	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	CG-BF-130a.1
Product Lifecycle Environmental Impacts	Description of efforts to manage productlifecycle impacts and meet demand for sustainable products	Discussion and Analysis	n/a	CG-BF-410a.1
	(1) Weight of end-of-life material recovered, (2) percentage of recoveredmaterials recycled	Quantitative	Metric tons (t), Percentage (%) by weight	CG-BF-410a.2
Wood Supply Chain Management	(1) Total weight of wood fiber materialspurchased, (2) percentage from third- party certified forestlands, (3) percent- age by standard, and (4) percentage certified to other wood fiber standards, (5) percentage by standard [3]	Quantitative	Metric tons (t), Percentage (%) by weight	CG-BF-430a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Annual production [4]	Quantitative	See note	CG-BF-000.A
Area of manufacturing facilities [5]	Quantitative	Square meters (m^2)	CG-BF-000.B

＜Comments＞

	Comments
CG-BF-410a.2	The social infrastructure for waste material recovery is still developing and is at various stages depending on the industry and product, making it unsuitable for items to be compared side-by-side. For ease of comparison, we request that it be aligned with GRI 301: Materials 2016. (1) Total weight or volume of materials that are used to produce and package the organization's primary products and services during the reporting period, (2)Percentage of recycled input materials used to manufacture the organization's primary products and services

CG-BF-430a.1	(1) Total weight of wood fiber materials purchased, (2) percentage from third party certified forestlands, (3) percentage by standard, and (4) percentage certified to other wood fiber standards, (5) percentage by standards We do not see much rationality in the comparison by percentage of each standard, which leads to superiority of financial impact. Instead of that, Disclosure should be simple to reduce the workload of both investors and companies, and we suggest the same as CONTAINERS & PACKAGING. (1) Total weight of wood fiber materials purchased, (2) percentage from certified sources
CG-BF-000.B	There are many different types of production facilities and plants, and floor space is not a very effective indicator of activity size. To reduce the workload, we would like to see it removed or changed to the number of production sites.

Household & Personal Products

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	CG-HP-140a.1
	Description of water management risks and discussion of strategies and practi-ces to mitigate those risks	Discussion and Analysis	n/a	CG-HP-140a.2
Environmental & Social Impacts of Palm Oil Supply Chain	Amount of palm oil sourced, percentage certified through the Roundtable on Sustainable Palm Oil (RSPO) supply chains as (a) Identity Preserved, (b) Segregated, (c) Mass Balance, or (d) Book & Claim	Quantitative	Metric tons (t), Percentage (%)	CG-HP-430a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Units of products sold, total weight of products sold	Quantitative	Number, Metric tons (t)	CG-HP-000.A
Number of manufacturing facilities	Quantitative	Number	CG-HP-000.B

＜Comments＞

	Comments
CG-HP-430a.1	For the topic "Environmental and Social Impacts of the Palm Oil Supply Chain," the accounting indicator is "the amount of palm oil sourced, certified through the Roundtable for Sustainable Palm Oil (RSPO) supply chain as (a) Identity Preserved, (b) Segregated, (c) Mass balance or (d) percentage of book and claim" and is limited to one certification system. Currently, there is no problem in basing certification on the RSPO's standards, as there are no standards that are equivalent in accuracy to the RSPO's standards. However, if the standards for sustainable production and traceability of palm oil in other certification systems increase in the future, the addition of a certification system may be considered.

EXTRACTIVES & MINERALS PROCESSING SECTOR

Construction Materials

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	EM-CM-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	EM-CM-110a.2
Air Quality	Air emissions of the following pollutants: (1) NO_x (excluding N_2O), (2) SO_x, (3) particulate matter (PM_{10}), (4) dioxins/furans, (5) volatile organic compounds (VOCs), (6) polycyclic aromatic hydrocarbons (PAHs), and (7) heavy metals	Quantitative	Metric tons (t)	EM-CM-120a.1
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage alternative, (4) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	EM-CM-130a.1
Water Management	(1) Total fresh water withdrawn, (2) percentage recycled, (3) percentage in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	EM-CM-140a.1
Waste Management	Amount of waste generated, percentage hazardous, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	EM-CM-150a.1
Product Innovation	Percentage of products that qualify for credits in sustainable building design and construction certifications	Quantitative	Percentage (%) by annual sales revenue	EM-CM-410a.1
	Total addressable market and share of market for products that reduce energy, water, and/or material impacts during usage and/or production	Quantitative	Reporting currency, Percentage (%)	EM-CM-410a.2

＜Comments＞

	Comments
EM-CM-110a.1	The GHG protocol is at the top of the list. If it is to be used internationally, shouldn't ISO be at the top? Japanese domestic laws and regulations (calculation, reporting, and publication systems) should be included in the examples.
EM-CM-110a.1	Regarding item2.3, the methodology is limited. It should be described in such a way that it can be addressed in the laws and regulations of each region.
EM-CM-120a.1	JIS and Japanese domestic test methods are not listed, and foreign test methods are difficult to trace. Test methods of each country should be added.
EM-CM-120a.1	In Japan, the cement industry is not legally required to measure VOCs or PAHs. In addition, heavy metals are only measured at plants that have been certified for a certain treatment. Therefore, even if a uniform disclosure obligation were imposed, it would be difficult to immediately disclose these parts, so the term should be revised to "may" instead of "shall.
EM-CM-130a.1	Since the biomass is limited to only those certified by a third party, it is appropriate to remove this statement.
EM-CM-140a.1	Regarding water management, it is questionable whether this information on companies operating in Japan, where water risk is relatively low, is useful to investors. Should the disclosed information be ranked as "essential" or "recommended"?
EM-CM-140a.1	Since there is no treatment in the Japanese cement industry, it should be applied according to the country, regional industry, etc.
EM-CM-150a.1	The waste is defined by EPA and EU. The definition in Japan should also be included.
EM-CM-410a.1	Implementation does not seem feasible since there is no accreditation body in Japan.
EM-CM-410a.1	The "Percentage of products eligible for sustainable design and construction certification" indicates certifications such as LEED and BREEAM as targets. CASBEE may become recognized in the Japanese version, but in any case, the evaluation process requires considerable effort, and in fact, there are many cases where buildings are not certified even if they are designed to be equivalent to the higher ranks.(Some municipalities require CASBEE assessments above a certain size, but exempt small-scale assessments) We would like you to consider rules that take into account the actual conditions in each region. Incidentally, such certification systems are ranked according to level, but does this mean that if a product is certified, it is counted regardless of its rank?
EM-CM-410a.2	The original text only qualitatively describes “the target markets and percentages of products that reduce energy consumption, water and/or material impacts”. We would appreciate it if you could clarify how to determine the specifics of the data to be compiled.

Iron & Steel Producers

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	EM-IS-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	EM-IS-110a.2
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	EM-IS-130a.1
	(1) Total fuel consumed, (2) percentage coal, (3) percentage natural gas, (4) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	EM-IS-130a.2
Water Management	(1) Total fresh water withdrawn, (2) percentage recycled, (3) percentage in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	EM-IS-140a.1
Supply Chain Management	Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues	Discussion and Analysis	n/a	EM-IS-430a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Raw steel production, percentage from: (1) basic oxygen furnace processes, (2) electric arc furnace processes	Quantitative	Metric tons (t), Percentage (%)	EM-IS-000.A
Total iron ore production [11]	Quantitative	Metric tons (t)	EM-IS-000.B
Total coking coal production [12]	Quantitative	Metric tons (t)	EM-IS-000.C

＜Comments＞

	Comments
General Comments	The industry-based metrics are appropriate examples for guidance purposes (examples that may

	be used as reference when considering metrics that are considered to be material in these industries), and items that do not always accurately represent the contribution to carbon neutrality should be deleted. At least, it should be clarified that this should not be a mandatory disclosure. (Reference) ISO 14030-3, which is currently under development and defines green activity indicators (taxonomy) by industry as in this draft standard, does not be applied specific thresholds in a uniform manner, taking into account the regional characteristics and characteristics of the industry, but treats them only as examples.
EM-IS-130a.1、 EM-IS-130a.2	The energy mix depends on national policies, and it is important to ensure compliance with the energy mix targets determined by the government. Therefore, we believe that it is not appropriate to use energy mix as metrics for country-by-country comparison. It is not appropriate to arbitrarily select specific energy sources or technologies and make their ratios explicit, and should be deleted from the disclosure items or made it an optional disclosure item. It is meaningless to address only the ratio of renewable energy, since there are cases where "renewable energy does not increase (i.e., there is no additionality) in society as a whole" and does not necessarily lead to a reduction in greenhouse gas emissions for society as a whole. Since energy efficiency can be improved through effective use of waste heat and by-product gas, it is desirable to also evaluate metric such as "the amount/ratio of expansion of in-house power generation using waste heat recovery and by-product gas (kWh, %).
EM-IS-430a.1	The process for managing the risk of procurement of iron ore and coking coal due to environmental and social issues is required, but there is no mention of environmental and social issues in "Metals and Mining" and "Coal operations". Since there is concern about the risk of environmental and social issues in mining and coal mining, we believe that the industry itself should first manage and disclose information on these issues.
EM-IS-000.A	The report requires disclosure of crude steel production volume and percentage by process. Disclosure of volume and percentage of production by process should be deleted because it does not always accurately represent the contribution to carbon neutrality. At the very least, it should not be a mandatory disclosure.
EM-IS-000.B、 EM-IS-000.C	EM-IS-000.B and C require disclosure of iron ore production volume and coking coal production volume. Some companies in the steel industry own their own mines and some do not. For the latter, the items required to be disclosed in this paragraph may be immaterial, and should be deleted because they do not always accurately represent their contribution to carbon neutrality. At the very least, we believe that materiality should be clearly stated to be applicable.

Metals & Mining

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
GreenhouseGas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	EM-MM-110a.1
	Discussion of long-term and short-termstrategy or plan to manage Scope 1 emissions, emissions reduction targets,and an analysis of performance againstthose targets	Discussion and Analysis	n/a	EM-MM-110a.2
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	EM-MM-130a.1
Water Management	(1) Total fresh water withdrawn, (2) totalfresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	EM-MM-140a.1
	Number of incidents of non-complianceassociated with water quality permits, standards, and regulations	Quantitative	Number	EM-MM-140a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Production of (1) metal ores and (2) finished metalproducts	Quantitative	Metric tons (t) saleable	EM-MM-000.A
Total number of employees, percentage contractors	Quantitative	Number, Percentage(%)	EM-MM-000.B

＜Comments＞

	Comments
EM-MM-110a.1 3.2	Gross global Scope 1 emissions are define as "The percentage shall be calculated as the total amount of gross global Scope 1 GHG emissions (CO 2 e) that are covered under emissions limiting regulations divided by the total amount of gross global Scope 1 GHG emissions (CO 2 e)."

	"emissions limiting regulations" is interpreted as "carbon pricing, i.e., regulations for carbon taxes and emissions trading schemes," but since there are no such regulations in Japan yet, it is questionable what the domestic percentage should be.
EM-MM-130a.1. 3.3	In the calculation of the renewable energy utilization rate, it is indicated that ”For any renewable electricity generated on-site, any RECs and GOs must be (i.e., not sold) and retired or cancelled on behalf of the entity in order for the entity to claim them as renewable energy.”In this case, does this imply that the renewable energy certificates (RECs and GOs) are also required for on-site generation and consumption of renewable energy?

Oil & Gas – Exploration & Production

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations	Quantitative	Metric tons CO_2-e (t), Percentage (%)	EM-EP-110a.1
	Amount of gross global Scope 1 emissions from: (1) flared hydrocar- bons, (2) other combustion, (3) process emissions, (4) other vented emissions, and (5) fugitive emissions	Quantitative	Metric tons CO_2-e	EM-EP-110a.2
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	EM-EP-110a.3
Water Management	(1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	EM-EP-140a.1
	Volume of produced water and flowback generated; percentage (1) discharged, (2) injected, (3) recycled; hydrocarbon content in discharged water	Quantitative	Thousand cubic meters (m^3), Percent-age (%), Metric tons (t)	EM-EP-140a.2
	Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	Quantitative	Percentage (%)	EM-EP-140a.3
	Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline [13]	Quantitative	Percentage (%)	EM-EP-140a.4

Reserves Valuation & Capital Expenditures	Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	Quantitative	~~Million barrels (MMbbls)~~, ~~Million standard cubic feet (MMscf)~~ Million barrels (MMbbls), Mega standard cubic meters (MSm^3)	EM-EP-420a.1
	Estimated carbon dioxide emissionsembedded in proved hydrocarbon reserves	Quantitative	Metric tons (t) CO_2-e	EM-EP-420a.2
	Amount invested in renewable energy, revenue generated by renewable energy sales	Quantitative	Reporting currency	EM-EP-420a.3
	Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	Discussion and Analysis	n/a	EM-EP-420a.4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Production of: (1) oil, (2) natural gas, (3) synthetic oil,and (4) synthetic gas	Quantitative	Thousand barrels per day (Mbbl/ day); Million standard cubic feet perday (MMscf/ day)	EM-EP-000.A
Number of offshore sites	Quantitative	Number	EM-EP-000.B
Number of terrestrial sites	Quantitative	Number	EM-EP-000.C

＜Comments＞

	Comments
EM-EP-110a.2	“Amount of gross global Scope 1 emissions from: (1) flared hydrocar- bons, (2) other combustion, (3) processemissions, (4) other vented emissions, and (5) fugitive emissions” The above and methane emissions are currently in the process of being voluntarily reduced on a global basis, and their content is still under consideration and has not yet been established. Therefore, it is not appropriate to establish a disclosure item and make it mandatory, and this item should be deleted because it is not appropriate as an international standard.
EM-EP-110a.2	Table 1.－Greenhouse Gas Emissions “(1) flared hydrocar- bons, (2) other combustion, (3) processemissions, (4) other vented emissions, and (5) fugitive emissions” The global Scope 1 emissions and methane emissions resulting from (1) through (5) above are currently being voluntarily reduced on a global scale, and the details are still under consideration and have not yet been established. Therefore, it is not appropriate to set a disclosure item and make it mandatory. Even if a uniform disclosure requirement were imposed, it would be difficult to immediately disclose the information, so this item is not appropriate as an international standard and should be deleted.
EM-EP-000.A	For synthetic oil and synthetic gas production, there is still no unified standard or approach for production methods and MRV (Measurement, Reporting and Verification), and accurate comparisons may not be possible. Therefore, even if a uniform disclosure obligation is imposed, it would be difficult to immediately disclose such information, and therefore, it is not appropriate as an international standard. It should be excluded from the metrics.
EM-EP-000.A	Table 2.－(3) synthetic oil, and (4) synthetic gas For synthetic oil and synthetic gas production, there is still no unified standard or approach for production methods and MRV (Measurement, Reporting and Verification), and accurate comparisons may not be possible. Therefore, even if a uniform disclosure obligation is imposed, it would be difficult to immediately disclose such information, and therefore, it is not appropriate as an international standard. It should be excluded from the metrics.

Oil & Gas – Refining & Marketing

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	EM-RM-110a.1
	Discussion of long-term and short-termstrategy or plan to manage Scope 1 emissions, emissions reduction targets,and an analysis of performance againstthose targets	Discussion and Analysis	n/a	EM-RM-110a.2
Water Management	(1) Total fresh water withdrawn, (2) percentage recycled, (3) percentagein regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	EM-RM-140a.1
Product Specifications & Clean Fuel Blends	Total addressable market and share ofmarket for advanced biofuels and associated infrastructure	Quantitative	Reporting currency, Percentage(%)	EM-RM-410a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Refining throughput of crude oil and other feedstocks [15]	Quantitative	Barrels of oil equivalent (BOE)	EM-RM-000.A

＜Comments＞

	Comments
General Comments	Refiners and primary distributors in Japan are mainly categorized to "Oil & Gas - Refining & Marketing", but there may be cases where the companies are also related to "Oil & Gas - Services", "Oil & Gas - Midstream", and "Oil & Gas - Exploration & Production", and they may operate as a group of companies active in each industry. If all of the indicators related to these multiple industries were to be disclosed comprehensively, it would place a considerable burden on the company, and it may be difficult to handle.
General Comments	In the case where a company is mainly engaged in the refining business, but manages the chemical business together with the refining business at its refinery, we request that only items that can be clearly distinguished from the refining business be required to be disclosed among the items presented in the "CHEMICALS" section.

EM-RM-410a.2	The draft calls for quantification of "Total addressable market and share of market for advanced biofuels and associated infrastructure". However, even if the company's own sales volume can be ascertained, the market for advanced biofuels, which is used as a benchmark, is itself immature, making it difficult to calculate the market size and market share.
EM-RM-410a.2	Regarding the definition of biofuel, there is a difference in the definition of biofuels between the two industry standards, "RR-BI-410a.1" of "B40 Biofuel" and "EM-RM-410a.2" of "B13 Oil & Gas - Refining & Marketing", so the definitions should be harmonized. In addition, under Japanese law (Act on Sophisticated Methods of Energy Supply Structures), "those produced using cellulosic feedstock or carbon recycling technology" is defined as advanced biofuels, which differs from the definitions of the B13 (Oil & Gas - Refining & Marketing) and B40 (Biofuel) standards. We request to define “biofuel” to be acceptable to countrie's situation that is faced.

FINANCIALS SECTOR

Asset Management & Custody Activities

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Incorporationof Environ- mental, Social, and Governance Factors in Investment Management& Advisory	Amount of assets under management, by asset class, that employ (1) integra- tion of environmental, social, and governance (ESG) issues, (2) sustaina-bility themed investing, and (3) screen- ing	Quantitative	Reporting currency	FN-AC-410a.1
	Description of approach to incorporationof environmental, social, and governance (ESG) factors in investmentand/or wealth management processes and strategies	Discussion and Analysis	n/a	FN-AC-410a.2
	Description of proxy voting and investee engagement policies and procedures	Discussion and Analysis	n/a	FN-AC-410a.3
Transition Risk Exposure	Percentage of total assets under management (AUM) included in the financed emissions calculation	Quantitative	Percentage (%)	FN-AC-1
	(1) Absolute gross (a) Scope 1 emissions, (b) Scope 2 emissions, and (c) Scope 3 emissions, and (2) associ- ated amount of total AUM (i.e., financed emissions)	Quantitative	Metric tons (t) CO_2-e, Presentation currency	FN-AC-2
	(1) Gross emissions intensity by (a)Scope 1 emissions, (b) Scope 2 emissions, and (c) Scope 3 emissions, and (2) associated amount of total AUM (i.e., financed emissions)	Quantitative	Metric tons (t) CO_2-e per unit of economic output, Presentation currency	FN-AC-3
	Description of the methodology used to calculate financed emissions	Discussion and Analysis	n/a	FN-AC-4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
~~(1)~~ Total ~~registered and (2) total unregistered~~ assetsunder management (AUM) [19]	Quantitative	Presentation currency	FN-AC-000.A
Total assets under custody and supervision	Quantitative	Presentation currency	FN-AC-000.B

＜Comments＞

	Comments
FN-AC-410a.1	With regard to “Amount of assets under management, by asset class, that employ (1) integration of environmental, social, and governance (ESG) issues, (2) sustainability themed investing, and (3) screening”, although quantitative disclosure is required, it does not necessarily have to be on a monetary basis. Also, it may not be necessary to require disclosure of all items. Even if quantitative disclosure is required, requiring third-party certification would be an excessive burden to deal with, and therefore, flexible management is necessary.
FN-AC-410a.1	With regard to “Amount of assets under management, by asset class, that employ (1) integration of environmental, social, and governance (ESG) issues, (2) sustainability themed investing, and (3) screening”, why is it ESG despite the climate-related disclosure standard?
FN-AC-410a.1	ESG integration and screening criteria vary from one investment management company to another. Without determining some criteria, quantitative disclosure may be difficult. It is difficult to believe that institutional investors are operating without any consideration of ESG issues, and it is doubtful that these figures can be used as accounting metrics, given that it is possible for them to claim that they are all operating with ESG integration.
FN-AC-410a.1、FN-AC-410a.2、FN-AC-410a.3	Since these are industry-based metrics for climate-related disclosures, we do not believe it is necessary to prescribe general ESG investment-related disclosures such as those in FN-AC-410a in ISRS-S2. We suggest that the content should be limited to climate-related and specify disclosures on investment approaches, voting and engagement policies, etc.

Commercial Banks

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Incorporation of Environmental, Social, and Governance Factors in Credit Analysis	Description of approach to incorporation of environmental, social, and governance (ESG) factors in credit analysis	Discussion and Analysis	n/a	FN-CB-410a.2
Transition Risk Exposure	(1) Gross exposure to carbon-related industries, by industry, (2) total gross exposure to all industries, and (3) percentage of total gross exposure for each carbon-related industry	Quantitative	Presentation currency, Percentage %	FN-CB-1
	Percentage of gross exposure included in the financed emissions calculation	Quantitative	Percentage %	FN-CB-2
	For each industry by asset class: (1) absolute gross (a) Scope 1 emissions, (b) Scope 2 emissions, (c) Scope 3 emissions and (2) gross exposure (i.e., financed emissions)	Quantitative	Metric tons (t) CO_2-e, Presentation currency	FN-CB-3
	For each industry by asset class: (1) gross emissions intensity by (a) Scope 1 emissions, (b) Scope 2 emissions, and (c) Scope 3 emissions, and (2) gross exposure (i.e., financed emissions)	Quantitative	Metric tons (t) CO_2-e per unit of physical or economic output, Presentation currency	FN-CB-4
	Description of the methodology used to calculate financed emissions	Discussion and Analysis	n/a	FN-CB-5

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
(1) Number and (2) value of checking and savingsaccounts by segment: (a) personal and (b) small business	Quantitative	Number, Presentation currency	FN-CB-000.A
(1) Number and (2) value of loans by segment: (a)personal, (b) small business, and (c) corporate [20]	Quantitative	Number, Presentation currency	FN-CB-000.B

＜Comments＞

	Comments
General Comments	Regarding “Commercial Banks”, the TCFD proposal states that in addition to the amount and percentage of carbon-related assets in total assets, the amount of investments, loans, etc. related to climate-related opportunities should also be disclosed, but here only credit analysis is covered. Is it necessary to disclose metrics following this point? (“Insurance” requires disclosure of exposure to environmental risks as in TCFD.) We believe that this needs to be sorted out, along with the concept of companies with multiple lines of business.

Insurance

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Incorporation of Environ-mental, Social, and Governance Factors in Investment Management	Description of approach to incorporation of environmental, social, and governance (ESG) factors in investment management processes and strategies	Discussion and Analysis	n/a	FN-IN-410a.2
Policies Designed to Incentivize Responsible Behavior	Net premiums written related to energy efficiency and low carbon technology	Quantitative	Reporting currency	FN-IN-410b.1
	Discussion of products and/or product features that incentivize health, safety, and/or environmentally responsible actions and/or behaviors	Discussion and Analysis	n/a	FN-IN-410b.2
	Probable Maximum Loss (PML) of insured products from weather-related natural catastrophes [21]	Quantitative	Reporting currency	FN-IN-450a.1
~~Environmental~~ Physical Risk Exposure	Total amount of monetary losses attrib-utable to insurance payouts from (1) modeled natural catastrophes and (2) non-modeled natural catastrophes, by type of event and geographic segment (net and gross of reinsurance) [22]	Quantitative	Reporting currency	FN-IN-450a.2
	Description of approach to incorporation of environmental risks into (1) the underwriting process for individual contracts and (2) the management of firm-level risks and capital adequacy	Discussion and Analysis	n/a	FN-IN-450a.3
	(1) Gross exposure to carbon-related industries, by industry (2) total gross exposure to all industries, and (3) percentage of total gross exposure to each carbon-related industry	Quantitative	Presentation currency, Percentage %	FN-IN-1

Transition Risk Exposure	Percentage of gross exposure included in the financed emissions calculation	Quantitative	Percentage %	FN-IN-2
	For each industry by asset class:(1) absolute gross (a) Scope 1 emissions, (b) Scope 2 emissions, and (c) Scope 3 emissions, and (2) gross exposure (i.e., financed emissions)	Quantitative	Metric tons (t)CO_2-e, Presentation currency	FN-IN-3
	For each industry by asset class: (1) gross emissions intensity of (a) Scope 1 emissions, (b) Scope 2 emissions, and (c) Scope 3 emissions, and (2) gross exposure (i.e., financed emissions)	Quantitative	Metric tons (t)CO_2-e per unit of physical or economic output	FN-IN-4
	Description of the methodology used to calculate financed emissions	Discussion and Analysis	n/a	FN-IN-5

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of policies in force, by segment: (1) property andcasualty, (2) life, (3) assumed reinsurance [23]	Quantitative	Number	FN-IN-000.A

＜Comments＞

	Comments
General Comments	Since these industry-based metrics adopts the SASB standards almost verbatim, we believe that focusing and organizing it from the following perspectives will help reduce the burden on each company and make the content more reader-friendly. ・ The "incorporation of ESG factors into investment management" and "policies to incentivize responsible behavior" should focus more on climate change-related issues, since the focus is not necessarily on climate change, but rather on a wide range of "ESG" issues. ・ "Net premiums written related to energy efficiency and low-carbon technologies", "PML", etc., as we believe that some of these items are dependent on the non-life insurance industry. Therefore, the indicator for the life insurance industry should be clearly indicated. Or, the current metrics should be clearly indicated as "specifically for the non-life insurance industry" or similar. It would be easier for companies to proceed if they could start with the core company and

	other companies that can handle the situation, starting with total investment assets by industry and asset class.
General Comments	・ Industry-based metrics are based on the SASB's insurance sector standards, but some of the referenced classification system and laws and regulations are the same as those in the U.S., which may make it difficult to apply them to countries and regions outside of the U.S. ・ Unlike U.S. GAAP, which prescribes specific industries and products in detail, IFRS is comprehensive and conceptual in nature. Therefore, if the ISSB sustainability disclosure standard is to be a globally uniform standard, it should be a principles-based standard that can be used under all regulations and business practices. ・ While we agree that the ISSB's sustainability standards provide a global baseline, we believe that the proposed standards are not consistent with the intent of a global baseline, because the items which entities are required to disclose are detailed and extremely numerous.
General Comments	In particular, there are many detailed and prescriptive descriptions in the industry-specific indicators. Unlike the SASB, whose application is voluntary, we believe that the ISSB, which basically requires disclosure, needs to set standards that take into account the disclosure burden on and feasibility for companies. We request that consideration be given to setting a transition period after the introduction of this standard, such as making disclosure a non-binding obligation, instead of making it mandatory.
General Comments	The following three points should be prioritized for consideration, as they have a very large impact when this standard is adopted. ① With regard to disclosures of PML (gross and net, and multiple disclosures), as well as those of insurance payouts, insurance companies purchase reinsurance to maintain soundness, a stable balance between income and expenditure, and efficiency. The difference between gross and net is indicative of the insurance company's reinsurance arrangements, and multiple disclosures are indicative of its reinsurance arrangement status. Such disclosures are likely to hinder continued and sound reinsurance arrangements. For example, possible negative consequences could include a rise in reinsurance and insurance premiums, and a growing call from investors seeking short-term profits for a reduction in the amount of reinsurance. Similarly, disclosing insurance payouts could have a negative impact on the insurance company's soundness, etc. ② As for disclosure of the actual amount of premiums written, in order to enhance comparability, it is necessary to allow ratio-based disclosures, which are more comparable and in line with the TCFD recommendations. When disclosing the actual amount of premiums written, it is assumed that customers may be concentrated in certain companies with a relatively large volume, which could have a negative impact on the provision of stable insurance capacity. ③ The document basically suggests application of North American standards, referencing the SASB standards. For global use, it should be mainly based on international standards/practices.
Industry	The "Note" of this section indicates a reference to the SASB Managed Care Industry Standard

Description	(for insurance companies offering health insurance). This annotation appears to be based on the U.S. healthcare system. To be part of an international standard, the annotation should be deleted, and the definition clarified in the Managed Care industry-based disclosure requirements.
FN-IN-410a.2 9	This will impose an excessive workload on entities. In addition, "Federal Reserve policy" in 9.3 should be changed to "monetary policies",etc.
FN-IN-410a.2	The scope of this section is expanded beyond climate change to include ESG investing, and it requires entities to disclose related approaches and organizational responses. It is necessary to allow a certain degree of flexibility for entities in accordance with their actual situation (human resources, data availability, etc.). Therefore, it is desirable to change the disclosure requirements ("shall") to recommendations or examples.
FN-IN-410a.2	This item also covers social and governance factors, which may be inconsistent with the theme of climate-related disclosure. A rational explanation for covering non-climate-related factors would be necessary.
FN-IN-410a.2 1.1	While aligning the definition of incorporation of ESG factors with that of the GSIA is required, it is unclear what exactly this is supposed to indicate. When making this a disclosure requirement, the level of incorporation and the granularity of classification should be defined in consideration of feasibility and the burden on entities.
FN-IN-410a.2 1.2	The PRI is referenced as ESG factors/issues, but the link is broken and we cannot see examples of the factors.
FN-IN-410a.2 2	The scope of "regulatory requirements" should be clarified (only hard laws, or both hard and soft laws).
FN-IN-410a.2 6.1	Scenario analysis and/or modeling disclosure should be "voluntary" for the time being. In particular, consideration should be given to the current difficulties in (quantitatively) analyzing the impact of human capital risks on an entity's portfolio. In addition, as it is inappropriate to include cybersecurity risks in ESG factors alongside climate change and natural resource constraints, "cybersecurity risks" should be deleted.
FN-IN-410a.2 9.3	This will impose an excessive workload on entities. In addition, "Federal Reserve policy" in 9.3 should be changed to "monetary policies", etc.
FN-IN-410a.2	We believe that definitions should be provided for "Criteria used in assessing the quality of ESG incorporation" (FN-IN-410a.2 (5.1.3)), "scenario analysis and/or modeling in which the risk profile of future ESG factors at the portfolio level is calculated" (FN-IN-410a.2 (6)), etc.
FN-IN-410b.1	In light of the content of the case study, we request that the scope of coverage be reexamined, as the description is intended to cover the non-life insurance segment. Inefficient responses and disclosures in the life insurance segment, which has a smaller impact, should be avoided.
FN-IN-410b.1	Regarding "Net premiums written related to energy efficiency and low carbon technology," this should be explicitly clarified because property/casualty insurance and life insurance have different business and impact when it comes to Insurance.
FN-IN-410b.1	It is difficult to present "energy efficiency and low carbon technology" quantitatively in an internationally comparable manner because there is no globally agreed definition, and the status of each country varies according to its energy situation. Rather than presenting it quantitatively, it

	would be preferable to present approaches to the promotion of "energy efficiency and low carbon technology" in each country where the insurance company operates.
FN-IN-410b.2	This item also covers health and safety insurance, which is inconsistent with the theme of climate-related disclosures. We believe that a reasonable explanation for covering non-climate-related items is necessary. In addition, the life insurance segment is included in the scope of this item, but if only the environment is covered, the non-life insurance segment would be included in the scope of this item, in light of the content of the case study. Inefficient response and disclosure in the life insurance segment, which has a smaller impact, should be avoided.
FN-IN-410b.2 (P.161～)	・ While the scope of this section is expanded beyond climate change to include ESG investing, the scope of the requirements should be related to climate change. Accordingly, the scope of this section should be limited to climate change. ・ As for disclosure of the actual amount of premiums written, in order to enhance comparability, it is necessary to allow ratio-based disclosures, which are more comparable and in line with the TCFD recommendations. When disclosing the actual amount of premiums written, it is assumed that customers may be concentrated in certain companies with a relatively large volume, which could have a negative impact on the provision of stable insurance capacity. We request that Paragraphs 2 and 3 of FN-IN-410b.2 be deleted because they contain non-climate-related items.
FN-IN-410b.1、 FN-IN-410b.2	Similar to the TCFD recommendations, we believe it is necessary to allow ratio-based disclosure to enhance comparability.
FN-IN-450a.1	We believe that requiring detailed PML disclosure should be avoided in light of the disclosure burden on companies, feasibility, and the impact on competitive strategies. Even if the disclosure is required, we believe it is appropriate to limit the disclosure to the net PML (after deduction of reinsurance, as described in in Paragraph 4), for perils which are significantly affected by climate change.
FN-IN-450a.1	As tsunamis are not related to climate change, it is inappropriate to include them in the scope.
FN-IN-450a.1	In Japan, PML is calculated for a measurement period of one year, but future climate change factors are not considered. Therefore, if FN-IN-450a.1. indicates calculation of PML at a certain point in the future, it would be impossible to implement such requirements.
FN-IN-450a.2	Even with the same "Insurance", the impact of environmental risk is clearly different between "non-life insurance" and "life insurance", and this should be explicitly sorted out.
FN-IN-450a.2	Similar to our comments on "FN-IN-450a.1", given the disclosure burden on entities, feasibility, and the impact on competition strategies, detailed disclosure of the actual amount of losses due to past natural peril catastrophe events should not be required. Even if the disclosure is required, we believe it is appropriate to limit the disclosure to the annual aggregate losses due to perils with significant climate change impact, net of reinsurance (as described in Paragraph 6).
FN-IN-450a.1、 FN-IN-450a.2	・ Given the negative impact on the soundness of insurance provision and reinsurance arrangements, neither PML nor insurance payout information are suitable for disclosure.

	・ It is appropriate to develop and implement standards that allow for the disclosure of assets, lines of businesses, etc. which reflect the individual circumstances of the insurance company's business model, sales policies, as well as optimization of the balance between income and expenditure.
FN-IN-450a.1、 FN-IN-450a.2	Although U.S. standards are referenced, it is assumed that there will be insufficient access to and understanding of such standards from outside the U.S. Therefore, we believe it is necessary to develop separate international standards.
FN-IN-450a.1、 FN-IN-450a.2	Compared to the non-life insurance segment, it is difficult to reasonably measure the direct impact on the life insurance segment (e.g., there is no established analysis method), and therefore, the scope of coverage should be specified for the non-life insurance segment.
FN-IN-450a.1、 FN-IN-450a.2	We request that the quantitative impact of natural disasters and the expected maximum loss rate be clearly defined and measured.
FN-IN-450a.3	Cases that do not need to be considered in the first place, such as when it has been confirmed that there is no significant impact, should be made sufficient by stating so.
FN-IN-450a.3	It would be less confusing to merge this with "FN-IN-450a.2".
FN-IN-450a.1、 FN-IN-450a.2、 FN-IN-450a.3	Assessments that incorporate the impact of climate change (as described in "FN-IN-450a.1", "Note to FN-IN-450a.2", and "FN-IN-450a.3") are being undertaken by entities based on TCFD recommendations. At present, it is important to make disclosures in line with the TCFD recommendations “voluntary".
FN-IN-450a.1 FN-IN-450a.2 FN-IN-450a.3	・ With regard to large-scale natural catastrophe risk, etc., measurement should take into account the segregation of life and non-life insurance and reinsurance by industry and the characteristics of each type of business and product, as well as the characteristics of each industry and region. ・ In general, life insurance has a lower level of major natural catastrophe risk than non-life insurance or reinsurance, and care should be taken to ensure that uniform standards and rules are not applied to this risk as insurance.
FN-IN-1	“The scope of disclosure includes but is not limited to loans, project finance, bonds, equity investments and derivatives.” Regarding the above statement, it is premature to include loans and project financing. The “NZAOA” has not included them in the target due to the fact that the calculation method has not been established. Even if they are to be included, if there is a reasonable reason, such as the calculation method has not been established, it should be stated as such.
FN-IN-1 (P.168～)	・ Regarding disclosure of absolute exposure to each industry and percentage of total gross exposure to each carbon-related industry, as entire societies are in transition, disclosure that focuses on specific industries may lead to requests for divestment. It is necessary to respond in a way that does not send wrong messages to the market. ・ Disclosures regarding loans, etc. are required ("The scope of disclosure includes but is not limited to loans, project finance, bonds, equity investments and derivatives"). This description is the same as the requirements for commercial banks, but the explanation and

	metrics are inappropriate for the insurance industry. The requirements should be set based on the characteristics of the industry.
FN-IN-1 (P.168～)	There are differences among investees in terms of the state of disclosure of their GHG emissions, which insurance companies are required to disclose as part of their transition risk exposure. In addition, the level of disclosure by investees is expected to improve. In view of disclosure consistency and accuracy, relief measures or easing of the requirements should be ensured (for example, by allowing entities to take a phased approach and begin with GHG emissions disclosures for asset classes and industries that they have been able to calculate).
FN-IN-1 1(P.168)	In a transitional period when companies are not yet measuring and disclosing their GHG emissions, the use of "shall" should be avoided and the expression weakened.
FN-IN-1 1(P.168)	With regard to disclosures by industry, the actual situation, future development, etc. of financial markets should also be considered. For example, if an electricity company issues green bonds, the disclosure of the gross exposure would result in treating straight bonds and green bonds in the same category. This would not allow for a proper assessment of investment in green bonds, and could mislead stakeholders. In this case, the energy situation in each country should also be considered to ensure comparability.
FN-IN-1 4(P.169)	As derivatives' underlying assets are highly diversified, the scope of derivative transactions should be clarified. In addition, the calculation of financed emissions for derivatives needs to be defined (for example, which entity needs to calculate GHG emissions for index derivatives).
FN-IN-3 1(P.170)	Scope 3 emissions can only be ascertained through data provided by third parties, and often have to depend on estimates. Therefore, we would appreciate careful discussion on the disclosure of Scope 3 emissions, particularly if making it compulsory is to be considered. In addition to data quality and availability, the challenges of so-called double counting (between financial institutions that provide services and execute investments and loans to the same company upstream and downstream in the value chain), etc. should be examined.
FN-IN-3 FN-IN-4	In the calculation of Category 15, it is premature to include even Scope 3 of the investment destination as financed emission, as the discussion has not yet reached a conclusion even on a global basis.
FN-IN-3 FN-IN-4	The GHG emissions of investee companies, which is a disclosure requirement for transition risk in the insurance industry, may vary in disclosure status among investee companies and the level of disclosure by companies may improve in the future. From the perspective of continuity and accuracy of disclosure, mitigation or relief measures, such as disclosure from asset classes or industries that could be measured, should be allowed.
FN-IN-5 1.4(P.173)	As it is still premature to introduce data verification regarding disclosure, "shall" sounds too strong. It needs to be changed to "may", etc.
FN-IN-2(P.169~) FN-IN-3(P.170~) FN-IN-4(P.171~) FN-IN-5 (P.173~)	・ There are differences among investees in terms of the state of disclosure of their GHG emissions, which insurance companies are required to disclose as part of their transition risk exposure. In addition, the level of disclosure by investees is expected to improve. In view of disclosure consistency and accuracy, relief measures or easing of requirements should be

	ensured (for example, by allowing entities to take a phased approach and begin with GHG emissions disclosures for asset classes and industries that they have been able to calculate). ・ An explanation is needed on how to deal with the fact that financed emissions are disclosed later than other disclosure items. As financed emissions are calculated based on an investee's GHG emissions, disclosure of the investee's emissions needs to be made first.
FN-IN-000.A	Currently, it is based on the number of insurance policies, but it would be easier to promote it within each company if the number of policies, amount of policies in force, customers, etc., could be tailored to allow business operators to choose. On the other hand, it seems strange to require disclosure of the metric in the proposed climate-related disclosure standards, which focus on climate change (this is also a side effect of adopting the SASB standards as they are).
FN-IN-000.A	"Number of policies" is not suitable for inclusion in Activity Metrics. There are problems such as how to count treaty reinsurance policies.

Investment Banking & Brokerage

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Incorporationof Environ- mental, Social, and Governance Factors in Investment Banking & Brokerage Activities	Revenue from (1) underwriting, (2) advisory, and (3) securitization transactions incorporating integration ofenvironmental, social, and governance (ESG) factors, by industry	Quantitative	Reporting currency	FN-IB-410a.1
	(1) Number and (2) total value of invest-ments and loans incorporating integra- tion of environmental, social, and governance (ESG) factors, by industry	Quantitative	Number, Reporting currency	FN-IB-410a.2
	Description of approach to incorporationof environmental, social, and governance (ESG) factors in investmentbanking and brokerage activities	Discussion and Analysis	n/a	FN-IB-410a.3
Transition Risk Exposure	For each key business line by industry:(1) absolute gross (a) Scope 1 emissions, (b) Scope 2 emissions and (c) Scope 3 emissions, and (2) associ- ated revenue (i.e., facilitated emissions)	Quantitative	Metric tons (t) CO_2-e, Presentation currency	FN-IB-1
	Description of the methodology used to calculate facilitated emissions	Discussion and Analysis	n/a	FN-IB-2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
(1) Number and (2) value of (a) underwriting, (b) adviso-ry, and (c) securitization transactions [24]	Quantitative	Number, Presentation currency	FN-IB-000.A
(1) Number and (2) value of proprietary investments andloans by sector [25]	Quantitative	Number, Presentation currency	FN-IB-000.B
(1) Number and (2) value of market making transactionsin (a) fixed income, (b) equity, (c) currency, (d) deriva- tives, and (e) commodity products	Quantitative	Number, Presentation	FN-IB-000.C

		currency	

＜Comments＞

	Comments
FN-IB-410a.1 FN-IB-410a.2	Is ESG acceptable despite the climate-related disclosure standard？
FN-IB-410a.1 1.1	“may include screening” adds to this complexity, with a suggestion that a bank that screens all transactions could be representing its business as 100% ESG.
FN-IB-410a.1 2.3	For listed and unlisted securities related to securitized products that are underlining assets and are marked with a security code or ISIN code, we would like to see a unified flag for ESG-related securities across the industry, rather than individual companies making their own decisions.(ex: Green Bonds, etc.)
FN-IB-410a. 1 2.3	In relation to securitization products, we would like to see a policy that allows for the aggregation and disclosure of selected materiality for the purpose of this disclosure. We would like clarification on whether it is acceptable to cover primary compositions and exclude secondary transactions.
FN-IB-410a. 1 3 FN-IB-410a. 2 5	It is stated that quantitative metrics should be broken down and presented by industry, but it requires considerable effort to break them down to the 3-digit NAICS base. Either industry-based disclosure in the management view should be allowed in accordance with the actual situation within each company, or, if NAICS or common codes are used, they should be presented at a high-level stage.
FN-IB-410a.3	links this characteristic to fund management attributes (GSIA / PRI), rather than taxonomies, ICMA principles or PRB standards.
FN-IB-000.c	For market making transactions, we believe that the practical limit is to aggregate executed transactions.

Mortgage Finance

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Environmental Risk to Mortgaged Properties	(1) Number and (2) value of mortgage loans in 100-year flood zones	Quantitative	Number, Reporting currency	FN-MF-450a.1
	(1) Total expected loss and (2) Loss Given Default (LGD) attributable to mortgage loan default and delinquency due to weather-related natural catastro-phes, by geographic region	Quantitative	Reporting currency, Percentage(%)	FN-MF-450a.2
	Description of how climate change and other environmental risks are incorpora-ted into mortgage origination and underwriting	Discussion and Analysis	n/a	FN-MF-450a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
(1) Number and (2) value of mortgages originated by category: (a) residential and (b) commercial	Quantitative	Number, Reporting currency	FN-MF-000.A
(1) Number and (2) value of mortgages purchased by category: (a) residential and (b) commercial	Quantitative	Number, Reporting currency	FN-MF-000.B

＜Comments＞

	Comments
General Comments	Incorporation of E, S, and G Factors (Appendix B P175-180) "Incorporating ESG factors" is a broad term that we believe not only lacks comparability but also creates the risk of greenwashing. If the definition cannot be clearly defined, we propose to delete the relevant section.
General Comments	Please indicate if the scope of this project includes not only mortgage banks, but also general mortgages and other loans from commercial banks.
General Comments	We would like to request that the definitions of default and recovery rates, etc., be clearly defined.
FN-IB-410a.1	We believe the purpose of "may include screening" adds complexity. It reads like a process of

1.1	scrutinizing all transactions of the company being evaluated to ensure that it is a 100% ESG business.
FN-IB-410a.1 2.3	・ For listed and unlisted securities related to securitized products that are underlining assets and are marked with a security code or ISIN code, we would like to see a unified flag for ESG-related securities across the industry, rather than individual companies making their own decisions.(ex: Green Bonds, etc.) ・ In relation to securitized products, we would like to see a permissible policy of aggregation and disclosure of selected items that are material for the purposes of this disclosure. ・ We would like clarification on whether it is acceptable to cover primary compositions and exclude secondary transactions.
FN-IB-410a.3	While this document references initiatives related to the asset management business (GSIA and PRI), we believe that the taxonomy, ICMA, and PRB should also be referenced.
FN-IB-000.C	Regarding market making transactions, we believe that the practical limit is to aggregate transactions that have been executed. In addition, these items are not considered to be sustainability-related data, and it is difficult to believe that they would contribute to enhanced disclosure from an ESG perspective.

FOOD & BEVERAGE SECTOR

Agricultural Products

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO_2-e	FB-AG-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	FB-AG-110a.2
	Fleet fuel consumed, percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	FB-AG-110a.3
Energy Management	(1) Operational energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	FB-AG-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	FB-AG-140a.1
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	FB-AG-140a.2
	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regula- tions	Quantitative	Number	FB-AG-140a.3
Ingredient Sourcing	Identification of principal crops and description of risks and opportunities presented by climate change	Discussion and Analysis	n/a	FB-AG-440a.1
	Percentage of agricultural products sourced from regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage (%) by cost	FB-AG-440a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE
Production by principal crop [26]	Quantitative	Metric tons (t)
Number of processing facilities [27]	Quantitative	Number
Total land area under active production	Quantitative	Hectares
Cost of agricultural products sourced externally [28]	Quantitative	Reporting currency

＜Comments＞

	Comments
General Comments	Many indicators are considered difficult to report by small- and medium-scale producers. If the disclosure standard extends to Scope 3, companies whose business partners include small- and medium-scale producers may not be able to disclose accurate information or may incur significant time, effort, and cost in preparing reports. Therefore, disclosure should be limited to Scope 1 or 2.
General Comments	Some items require disclosure of information on business partners, but accurate information sometimes cannot be obtained due to their forms or policies. Therefore, it would be better to describe in each item what to do if the information cannot be obtained, as in paragraph 4 on page 202.
General Comments	This item would include processing of agricultural products, on the other hand, we also find a separate item for processed food manufacturing. It is difficult to understand how this is organized.
FB-AG-110a.1 1.2 (p190)	Agriculture absorbs carbon in the production activities themselves, such as the use of compost and growing plants. Therefore, in order to evaluate the environmental impact, it may be necessary to present not only the total amount of emissions but also the amount of absorption.
FB-AG-110a.3. 2.1.2 (p193)	Since here is a vehicle fuel item, the statement "heating oil" is not necessary.
FB-AG-130a.1 2、3 p194	(2) The intention of showing the percentage of grid electricity is unclear. Regarding the percentage of renewable energy in (3), the superiority of electricity and other energy sources is considered to vary depending on the available energy sources in the region, so it is considered impossible to evaluate whether this is truly leading to a reduction in environmental impact even if only the percentage is simply shown. Although qualitative, it should be evaluated what kind of renewable energies are being used based on the local conditions.
FB-AG-130a.1 3.3, 3.3.1, 3.3.2 (P195)	As proof of renewable energy, REC and GO, which are used in North America and Europe, and Green-e Energy Certified, which is certified in the United States, are listed. On the other hand, other regions such as Japan use I-REC and other certificate as its proof, so it should be clarified that REC and GO are only examples. (As in other paragraphs, "including , but not limited to" should be used.)
FB-AG-140a.1 1~6 (p196~)	We request that The definition of total water withdrawal be clarified distinguishing itself from total water consumption.

FB-AG-140a.1 1~6 (p196~)	We are not sure if it is significance to present absolute amounts of total water withdrawal and total water consumption, given that water conditions depend on countries and regions. The countries or regions to disclose them could be limited to those with high baseline water stress.
FB-AG-140a.1 1 (p196~)	Does the total water withdrawal include water supplied to the field by rainfall? In this case, the treatment should also be organized when large amounts of water are supplied due to events beyond the control of producers, such as typhoons and linear precipitation zones, target countries should be limited to those with high baseline water stress.
FB-MP-140a.1 3.1.1 (p196~)	We request that indicate the calculation method or indicators be indicated since ordinary producers cannot measure the amount of water vaporized within their production activities.
FB-AG-440a.2. 3 (p201)	There is some overlap between primary suppliers (Tier 1 suppliers) and supply of commodities (sourced as a commodity). For example, agricultural products are purchased directly from agricultural cooperatives or farmers who are not contract growers. The definitions should be organized to avoid confusion in calculation and publication. For example, the former if the commodity directly traded is an agricultural product, the latter if it is a processed product, etc.

Meat, Poultry & Dairy

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO_2-e	FB-MP-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	FB-MP-110a.2
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	FB-MP-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	FB-MP-140a.1
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	FB-MP-140a.2
	Number of incidents of non-compliance with water quality permits, standards, and regulations	Quantitative	Number	FB-MP-140a.3
Land Use & Ecological Impacts	Amount of animal litter and manure generated, percentage managed according to a nutrient management plan	Quantitative	Metric tons (t), Percentage (%)	FB-MP-160a.1
	Percentage of pasture and grazing land managed to ~~Natural Resources Conser- vation Service (NRCS)~~ conservation plan criteria	Quantitative	Percentage (%) by hectares	FB-MP-160a.2
	Percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage (%) by weight	FB-MP-440a.1
	Percentage of contracts with producers located in regions with High or Extreme-ly High Baseline Water Stress	Quantitative	Percentage (%) by contract value	FB-MP-440a.2

Animal & Feed Sourcing	Discussion of strategy to manage opportunities and risks to feed sourcingand livestock supply presented by climate change	Discussion and Analysis	n/a	FB-MP-440a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of processing and manufacturing facilities	Quantitative	Number	FB-MP-000.A
Animal protein production, by category; percentageoutsourced [29]	Quantitative	Various, Percentage(%)	FB-MP-000.B

＜Comments＞

	Comments
General Comments	There are many indicators which small- and medium-scale producers cannot report. If the disclosure standard extends to Scope 3, companies whose business partners include small- and medium-scale producers may not be able to disclose accurate information and may incur significant time, effort, and cost in preparing reports. Therefore, disclosure should be limited to Scope 1 or 2.
General Comments	Some items require disclosure of information on the counterparty, due to their forms or policies, companies cannot gain accurate information. Therefore, each item should include a description of what to do if the information is not obtained, as in FB-AG-440a.2, page 202, paragraph 4.
General Comments	This item seems to include processing of livestock products, but we also find a separate item for processed food manufacturing. How are these items organized?
Energy Management Topic summary (p233)	There is a statement that fuel and electricity account for a large portion of production costs, however the proportion of production costs varies by region and type of operation. Therefore, we suggest it be integrated with the preamble and stating, "Since purchased electricity and fuel are important expenses of livestock production, efficient energy consumption is necessary to maintain competitiveness." Purchased electricity is a significant operating cost for meat, poultry, and dairy companies. Efficient energy usage is essential to maintain a competitive advantage in this industry, as purchased fuels and electricity account for a significant portion of total production costs.
FB-MP-130a.1 2,3 (p233)	(2) The intent of showing the percentage of grid electricity is unclear. Regarding (3), the ratio of renewable energy to total energy, the superiority of electricity and other energy sources is considered to vary depending on the available energy sources in the region, so it is considered impossible to evaluate whether this is truly leading to a reduction in environmental impact even if only the ratio is simply shown. Although qualitative, the type of renewable energy being used should be evaluated based on the local conditions.

FB-MP-130a.1 3.3, 3.3.1, 3.3.2 (p234)	As proof of renewable energy, REC and GO, which are used in North America and Europe, and Green-e Energy Certified, which is certified in the United States, are listed. On the other hand, other regions such as Japan use I-REC and other certificate as its proof, so it should be clarified that REC and GO are only examples. (As in other paragraphs, "including , but not limited to" should be used.)
FB-MP-140a.1 1～6 (p235)	The definition of total water withdrawal is unclear. We request that it be clarified, distinguishing the difference from total water consumption.
FB-MP-140a.1 1～6 (p235)	As water conditions depend on countries and regions, and the laws and regulations are likely to differ simultaneously. What is the significance of indicating absolute amounts of total water withdrawal and total water consumption? These items should also be limited to countries with high baseline water stress.
FB-MP-140a.1 1 (p235)	Japan, where water resources are abundant, sometimes cannot accurately determine the amount of water withdrawal, for example, when water is obtained directly from wells or streams. For countries with low baseline water stress, disclosure of total water withdrawal should not be required, or even in the case of countries with low baseline water stress, disclosure should not be required for water users below a certain size.
FB-MP-140a.1 3.1.1 (p235～)	Ordinary producers cannot measure the amount of water vaporized within their production activities. We request you indicate the calculation method, indicators, etc.
Land Use & Ecological Impacts Topic Summary (P239～)	Even though CAFO is only one of the husbandry management methods practiced in some regions, it seems rough to describe it separately only for CAFO and Non-CAFO. Considering the fact that this is the beginning part of the document and that there are various methods of keeping animals in different regions, the description should be generalized rather than biased.
FB-MP-160a.1. 2.2 (p239)	Although the indicator provides examples of the minimum items that should be provided in a nutrition management plan, the items has been transferred directly from the U.S. Nutrition Management Plan. The plan should be flexible so that it can be used as an indicator for understanding the status of livestock excreta disposal in each country, where there are various regulations and feeding patterns.
FB-MP-160a.1. 3 (p240)	Although contract farmers are included in the scope of disclosure, companies would not be able to disclose information depending on the type and size of management. Contract recipients should be excluded from the scope.
FB-MP-160a.1. 3,4 (p240)	Regarding the scope of disclosure, para 3 includes facilities that otherwise supply animal protein to the entity, but para 4 only describes facilities and land related to livestock feeding. These should be consistent.
FB-MP-000.A	Matters to be entered are unclear. Definitions should be clarified as in other items.
FB-MP-000.B	Matters to be entered are unclear. Definitions should be clarified as in other items.

Non-Alcoholic Beverages

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Fleet Fuel Management	Fleet fuel consumed, percentagerenewable	Quantitative	Gigajoules (GJ), Percent-age (%)	FB-NB-110a.1
Energy Management	(1) Operational energy consumed, (2) percentage grid electricity, (3)percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	FB-NB-130a.1
Water Management	(1) Total water withdrawn, (2) total waterconsumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	FB-NB-140a.1
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	FB-NB-140a.2
Environmental& Social Impacts of Ingredient Supply Chain	Suppliers' social and environmental responsibility audit (1) non-conformancerate and (2) associated corrective actionrate for (a) major and (b) minor non- conformances	Quantitative	Rate	FB-NB-430a.1
Ingredient Sourcing	Percentage of beverage ingredients sourced from regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage(%) by cost	FB-NB-440a.1
	List of priority beverage ingredients anddescription of sourcing risks due to environmental and social considerations	Discussion and Analysis	n/a	FB-NB-440a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Volume of products sold	Quantitative	Millions of hectoliters (Mhl)	FB-NB-000.A
Number of production facilities	Quantitative	Number	FB-NB-000.B

Total fleet road miles traveled	Quantitative	Miles	FB-NB-000.C

＜Comments＞

	Comments
FB-NB-110a.1	We believe that estimating the percentage of vehicle fuel energy consumption related to renewable energy is unrealistic and burdensome. In the first place, we believe that it is sufficient to calculate the entire "Fleet Fuel Management" item together with many other energy consumption items, and it would be sufficient to include it in the "Energy Management" category. In addition, this item is not included in the "Alcoholic Beverages" indicator, and should be included with the "Alcoholic Beverages" indicator.

HEALTH CARE SECTOR

Managed Care

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Climate Change Impacts on Human Health	Discussion of the strategy to address the effects of climate change on business operations and how specificrisks presented by changes in the geographic incidence, morbidity, and mortality of illnesses and diseases areincorporated into risk models	Discussion and Analysis	n/a	HC-MC-450a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of enrollees by plan type	Quantitative	Number	HC-MC-000.A

＜Comments＞

	Comments
General Comments	Although it is positioned as an accounting indicator for the managed care industry, it is necessary to consider positioning it as an indicator for the insurance industry, since climate change impacts occur not only for health insurance products but also for protection-type insurance products, which would promote physical risk analysis in the insurance business.

Medical Equipment & Supplies

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Product Design & Lifecycle Management	Discussion of process to assess and manage environmental and human health considerations associated with chemicals in products, and meet demand for sustainable products	Discussion and Analysis	n/a	HC-MS-410a.1
	Total amount of products accepted for take-back and reused, recycled, or donated, broken down by: (1) devices and equipment and (2) supplies	Quantitative	Metric tons (t)	HC-MS-410a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of units sold by product category	Quantitative	Number	HC-MS-000.A

＜Comments＞

	Comments
HC-MS-410a.1	The relationship with climate change is unclear and not appropriate as an indicator.
HC-MS-410a.1	As for recycling, in Japan, the purchaser disposes of the product as industrial waste, so we cannot track the information. We would like the information to be compliant with the laws of each country.
HC-MS-410a.2	The relationship with climate change is unclear and not appropriate as an indicator.
HC-MS-410a.2	Although "weight of products taken-back and reused, recycled, or donated, broken down" is listed as an accounting indicator, the relationship between weight as an indicator and climate change is unclear.
HC-MS-000.A	It is necessary to clarify the product category. In addition, it is not appropriate to use a single numerical number of units as an evaluation index, unifying a wide variety of products in the same product category that differ in performance and function.
HC-MS-000.A	Although "unit sales by product category" is listed as an activity indicator, the definition of product category is ambiguous, and there are performance differences among product types, even among products of the same type. It is not appropriate to use these as a lump-sum quantity indicator for comparison.

INFRASTRUCTURE SECTOR

Electric Utilities & Power Generators

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions & Energy Resource Planning	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	IF-EU-110a.1
	Greenhouse gas (GHG) emissions associated with power deliveries	Quantitative	Metric tons (t) CO_2-e	IF-EU-110a.2
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	IF-EU-110a.3
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	IF-EU-140a.1
	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regula- tions	Quantitative	Number	IF-EU-140a.2
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	IF-EU-140a.3
End-Use Efficiency & Demand	Percentage of electric load served by smart grid technology [31]	Quantitative	Percentage (%) by megawatt hours (MWh)	IF-EU-420a.2
	Customer electricity savings from efficiency measures, by market [32]	Quantitative	Megawatt hours (MWh)	IF-EU-420a.3
Nuclear Safety & Emergency Management	Total number of nuclear power units, broken down by ~~U.S. Nuclear Regulato- ry Commission (NRC) Action Matrix Column~~ results of most recent independent safety review	Quantitative	Number	IF-EU-540a.1

	Description of efforts to manage nuclearsafety and emergency preparedness	Discussion and Analysis	n/a	IF-EU-540a.2
Grid Resilien-cy	Number of incidents of non-compliancewith physical and/or cybersecurity standards or regulations	Quantitative	Number	IF-EU-550a.1
	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index(SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days [33]	Quantitative	Minutes, Number	IF-EU-550a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of: (1) residential, (2) commercial, and (3) industrial customers served [34]	Quantitative	Number	IF-EU-000.A
Total electricity delivered to: (1) residential, (2) commer-cial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	Quantitative	Megawatt hours (MWh)	IF-EU-000.B
Length of transmission and distribution lines [35]	Quantitative	Kilometers(km)	IF-EU-000.C
Total electricity generated, percentage by major energysource, percentage in regulated markets [36]	Quantitative	Megawatt hours (MWh), Percentage (%)	IF-EU-000.D
Total wholesale electricity purchased [37]	Quantitative	Megawatt hours (MWh)	IF-EU-000.E

＜Comments＞

	Comments
IF-EU-420a.3	“Customer power savings from efficiency measures by market“ should be deleted. (Reason) There are numerous patterns of energy conservation in the supply area, including proposals from electric utilities, dissemination and educational activities, as well as the introduction and electrification of energy-saving equipment. It is technically difficult for electric utilities to aggregate actual results/estimate these details and quantities by market with reasonable

	accuracy.
IF-EU-550a.1	“Number of incidents of non-compliancewith physical and/or cybersecurity standards or regulations”should be deleted. (Reason) Because the disclosure of this information may assist in the extraction of targets for cyber-attacks, which may result in disruptions to the stable supply.
IF-EU-000.A	”Number of: (1) residential, (2) commercial, and(3) industrial customers served”should be deleted. Because by showing the number of customers, there is a risk that competitors may analogize the status of the company's sales activities based on fluctuations over time and other factors.
IF-EU-000.E	Indicating “Total wholesale electricity purchased” already discloses the amount of wholesale electricity purchased, which leads to the disclosure of procurement unit prices and risks being disadvantageous in procurement negotiations. Thus, we are concerned about adverse effects on competition, and therefore, the item should be deleted.

Engineering & Construction Services

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Environmental Impacts of Project Development	Number of incidents of non-compliance with environmental permits, standards, and regulations	Quantitative	Number	IF-EN-160a.1
	Discussion of processes to assess and manage environmental risks associated with project design, siting, and construc-tion	Discussion and Analysis	n/a	IF-EN-160a.2
Structural Integrity & Safety	Amount of defect- and safety-relatedrework costs	Quantitative	Reporting currency	IF-EN-250a.1
	Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents [38]	Quantitative	Reporting currency	IF-EN-250a.2
Lifecycle Impacts of Buildings & Infrastructure	Number of (1) commissioned projects certified to a third-party multi-attributesustainability standard and (2) active projects seeking such certification	Quantitative	Number	IF-EN-410a.1
	Discussion of process to incorporate operational-phase energy and water efficiency considerations into project planning and design	Discussion and Analysis	n/a	IF-EN-410a.2
Climate Impacts of Business Mix	Amount of backlog for (1) hydrocarbon-related projects and (2) renewable energy projects	Quantitative	Reporting currency	IF-EN-410b.1
	Amount of backlog cancellations associ-ated with hydrocarbon-related projects	Quantitative	Reporting currency	IF-EN-410b.2
	Amount of backlog for non-energy projects associated with climate changemitigation	Quantitative	Reporting currency	IF-EN-410b.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of active projects [39]	Quantitative	Number	IF-EN-000.A

Number of commissioned projects [40]	Quantitative	Number	IF-EN-000.B
Total backlog [41]	Quantitative	Reporting currency	IF-EN-000.C

＜Comments＞

	Comments
General Comments	The metrics that listed in below are not acceptable to disclose because it is difficult to identify quantitative measurement method, objective criteria and definition. ・ Number of incidents of non-compliancewith environmental permits, standards, and regulations（IF-EN-160a.1） ・ Amount of defect- and safety-relatedrework costs（IF-EN-250a.1） ・ Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents（IF-EN-250a.2） ・ Number of (1) commissioned projectscertified to a third-party multi-attribute sustainability standard and (2) active projects seeking such certification（IF-EN-410a.1）Amount of backlog cancellations associated with hydrocarbon-related projects（IF-EN-410b.2）
IF-EN-160a.1 IF-EN-160a.2	1. <u>Environmental Impacts of Project Development</u> 【Proposal】 We proposal to delete the disclosure topic “Environmental Impacts of Project Development” and related rules on “Engineering & Construction Services” 【Reason of proposal】 ISSB references Disclosure topic of SASB standards to Appendix.B of ISSB S2 standards. On the other hand, original SASB standard explains that “Environmental Impacts of Project Development” topic is required because “Protection of environmental capital is critical to the success of the engineering and construction services industry, as large infrastructure and construction projects can have negative externalities and impacts on the natural environment, including pollution of local ecosystems and impacts on biodiversity” <u>We understand that SASB require “Environmental Impacts of Project Development” as biodiversity topic, not climate-related one.</u> This difference is caused by that ISSB positions “Environmental Impacts of Project Development” to climate-related topic, not biodiversity one. Therefore, we propose that “Environmental Impacts of Project Development” will set on industry-based disclosure requirement of biodiversity disclosure standard to be set in future.

	＜Supplemental explanation＞ Disclosure topic of Engineering & Construction Services set on SASB standard is below: (1) Environmental Impacts of Project Development (2) Structural Integrity & Safety (3) Workforce Health & Safety (4) Lifecycle Impacts of Buildings & Infrastructure (5) Climate Impacts of Business Mix (6) Business Ethics ISSB selected (1)、(2)、(4)、(5) from SASB to climate-related disclosure standards. However, (1) is area of environment related disclosure topic, is not climate-related topic, as described above. This difference is difficult to find out because ISSB did not explain the basis of conclusion about disclosure topic of SASB standards. We think that whilst (1) have mean to identify indirect climate-related risk by forest destruction, SASB standard does not set (1) from the point of climate-related risk by forest destruction. If ISSB intend to identify indirect climate-related risk by forest destruction from (1), ISSB should adjust (1) to clear such intention and explain this on basis for conclusion.
IF-EN-250a.1 IF-EN-250a.2	• ISSB requires Prime contractor (the discloser) to disclose the amount of defect- and safety-related rework costs even if such defect/rework is caused or might be caused due to reasons solely attributable to equipment supplier or subcontractor. Therefore, we request that “Amount of defect- and safety-related rework costs” （IF-EN-250a.1） should change to “Amount of defect- and safety-related rework costs, to be borne by yourself if it makes significant impact to financial statement due to defect- and safety-related rework which is caused or might be caused by causing attributable to yourself.” The basis of our request is: ・Prime contractor is usually disable to know the defect- and safety-related rework costs. Because the defect- and safety-related rework costs is borne by equipment supplier or subcontractor if the reworking is caused by them. The metric ruled by IF-EN-250a.1 could be interpreted that prime contractor is required to disclose the defect- and safety-related rework costs including the amount of defect- and safety-related rework costs to be borne by equipment supplier or subcontractor. The metric should clarify detail the scope to disclose. ・the defect- and safety-related rework costs are often covered and compensated by the construction/building risks insurance, therefore all the costs incurred due to the defect- and safety rework is not always related to negative impact to financial information. In addition, we also request to consider the omitting rules if the impact of the defect- and safety-related rework costs is insignificant to investor. • We request that “Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents” （IF-EN-250a.2） should change to “Total amount of monetary losses which makes significant impact to financial

	information as a result of legal proceedings associated with defect- and safety-related incidents". Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents are often covered and compensated by third-party liability insurance, therefore all the costs is not always related to negative impact to financial information. In addition, we also request to consider the omitting rules if the impact of the defect- and safety-related rework costs is insignificant to investor. • We request that disclosure metrics in this standard only include climate-related items and remove non climate-related items, due to the "climate" standard. We suggest that metrics related defect and safety is ruled by the other Sustainability Disclosure Standard like "Safety".
IF-EN-410b.1 IF-EN-410b.2	• We understand that this standard seems to request to withdraw from hydrocarbon-related business immediately, due to disclosure requirement of Amount of backlog for hydrocarbon-related projects（IF-EN-410b.1(1)）and Amount of backlog cancellations associated with hydrocarbon-related projects(IF-EN-410b.2). We feel that this standard lacks an insight of hydrocarbon-based energy transition project to use low-carbon LNG, CCS, blue hydrogen, ammonia, etc,. So, we strongly request to add metrics to be able to evaluate hydrocarbon-based energy transition project. And we expect that this standard introduce to count plastic recycling as non-energy projects associated with climate change mitigation. • If metrics ruled on IF-EN-410b.2 does not intend to especially exclude effective correspondence to carbon neutrality as blue hydrogen united CGS, yellow/pink hydrogen made by small nuclear powerplant, we request to change metric from "Amount of backlog for renewable energy projects " to "Amount of backlog for decarbonization related projects". If metrics intend to prompt transition to realistic low-carbon society, we think that this metric to change metric from "Amount of backlog for renewable energy projects " to "Amount of backlog for carbon-neutral related projects", to be able to count transformation from coal power generation to LNG power generation.
IF-EN-410b.3	Please clarify what project does apply to "Amount of backlog for non-energy projects associated with climate change mitigation".
IF-EN-410b.1 IF-EN-410b.2 IF-EN-410b.3	We cannot understand why the disclosure of Activity metrics（Active projects, Commissioned projects, Total backlog ）is required, relating to climate-related disclosure. Please clarify. It is almost impossible for investors to make appropriate decision from just number of projects because each project scale and content are several. In addition, "Total backlog" metric required by standard is also not related to climate. We propose that these metrics are required to disclose in general financial information area, not in climate-related area.

	In any case, we request that disclosure metrics in this standard only include climate-related items and remove non climate-related items, due to the “climate” standard.

Gas Utilities & Distributors

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
End-Use Efficiency	Customer gas savings from efficiencymeasures by market [42]	Quantitative	Million British Thermal Units (MMBtu)	IF-GU-420a.2
Integrity of Gas Delivery Infrastructure	Number of (1) reportable pipeline incidents, (2) ~~Corrective Action Orders (CAO)~~ corrective actions received, and (3) ~~Notices of Probable Violation (NOPV)~~ violations of pipeline safety statutes [43]	Quantitative	Number	IF-GU-540a.1
	Percentage of distribution pipeline thatis (1) cast and/or wrought iron and (2) unprotected steel	Quantitative	Percentage (%) by length	IF-GU-540a.2
	Percentage of gas (1) transmission and (2) distribution pipelines inspected	Quantitative	Percentage (%) by length	IF-GU-540a.3
	Description of efforts to manage the integrity of gas delivery infrastructure,including risks related to safety and emissions	Discussion and Analysis	n/a	IF-GU-540a.4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of: (1) residential, (2) commercial, and (3) industrial customers served [44]	Quantitative	Number	IF-GU-000.A
Amount of natural gas delivered to: (1) residential customers, (2) commercial customers, (3) industrialcustomers, and (4) transferred to a third party [45]	Quantitative	Million British Thermal Units (MMBtu)	IF-GU-000.B
Length of gas (1) transmission and (2) distributionpipelines [46]	Quantitative	Kilometers(km)	IF-GU-000.C

＜**Comments**＞

	Comments
IF-GU-420a.2	In Japan, there is no definition of gas savings, so it is not possible to address this issue. From the perspective of international versatility, rather than requiring uniform metrics, we believe that each company should be responsible for setting its own disclosure items, such as, for example, the percentage of energy-saving equipment such as latent heat recovery water heaters, etc., in accordance with the circumstances in each country while taking into account the objectives described in the draft standard.
IF-GU-540a.1 IF-GU-540a.2 IF-GU-540a.3 IF-GU-540a.4	For example, regarding "reportable pipeline accidents," there are no standards equivalent to those concepts in Japan. There is also a description regarding cast iron and wrought iron, but we believe that there are serious issues from the perspective of international versatility. Since technical standards, levels, installation conditions, etc. related to pipelines differ from country to country, it is problematic to set uniform standards. Therefore, we believe that each company should be responsible for setting its own disclosure items in accordance with its own circumstances in each country, while taking into account the objectives stated in the exposure draft. Similarly, the disclosure of information on accidents and corrective orders also differs from country to country, and therefore, we believe that each company should be responsible for determining the content of information to be disclosed in accordance with the circumstances in each country.
IF-GU-540a.2	Regarding the description of cast iron and wrought iron, the definitions and standards of each country are not necessarily consistent. Therefore, the effect of simply indicating the percentage of cast iron and wrought iron is unclear, and a high percentage of cast iron is not a direct indicator of infrastructure integrity. Since each country has different technical standards, levels, and installation conditions for pipelines, it is problematic to use a uniform standard. Therefore, we believe that this section should be deleted, or that disclosure items should be set by each company on its own responsibility according to its own circumstances in each country, while taking into account the purpose stated in the draft standard.
IF-GU-540a.4	Similarly, since each country has different systems for disclosing information on accidents and corrective orders, we believe that each company should be responsible for determining the content of information to be disclosed in accordance with the circumstances in each country.
Activity Metrics IF-GU-000.A IF-GU-000.B IF-GU-000.C	Since some companies do not currently disclose the number of customers or the volume of gas supplied, we believe that it should be the responsibility of each company to set disclosure items in accordance with the circumstances in each country, rather than a uniform standard.

Home Builders

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Land Use & Ecological Impacts	Number of (1) lots and (2) homes delivered on redevelopment sites	Quantitative	Number	IF-HB-160a.1
	Number of (1) lots and (2) homes delivered in regions with High or Extremely High Baseline Water Stress	Quantitative	Number	IF-HB-160a.2
	Total amount of monetary losses as a result of legal proceedings associated with environmental regulations [47]	Quantitative	Reporting currency	IF-HB-160a.3
	Discussion of process to integrate environmental considerations into site selection, site design, and site develop-ment and construction	Discussion and Analysis	n/a	IF-HB-160a.4
Design for Resource Efficiency	(1) Number of homes that obtained a certified HERS® Index Score and (2) average score	Quantitative	Number, Index score	IF-HB-410a.1
	Percentage of installed water fixtures certified to ~~WaterSense® specifications~~ a water efficiency standard	Quantitative	Percentage(%)	IF-HB-410a.2
	Number of homes delivered certified to a third-party multi-attribute green building standard	Quantitative	Number	IF-HB-410a.3
	Description of risks and opportunities related to incorporating resource efficiency into home design, and how benefits are communicated to custom-ers	Discussion and Analysis	n/a	IF-HB-410a.4
Climate Change Adaptation	Number of lots located in 100-year floodzones	Quantitative	Number	IF-HB-420a.1
	Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks	Discussion and Analysis	n/a	IF-HB-420a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of controlled lots [48]	Quantitative	Number	IF-HB-000.A
Number of homes delivered [49]	Quantitative	Number	IF-HB-000.B
Number of active selling communities [50]	Quantitative	Number	IF-HB-000.C

＜Comments＞

	Comments
General Comments	There are various forms of supply in housing construction. Some Japanese housing manufacturers focus on the custom-built detached housing business, and unlike condominiums, they build houses by mansion in response to orders from customers who own their respective lots, which are scattered individually. Many of the various indicators presented here are based on the assumption that the supply of housing for sale in housing complexes, and it is necessary to consider the scope of application.
IF-HB-160a.2	Criteria for determining "high water stress" are not clear.
IF-HB-160a.3	What is meant by " Total amount of monetary losses as a result of legal proceedings associated with environmental regulations?" (Does it mean fines?)
IF-HB-410a.1 IF-HB-410a.2	The Japanese version of "HERS® Index Score Certification," for example, needs to be replaced by another system, but we believe there are some points of concern. For example, CASBEE and BELS come to mind as examples of "third-party certification for green building standards," but because of the costs involved in obtaining certification under these systems, in practice, most homes do not obtain certification even if they are eligible for higher-level certification. In the U.S., the cost is borne by the builder, but in Japan, the cost is usually borne by the owner, since most homes are built by contractors. The main purpose of certification is to inform third parties of the performance at the time of sale, so it is of little use in the case of contract housing, which is constructed after thorough discussions with the designer. (There is an opinion that certification is useful for resale, but the reality in Japan today is that few people acquire certification with that in mind.) The number of certified houses in Japan is not a suitable indicator to grasp the actual situation.
IF-HB-420a.1	The requirement to disclose the number of parcels and deliveries in "redevelopment sites," "water-stressed areas," and "100-year flood zones." However, it will be necessary to determine how each of these definitions will be captured and which of the Japanese laws and regulations will be followed, but there is concern as to whether this will be internationally accepted.
IF-HB-410a.1	HERS® is an American standard and not commonly used in Japan, so we don't know how to deal with it.
IF-HB-000.C	It is unclear what is meant by “active” in “Number of active selling communities”. It is also unclear whether the number is required for a single year or a cumulative total.

Real Estate

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management	Energy consumption data coverage as a percentage of total floor area, by property subsector	Quantitative	Percentage (%) by floor area	IF-RE-130a.1
	(1) Total energy consumed by portfolio area with data coverage, (2) percentage grid electricity, and (3) percentage renewable, by property subsector	Quantitative	Gigajoules (GJ), Percent-age (%)	IF-RE-130a.2
	Like-for-like percentage change in energy consumption for the portfolio area with data coverage, by property subsector	Quantitative	Percentage (%)	IF-RE-130a.3
	Percentage of eligible portfolio that (1) has an energy rating and (2) is certified to ENERGY STAR, by property subsector	Quantitative	Percentage (%) by floor area	IF-RE-130a.4
	Description of how building energy management considerations are integrated into property investment analysis and operational strategy	Discussion and Analysis	n/a	IF-RE-130a.5
Water Management	Water withdrawal data coverage as a percentage of (1) total floor area and (2) floor area in regions with High or Extremely High Baseline Water Stress, by property subsector	Quantitative	Percentage (%) by floor area	IF-RE-140a.1
	(1) Total water withdrawn by portfolio area with data coverage and (2) percentage in regions with High or Extremely High Baseline Water Stress, by property subsector	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	IF-RE-140a.2
	Like-for-like percentage change in water withdrawn for portfolio area with data coverage, by property subsector	Quantitative	Percentage (%)	IF-RE-140a.3
	Description of water management risks and discussion of strategies and practi-ces to mitigate those risks	Discussion and Analysis	n/a	IF-RE-140a.4

Management of Tenant Sustainability Impacts	(1) Percentage of new leases that contain a cost recovery clause for resource efficiency-related capital improvements and (2) associated leased floor area, by property subsector	Quantitative	Percentage (%) by floor area, Square feet (ft²)	IF-RE-410a.1
	Percentage of tenants that are separately metered or submetered for (1) grid electricity consumption and (2) water withdrawals, by property subsector	Quantitative	Percentage (%) by floor area	IF-RE-410a.2
	Discussion of approach to measuring, incentivizing, and improving sustainabili-ty impacts of tenants	Discussion and Analysis	n/a	IF-RE-410a.3
Climate Change Adaptation	Area of properties located in 100-year flood zones, by property subsector	Quantitative	Square feet (ft²)	IF-RE-450a.1
	Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks	Discussion and Analysis	n/a	IF-RE-450a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of assets, by property subsector [51]	Quantitative	Number	IF-RE-000.A
Leasable floor area, by property subsector [52]	Quantitative	Square feet (ft²)	IF-RE-000.B
Percentage of indirectly managed assets, by property subsector [53]	Quantitative	Percentage (%) by floor area	IF-RE-000.C
Average occupancy rate, by property subsector [54]	Quantitative	Percentage (%)	IF-RE-000.D

＜Comments＞

	Comments
Energy management Water management Management of Tenant Sustainability Impacts	Energy use varies widely by building use and size, but are the "asset subsectors" categorized in a straightforward manner? In addition, there are many short-term holdings of real estate that are sold after a few years. Are such properties also considered "assets"?
IF-RE-000.A IF-RE-000.B IF-RE-000.C IF-RE-000.D	It would be better to limit the assets to the main assets of each company, such as office commercial.

Real Estate Services

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Sustainability Services	Revenue from energy and sustainability services [55]	Quantitative	Reporting currency	IF-RS-410a.1
	(1) Floor area and (2) number of buildings under management provided with energy and sustainability services	Quantitative	Square feet (ft²), Number	IF-RS-410a.2
	(1) Floor area and (2) number of buildings under management that obtained an energy rating	Quantitative	Square feet (ft²), Number	IF-RS-410a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of property management clients, categorized by: (1) tenants and (2) real estate owners	Quantitative	Number	IF-RS-000.A
Floor area under management with owner operational control [56]	Quantitative	Square feet (ft²)	IF-RS-000.B
Number of buildings under management with owner operational control [57]	Quantitative	Number	IF-RS-000.C
Number of leases transacted, categorized by: (1) tenants and (2) real estate owners [58]	Quantitative	Number	IF-RS-000.D
Number of appraisals provided	Quantitative	Number	IF-RS-000.E

＜Comments＞

	Comments
IF-RS-000.A IF-RS-000.B IF-RS-000.C IF-RS-000.D	The data is not currently disclosed and seems to be very difficult to compile. The definition of "under management with owner operational control" is also unclear. It may also be difficult to disclose data by tenant or by owner. *Reasons for the above opinion The data is not disclosed externally. Also, the data is not managed on a consolidated basis.
IF-RS-000.A IF-RS-000.D	Is it correct to understand "by tenant" in "number of property management clients" and "number of leases transacted" to mean by tenant type? If so, is there a list of tenant types? Is it correct to understand " real estate owners" to mean the type of business of the owner, etc.?

RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR

Biofuels

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Water Management in Manufactur-ing	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	RR-BI-140a.1
	Description of water management risks and discussion of strategies and practi-ces to mitigate those risks	Discussion and Analysis	n/a	RR-BI-140a.2
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	RR-BI-140a.3
Lifecycle Emissions Balance	Lifecycle greenhouse gas (GHG) emissions, by biofuel type	Quantitative	Grams of CO_2-e per megajoule (MJ)	RR-BI-410a.1
Sourcing & Environmental Impacts of Feedstock Production	Discussion of strategy to manage risks associated with environmental impacts of feedstock production	Discussion and Analysis	n/a	RR-BI-430a.1
	Percentage of biofuel production third-party certified to an environmental sustainability standard	Quantitative	Percentage (%) of gallons	RR-BI-430a.2
Management of the Legal & Regulatory Environment	Amount of subsidies received through government programs	Quantitative	Reporting currency	RR-BI-530a.1
	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affect-ing the industry	Discussion and Analysis	n/a	RR-BI-530a.2

＜Comments＞

	Comments
RR-BI-140a.1	We request to clarify requirements “regions with High or Extremely High Baseline Water Stress”
RR-BI-410a.1	We request to show standards or methods that calculate Lifecycle greenhouse gas (GHG) emissions.
RR-BI-410a.1	Regarding the definition of biofuel, there is a difference in the definition of biofuels between the two industry standards, "RR-BI-410a.1" of "B40 Biofuel" and "EM-RM-410a.2" of "B13 Oil & Gas - Refining & Marketing", so the definitions should be harmonized. In addition, under Japanese law (Act on Sophisticated Methods of Energy Supply Structures), "those produced using cellulosic feedstock or carbon recycling technology" is defined as advanced biofuels, which differs from the definitions of the B13 (Oil & Gas - Refining & Marketing) and B40 (Biofuel) standards. We request to define “biofuel” to be acceptable to countrie's situation that is faced.

Forestry Management

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Ecosystem Services & Impacts	Area of forestland certified to a third-party forest management standard, percentage certified to each standard [68]	Quantitative	Acres (ac), Percentage(%)	RR-FM-160a.1
	Area of forestland with protected conservation status	Quantitative	Acres (ac)	RR-FM-160a.2
	Area of forestland in endangered species habitat	Quantitative	Acres (ac)	RR-FM-160a.3
	Description of approach to optimizing opportunities from ecosystem services provided by forestlands	Discussion and Analysis	n/a	RR-FM-160a.4
Climate Change Adaptation	Description of strategy to manage opportunities for and risks to forest management and timber production presented by climate change	Discussion and Analysis	n/a	RR-FM-450a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Area of forestland owned, leased, and/or managed by the entity	Quantitative	Acres (ac)	RR-FM-000.A

＜Comments＞

	Comments
General Comments	Industry-based disclosure requirements should be voluntary. That is because it is expected to make confusion between the standards and local rules and to be complicated in the work at disclosure.
RR-FM-160a	Unit of measure on area should be hectare(ha) that is listed in Non-SI units accepted for use with the SI Units.
RR-FM-450a.1	It is not clear to consistent between this draft and newest CDSB framework. Therefore, we request to fill CDSB framework in the content of standard, not to refer.
RR-FM-160a.1 RR-FM-160a.2 RR-FM-160a.3 RR-FM-000.A	Unit of measure on area of forestland should change from Acres(ac) to the other unit that is listed in International System of Units.
RR-FM-160a.1	Unit of measure on area of forestland should change from Acres(ac) to the other unit that is

RR-FM-160a.2 RR-FM-160a.3 RR-FM-000.A	listed in International System of Units, because this standard is international one.
RR-FM-160a.1 RR-FM-160a.2 RR-FM-160a.3 RR-FM-000.A	Disclosure of Area of forestland should separate on plantation and native.

Pulp & Paper Products

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO_2-e	RR-PP-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	RR-PP-110a.2
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage from biomass, (4) percentage from other renewable energy [71]	Quantitative	Gigajoules (GJ), Percent-age (%)	RR-PP-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	RR-PP-140a.1
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	RR-PP-140a.2
Supply Chain Management	Percentage of wood fiber sourced from (1) third-party certified forestlands and percentage to each standard and (2) meeting other fiber sourcing standards and percentage to each standard [72]	Quantitative	Percentage (%) by weight	RR-PP-430a.1
	Amount of recycled and recovered fiber procured [73]	Quantitative	Metric tons (t)	RR-PP-430a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Pulp production	Quantitative	Air-dried metric tons (t)	RR-PP-000.A
Paper production	Quantitative	Air-dried metric tons (t)	RR-PP-000.B

Total wood fiber sourced [74]	Quantitative	Metric tons (t)	RR-PP-000.C

＜Comments＞

	Comments
General Comments	ISSB should consider the regulations and standards of each country and region, if it aims to set ISSB standards as global baseline.
General Comments	Because Industry-based disclosure requirements are expected to lead confusion on consistency between ISSB standards and each region's standard and eventually to increase difficulty to make the disclosures, the requirements should be voluntary, not required.
RR-PP-130a.1 1.3	From the point of international applicability, metrics ruled in Japanese law (Act on Rationalizing Energy Use, Act on Promotion of Global Warming Countermeasures) should be permitted to use at this metric.
RR-PP-130a.1 5.3	RR-PP-130a.1 Section 5.3 is based on renewable energy certification systems ruled in North-America, and is not used generally in Japan. Therefore, this rule is not appropriate as international standard and should be deleted.
RR-PP-130a.1 5.3.1	RR-PP-130a.1 Section 5.3.1 is based on renewable energy certification systems ruled in North-America, and is not used generally in Japan. Therefore, this rule is not appropriate as international standard and should be deleted.
RR-PP-130a.1 5.3.2	RR-PP-130a.1 Section 5.3.2 is based on renewable energy certification systems ruled in North-America, and is not used generally in Japan. Therefore, this rule is not appropriate as international standard and should be deleted.
RR-PP-130a.1 5.3.3	RR-PP-130a.1 Section 5.3.3 is not permitted Non-fossil certificate as renewable energy and is dissociated from situation in Japan. Therefore, this rule is not appropriate as international standard and should be deleted.
RR-PP-130a.1 7	From the point of international applicability, metrics ruled in Japanese law (Act on Rationalizing Energy Use, Act on Promotion of Global Warming Countermeasures) should be permitted to use at this metric.
RR-PP-130a.1	We request you to discuss on risks and uncertainties associated with the use of biomass as an energy source before finalizing standards. In particular: ・ To clarify an origin of offset about purchased renewable energy ・ To materialize what issues "risk and uncertainty" supposes ; is it about Thermal Recycle of plastics, such as RPF(Refuse derived paper and plastics densified Fuel) or about other issues. ・ To clarify types of energy to be counted as other renewable energies, including how we deal with black liquor that is special fuel on Pulp & Paper Products industry. To discuss how we disclose the discussion on risks and uncertainties associated with the use of biomass as an energy source
RR-PP-140a.1	(1)Total water withdrawn

	• We request you to exclude small offices/factories that consume small quantity of water, such as factories that specialized in processing and sales offices from the requirement on RR-PP-140a.1 2)Total Water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress ・ We request you to exclude small offices/factories that consume small quantity of water, such as factories that specialized in processing and sales offices, from the requirement on RR-PP-140a.1 • We request you to clarify conditions of “regions with High or Extremely High Baseline Water Stress”(From our understanding, Japan is not applicable.)
RR-PP-140a.2	We request you to exclude small offices/factories that consume small quantity of water, such as factories that specialized in processing and sales offices, from the requirement on RR-PP-140a.2.
RR-PP-430a.1	• Percentage of wood fiber sourced from third-party certified forestlands in procurement (especially percentage of Forest Management Certificate) is related to company’s sales strategy. It is, therefore, impossible to disclose though to required. • It is not clear that recovered paper is included into the calculation of percentage of wood fiber sourced from meeting other fiber sourcing standards.
RR-PP-000.A RR-PP-000.B	Since amount of Pulp production and amount of Paper production are duplicated at integrated manufacturing factory, it is not clear how to count the amount of production at integrated manufacturing process.
RR-PP-000.A RR-PP-000.B	“bone dry tons” is more appropriate than “Air-dried metric tons” to disclose amount of productions.
RR-PP-000.C	It is not clear what “Total wood fiber sourced” is. Is recovered paper included in “Total wood fiber sourced”.
RR-PP-000.C	It is not clear that “Total wood fiber sourced” means “Chip Weight（bone dry ton）” or “Pulp Weight （air-dry ton）”
RR-PP-000.C	Quantity unit to measure wood fibers depend on the kinds. Therefore, using gross unit of measure is challenging.

Solar Technology & Project Developers

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management in Manufactur-ing	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	RR-ST-130a.1
Water Management in Manufactur-ing	(1) Total water withdrawn, (2) total waterconsumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	RR-ST-140a.1
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	RR-ST-140a.2
Managementof Energy Infrastructure Integration & Related Regulations	Description of risks associated with integration of solar energy into existingenergy infrastructure and discussion ofefforts to manage those risks	Discussion and Analysis	n/a	RR-ST-410a.1
	Description of risks and opportunities associated with energy policy and its impact on the integration of solar energyinto existing energy infrastructure	Discussion and Analysis	n/a	RR-ST-410a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Total capacity of photovoltaic (PV) solar modulesproduced [75]	Quantitative	Megawatts (MW)	RR-ST-000.A

＜Comments＞

	Comments
Industry Description	We request to add “Otherwise, "Perovskite solar cell" that can be used for multiple purposes is also promising.” on industry description.
RR-ST-140a.2. （p474.5.）	We request that Additionally disclosure related to water management target which set on RR-ST-140a.2 Section 5 change to voluntary disclosure by changing description from “shall” to “should”. Disclosure set on Section 5 is very diverse depend on water environment and permission on

	countries and areas. Therefore, it is not reasonable to require a uniform disclosure.
RR-ST-000.A (Note)	Definition of PV solar modules should be introduced international framework, like IEC61730, not to be introduced local framework, like the U.S. DOE Solar Energy Glossary.

Wind Technology & Project Developers

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Materials Efficiency	Top five materials consumed, by weight	Quantitative	Metric tons (t)	RR-WT-440b.1
	Average top head mass per turbinecapacity, by wind turbine class	Quantitative	Metric tonsper megawatts (t/MW)	RR-WT-440b.2
	Description of approach to optimizematerials efficiency of wind turbinedesign	Discussion and Analysis	n/a	RR-WT-440b.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of delivered wind turbines, by wind turbine class 78	Quantitative	Number	RR-WT-000.A
Aggregate capacity of delivered wind turbines, by windturbine class [79]	Quantitative	Megawatts (MW)	RR-WT-000.B
Amount of turbine backlog [80]	Quantitative	Reporting currency	RR-WT-000.C
Aggregate capacity of turbine backlog [81]	Quantitative	Megawatts (MW)	RR-WT-000.D

＜Comments＞

	Comments
RR-WT-440b.1	“Top five materials consumed, by weight” is not meaningful for evaluation of efficiency and is not clarified how to be evaluated as metrics to measure impacts related to climate change risks and opportunities.
RR-WT-440b.2.	“Average top head mass per turbine capacity, by wind turbine class” is not clarified how to be evaluated as metrics to measure impacts related to climate change risks and opportunities.
RR-WT-440b.1 RR-WT-440b.2.	materials efficiency is to grasp in a part of consideration of other environmental impacts, not to be defined the directly quantitative metric related to climate change. Therefore, we suggest that metrics set in RR-WT-440b.1. and RR-WT-440b.2 would change to voluntary explanation item of RR-WT-440b.3.

RESOURCE TRANSFORMATION SECTOR

Chemicals

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	RT-CH-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	RT-CH-110a.2
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable, (4) total self-generated energy [83]	Quantitative	Gigajoules (GJ), Percent-age (%)	RT-CH-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	RT-CH-140a.1
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	RT-CH-140a.2
	Description of water management risks and discussion of strategies and practi- ces to mitigate those risks	Discussion and Analysis	n/a	RT-CH-140a.3
Product Design for Use-phase Efficiency	Revenue from products designed foruse-phase resource efficiency	Quantitative	Reporting currency	RT-CH-410a.1

＜Comments＞

	Comments
General Comments	It would be considerable burden for companies just to take actions and disclose information in accordance with the TCFD recommendations, however the exposure draft requires more disclosure than that. We believe that the requirement should be limited to the scope recommended by the TCFD.
RT-CH-110a.1.	We agree with the disclosure requirement regarding gross global Scope 1 emissions; however, with regard to the percentage covered under emissions-limiting regulations, depending on the existence of some preferential measures (e.g., free allocation of allowances under emissions trading schemes), the data may not provide information to measure the amount of risk, which may mislead users of the information.
RT-CH-110a.1 3.1	We are concerned that we may not be able to understand exactly the status of emissions-limiting regulations in each country. We suggest that ISSB clarify the subject matter for calculating the percentage by enhancing the examples of regulations or by specifying the regulations that are considered necessary for users.
RT-CH-110a.2 5	We are concerned that we may not be able to understand exactly the status of emissions-limiting regulations in each country. We suggest that ISSB clarify the subject to be considered whether or not it is related to emission limiting regulation by enhancing the examples of regulations or by specifying the regulations that are considered necessary for users.
Water management RT-CH-140a.1 RT-CH-140a.2 RT-CH-140a.3	If the company operates in Japan, where water risk is relatively low, would information of water management be useful to investors? We believe that disclosure requirements should be ranked as “required” or “recommended”.
RT-CH-140a.2	It is unrealistic to require reporting of all cases, including minor ones. It would be appropriate to limit the number of cases to those exceeding a certain criterion by, for example, stating “number of significant incidents”.
RT-CH-410a.1	With regard to “products designed for use-phase resource Efficiency”, the intent of the requirement should be clarified.
RT-CH-410a.1	With regard to “Revenue from products designed for use-phase resource efficiency”, the meaning of the terms “use-phase” and “resource efficiency” is unclear. If this item is a requirement related to Scope 3, we believe it is necessary to add a restriction on the requirement regarding Scope3, since the Scope 3 requirement shown above includes many problems. For example, if it is difficult to recognize the type of use in the supply chain, only the Scope 1 emissions of the first ties customers for the company should be included.
RT-CH-410a.1	With regard to “Revenue from products designed for use-phase resource efficiency”, innovation through free enterprise activities will be encouraged by leaving the selection of target product to individual companies. Therefore, it should be noted that the scope of products subject to the standard should not be fixed by specific national or regional policies.
RT-CH-410a.1	The term “products designed for use-phase resource efficiency” is considered to be products with GHG emission reduction performance (so called “contributing products”). The definition of

	"contributing products" is unique to each individual company, and common standards and definition are needed to quantify the percentage of income required by this proposal. In addition, although there are many examples of GHG reductions calculated using LCA methods, we believe that it is necessary to establish standards or guidelines related to the degree of contribution of chemicals to efficiency improvements (i.e., GHG reductions) through the use of final products.
RT-CH-410a.1	In case that the intermediate material is a product of a business-to-business company, it is generally difficult to obtain information on resource efficiency from the customer company. The customer company does not disclose the information, which is a type of confidential information.
RT-CH-410a.1	In a proposal, "a conventional product that is slightly lighter than the previous generation of the product" is indicated as an example, but it would be helpful if ISSB could provide some examples of such products or the specific degree.
RT-CH-410a.1	We are concerned about how the objectivity of the "use-phase efficiency" criterion will be ensured. It would be difficult to implement if objectivity is enforced, but on the other hand, without objectivity, comparability will be lost and investors will not be able to use the information.

Containers & Packaging

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	RT-CP-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	RT-CP-110a.2
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable, (4) total self-generated energy	Quantitative	Gigajoules (GJ), Percent-age (%)	RT-CP-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	RT-CP-140a.1
	Description of water management risks and discussion of strategies and practi-ces to mitigate those risks	Quantitative	n/a	RT-CP-140a.2
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	RT-CP-140a.3
Waste Management	Amount of hazardous waste generated, percentage recycled [84]	Quantitative	Metric tons (t), Percentage (%)	RT-CP-150a.1
Supply Chain Management	Total wood fiber procured, percentage from certified sources	Quantitative	Metric tons (t), Percentage (%)	RT-CP-430a.1
	Total aluminum purchased, percentage from certified sources	Quantitative	Metric tons (t), Percentage (%)	RT-CP-430a.2

＜Comments＞

	Comments
General Comments	We believe that the ISSB should consider the regulation and standards of each country to create an international standard. The “Containers & Packaging” has more disclosure items than “Pulp & Paper Products”, but in general, the environmental burden is higher for material production (Pulp & Paper Products). The contents (percentage covered under emissions limiting regulations, Number of incidents of non-compliance associated with water quality permits, Waste management) are more stringent for “Container & Packaging”. It is unclear how to select disclosure items when the business spans multiple industries. Is quantitative disclosure required for all business involved, on a business-by-business basis? Especially in the container and packaging industry, we believe that there should be items to evaluate and take into account recycling and reducing as opportunities, such as contribution through product recycling and reduction of plastic usage. (e.g., Percentage of products made from recycled materials in sales volume, percentage reduction in the amount of plastic used, etc.)
RT-CP-110a.1	It is difficult to understand the intent behind the fact that Scope 1, 2, and 3 are listed as cross-industry metrics, but only Scope 1 listed in this industry-based disclosure requirement. With regard to the percentage covered under emissions-limiting regulations, we do not believe that cap-and-trade systems and carbon taxes should be treated in the same manner, since the coverage rates are very different.
RT-CP-140a.1	(1) Total water withdrawn: We believe that establishments that use small amounts (e.g., facilities specializing in processing, dealers, etc.) should be excluded from the scope. (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress: It could be applied provided that establishments using small amounts are excluded.
RT-CP-140a.1	We believe that requirements for “regions with High or Extremely High Baseline Water Stress” should be clarified.
RT-CP-150a.1	The definition of requirements is unclear, making it difficult to aggregate them. At this time, it is possible to aggregate manifests.
RT-CP-150a.1	Although foreign laws and frameworks, such as U.S. Resources Conservation and Recovery Act or the EU Waste Framework Directive, are mentioned to defined hazardous waste, it is unclear what laws and frameworks are recommended in Japan.
RT-CP-430a.2	Since some packaging material manufactures do not use aluminum, we believe it should be “where applicable”. (It should be the same for RT-CP-430a.1 (wood fiber).)
RT-CP-430a.1 RT-CP-430a.2	Although four responsible sourcing certifications, ATFS, FSC, PEFC, and SFI, are listed, we have concerns about whether they are appropriate for certification organizations. Percentage from certified sources (especially the ratio of FM certification) cannot be disclosed even if it becomes mandatory disclosure since is related to sales strategy.
RT-CP-000.B	It is unclear how to consider multiple products consisting of multiple raw materials, which may be aggregated in duplicate and thus account for more than 100 percent of revenue.

Electrical & Electronic Equipment

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	RT-EE-130a.1
Product Lifecycle Management	Percentage of products by revenue that contain IEC 62474 declarable substan-ces [86]	Quantitative	Percentage (%) by revenue	RT-EE-410a.1
	Percentage of eligible products, by revenue, ~~that meet ENERGY STAR® criteria~~ certified to an energy efficiency certification	Quantitative	Percentage(%) by revenue	RT-EE-410a.2
	Revenue from renewable energy-related and energy efficiency-related products	Quantitative	Reporting currency	RT-EE-410a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of units produced by product category [87]	Quantitative	Number	RT-EE-000.A
Number of employees	Quantitative	Number	RT-EE-000.B

＜Comments＞

	Comments
Industry Description	The scope of Electrical & Electronic Equipment is broad and could be included in other industries. It is necessary to clarify the concept. In addition, the equipment shown in the Industry Description is only an example and the definition is unclear. We recommend that the ISSB provides a clear equipment list or detailed conditions for decision making.
RT-EE-410a.1	It is not appropriate to use IEC 62474 in this standard, which is an international standard related to the communication of information on chemical substances contained in products to comply with chemical substance regulations, and its purpose is different from that of climate-related disclosure. Also it is not appropriate to include chemical substance regulations in international standard since they vary by country and region.
RT-EE-410a.1	The declarable substances of IEC 62474 include not only substances (groups) regulated by some lay, but also substances (groups) whose inclusion is to be identified based on some industry voluntary standards. In addition, some of the substances regulated by law include substances such as lead, which are currently used in certain quantities and are difficult to avoid in the future. Also, brominated flame retardants and chlorinated flame retardants in general are designated as

	substances (groups) whose content must be monitored, although their applications are limited. It is not appropriate to uniformly adopt the IEC 62474 substances requiring declaration as an indicator to be incorporated into climate-related disclosure items and accounting standards at thie time since only a few products are completely free of these substances.
RT-EE-410a.1	It is not appropriate to include IEC 62474 as a metric in this standard since it has little relevance to climate change.
RT-EE-410a.1	“IEC 62474 declarable substances” is not meaningful as a metric since almost all electrical and electronic products fall under this category. They are not banned substances and do not meet the objective of measuring environmental impact. We recommend not to include this metric in this standard since it may mislead investors’ decision making.
RT-EE-410a.2	Regarding energy efficiency certification, there may be no certification system itself or the products subject to certification may differ depending on the country or region; therefore, information on sales ratio alone cannot distinguish between the negative effects of the lack of a certification system and the negative effects of not being certified, making it impossible to make appropriate comparisons. In light of this, it is necessary, for example, to disclose along with the sales of only those products for which a certification system exists. In addition, a list of applicable accreditation schemes in each country/region should be clearly indicated.
RT-EE-410a.3	The definition is unclear. There needs to be a clear product list or detailed requirements as to which products fall under this category.
RT-EE-410a.3	We agree with the content of paragraph 3.2, which is also evaluating technologies during the transition to carbon neutrality in the long term. However, the European Commission’s Roadmap, EU Directive 2012/27/EU, and IEC standard for motors are all examples and should be included as notes. 3
RT-EE-410a.3	The scope of “renewable energy-related and energy efficiency-related products” is unclear, such as product unit and system unit. It is necessary to establish a common and clear distinction to create indicators.
RT-EE-000.A	It is necessary to clarify the “product category”. In addition, even within the same “product category”, there are a wide variety of products with different performance and functions, and it is not appropriate to use a single numerical number of units as an evaluation metric.。
RT-EE-000.A	“Electrical & Electronic Equipment” can contribute to “electrification” as a key approach to decarbonization, but it is important to clarify how its production is evaluated in the context of addressing climate change.
RT-EE-000.A	The note 87 indicates that the relevant product categories include energy generation, energy delivery, and lighting and indoor climate control electronics; however, the definition of the categories is unclear and there are performance differences among product types within the same category. It is not appropriate to group them together as a quantitative metric and use it for comparison.
RT-EE-000.A	It is difficult to disclose number of units produced because this information is connected to sales plans and orders received from customers. While it would be possible to disclose sales volume to

	some extent, it is difficult to disclose detailed information by category due to corporate strategy.
RT-EE-000.A	Although the unit of measure is defined as “Number”, it may not be appropriate to indicate simply by the number of units as a metric since there are a wide variety of product.
RT-EE-000.B	It is not appropriate to use the number of employees as a metric of this standard since the relation between the number of employees and climate change is unclear.

Industrial Machinery & Goods

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	RT-IG-130a.1
Fuel Economy& Emissions in Use-phase	Sales-weighted fleet fuel efficiency formedium- and heavy-duty vehicles	Quantitative	Gallons per1,000 ton- miles	RT-IG-410a.1
	Sales-weighted fuel efficiency for non-road equipment	Quantitative	Gallons perhour	RT-IG-410a.2
	Sales-weighted fuel efficiency forstationary generators	Quantitative	Watts per gallon	RT-IG-410a.3
	Sales-weighted emissions of: (1) nitrogen oxides (NO_x) and (2) partic-ulate matter (PM) for: (a) marine dieselengines, (b) locomotive diesel engines, (c) on-road medium- and heavy-duty engines, and (d) other non-road dieselengines [88]	Quantitative	Grams per kilowatt-hour	RT-IG-410a.4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of units produced by product category [89]	Quantitative	Number	RT-IG-000.A
Number of employees	Quantitative	Number	RT-IG-000.B

＜Comments＞

	Comments
RT-IG-000.A	It is necessary to clarify “product category”. In addition, there are wide variety of products with different performance and functionality; therefore, it is not appropriate to group them as a quantitative metric and use it for comparison. As for the Note to RT-IG-000.A, we believe that one idea is to group the “product category” into minimum categories as indicated in the Note. However, there are differences in performance among product types within the same category.
RT-IG-000.B	t is not appropriate to use the number of employees as a metric of this standard since the relation between the number of employees and climate change is unclear.

TECHNOLOGY & COMMUNICATIONS SECTOR

Electronic Manufacturing Services & Original Design Manufacturing

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Water Management	(1) Total water withdrawn, (2) total waterconsumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	TC-ES-140a.1
Product Lifecycle Management	Weight of end-of-life products and e- waste recovered, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TC-ES-410a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of manufacturing facilities	Quantitative	Number	TC-ES-000.A
Area of manufacturing facilities	Quantitative	Square feet(ft^2)	TC-ES-000.B
Number of employees	Quantitative	Number	TC-ES-000.C

＜Comments＞

	Comments
TC-ES-410a.1	・ The collected weight and recycling rate are strongly dependent on the enforcement of laws and regulations and the infrastructure for collection and recycling in the country/region where the individual company sells its products, and therefore cannot reflect the efforts of the individual company. For this reason, they are not suitable as metric. ・ End-of-life product information is known by the end manufacturer, but not by the EMS/ODM. Therefore, EMS/ODMs need to obtain this information from each end manufacturer, but this is complicated and time-consuming.
TC-ES-410a.1	Regarding “weight of end-of-life products and e-waste recovered, percentage recycled”, please clarify the definition of “percentage recycled”.

Hardware

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Product Lifecycle Management	Percentage of products by revenue that contain IEC 62474 declarable substances [95]	Quantitative	Percentage (%)	TC-HW-410a.1
	Percentage of eligible products, by revenue, meeting the requirements for EPEAT registration or equivalent [96]	Quantitative	Percentage (%)	TC-HW-410a.2
	Percentage of eligible products, by revenue, ~~meeting ENERGY STAR® criteria~~ certified to an energy efficiency certification	Quantitative	Percentage(%)	TC-HW-410a.3
	Weight of end-of-life products and e-waste recovered, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TC-HW-410a.4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of units produced by product category [97]	Quantitative	Number	TC-HW-000.A
Area of manufacturing facilities	Quantitative	Square feet(ft^2)	TC-HW-000.B
Percentage of production from owned facilities	Quantitative	Percentage(%)	TC-HW-000.C

＜Comments＞

	Comments
TC-HW-410a.1	IEC62474 is an international standard related to the information transmission of contained chemical substances in products to comply with chemical substance regulations, and its purpose is different from that of climate-related disclosure, making this metric unsuitable for use. In addition, regulations on chemical substances differ from country to country and from region to region, making it inappropriate to include this metrics in an international standard.
TC-HW-410a.1	“IEC62474” which is listed as an accounting metric, is not suitable for use because it standardizes the procedures for disclosing chemical substances contained in products as a response to chemical substance regulations and has a different purpose from climate-related disclosure.
TC-HW-410a.1	The IEC62474 substances requiring declaration include not only substances (groups) regulated by some law, but also substances (groups) whose inclusion is to be identified based on voluntary standards of the industry, etc. In addition, some of the substances regulated by law include substances such as lead, which are currently used in certain quantities and are difficult to avoid in

	the future. In addition, brominated flame retardants and chlorinated flame retardants in general are also designated as substances (groups) whose content must be monitored, although their applications are limited. Since there are only a few products that do not use these substances at all, it is not appropriate to uniformly adopt the IEC62474 substances requiring declaration as a metric to be incorporated into climate-related disclosure items at this time.
TC-HW-410a.1	It is unclear what is meant by " Percentage of products by revenue that contain IEC 62474 declarable substances". Substances prohibited by IEC62474 are not contained in principle, except for Pb and Cd to which RoHS exemptions can be applied. Therefore, it seems to be almost equivalent to products containing SVHC under the REACH regulation, and from that point of view, it is sufficient if the product is surely compliant, and we fear that it misleads the world if it is assumed that “a small percentage of the sales of the product contributes to sustainability”.
TC-HW-410a.1	IEC62474 is inappropriate as a metrics because it has little relevance to climate change.IEC62474 declarable substances is meaningless as a metric because almost all electrical and electronic products fall under this category. In addition, since it is not a banned substance, it does not meet the purpose of measuring environmental impact, and this metric may mislead investors in their decision making and should not be included as a metric.
TC-HW-410a.2	“EPEAT” is inappropriate as a metrics for international standards because it is a U.S. evaluation system and not a globally applicable system.
TC-HW-410a.2	“EPEAT” is a U.S. program and is not appropriate to apply. “EPEAT” and other programs on environmentally friendly products are used as marketing tools to sell the products and as criteria for government procurement. The degree to which these programs are used depends on the sales policy of the individual company, whether the products are covered products or not, and whether the products are sold to countries or regions with programs, and therefore, it is not appropriate to include them in international standards.
TC-HW-410a.2	EPEAT," which is mentioned as an accounting metric, is a voluntary standard limited to a region and is not suitable as metric for global use. Regulations and standards used in each country and region should be considered for use.
TC-HW-410a.3	"Energy efficiency certification," there are cases where "there is no certification system in the first place" or "the target products are different" depending on the country or region. Therefore, a simple sales ratio information cannot distinguish between "negative effects due to the absence of a certification system" and "negative effects due to the absence of certification," and thus does not provide an appropriate comparison. Therefore, for example, it is necessary to disclose the sales of only those products for which a certification system exists, as a set. In addition, the list of applicable accreditation systems in each country/region should be clarified.
TC-HW-410a.4	Products have a complex background, including customer ownership and the existence of national and local regulations on disposal, which limits corporate efforts. Clarification is needed on how this metric will be used for evaluation, along with its relevance to the effective use of resources in climate change.

TC-HW-410a.4	The certification of contracted recyclers is limited. The current wording is limited to stating "Basel Action Network's e-Steward® standard," which may not allow recyclers in Japan to be recognized, so we request that the wording be revised so that recyclers who are licensed under the laws of the respective governments are also recognized as certified businesses.
TC-HW-410a.4	It is stated that this includes information collected by third parties. Information can be collected if it is a third party commissioned by the operator, but if it is a third party unrelated to the operator, it is difficult to collect information.
TC-HW-410a.4	The collected “Weight of end-of-life products and e-waste recovered”, percentage recycled cannot reflect the efforts of individual companies because they are strongly dependent on the enforcement of laws and regulations and the infrastructure for collection and recycling in the countries and regions where the individual companies sell their products. For this reason, it is not a suitable metric.
TC-HW-410a.4	The definition of "used products and e-waste" and how it relates to climate change should be clarified.
TC-HW-000.A	• The definition of "product category" needs to be clarified. In addition, there are a wide variety of products in the same "product category" that differ in performance and functions, and it is not appropriate to use a single numerical number of units as a metric for evaluation. • While we believe that "Hardware" will contribute to “electrification” a key approach to decarbonization, it should be clear how its production will be evaluated in the context of climate change response.
TC-HW-000.A	Although " number of units produced by product category " is listed as an activity metric, the definition of product category is ambiguous, and there are performance differences among product types even for the same type of product. It is not appropriate to use these as an metric as a lump sum quantity for comparison.
TC-HW-000.A	It is difficult to disclose the “number of units produced by product category”, as this information is connected to sales plans and orders received from customers. If the company is required to disclose detailed information by category, it is difficult to disclose such information due to corporate strategy.
TC-HW-000.A TC-HW-000.B	The activity metric "area of manufacturing facilities" and "ratio of production by own facilities" are not appropriate because their relationship to climate change is unclear.
TC-HW-000.B	This metric is not appropriate because its relationship to climate change is unclear.
TC-HW-000.C	The phrase " production from owned facilities " could be taken to mean "includes both in-house produced products and outsourced production products," while other industries could be read as covering only in-house produced products. It should be clarified how this metric is evaluated.
Other Comments	It is unclear why Energy Management, which is present in “electrical & Electronic Equipment” industry, is not present in “hardware” industry.

Semiconductors

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	(1) Gross global Scope 1 emissions and (2) amount of total emissions from perfluorinated compounds	Quantitative	Metric tons (t) CO_2-e	TC-SC-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	TC-SC-110a.2
Energy Management in Manufactur-ing	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	TC-SC-130a.1
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m^3), Percent-age (%)	TC-SC-140a.1
Product Lifecycle Management	Percentage of products by revenue that contain IEC 62474 declarable substan-ces [101]	Quantitative	Percentage(%)	TC-SC-410a.1
	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, and (3) laptops [102]	Quantitative	Various, by product category	TC-SC-410a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Total production [103]	Quantitative	See note	TC-SC-000.A
Percentage of production from owned facilities	Quantitative	Percentage(%)	TC-SC-000.B

＜Comments＞

	Comments
TC-SC-410a.1	IEC62474 is inappropriate as a metric because it has little relevance to climate change. IEC62474 declarable substances is meaningless as a metric because almost all electrical and electronic

	products fall under this category. In addition, since it is not a banned substance, it does not meet the purpose of measuring environmental impact and should not be included because it may mislead investors in their decision making. If all relevant items and sales have to be tracked to the end product, but some of the information has to be external, it is very likely that it will be difficult to obtain or that data will not be available for each end product.

Software & IT Services

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	CODE
Environmental Footprint of Hardware Infrastructure	(1) Total energy consumed, (2) percentage gridelectricity, (3) percentage renewable	Quantitative	TC-SI-130a.1
	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions withHigh or Extremely High Baseline Water Stress	Quantitative	TC-SI-130a.2
	Discussion of the integration of environmentalconsiderations into strategic planning for datacenter needs	Discussion andAnalysis	TC-SI-130a.3
Managing Systemic Risks from Technology Disruptions	Number of (1) performance issues and (2)service disruptions; (3) total customer downtime [104]	Quantitative	TC-SI-550a.1
	Description of business continuity risks relatedto disruptions of operations	Discussion andAnalysis	TC-SI-550a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
(1) Number of licenses or subscriptions, (2) percentagecloud-based	Quantitative	Number, Percentage(%)	TC-SI-000.A
(1) Data processing capacity, (2) percentage outsourced [105]	Quantitative	See note	TC-SI-000.B
(1) Amount of data storage, (2) percentage outsourced [106]	Quantitative	Petabytes, Percentage(%)	TC-SI-000.C

＜Comments＞

	Comments
TC-SI-130a.1	Is it correct to assume that only equipment and facilities that provide services, such as data centers, are covered? (Communication network facilities between service providers and service users and facilities of service users are not covered.)
TC-SI-130a.1	If there are multiple industries, it may be difficult to calculate accounting metric data only for the industry in question.
TC-SI-130a.2	Water stress is not an issue limited to this industry alone. If disclosure is necessary in the context of climate change, we believe it should be considered and disclosed in all industries.
TC-SI-130a.2	Metric data may not be disclosed if they are not total but per location.

TC-SI-130a.3	Not sure to what level of detail description is needed. Multiple specific examples of descriptions are needed. Also, it is necessary to clarify why this description is necessary only for this industry.
TC-SI-550a.1	It should be clarified how the relationship between these metrics and climate change will be assessed.
TC-SI-550a.2	
TC-SI-000.A	
TC-SI-000.B	
TC-SI-000.C	
TC-SI-000.A TC-SI-000.B	It should be clarified how the " Number of licenses or subscriptions," " percentage cloud-based," " Amount of data storage," and " percentage outsourced " listed as activity metrics are evaluated in relation to climate change.

Telecommunication Services

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Environmental Footprint of Operations	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	TC-TL-130a.1
Managing Systemic Risks from Technology Disruptions	Discussion of systems to provide unimpeded service during serviceinterruptions	Discussion and Analysis	n/a	TC-TL-550a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of wireless subscribers [107]	Quantitative	Number	TC-TL-000.A
Number of wireline subscribers [108]	Quantitative	Number	TC-TL-000.B
Number of broadband subscribers [109]	Quantitative	Number	TC-TL-000.C
Network traffic	Quantitative	Petabytes	TC-TL-000.D

＜Comments＞

	Comments
Activity Metrics	Currently, there is a difference in the degree of disclosure between Japanese and foreign companies. It would be better to consider the characteristics of each country, rather than a uniform level.

TRANSPORTATION SECTOR

Airlines

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
GreenhouseGas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO_2-e	TR-AL-110a.1
	Discussion of long-term and short-termstrategy or plan to manage Scope 1 emissions, emissions reduction targets,and an analysis of performance againstthose targets	Discussion and Analysis	n/a	TR-AL-110a.2
	(1) Total fuel consumed, (2) percentagealternative, (3) percentage sustainable	Quantitative	Gigajoules (GJ), Percent-age (%)	TR-AL-110a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Available seat kilometers (ASK) [112]	Quantitative	ASK	TR-AL-000.A
Passenger load factor [113]	Quantitative	Rate	TR-AL-000.B
Revenue passenger kilometers (RPK) [114]	Quantitative	RPK	TR-AL-000.C

＜Comments＞

	Comments
TR-AL-110a.1.	Seven category of GHG （carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs),perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3)） are in scope of disclosure on Scope 1 emission, but currently only CO2 is measured by us. Therefore, if we manage Scope 1 emissions on other GHGs', it would be challenge for us how we follow track record of them, for example.
TR-AL-110a.1.	Seven category of GHG are in scope of disclosure on Scope 1 emission, but GHG emission from aircraft is almost CO2*, especially in airline industry. Therefore, we suggest that disclosure on scope 1 emission of GHG become voluntary except CO2. *GHGs other than CO2 are insignificant compared to CO2 emissions, accounting for less than 0.1% of total emissions.
Activity Metrics general Comments	In airline industry, there is a company not only engaged in passenger transportation, but in freight transportation. Therefore, we think that metrics related to freight transportation is needed for

	freight transportation company.
TR-AL-000.A TR-AL-000.C TR-AL-000.D	About unit of measure related to activity metrics, the concept of “Kilometer” to measure ASK/RPK/RTK is not unified. Therefore, we suggest great circle distance for a unit of measure when the company measure the distance.

Auto Parts

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management	(1) Total energy consumed, (2) percent-age grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	TR-AP-130a.1
Design for Fuel Efficien-cy	Revenue from products designed to increase fuel efficiency and/or reduceemissions	Quantitative	Reporting currency	TR-AP-410a.1

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of parts produced	Quantitative	Number	TR-AP-000.A
Weight of parts produced	Quantitative	Metric tons (t)	TR-AP-000.B
Area of manufacturing plants	Quantitative	Square meters (m^2)	TR-AP-000.C

＜Comments＞

	Comments
TR-AP-130a.1	It is not clear that this metric scopes in all category of auto parts. if the scope is limited, it would be needed to set the list of auto parts that in cope of this metric.
TR-AP-130a.1	We request the example of auto parts not used in direct power source that fit to the definition of “Products designed to increase fuel efficiency and/or reduce emissions”. The definition of “Products designed to increase fuel efficiency and/or reduce emissions”(TR-AP-410a.1 Section 1.1) is complicated(for example, it is not clear whether we include parts that reduce its weight in daily improvement to “Products designed to increase fuel efficiency and/or reduce emissions” or not). This situation would become a barrier to sum up. “Revenue from products designed to increase fuel efficiency and/or reduce emissions” is need to clarify its scope and conditions. Increasing fuel efficiency and/or reducing emissions are become from not because of one auto parts function but because total car performance.
TR-AP-410a.1	・ “Revenue from products designed to increase fuel efficiency and/or reduce emissions” is need to clarify its scope and conditions. Increasing fuel efficiency and/or reducing emissions are become from not because of one auto parts function but because total car performance. ・ And if the scope to sum up is limited, it need to disclose the revenue from scope-in products to separate from the revenue from non-scope products.

TR-AP-410a.1	・ The definition of “Products designed to increase fuel efficiency and/or reduce emissions”(TR-AP-410a.1 Section 1.1) is complicated(for example, it is not clear whether we include parts that reduce its weight in daily improvement to “Products designed to increase fuel efficiency and/or reduce emissions” or not). ・ This situation would become a barrier to sum up.
TR-AP-410a.1	We request the example of auto parts not used in direct power source that fit to the definition of “Products designed to increase fuel efficiency and/or reduce emissions”.
TR-AP-000.A	Auto parts have diverse type, size, and performance. And definition of these attribution is not clear. Therefore, “Number of parts produced” is not appropriate metric to compare, due to summing up several attribute auto parts in a total.
TR-AP-000.A	Number of parts produced” is less meaningful as quantitative metric for auto parts company. (one type of part are usually used multiple for one vehicle.)
TR-AP-000.B	“Weight of parts produced” is not appropriate metric due to unclear relation to climate change.
TR-AP-000.C	“Area of manufacturing plants” is not appropriate metric due to unclear relation to climate change.
TR-AP-000.B TR-AP-000.C	“Weight of parts produced”and “Area of manufacturing plants” are not appropriate metrics due to unclear relation to climate change.

Automobiles

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Fuel Economy& Use-phase Emissions	Sales-weighted average passenger fleetfuel economy, by region	Quantitative	Mpg, L/km, gCO_2/km, km/L	TR-AU-410a.1
	Number of (1) zero emission vehicles (ZEV), (2) hybrid vehicles, and (3) plug-in hybrid vehicles sold	Quantitative	Number	TR-AU-410a.2
	Discussion of strategy for managing fleet fuel economy and emissions risksand opportunities	Discussion and Analysis	n/a	TR-AU-410a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of vehicles manufactured	Quantitative	Number	TR-AU-000.A
Number of vehicles sold	Quantitative	Number	TR-AU-000.B

＜Comments＞

	Comments
TR-AU-410a.1	It makes less comparability that several unit of measure (Mpg, L/km,gCO2/km、km/L) permit to use disclosure. We request to determine the unit of measure. And it might be adjust the explanation on paragraph 3.
TR-AU-410a.2	Zero emission vehicles (ZEV) define vehicles driven only by an electric motor that are powered by advanced-technology batteries or hydrogen fuel cell. It is not clear that vehicles driven by a hydrogen-fueled internal combustion engines or carbon neutral fueled internal combustion engines includes ZEV. We questioned that vehicles driven by a hydrogen-fueled internal combustion engines or carbon neutral fueled internal combustion engines define as duel-fuel vehicles. On the other hand, TR-AU-410a.3 section 3.1 says “Advanced powertrain technologies include vehicles and vehicle components that are electric, hybrid electric, plug-in hybrid, dual-fuel, and zero-emissions (e.g., fuel cell).”. And we understand that dual-fuel vehicles include biomass,(including ethanol, first-generation biofuels, and advanced biofuels) .mentioned on TR-AU-410a.3 section 3.2. We recognize that duel-fuel vehicles contribute decarbonation and important technologies, especially in the phase of transition. Therefore, we request to reconsider the definition of Zero emission vehicles (ZEV) and clarify the position of dual-fuel vehicles. In addition, we request to add dual-fuel vehicles on metrics TR-AU-410a.2.

TR-AU-000.A TR-AU-000.B	We request to clarify the definition of following terms. ・Number of vehicles manufactured（at subsidiaries / including affiliates） ・Number of vehicles sold（wholesales / retail）
TR-AU-000.B	Number of vehicles sold is not under control by reporting entity. Therefore, we suggest that number of vehicles shipping is more appropriate.

Car Rental & Leasing

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Fleet Fuel Economy & Utilization	Rental day-weighted average rental fleet fuel economy, by region	Quantitative	Mpg, L/km, gCO_2/km, km/L	TR-CR-410a.1
	Fleet utilization rate	Quantitative	Rate	TR-CR-410a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Average vehicle age	Quantitative	Months	TR-CR-000.A
Total available rental days [116]	Quantitative	Days	TR-CR-000.B
Average rental fleet size [117]	Quantitative	Number of vehicles	TR-CR-000.C

＜Comments＞

	Comments
TR-CR-410a.2	In case of Car Rental Company, the company have limited method to control climate-related risks aggressively (for example, replacing owned vehicle to environmentally friendly one.). Especially, fleet utilization rate is not suitable metric to evaluate the climate-related assault of car rental company. Because the rate depends on the balance between demand and supply and is out of control from car rental company.

Marine Transportation

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
GreenhouseGas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO_2-e	TR-MT-110a.1
	Discussion of long-term and short-termstrategy or plan to manage Scope 1 emissions, emissions reduction targets,and an analysis of performance againstthose targets	Discussion and Analysis	n/a	TR-MT-110a.2
	(1) Total energy consumed, (2) percent-age heavy fuel oil, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	TR-MT-110a.3
	Average Energy Efficiency Design Index(EEDI) for new ships	Quantitative	Grams of CO_2 per ton- nautical mile	TR-MT-110a.4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of shipboard employees [122]	Quantitative	Number	TR-MT-000.A
Total distance traveled by vessels	Quantitative	Nautical miles(nm)	TR-MT-000.B
Operating days [123]	Quantitative	Days	TR-MT-000.C
Deadweight tonnage [124]	Quantitative	Thousand deadweighttons	TR-MT-000.D
Number of vessels in total shipping fleet	Quantitative	Number	TR-MT-000.E
Number of vessel port calls	Quantitative	Number	TR-MT-000.F
Twenty-foot equivalent unit (TEU) capacity	Quantitative	TEU	TR-MT-000.G

＜Comments＞

	Comments
TR-MT-110a.4	EEDI depends on ship type and size. For example, as dead weight tonnage (DWT) becomes larger, EEDI tends to be lower. Likewise, as rated installed power becomes higher, EEDI tends to be higher. Since the distribution of typical DWT and typical power are different among ship types, it is meaningless to calculate the average EEDI value of the fleet if the company operates different types and sizes of ship. Rather, this method might be useful to observe secular change of energy efficiency of the fleet if the company operates one specific type of ship.

TR-MT-110a.4	EEDI is not a meaningful method to compare GHG emissions of shipping companies because the characteristic of fleet in terms of ship size and ship type differs among companies. In addition, EEDI is more limited metrics compared with the other accounting metrics, so EEDI is not appropriate metric to measure the performance of the company. Therefore, Japan does not support to include average EEDI into the accounting metric.
Activity metrics general	The entity who is responsible for GHG emission from vessel depends on the contract. For example, several entity (owner, charterer and operating trustee etc.) would be responsible. Therefore, Japan requests to clarify the scope of target. In addition, it is necessary to clarify that the scope is limited to scope 1.
TR-MT-000.A	An agent which arranges employees onboard depends on whether the vessel is owned by the agent itself or chartered. In addition, ship management company may arrange them in the case that the agent owns the ship. In this case, it might be difficult to assess the exact number of crew, which is necessary to calculate Scope 1 GHG emissions of the ship. Therefore, we request to clarify the scope of vessel which require to count shipboard employees.
TR-MT-000.C	We request to clarify whether the scope of operating days operating days of vessel or business days of operator who is responsible for GHG emissions of vessel. And because the feasibility to count the operating days of operator depends on each vessel, like owned vessel or chartered vessel, it is necessary to clarify the scope of vessel which require to count operating days.
TR-MT-000.F	Number of vessel port calls vary widely by type of vessels, like container vessel or bulk carrier, and it is not proportional to the amount of transportation. Since it is not clear what the indicator is for, we doubt that it will be meaningful as metric. Therefore, we suggest that Number of vessel port calls is except from metric.
TR-MT-000.F	We request to clarify the definition of “vessel port calls”. Vessels underway, especially ocean-going vessel, usually bunker fuels at ocean area near by port (this operation calls “touch bunker”). Therefore, we suggest that it should be clarified which purposes vessel port calls (loading and unloading, touch bunker, and anchorage) should be included in the metrics.
TR-MT-000.G	It is not appropriate to convergence cargo capacity to Twenty-foot equivalent unit (TEU) capacity except container vessel. If standards require convergence cargo capacity to TEU capacity, we request to add limitation to apply only container vessel.

Road Transportation

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
GreenhouseGas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO_2-e	TR-RO-110a.1
	Discussion of long-term and short-termstrategy or plan to manage Scope 1 emissions, emissions reduction targets,and an analysis of performance againstthose targets	Discussion and Analysis	n/a	TR-RO-110a.2
	(1) Total fuel consumed, (2) percentagenatural gas, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percent-age (%)	TR-RO-110a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Revenue ton miles (RTM) [129]	Quantitative	RTM	TR-RO-000.A
Load factor [130]	Quantitative	Number	TR-RO-000.B
Number of employees, number of truck drivers	Quantitative	Number	TR-RO-000.C

＜Comments＞

	Comments
TR-RO-000.A	We request that activity metric set on TR-RO-000.A would change to Revenue ton kilos.
TR-RO-000.B	We request that activity metric set on TR-RO-000.B does not require to disclose to home delivery company. The load factor on home delivery company could not measure stably, because home delivery company deal several type of courier.