RESPONSE TO FEEDBACK RECEIVED

8 December 2020

Proposed Guidelines on Environmental Risk Management (Asset Managers)

Monetary Authority of Singapore

Contents

1 Preface

1.1 On 25 June 2020, the Monetary Authority of Singapore ("MAS") issued a consultation paper to introduce the Guidelines on Environmental Risk Management ("Guidelines"), to enhance financial institutions' ("FIs") resilience to and management of environmental risk. The Guidelines set out sound practices in relation to FIs' governance, risk management and disclosure of environmental risk. The Guidelines were co-created with financial institutions and industry associations from the banking, insurance and asset management sectors.

1.2 The responses to the feedback on the Guidelines are tailored to each sector based on its business activities and risk management practices. This response to feedback pertains to the Guidelines for asset managers.

1.3 The consultation period closed on 7 August 2020, and MAS would like to thank all respondents for their contributions. The list of respondents and their submissions are respectively provided under Annex A and Annex B.

1.4 MAS has carefully considered the feedback received and will incorporate them as appropriate. Comments that are of the wider interest, together with MAS' responses are set out below.

2 Scope and Applicability of Guidelines

2.1 MAS proposed to apply the Guidelines to all holders of a capital markets services licence for fund management and real estate investment trust management (REIT), and fund management companies which are registered under paragraph 5(1)(i) of the Second Schedule to the Securities and Futures (Licensing and Conduct of Business) Regulations (Rg. 10). In addition, it was proposed for the Guidelines to apply to asset managers that have discretionary authority over the investments of the funds/mandates that they are managing.

Scope of risks covered

2.2 Some respondents suggested that MAS consider extending the scope of the Guidelines to include social and governance risks. There were also comments on whether having a set of Guidelines specifically on environmental risk would elevate this risk above all other investment-related risks, such as credit risk.

MAS' Response

2.3 The Guidelines focus on environmental risk, as the linkage between environmental risk and impact on the financial system is more established at this juncture than social risk, while governance issues can be addressed by existing governance requirements. In addition, climate risk and other environmental risks are closely interrelated, given that climate change could lead to environmental degradation and vice versa. MAS recognises that methodologies for assessing, monitoring and reporting environmental risk factors beyond climate change are less developed at present, and expects asset managers' risk management approaches to mature as methodologies and international frameworks evolve.

2.4 It is not MAS' intention for environmental risk to override other risk factors that may affect an investment's risk and return profile. Through the Guidelines, MAS seeks to provide guidance in a nascent area that is evolving and growing in importance.

Scope of activities covered

2.5 Most respondents agreed with the proposed scope consulted. Some respondents sought clarifications on whether the Guidelines should be applied to all mandates and portfolios, including passively managed portfolios, or only those with environmental focus.

2.6 A few respondents expressed concern that adherence to the Guidelines might result in conflict with some rules and regulations in other jurisdictions. This could arise particularly for delegated mandates, where the asset manager in Singapore is only managing a portion of the main fund that is subject to the rules and requirements of the overseas jurisdiction which regulates the fund and the main manager.

MAS' Response

2.7 MAS would like to clarify that the Guidelines are applicable to asset managers that have discretionary authority over the investments that they are managing. This is not limited to only funds/mandates that have an environmental focus. All else being equal, the environmental risk impact on an investment is the same whether the investment in held in a general or an environmentally focused fund/mandate. The Guidelines are also applicable to funds/mandates with passive strategies. For instance, asset managers adopting partial replication methodologies and enhanced index strategies, can adjust the weights of the constituents versus a benchmark when constructing their portfolios to take into account environmental risk factors. Asset managers of passive strategies, more generally, can also use engagement and proxy voting to influence the behaviour of investee companies. Asset managers can take reference from useful resources on the incorporation of environmental issues in passive rule-based investments.

2.8 The Guidelines do not prohibit or restrict an asset manager from complying with applicable laws and discharging their fiduciary duties and other legal obligations to their customers. This has been further clarified in paragraph 1.2 of the Guidelines.

Applicability to small FIs

2.9 Several respondents sought clarification on MAS' expectations on smaller asset managers, raising concerns over compliance costs, given their limited resources and capacity in implementing an environmental risk management framework.

MAS' Response

2.10 Asset managers should apply the Guidelines in a manner that is commensurate with the size and nature of their activities, as well as the investment focus and strategy of their funds/mandates. The implementation of environmental risk management practices is intended to be an iterative process, as methodologies continue to evolve and mature. Asset managers could also look to ongoing industry efforts to develop and share good environmental risk management practices.

2.11 For asset managers with limited resources and capacity, MAS does not expect such firms to ramp up their environmental risk management capabilities immediately. Instead, smaller firms can take measured steps to uplift their environmental risk management capabilities. For example, as a start, smaller asset managers which require more guidance can turn to available resources online such as guidance published by the Network for Greening the Financial System ("NGFS"), and attend environmental risk management training courses to gain relevant environmental risk management knowledge and proficiency.

Incentives to support implementing environmental risk management

2.12 A few respondents recommended that MAS introduce schemes and incentives to support asset managers in implementing environmental risk management. Suggestions include financial support schemes, as well as measures to strengthen and incentivise data production and disclosures by issuers in Singapore and the region.

MAS' Response

2.13 MAS is supporting asset managers to transit to a low-carbon economy through mandates, grants and capability development. To grow green investment flows and deepen green investment capabilities, MAS launched the US$2 billion Green Investment Programme in November 2019, which will place funds in public market investment strategies, with asset managers committed to deepen green finance activities and capabilities in Singapore. MAS has short-listed several asset managers with a view to appointing the successful applicants early next year.

2.14 MAS is also tapping on fintech to help to reduce data gaps and support financial decision making. MAS' Global FinTech Innovation Challenge, which is part of the Singapore Fintech Festival, is aimed at identifying promising FinTech solutions and catalysing partnerships with financial institutions to help them address climate change. Asset managers can collaborate with green FinTechs, research networks or accelerators to develop solutions which support their green investing objectives and overcome existing data gaps. In addition, MAS has announced that S$50 million out of a total of S$250 million under the Financial Sector Technology and Innovation Scheme 2.0 will be earmarked to support Green FinTech projects. The funding can be used to support Green FinTech Innovation Labs, industry-wide utilities and technology platforms for green finance and Green FinTech projects.

2.15 On measures to strengthen and incentivise data production and disclosures by issuers in Singapore and the region specifically, we have described some ongoing initiatives to help address these challenges in Section 4.

3 Governance and Strategy

3.1 The Guidelines set out expectations on the Board and senior management to oversee the integration of environmental considerations into the asset manager's strategies, business plans and products. The proposed responsibilities of the Board included approving the company's environmental risk management framework and policies and setting clear roles and responsibilities for the Board and senior management. Senior management is expected to develop the company's environmental risk management framework and policies, review their effectiveness regularly, and allocate adequate resources to manage environmental risk of the assets managed.

3.2 MAS also proposed that where environmental risk is deemed material to the funds/mandates managed, asset managers should designate a senior management member or a committee to oversee environmental risk.

Board and senior management oversight

3.3 Most respondents agreed that it is the Board's responsibility to oversee the management of environmental risk. Some were of the view that environmental risk, as part of investment risk, should not be under the purview of the Board, who should oversee business risk.

3.4 Most respondents supported MAS' proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, provided that this is on a non-exclusive basis (i.e. oversight of environmental risk to be added to the existing responsibilities of a member or committee).

MAS' Response

3.5 While environmental risk is part of investment risk, and the financial impact is borne by investors and not the asset managers directly, asset managers have the duty to ensure that investors' interest are adequately safeguarded, and risks associated with their investments are properly managed. In addition, channelling investments into investee companies that have a negative impact on the environment could pose reputational risk to the asset managers, and this in turn, is a business risk. Hence, MAS expects the Board to have a holistic oversight of the management of environmental risk. Nevertheless, the Board can delegate its oversight responsibilities to a designated committee.

3.6 MAS would also like to clarify that asset managers are not required to designate a senior management member or committee to solely oversee environmental risk. Asset managers may appoint their existing senior management members or committees to perform this role if they have assessed that these individuals or committees have the necessary expertise to do so.

Leveraging group structure, policies and frameworks

3.7 Several respondents highlighted that structurally, some asset managers are part of a group and that there were various instances of funds being managed globally, with the involvement of related companies. For such groups, the oversight of environmental risk management could rest with a committee at the group level or at a regional level. As such, respondents proposed that MAS give asset managers the flexibility to leverage group resources in the oversight of environmental risk, including the adoption of group governance structure, environmental risk framework and policies. In addition, there was a request for MAS to allow overseas personnel from within the group to be designated as the senior management member to be overseeing environmental risk management for the Singapore asset manager.

MAS' Response

3.8 MAS would like to clarify that asset managers may adopt their group governance structure and frameworks. As such, Board oversight of environmental risk management could be performed by a combination of local, regional and/or global committees, with clear duties set out between or amongst these committees. Nonetheless, this does not absolve the local Board and senior management from their responsibility for effective oversight of the Singapore operations, and they remain accountable for the responsibilities set out in the Guidelines.

3.9 Asset managers may also adapt the policies and procedures that have been instituted at the group-level to their Singapore operations, for the purpose of complying with the Guidelines. We have edited the Guidelines to reflect our clarifications.

Three lines of defence

3.10 Some respondents suggested that the role of the three lines of defence be made explicit in the Guidelines.

MAS' Response

3.11 As the first line of defence, business line staff should take into consideration environmental risk when establishing and managing funds/mandates, particularly if they invest in sectors with higher environmental risk. Both the risk management and compliance functions play important roles as the second line of defence. The risk management function should monitor the business line's implementation of the asset manager's environmental risk management policies, including challenging practices and decisions, where appropriate, while the compliance function should ensure adherence to applicable rules and regulations. The internal audit function, as the third line of defence, should consider as part of its independent review, the robustness of the asset manager's risk management framework in managing environmental risk. We have edited the Guidelines to reflect these considerations.

3.12 For smaller asset managers which do not have in-house or dedicated compliance and internal audit functions and where the three lines of defence are not practicable, MAS will hold the CEO and directors accountable for the management of environmental risk.

Individual accountability

3.13 One respondent requested clarification on individual accountability over environmental risk management.

MAS' Response

3.14 MAS views the expectation to designate a senior management member or committee to oversee environmental risk as being complementary to the Guidelines on Individual Accountability and Conduct [1]. The expectation in the Guidelines on Environmental Risk Management focuses specifically on environmental risk, and asset managers may designate a senior management member or committee to oversee environmental risk. The senior management member or committee needs to have clear responsibilities and reporting line(s), with respect to environmental risk management.

4 Research and Portfolio Construction

4.1 The Guidelines set out expectations for asset managers to evaluate the potential impact of material environmental risk on an investment's return potential when carrying out research and portfolio construction. Asset managers should apply appropriate tools and metrics to identify sectors with higher environmental risk. For such sectors, asset managers should develop sector-specific guidance to aid its investment personnel in understanding their attendant environmental issues. MAS also expects asset managers to measure and manage environmental risk factors that are present in a portfolio on an aggregate basis, where material.

[1] The Guidelines on Individual Accountability and Conduct were issued on 10 September 2020, with a focus on the measures that financial institutions should put in place to promote the individual accountability of senior managers, strengthen oversight over material risk personnel, and reinforce standards of proper conduct among all employees.

Tools and metrics for risk assessment

4.2 Respondents which were more established in environmental risk management employed a range of proprietary and third-party tools and research to support their investment teams. Several respondents were concerned about the lack of data harmonization, and cautioned against making use of any tool or metric mandatory, preferring to have flexibility in choosing the appropriate framework for their business. One respondent commented that it would be difficult for smaller asset managers to incorporate tools and metrics into their investment process until data on environmental risk becomes more widely available and less costly.

4.3 A few respondents asked for more examples on how they can incorporate environmental risk management considerations in their research and portfolio construction processes for other asset classes such as public equities and REITs.

MAS' Response

4.4 As environmental risk measurement and reporting methodologies are nascent, and disclosure frameworks continue to evolve, it will take time to converge on some form of minimum standards on disclosure across corporates. MAS recognises that data challenges pose a key impediment to asset mangers' environmental risk analysis, and data constraints would in part arise from the limited data reported by corporates and lack of comparability of the data. MAS is engaged in ongoing initiatives on both the international and domestic fronts to address these challenges.

4.5 Internationally, MAS is working with other regulators through the NGFS to identify key data needs for environmental risk analysis, and the means to bridge these data gaps. We also participate in the International Organisation of Securities Commissions Sustainable Finance Task Force, which looks at improving sustainability-related disclosures by issuers and asset managers, as well as the International Platform on Sustainable Finance ("IPSF"), which enhances international coordination on disclosures.

4.6 Domestically, Singapore Exchange ("SGX") mandates annual sustainability reporting for listed issuers, whereby all SGX-listed issuers are required to report on five primary components on a comply-or-explain basis. SGX will soon include the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD") within its existing guidance to assist listed issuers with their climate-related financial disclosures.

4.7 To address the cost issue for smaller asset managers, one possibility is for them to initially rely on publicly available instead of proprietary information or paid databases to conduct their research on investee companies and identify sectors which are more affected by environmental risk.

4.8 In response to requests for additional guidance on the incorporation of environmental risk factors into the research and portfolio construction process for other asset classes, MAS has added examples in relation to investments into equities and REITs in the Guidelines. The examples highlighted in the Guidelines are intended to be illustrative, and not prescriptive or exhaustive. Asset managers can also refer to available publications, such as the "Overview of Environmental Risk Analysis by Financial Institutions"[2] and the "Case Studies of Environmental Risk Analysis Methodologies"[3] issued by the NGFS, on possible tools and metrics that they can adopt for environmental risk analysis and portfolio construction.

Taxonomy

4.9 One respondent highlighted the lack of consistency in sustainable investing terminology and recommended that MAS endorses a product taxonomy to provide clarity and standardisation that would aid in the investment screening process.

MAS' response

4.10 MAS acknowledges that a common language on green finance, and clarity and consistency in such definitions will help support financial institutions to channel more green financing flows with confidence. MAS is working with the financial sector to assess the potential of a taxonomy for Singapore-based financial institutions, which could cover both green and transition activities and could also be applied to these financial institutions' regional and global operations. MAS is also involved in discussions on taxonomy at regional and international platforms. This includes the IPSF, which MAS is a member of, where work on a "common ground taxonomy" is ongoing, to highlight commonalities among existing taxonomies.

[2] https://www.ngfs.net/en/overview-environmental-risk-analysis-financial-institutions

[3] https://www.ngfs.net/en/case-studies-environmental-risk-analysis-methodologies

5 Portfolio Risk Management

5.1 The Guidelines set out the expectations for asset managers to put in place appropriate processes and systems to monitor, assess and manage the potential and actual impact of material environmental risk on individual investments and portfolios on an ongoing basis. Asset managers should develop capabilities in scenario analysis to evaluate portfolio resilience and valuation under different environmental risk scenarios.

Scenario Analysis

5.2 Some respondents gave the feedback that scenario analysis is a relatively nascent area and that the quality of available third-party data that can be used for such analysis need improvement in reliability and comparability.

5.3 On the one hand, some respondents were of the view that the language used in the draft Guidelines for scenario analysis was prescriptive and wanted flexibility in how they conduct risk management, such that it is proportionate to their operational models and size of business. On the other hand, a respondent asked MAS to recommend scenarios to facilitate asset managers' analysis, to ensure that there is some level of comparability among asset managers.

5.4 There was a suggestion for scenario analysis to focus on material risks. One respondent was also concerned that the current state of scenario analysis was unlikely to provide useful information to investors and might be misleading to investors if disclosed.

MAS' Response

5.5 As mentioned in paragraphs 4.4 to 4.6, MAS is cognisant of the data challenges, and is involved in initiatives internationally and regionally to address these challenges. On scenario analysis, MAS similarly recognises that work in this space remains nascent, particularly for physical risk. There remain challenges in assessing the effects of climate change over longer time horizons, alongside the uncertainty in global response to climate mitigation and adaptation. MAS will provide guidance to asset managers on relevant scenarios and risk factors in future and also accord flexibility for asset managers to determine the scenarios and risk factors that are relevant for them, taking into consideration the investment focus and strategy of their funds/mandates. The NGFS has developed guidance on reference climate scenarios, which may serve as a useful reference for asset managers. Asset managers may also consider referring to scenarios aligned with scientific climate change pathways, including from the IPCC

Intergovernmental Panel on Climate Change and the International Energy Agency. For smaller asset managers, they can consider performing scenario analysis at an individual investment level, focusing on sectors which are more affected by environmental risk, using a more qualitative approach before progressing to conducting scenario analysis at a portfolio level and adopting a more quantitative approach.

5.6 On the inclusion of materiality in scenario analysis, MAS has taken in the feedback and updated the Guidelines to clarify that where environmental risk is material in the investment portfolios, asset managers should explore the use of scenario analysis to assess its impact on their portfolios, including the portfolios' resilience to financial losses under a range of outcomes. MAS would also like to clarify that we do not require asset managers to disclose the results of their scenario analysis to their investors.

Capacity building

5.7 One respondent asked for greater clarity on MAS' expectations in relation to capacity building and training.

MAS' Response

5.8 Asset managers should actively seek to enhance their knowledge and capacity in environmental risk management. Asset managers can turn to available resources online, such as guidance published by the NGFS, TCFD and the Principles for Responsible Investment. Asset managers can also attend environmental risk management training courses, such as those provided by the Singapore Green Finance Centre, a partnership between Singapore Management University and Imperial College Business School to gain relevant environmental risk management knowledge and proficiency. Additionally, MAS is working with the Institute of Banking and Finance, the national accreditation and certification agency for financial industry competency, on the accreditation of green finance training programmes which asset managers can consider in their training plan. We are also working with the industry to develop practical implementation guidance on environmental risk management.

6 Stewardship

6.1 The Guidelines included an expectation on asset managers to exercise sound stewardship to help shape positive corporate behaviour and manage environmental risk associated with investee companies through engagement, proxy voting and sector collaboration. It was also proposed that asset managers maintain proper documentation to support their engagement efforts and report on their stewardship initiatives.

Flexibility in approach

6.2 Respondents generally agreed that stewardship is a key tool to manage environmental risk but requested for flexibility in their stewardship efforts as their ability to influence an investee company is subject to a variety of factors (e.g. interest held, whether their role is as a shareholder or a bondholder).

MAS' Response

6.3 The range of stewardship approaches outlined in the Guidelines are intended to be illustrative, and not prescriptive or exhaustive. Asset managers have the flexibility to adopt the most appropriate stewardship approach(es), taking into consideration the significance and nature of their relationship with the investee company. To enhance the level of influence and leverage on the knowledge, skills and resources of others, smaller asset manager can consider working with like-minded investors to engage investee companies to address common environmental risk concerns and work towards more sustainable business practices over time. Proxy voting is also a stewardship approach that can be easily implemented by smaller asset managers, in particular for investee companies that the asset managers have substantial exposure to and where the environmental risk is material.

Potential conflict of anti-trust rules and regulations

6.4 There was some concern that collaborative engagement could potentially conflict with strict anti-trust rules and regulations.

MAS' Response

6.5 MAS acknowledges that collaborative engagements could result in asset managers triggering other legal obligations in certain jurisdictions. At the same time, some regulators have also clarified that takeover rules would generally not be triggered if asset managers collaborate on environmental issues. Given the merits of collaborative engagements, they are still encouraged, to the extent possible, without infringing other rules. For the avoidance of doubt, MAS has amended the Guidelines to reflect our clarification.

Real estate investments

6.6 A group of respondents were of the view that the stewardship section of the Guidelines was not applicable to direct real estate assets or co-investments/joint ventures into real estate assets.

MAS' Response

6.7 Asset managers of real estate investments can drive the direction and strategy of the assets that they invest in. As such, in terms of "stewardship", they can play a key role in implementing asset enhancement initiatives of the assets they manage. Examples of these initiatives include putting in place measures to improve energy and water efficiency, reducing waste and/or attaining green building certification. We have amended the Guidelines to reflect this clarification.

7 Disclosure

7.1 MAS proposed that asset managers disclose their approach to managing environmental risk and the potential impact of material environmental risk on the assets it manages. Asset managers should also take reference from international reporting frameworks, including the TCFD recommendations, to guide their environmental risk disclosures.

7.2 Respondents generally supported the proposal for asset managers to disclose their approach to managing environmental risk, as well as the option for disclosures to be consolidated at the group or head office level. Respondents were also supportive of the principles-based approach for disclosures, and the recommendation to use international reporting frameworks to guide environmental risk disclosure. Some respondents recommended that MAS prescribes the disclosure metrics, as well as the form and frequency of disclosure.

MAS' Response

7.3 MAS has not prescribed metrics to be disclosed as the maturity of environmental risk management practices varies amongst asset managers and practices are still evolving with multiple disclosure frameworks now available. In addition, the impact of environmental risk can manifest differently for each asset manager, depending on its strategy, business plan and product offerings.

7.4 Given the above, asset managers can take reference from international reporting standards and frameworks to guide their environmental risk disclosure. We have reflected in the Guidelines that asset managers disclosures should be in accordance with well-regarded international reporting frameworks, such as the TCFD recommendations. For smaller asset managers, disclosures can be more qualitative in nature as a start. More quantitative metrics and targets can be included, where relevant, over time.

7.5 MAS would also like to clarify that we accept disclosure via asset managers' annual reports, sustainability reports, investor reports and/or website. Asset managers should evaluate the various means of disclosure and adopt an approach, as well as the frequency, that best enables them to provide clear, meaningful and timely information to their investors, customers and other stakeholders.

8 Implementation Approach

8.1 MAS proposed to provide a transition period of 12 months after the Guidelines are issued, for asset managers to assess and implement the Guidelines as appropriate.

Extended transition period

8.2 Many respondents requested for a longer transition period of 18 to 24 months, citing more time required for the establishment of the processes to fulfil the requirements as set out in the Guidelines. Global asset managers highlighted that they were in the process of implementing multiple environmental-related regulatory requirements across various jurisdictions (such as the European Union, United Kingdom and Hong Kong), and asked that MAS consider aligning its transition period to enable them to implement these Guidelines in a meaningful and harmonised manner.

MAS' Response

8.3 MAS will extend the transition period from 12 months to 18 months. We recognise that asset managers may face initial challenges in implementing the Guidelines, and asset managers' approaches to managing and disclosing environmental risk are expected to mature as the methodologies for assessing, monitoring and reporting such risk evolve. Notwithstanding, asset managers should strive to implement the Guidelines as soon as possible, and in phases where practicable. For example, it could start with establishing governance structures and accountability. Asset managers should demonstrate evidence of implementation progress over the transition period. MAS will start engaging the larger asset managers on their implementation progress from Q2 2021.

Incorporation into supervisory and regulatory frameworks

8.4 Some respondents requested for more details on how MAS will incorporate the expectations in the Guidelines into our supervisory and regulatory frameworks, with a few respondents suggesting that MAS consider a "comply or explain" approach for the Guidelines, which was similar to the approach being adopted in other jurisdictions such as the European Union.

MAS' Response

8.5 MAS would like to clarify that as part of our supervisory approach, we will consider how asset managers have incorporated environmental risk in their investment activities. In assessing how well an asset manager has observed our expectations on environmental risk management, MAS will take into consideration the size and nature of the asset manager's activities and the relevance of these expectations given the investment focus and strategy adopted by the asset manager for its' funds/mandates.

8.6 The Guidelines convey MAS' expectations of asset managers in the area of environmental risk management and are not issued on a "comply or explain" basis. Asset managers are expected to implement the Guidelines in a risk proportionate manner.

MONETARY AUTHORITY OF SINGAPORE

8 December 2020

Annex A

LIST OF RESPONDENTS TO THE CONSULTATION PAPER ON PROPOSED GUIDELINES ON ENVIRONMENTAL RISK MANAGEMENT (ASSET MANAGERS)

1. Aberdeen Standard Investments (Asia) Limited
2. AL Wealth Partners Pte. Ltd
3. Alliance Bernstein
4. Allianz Global Investors Singapore Limited
5. Asia Research & Engagement
6. Asia Securities Industry & Financial Markets Association
7. Association of Independent Asset Managers
8. Blackrock (Singapore) Limited
9. Carbon Care Asia Pte. Ltd
10. CFA Society Singapore
11. Eastspring Investments (Singapore) Limited
12. Ernst & Young
13. First State Investments (Singapore)
14. Global Reporting Initiative
15. HSBC Global Asset Management (Singapore) Ltd
16. ICI Global
17. Investment Management Association of Singapore
18. Keppel Capital Holdings Pte. Ltd.
19. Lymon Pte. Ltd.
20. M&G Real Estate Asia Pte. Ltd. & M&G Investments (Singapore) Pte. Ltd.
21. Maitri Asset Management Pte. Ltd.
22. MSCI

23. Münchener Rückversicherungs-Gesellschaft, Singapore Branch
24. Colchester Global Investors (Singapore) Pte Limited
25. New Forests Asset Management Pty Ltd
26. Moody's Analytics & Moody's ESG Solutions and its affiliates, Four Twenty Seven and Vigeo Eiris
27. Principles for Responsible Investment
28. Schroder Investment Management (Singapore) Ltd.
29. Singapore Environment Council
30. Singapore Venture Capital & Private Equity Association
31. The Alternative Investment Management Association Limited
32. WWF Singapore
33. Deloitte & Touche, which requested for confidentiality of submission
34. Ingenia Consultants Pte. Ltd., which requested for confidentiality of submission
35. Mapletree Industrial Trust Management Ltd. and Mapletree Commercial Trust Management Ltd., which requested for confidentiality of submission
36. Mapletree Logistics Trust Management Ltd., which requested for confidentiality of submission
37. Linklaters Singapore Pte. Ltd., which requested for confidentiality of submission
38. Respondent A, which requested for confidentiality of identity and submission
39. Respondent B, which requested for confidentiality of identity and submission
40. Respondent C, which requested for confidentiality of identity and submission
41. Respondent D, which requested for confidentiality of identity and submission
42. Respondent E, which requested for confidentiality of identity and submission
43. Respondent F, which requested for confidentiality of identity and submission
44. Respondent G, which requested for confidentiality of identity and submission
45. Respondent H, which requested for confidentiality of identity and submission
46. Respondent I, which requested for confidentiality of identity and submission
47. Respondent J, which requested for confidentiality of identity and submission

48. Respondent K, which requested for confidentiality of identity and submission

Annex B

SUBMISSION FROM RESPONDENTS TO THE CONSULTATION PAPER ON PROPOSED GUIDELINES ON ENVIRONMENTAL RISK MANAGEMENT (ASSET MANAGERS)

S/N	Respondent	Responses from respondent
1	Aberdeen Standard Investments (Asia) Limited	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** It appears that MAS approach on the Proposed Guideline is from the discretionary investment angle rather than from a product angle i.e. Singapore local domiciled funds. We would like to highlight that as delegation arrangements are rather common for global Fund Management Companies ("FMCs"), such an approach might result in conflicting requirements in scenarios whereby EU domiciled funds (which are subjected to EU ESG regulatory requirements) are delegated to Singapore for discretionary investment management. To avoid conflict or unnecessary duplication in such scenarios, we would like the Authority to consider either; (a) the Guidelines to permit Singapore FMCs to comply with the environment risk management guidelines/ requirements of the jurisdiction where the funds they manage are domiciled or where the mandates they manage are originated if such guidelines or requirements already exist, or (b) aligning the Guidelines to similar regulatory requirements imposed by other regulators to promote harmonisation of these requirements. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.**

		We would like the Authority to consider providing flexibility in the Guidelines to allow Singapore based FMCs to leverage on the group ESG framework and governance structure, as long as the Singapore local management is constantly notified on this front and issues in relation to Singapore managed mandates are escalated timely. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** We would like the Authority to consider providing flexibility in the Guidelines to allow Singapore based FMCs to leverage on the group ESG framework and governance structure, as long as the Singapore local management is constantly notified on this front and issues in relation to Singapore managed mandates are escalated timely. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** We would like the Authority to consider providing flexibility in the Guidelines to allow Singapore based FMCs to leverage on the group ESG framework and governance structure, as long as the Singapore local management is constantly notified on this front and issues in relation to Singapore managed mandates are escalated timely. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the**

		impact of environmental risk at both the individual investment and portfolio level. In view that FMCs might have their own in-house ESG governance framework and investment research capabilities, we would like the Authority to consider allowing FMCs, the flexibility to choose the appropriate framework, tools and metrics when assessing the impact of environmental risk at both the individual investment and portfolio level. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** No comments. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We would like the Authority to consider when drafting the Guidelines, the difference in ability of FMCs to engage investee companies as equity investors and bond investors. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** On the disclosure front, we agree with the Authority's proposal to allow FMCs the flexibility to take reference from international reporting frameworks such as TCFD, rather than being prescriptive. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.**

		No comments. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comments. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We would like to request for the Authority to consider extending the transition period to 18 months after taking into account the implementation timeline of similar regulations in the EU which are currently still evolving and not yet finalised.
2	AL Wealth Partners Pte. Ltd	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** Kindly refer to our reply to Question 11. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** We are aligned with the proposed expectations of the Board (to have full and active oversight) and senior management (to exercise proper controls). **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating**

		adequate resources to manage environmental risk of the assets managed. As stated above, we are aligned with the proposed responsibilities. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** As a boutique sized fund manager, both the Board and senior management are already engaged in all risk control activities. This will be the same for environmental risk when guidelines are issued and adopted. The level of controls to be implemented will be commensurate with the materiality. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Please see our comments in Question 11. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Please see our comments in Question 11. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.**

		This is more relevant for managers who are major investors into the underlying businesses/funds. Currently, our target investments are mostly in listed large cap securities who independently follow their own ESG guidelines. Our investments would not be significant enough to push their agenda, but collectively with other investors or with government intervention, such investments may have some effect in time to come. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Disclosures could be added to Offering documents and Fact Sheets. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Please refer to our comments in Question 11. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** Please refer to our comments in Question 11. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** In preamble, ALWP would like to express its willingness to fully initiative for an environmentally more sustainable future. We rec at its own level and with its own means has a role to play in t transition towards a greener economy.
3	Alliance Bernstein	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.**

		Given that an asset manager like AB and many of its peers are global entities, we would interpret these guidelines as being applicable for all active discretionary strategies that we managed, or all funds including UCITS funds that are registered in Singapore that the Singapore office will have discretionary investment power, and that as a result, the relevant operating entities (including ultimately our AB management and board in the US) would be in scope. We do not mind such an interpretation for the guidelines, provided that the recommendations, required actions, senior management designations, environmental risk management in our investment decision-making or engagement process are consistent with commonly accepted environmental risk frameworks, for instance, TCFD, of which AB is already a signatory. We would also hope that the regulatory and disclosure requirements are consistent with requirements of UCITS guidelines, as the bulk of our business in Singapore is conducted in Luxembourg comingled fund vehicles subject to such requirements. The Singapore office should be able to rely on the framework implementation of the group as the AUM of the UCITs fund managed by the Singapore Office might be just a small percentage as compared to the total AUM of the UCITs fund managed by the group. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** (includes our response for questions 3 and 4) We presume that the board, senior management and senior management designation here would pertain to the AB parent operating company in the United States, and not the board and management of the Singapore entity, which would have much

		less authority to ensure compliance with the proposed MAS regulatory framework. We would want to see language that clarifies this point. Despite the fact that what the MAS plans to promulgate are guidelines rather than statutes, because the headquarters of most major asset managers are outside of Singapore, and the presumed global requirements involve actions that must be taken at board and senior management level overseas, clarification of where legal liability resides at the entity level would be helpful. We would also further observe that the MAS consultation's environmental risk framework appears very similar to the approach recommended by the TCFD task force. In the spirit of how many jurisdictions are now adopting the UK Stewardship code rather than individual ones with mostly overlapping but sometimes differing requirements, we would propose for the ease of asset manager compliance and adoption that wherever explicit risk frameworks are called for at the board, senior management or investment management level, that asset managers (especially those that are already signatories of the TCFD) can provide their disclosures for TCFD or other similar standards as an alternative to the proposed guidelines. One idea might be to simply require a 'comply or explain' regime for TCFD for asset managers operating in Singapore. As existing signatories, we would be in favor of the simplicity of such a solution, or one that accepted TCFD disclosures and reporting as an alternative. It would also be helpful, where the MAS felt it needed as part of its guidelines, clauses or recommendations that differed from or were additions to the TCFD framework, to clarify the purpose of these considerations, why they are necessary, and the idiosyncratic requirements of this regime.

		Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed. NA. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** NA. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** (also includes our responses for 6, 7, 8) We are happy to accept the differing measurements of climate risk as defined by TCFD. Active asset managers such as AB pride ourselves on the quality of our deep investment research capabilities, including our risk assessments of candidates for our investment portfolios. We feel that the integration of ESG into our investment processes has been as successful as it has been because we treat E,S and G risks like any other fundamental risks that require proper due diligence, conducted by our investment analysts. While we do subscribe to 3rd party ratings services, we draw our own conclusions on companies based on our proprietary views of what issues are material. In fact, we have a strategy at AB called 'Global Improvers', that is premised on the idea that companies

		that we forecast (and can encourage through engagement) are likely to achieve ratings upgrades from ESG ratings firms are also likely to enjoy alpha over standard benchmarks as these ratings upgrades are achieved. That strategy is clearly providing environmental stewardship to companies that arguably need it the most, and where stewardship can make a bigger difference to global climate outcomes; yet on the basis of ESG ratings, the portfolio of companies held by the Improvers strategy would rank as average and sometimes even below. In short, we feel that any regulatory approaches that are too prescriptive, particularly in the use of third-party ratings, could be inconsistent with stewardship efforts to encourage more sustainable business practices, and of data disclosure that our portfolio managers and analysts deem to be critical in arriving at a better understanding of the environmental risks posed by such a business. Also, as the MAS arrives at guidelines around disclosures, we would ask that it sees that fund level disclosures are an evolving process that are in turn dependent upon the quality and accuracy of the data available from issuers and investee companies. It is all very well to ask for Scope 3 estimates for every investment strategy, but today, even Scope 1 disclosures are quite approximate, and third parties purporting to offer such data may provide a false sense of accuracy. We would simply ask the MAS in its role as regulator not to be too ‘aspirational’ in its data disclosure requests and base such disclosure guidelines more on the data generally available from Singaporean issuers as an example. Lastly, we would say on stewardship and engagement, there is no one model that delivers the best outcomes. Some asset managers have more of a top down approach, consistently asking investee companies for data disclosures. This is a valid approach that can improve outcomes for all investors and also for

		environmental risks management more generally. However, specific engagement of managements directly by our investment teams can also be useful in getting companies to make idiosyncratic and specific changes to their business model that does improve the sustainability of their business practices. For that reason, we would hope that the guidelines would promote all forms of stewardship and engagement by asset managers with their portfolio holdings to improve environmental risk outcomes, amongst other types of E, S and G risks. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** NA. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** NA. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** On reporting and disclosures, as mentioned earlier, we would recommend allowing ‘best practice’ reporting on strategy, risk frameworks, investment integration, stewardship by an asset manager where we would be able to furnish our TCFD report for the firm as an alternative to one required by the MAS. As the reporting capability of asset managers are ultimately dependent upon the disclosures made by issuers, reporting standards are likely to be an evolutionary process. For instance, for equities, Scope 1 and 2 emissions data is increasingly

		available, either from companies directly or approximations and estimates by 3rd party research providers. However, such data is not readily available for various fixed income asset classes (e.g. sovereigns or securitized assets) and the method of calculation is still very much in dispute. Another question is what one would do with Scope 1 or Scope 2 data – for a variety of companies, from asset managers and banks to eCommerce firms, it is actually the enabling of Scope 3 emissions that are the key issue – however, such Scope 3 data is not generally available today. Therefore, whilst aspirational, disclosures based on Scope 3 emissions would need to be phased in over time as the industry is generally unprepared for such disclosures now. The other issue highlighted by this fact is the relevance of Scope 1 and 2 emissions as a reporting requirement, when many companies' ultimate emissions issues lie elsewhere. We would acknowledge that regulators and the industry must start somewhere, but we think in this regard, what may matter just as much if not more for a given portfolio or strategy is the year-over-year rate of change, rather than the absolute number. For instance, an energy producer that successfully cuts its emissions by say 5-10% per annum is making a greater contribution to the possibility of a 1.5 degree warming scenario than a bank that keeps its scope 1 and 2 emissions flat at a low level (especially if that bank continues to lend to irresponsible carbon resource companies). AB is committed to constructive engagement with the largest emitters of carbon globally as part of its membership of Climate Action 100, and we would want any disclosure regime to not penalize strategies that may own companies that are significant carbon emitters today but where that footprint is being reduced significantly, encouraged by active engagement. Focusing on the rate of change as well as absolute numbers therefore would be a key issue. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.**

		We would also suggest that the MAS must engage with all of the stakeholders in our industry - not only large asset owners but also retail intermediaries and CPF fund administrators to educate financial advisors and their end clients on climate risks. We would also recommend the consideration of guidelines in terms of sales practices that encourage long-term investment – because we find it is only when one invests with a longer term mindset that climate and environmental risk factors become of obvious and paramount importance. Specifically, financial advisors' incentives and compensation should be structured to encourage long-term ownership by investors rather than a short-term trading mentality. If investors continue to persist with short-term asset trading, they may see the longer-term but profound risks of climate change as unfortunately being less relevant to their investment outcomes. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** No comment.
4	Allianz Global Invesors Singapore Limited	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** Allianz Global Investors Singapore Ltd. (AllianzGI) has no comments on this point.

		Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies. Given the critical importance of the ESG theme, we agree with the board's and senior management's general oversight of the integration of the environmental risk into the company's risk management framework. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** We appreciate the principle-based outline of the responsibilities which should allow to be implemented in accordance with each company's specificities in terms of organizational and governance structure. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** We believe that designating a senior manager, typically carrying the title of Chief Sustainability Officer or similar, or alternatively a committee, is an evolving international standard and should indeed be regarded as best practice. However, in order to avoid costly multiple layers, we believe that for international asset managers, it is generally appropriate to nominate this manager or committee on a global level (i.e. with an overarching role across legal entities) as long as the final responsibility of the

		operational legal entity's board and senior management is not hampered. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Sustainability risk factors may have the potential to influence the investment performance of portfolios negatively. They are potential drivers of financial risk factors in investments such as market price risk, credit risk, liquidity risk and operational risk. Quantification of risk in a given portfolio is therefore of an indirect nature. Risk measurements are usually built on specific models, rely on a number of assumptions and require specific data input. The assessment of specific risks is largely dependent upon disclosure of the relevant indicators on an asset level. Issuers often use different metrics which provide a challenge for the aggregation on portfolio level. We are happy to provide you as an example with a GHG metrics overview. Since standardization of the data is still evolving, we would suggest to not requiring asset managers to specifically consider the indicators from issuers as well as external data providers. In this regard, we understand that 4.4 a. and b. are considered examples and would suggest clarifying this by replacing "should" with "could". In general, we agree that asset managers should use their best efforts to analyze and evaluate environmental risks but should use their discretion based on reliability, availability and comparability of data. Within AllianzGI, for mainstream investment strategies, our portfolio managers have access to ESG and climate risk research, including intrinsic issuer ESG ratings. For many sectors, climate change already poses a material consideration for fundamental analysts and, as such, is reflected in the sector frameworks

		(capturing material ESG risks) and stock ratings used to inform investment decisions. To date, we have mainly used a qualitative approach to assess future climate-related risks and opportunities. This approach uses scenarios to provoke discussion about the overall investment strategy and the prospects for a particular sector or region, rather than as a source of data to feed into models. In order to deal with ESG risks, in our integrated ESG approach, each portfolio management team is responsible for questioning any potential holdings with low external ESG ratings about companies' ESG risks. We became an official supporter of the TCFD recommendations in 2019 following our parent company Allianz SE. TCFD provides overviews on metrics, however, since no market standard has yet evolved, we strongly suggest allowing asset managers to choose the metrics they see fit but rather focus on respective disclosure. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Approaches in the market for the measurement and monitoring of sustainability risk are constantly evolving and not yet fully standardized, and the quality of available third party data needs further improvement with respect to comparability and reliability. In particular, transferring measurable ESG risk factors in the investment process into measurements in order to quantify the risk of financial losses provides a challenge. While scenario analysis might be one potential tool, it is currently not clear whether this will be the only usable tool. We therefore suggest adjusting part 5.2 of Annex B in this respect as a potential example how to evaluate environmental risks. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact**

		of environmental risk and support their transition towards sustainable business practices. We generally agree with the suggestions for stewardship activities, however, would like to remark the following: - There is not necessarily one single investment objective and strategy, hence the engagement priorities and interests of customers could vary. - Any influence upon the behavior of investee companies has to be in line with legal requirements. For instance, stock corporation law might limit such influence or lead to significant negative consequences in case of such influence. - Collaborative engagement is in practice challenged by rules on acting in concert. These lead to attribution of voting rights which for asset managers would not be feasible in practice. Therefore, asset managers will act cautiously in this respect absent a clear international approach on this issue. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** We generally agree with the proposal and will implement the TCFD recommendations. However, asset managers rely in their disclosure on the data available where we see significant need for improvement. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** AllianzGI is very pleased to learn that MAS intends to publish guidelines on environmental risk management and welcomes the opportunity to comment on the draft guidelines. So-called ESG strategies form an integral part of AllianzGI's global product offering, and their importance is continuously increasing.

		We acknowledge that MAS, as laid down in section 2.5 of the consultation paper, works closely with other financial supervisors. AllianzGI fully supports the alignment of regulators on international level to develop best practices for supervisors and FIs to manage the impact of environmental risks. As an international firm, harmonized global standards are paramount for AllianzGI as they allow a uniform implementation in practice ensuring that the same high standard is adhered to globally. In this respect, we note and in particular appreciate the general alignment of the proposed MAS guidance with the guidance notice on dealing with sustainability risks issued by BaFin, our German corporate parent's home regulator, in December 2019. Furthermore, we very much welcome the principle based approach of the MAS in their proposed guidance. The evolution of the regulatory frameworks on sustainability, in particular in Europe, provides many practical challenges. Under the forthcoming EU regulations, European fund managers will be required to integrate sustainability risk in their internal processes, including risk management and investment due diligence possibly already by 2022. Nevertheless, approaches in the market for the measurement and monitoring of sustainability risk are constantly evolving and not yet fully standardized, and the quality of available third party data needs further improvement with respect to comparability and reliability. The principle-based approach does not limit further developments in this respect. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** As stated, due to evolving regulation implementation of such practices is ongoing. We are happy to provide MAS with examples once this has been implemented (see also question 11).

		Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months. We appreciate a transition period of 12 months. In practical terms, alignment with the changes to the UCITS and AIFMD framework in Europe (which will come into force by the end of Q4/2021 or Q1/2022), would be helpful.
5	Asia Research & Engagement	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** The scope restricts the application of the guidelines to firms with "discretionary authority". However, there are situations where an asset manager should take steps to manage environmental risks even though the manager does not have full discretion to buy or sell the assets or securities. For example, passive investors should exercise stewardship responsibilities such as voting irrespective of whether discretion over buying/ selling decision is limited to that required to rebalance portfolios to match index performance. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** The Board should also have a responsibility for overseeing appropriate communications with stakeholders on environmental risk management. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating**

		adequate resources to manage environmental risk of the assets managed. The senior management should also have a responsibility for communicating appropriately to stakeholders in line with the section on disclosure. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** No comment. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** The consultation document provides some of the best known organisations providing tools in this space. We believe it would be helpful to provide the Singapore market with a much broader overview of the tools and services that are available. This would help asset managers to think through what might be relevant for them. We have provided an example of a longer list in the annex to the response for the banking consultation that we have emailed to Ms. Teo Hui Xin and Mr. Lim Weilun on 6th Aug 2020. Please note in the context of this comment that ARE is the Asia representative for GRESB.

		The GRESB Real Estate Assessment is widely regarded as the de facto standard for reporting and benchmarking on the extent of ESG integration into real estate portfolio management for both private and public funds. It is already used by some Singapore based investors and some of the largest property companies and developers headquartered in Singapore participate in the annual Assessment. There are examples of financing deals that use GRESB as the reference ESG standard that were structured by Singapore banks for Singapore based and overseas based GRESB participants. This tool is particularly appropriate to the REIT market, which is directly covered in the consultation. Consequently, we believe it is appropriate to highlight this tool in the guidance document. For infrastructure, GRESB has two Assessments, one for funds and one for assets. These present an emerging standard for reporting and benchmarking of ESG integration at the fund and asset level. Given the lack of guidance on ESG practices for infrastructure funds more broadly and the challenges for achieving comparability, we believe it is also appropriate to highlight this tool. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We believe that asset managers' stewardship activities are an essential component of corporate governance and integral to efforts to manage systemic risks to capital markets and the economy. The stewardship activities vary by asset class and are particularly important for public equities where active ownership is the primary mechanism by which investors can address environmental concerns.

		We agree with the need for investors to ask environmentally focused questions such as those in the Guidelines. The Guidelines also refer asset managers to the Singapore Stewardship Principles, which does not include environment related questions. This has the effect of weakening the emphasis of the Guidelines on environmental risk. Consequently, we encourage MAS to work with stakeholders to strengthen the Singapore Stewardship Principles. We also believe that investors will need more guidance on the process of engagement and especially on how to escalate where engagement has not produced the desired result. This could be included as an annex to the Guidelines or through updated stewardship principles. ARE also structures collaborative engagements with leading global institutional investors on energy transition and sustainable protein in respect of Asian holdings. We would be happy to share further information about these and to be referenced as a case study for approaches to engagement in any longer list. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** The Guidelines encourage disclosure to clients and note that such disclosure can be consolidated at a group or head office level. We believe that policy statements and approach to environmental risk management can be provided at a group level where these apply across a group. However, performance data should typically be provided at the level of the portfolio to which a client has exposure. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.**

		We believe the Guidelines could assist users by providing more guidance on approaches to environmental risk management in different asset classes. This is particularly important to ensure that the asset management industry plays a role in achieving climate outcomes that address systemic risks. For instance, the appropriate steps to manage risks in public equities include stewardship or active ownership such as engagement and voting practices as allocation of capital by list companies to real economy expenditure is a primary responsibility of the board. This is particularly important for discussions such as those with fossil fuel companies about intended capital expenditure. However, for public equities divestment can be appropriate and can provide a signal to company boards, but it does not create a real world outcome as there will be a corresponding buyer and the assets will continue to operate. This contrasts with the situation in fixed income markets where bond proceeds go directly to financing or refinancing assets. Consequently, divestment or a refusal to buy certain assets can be much more closely linked to potential real world outcomes that align with efforts to transition away from climate change. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.**

		We believe it is appropriate to set a transition period for implementation of the Guidelines. Given the urgency of addressing environmental risks 12 months seems appropriate. However, we believe it is also important for MAS to signal to the market the intention to tighten the Guidelines in future as they are not currently stringent enough to ensure that systemic risks such as climate change are adequately managed. Furthermore, we believe it is appropriate for MAS to monitor and enforce the implementation of Environmental Risk Management by asset managers and to make provision for this in due course.
6	Asia Securities Industry & Financial Markets Association	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** On behalf of the Asset Management Group (“AAMG”) of Asia Securities Industry & Financial Markets Association (“ASIFMA”), we wish to submit the views of our members, which are predominantly global asset managers, on the MAS Consultation Paper on Proposed Guidelines on Environmental Risk Management (Asset Managers). We have no issue with the entities in scope of the proposed Guidelines, namely holders of a capital markets licence for fund management (“LFMC”) and real estate investment trust (“REIT”) management, and fund management companies registered (“RFMC”) under paragraph 5(1)(i) of the Second Schedule to the Securities and Futures (Licensing and Conduct of Business) Regulations (Rg.10) (collectively “asset managers”). However, we think that it would be helpful to clarify the scope of the Guidelines given the diversity of business activities and roles carried out by asset managers. The Guidelines, for example, only propose exclusion from applicability where the asset manager does not have discretionary authority over the investments of the funds/mandates. Active or Passive Managers

		We would like it if the Guidelines can clarify whether asset managers with passive mandates or strategies linked to benchmarks and indices would be included or excluded. Some of our members are of the view that asset managers which manage passive funds or mandates should be excluded from the Guidelines, particularly the Guideline's investment management, risk management and tools and metrics aspects, because such managers merely make investments based on the constituents in an index that they are tracking and do not exercise any discretion per se. Whether it is their client who chooses a particular index or a fund that is designed to track an index, the investment manager thereof has no choice but to track the index when making investments. However, some other members would like to see managers of passive mandates or strategies to be within scope of the Guidelines because inclusion of passive managers within the Guidelines would enable investors to better compare and assess active and passive managers' approach to environmental risk management and the underlying environmental risk of individual companies within a benchmark or index. They also feel that any attempt to introduce ESG principles and environmental risk management into the broader investment community by regulators will be diluted if passive managers are excluded due to the sheer size of passive funds. We feel that it would be helpful if the MAS can be more explicit about how the Guidelines would apply in the passive context, for example, in research and portfolio construction, and portfolio risk management. We do think that ultimately, materiality should be the driving concept behind applicability of the Guidelines. Client Mandate and Investment Objective/Guideline

		In addition and more important, we ask that the Guidelines take into consideration the fact that the asset managers' discretionary authority is limited by the investment objective(s) and guidelines of the fund and/or client mandate that they manage or the risk profile of client. Therefore, we would suggest that the Guidelines adopt a more flexible approach so that discretionary managers can take into consideration such investment objectives and guidelines. With more and more institutional investors paying attention to ESG factors in their investments, we believe that providing discretionary asset managers with such flexibility would not detract from the intentions of the Guidelines. Primary Manager or Delegate We also believe that it is important for the Guidelines to recognize the different roles of an asset manager, i.e. as the primary investment manager or just a delegate of a primary investment manager. For example, under the laws of certain jurisdictions (e.g. US ERISA requirements), asset managers may have a fiduciary duty to select investments based solely on financial considerations, albeit over a certain time horizon. If an asset manager in Singapore is merely a delegate or sub-investment manager of a fund/mandate managed by an overseas asset manager, even if it has discretion, it is bound by the investment objectives as well as the requirements to which the primary investment manager is subject. Being part of a global asset management firm, many of our members may be managing their group's funds/mandates or the Singapore or Asian sleeve of such funds/mandates. For example, they may be managing UCITS funds, such as Luxembourg SICAVs, which are subject to UCITS requirements and guidelines. To avoid conflict or unnecessary duplication, we suggest that the Guidelines permit asset managers in Singapore to comply with the environment risk management guidelines or requirements of the jurisdiction where the funds they manage are domiciled or

		where the mandates they manage are originated if such guidelines or requirements already exist. Group Level Framework In addition, we would like to suggest that where the asset manager's group is already subject to or has already implemented globally accepted environmental risk standards and frameworks such as the Global Reporting Initiative ("GRI"), the Sustainable Accounting Standards Board ("SASB") and/or the Financial Stability Board's Task-Force on Climate-related Financial Disclosure ("TCFD") , then the environmental risk framework (including the responsibilities of the Board and senior management, approach to portfolio construction and risk management, stewardship, and disclosure) implemented at the group level can be used to meet the requirements of the Guidelines expected of asset managers in Singapore. We note that the Guidelines include non-climate environmental issues such as loss of biodiversity, pollution, and changes in land use, and would like to understand the MAS's expectations around the approach to these and other non-climate environmental issues which would be beyond the scope of the TCFD framework, for example. Compliance with the Guidelines Finally, given the nature of MAS guidelines as principles or "best practice standards", as opposed to legally binding requirements, our members would like clarity on the expectations around explaining and documenting the adoption of globally accepted environmental risk frameworks at the Group level in lieu of the Guidelines, or the non-adoption of certain aspects of the Guidelines on the basis of materiality or for other reasons.

		We hope that the Guidelines will take into consideration the aforementioned circumstances and suggestions and provide flexibility for asset managers in Singapore. Otherwise, it will be operationally challenging for them to comply with potentially conflicting requirements and they may be disadvantaged vis-a-vis asset managers based in other parts of the region. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** Board Responsibilities of Large Asset Managers When considering the role of governance and strategy in environmental risk management, the Guidelines suggest its implementation will be based on the size and nature of the asset manager's activities. Even though most of our members are global asset managers, the scope of their activities and operations in Singapore will vary. Therefore, for some of them, the overseeing of environmental risk management, including the approval of environmental risk management frameworks and policies, may rest with the Board of the member's parent company overseas. Our members would like to have flexibility to determine the appropriate entity's Board to have responsibility for overseeing environmental risk management, particularly if the management of a fund/mandate is delegated from a group entity overseas. We suggest that only where a Singapore asset manager has primary investment management responsibility that its Board be given responsibilities to oversee such manager's environmental risk management. Scope of Responsibilities

		We believe that responsibility for "ensuring adequate management expertise and resources for managing environmental risk, especially training and capacity building", in Paragraph 3.4(c) of the Guidelines, should not sit at the board level which sets the high-level risk management framework, but rather at the senior management level, as already covered by Paragraph 3.5(d). **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** For many large global asset managers, the overseeing of environmental risk management, including the development of environmental risk management frameworks and policies, generally rests with the senior management at the group level or at a regional level. Our members would like to have the flexibility to determine the appropriate level of senior management at the local, regional or group level to have responsibility for the environmental risk management of the asset manager based in Singapore. Only where a Singapore asset manager has primary investment management responsibility would we suggest that a member of its senior management be given responsibilities to oversee such manager's environmental risk management. We would also like to highlight that senior management is usually best placed to oversee the operational risks of the asset manager (i.e. enterprise risk), whilst investment risks at the portfolio level are usually best managed by the portfolio managers themselves. We would request that the Guidelines clarify and distinguish between enterprise risk and portfolio/investment risk when

		referring to environmental risk management to avoid any potential conflation of the two concepts. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** For many large global asset managers, the overseeing of environmental risk management, generally rests with a committee at the group level or at a regional level. Our members would like the flexibility to determine the appropriate senior management member or committee at the regional or group level to have, or be delegated, responsibility even if they are not located in Singapore. Even though the Individual Accountability and Conduct ("IAC") regime in Singapore has not yet been implemented, we think that a senior manager under the IAC regime in Singapore would have oversight over environmental risk as a subset of overall investment risk, where such risk is material. We agree with the approach of materiality in overseeing environmental risk, i.e. what is appropriate to the nature, scale and complexity of the assets managed. We would request that the MAS makes reference to global standards when considering material risk, but also allow flexibility, especially in the context of multi-asset portfolios, where environmental risks may be material for a portion of the portfolio only. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Globally Accepted Frameworks and Metrics

		Our members agree that globally accepted standards such as SASB, GRI, UNPRI and TCFD guidelines provide good frameworks and metrics to assess the impact of climate risk at both the individual investment and portfolio level. We would like asset managers in Singapore to be allowed to choose the appropriate framework and metric and not be required to adopt any specified tools and metrics. Third Party Rating Systems It has been suggested that third party rating systems are available to aid the assessment of environmental risk. Our members would suggest that the adoption of third party ratings systems should not be recommended or mandated, especially since many of our members treat ESG risks the same as other fundamental risks to draw their own investment conclusions and some invest a lot in their own in-house investment research capabilities. In addition, although current third-party providers provide a good baseline for certain historical ESG data, there is limited data for forward-looking climate scenario analysis and physical climate change risk for example. We are at a nascent stage in the integration of environmental risk into investment management, and third party providers’ processes and protocols are still being fine-tuned. Given current data gaps, the proprietary opacity of third party providers’ underlying assumptions and thus a degree of subjectivity in the resultant ratings, we would request that the MAS give weight to the lack of climate related data when coming up with its guidelines. Specific Examples and Guidance Separately we note that in Paragraph 4.4 of the Guidelines on Research and Portfolio Construction, specific examples of materiality of environmental risk are provided for fixed income and direct real estate investments only. We would suggest that

		the MAS provide examples for other asset classes, such as public and private equities. Furthermore, Paragraph 4.5 of the same section refers to the identification of “sectors with higher environmental risk” and the development of “sector-specific guidance to aid its investment personnel”. We would request that the MAS take into account the principle of materiality in any requirement related to investment decisions, and allow asset managers the flexibility to develop investment guidance depending on the strategy and investment objectives. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Many of our members believe that globally accepted standards such as the TCFD Guidelines provide appropriate frameworks and metrics to conduct portfolio risk management, and prefer that the MAS not prescribe tools and metrics that are different from global standards, especially given that data in the market remains incomplete. We agree with the approach of suggesting rather than prescribing short-term and long-term scenario analysis and the assessment of physical and transition risk only “where relevant” in Paragraph 5.3 of the Guidelines on Portfolio Risk Management, especially given current data gaps and the shortcomings in third party ratings systems as highlighted in our response to Question 5. We suggest that the MAS clarify if this reference to “where relevant” is referring to the principle of materiality, and whether it is at the portfolio level or some other level. Our members would also like to seek additional clarity on the MAS’s expectations in relation to capacity building and training, and how the MAS intends to assess efforts to train and equip staff on issues relating to environmental risk management.

		Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices. Stewardship Being part of a global asset management firm, many of our members already adopt a stewardship policy on a group basis. To avoid conflict or unnecessary duplication, we suggest that these Guidelines permit asset managers in Singapore to comply with the policies around stewardship which are adopted on a group basis if such policies already exist. We would also prefer that expectations around engagement efforts take into account the specific investment mandate and be linked to the material factors of an investee company's environmental risks. Asset managers, especially through their stewardship initiatives, are able to engage with investee companies to manage the impact of environmental risk. The ability to influence, the engagement approach of different asset managers, and the adoption approach of investee companies may all vary, thus a more flexible approach is preferred. In addition, we believe that the engagement expectations of asset managers should also be linked to the materiality of an investee company's environmental risks. Some members are also concerned with the express reference to "collaborative engagements with other asset managers/investors" which may give rise to anti-competition concerns in jurisdictions in which they or their group operate. We believe, in general, engagement that would enhance the efficiency of markets should not be seen as anti-competitive. However, for the avoidance of doubt, our members would prefer the option to choose whether to engage collectively with other

		asset managers/investors, taking into account applicable rules and regulations. Shareholder vs. Bondholder Separately, we would like to note that the ability of asset managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices is more relevant to equity investments where the asset manager is in the position of a responsible owner, i.e. shareholder with exercisable voting rights, and not where it is a bondholder. We suggest that the MAS takes the foregoing into consideration when drafting the Guidelines. Comprehensive Approach Our members believe that it would be far more effective to transition towards sustainable business practices with the help of regulators and through listing rules and regulation of investee companies as well as the provision of training and education to investee companies. The foregoing would ensure consistency of implementation and disclosure, and facilitate comparability between investee companies. Putting the onus on asset managers alone will not be enough or effective. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Reference to Global Standards We agree with the approach of materiality in disclosing environmental risk, and the ability to consolidate disclosure at the group or head office level, in so much as they refer to the governance frameworks, the description of how environmental risks are integrated into investment decisions according to

		strategy, and the metrics which may be used for different strategies. We support the fact that the Guidelines do not prescribe actual forms of disclosure or particular international reporting frameworks to follow but rather make reference to international frameworks, such as TCFD. We would propose that asset managers that are already subject to or have already implemented such globally accepted environmental risk management standards can provide their disclosure in accordance with such standards. We would also request that the MAS base disclosure guidelines on data generally available from Singaporean issuers as an example. Given the evolutionary nature of the Guidelines, we would also expect that the Guidelines will continue to align and converge with global standards over time. Level of Disclosure Paragraph 7.1 of the Guidelines refers to the disclosure of "potential impact of material environmental risk to customers, including quantitative metrics such as exposures to sectors with higher environmental risk" which seem to point to portfolio level disclosure. But the paragraph then suggests that disclosure may be "consolidated at the group or head office level", suggesting the aggregation of metrics across all portfolios. We would suggest that the disclosure of quantitative metrics should only be required on a portfolio level in order to provide decision-useful information to investors. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Our members believe that the adoption of environmental risk management requires a comprehensive ecosystem of players working to promote the long-term investment outcomes that

		sustainable business practices engender. We would suggest that the MAS bring investee companies to the table (as suggested in our response to Question 7), as well as engage with all stakeholders in our industry, i.e. not only large asset owners, but also retail intermediaries and CPF fund administrators, and educate financial advisors and their end clients on climate risks. We would also recommend introducing guidelines on sales practices would encourage long-term investment in line with the aims of ESG and sustainable finance. Finally, our members would like to seek clarity on where the MAS expects disclosure to be made to ensure that the disclosure is "clear and meaningful" to stakeholders. For example, is disclosure on the manager's website sufficient or does the MAS expect disclosures in Product Highlight Sheets, fund prospectus, fund performance report, etc)? **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** Many of our members are signatories to and have adopted TCFD frameworks. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We would ask that the MAS consider extending the transition period to 18 months after taking into account the implementation timeline of similar regulations in the EU as many of our member are also subject to those regulations which are often more complex and expected to take longer to be finalized.
7	Association of	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.**

	Independent Asset Managers	We understand that the Guidelines are not applicable for financial advisory services where recommendation are made with regards to the specific client. We welcome this approach as it puts excessive burden on financial advisers. EAMs are however exposed to the same level of tailoring their services to the individual client when managing the accounts of their HNWI clients on a discretionary basis and thus under the rules of the Securities and Futures Act ("SFA") for fund management. This puts an enormous burden on the EAM. We therefore welcome MAS' approach that an asset manager should implement the Guidelines in a way that is commensurate with the size and nature of its activities, including the investment focus and strategy of its funds and segregated mandates. We nonetheless suggest more explicit guidance that smaller asset managers need not or only to a limited extent implement the Guidelines. Similar to the Proposed Guidelines on Individual Accountability and Conduct or the requirement for a dedicated in-house compliance officer when reaching AUM of more than SGD 1bn, a floor could be indicated for asset managers that need to implement the Guidelines. Different measures would be possible for such floor, individually or combined: • Total AUM managed by the asset manager; • AUM managed under an individual investment strategy For larger asset managers, the Guidelines should apply commensurate with the size and nature of their activities, including the investment focus and strategy of their funds and segregated mandates. We welcome the approach that the Guidelines only apply where the asset manager has discretionary authority over the

		investments of the funds / mandates that they are managing. Where the asset manager acts as a sub-manager or advisor, the contractual agreements with the investment manager will determine the obligation of the sub-manager / advisor to assess environmental risks. At the same time, we encourage MAS to consider explicitly mentioning that asset managers will not be automatically prohibited from investing into any financial instrument / deal with a negative ESG rating. The asset manager maintains discretion to make such investments. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** The responsibility of the Board is the safeguarding of the interests of the asset managers' various stakeholders. Environmental risks have an impact on the assets invested in on behalf of the clients and thus on the clients and indirectly on the asset manager and its other stakeholders, including its shareholders. Nonetheless, the Board must consider all different factors influencing the interests of the asset manager's stakeholders taking a balanced view. We therefore take the view, that the Guidelines should more strongly emphasize that environmental risk and the asset manager's approach in their regards should be one of several factors that the Board must ensure that it is taken into consideration in the risk management framework and the strategy of the asset manager, but need not be dominant. Given that environmental risk is just one of the risks that an asset manager must evaluate the Board should apply a risk-based approach to determine what risks the asset manger should focus on and how much resources to dedicate to the individual types of risks. Where the Board determines that environmental risk is

		comparatively a minor risk, the Board should thus be free to simply determine that it is not necessary for the asset manager to establish an environmental risk management framework. Although para. 3.4 of the Guidelines may already allow for this, we suggest specifying this explicitly, at least in the response to the consultation paper or in frequently asked questions ("FAQs"). **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** Smaller asset managers, namely EAMs, don't have the resources to develop tools and metrics to monitor the exposures to environmental risk on their own. At best, they will be able to implement and/or take into consideration methodologies, metrics and data provided by authorities, academia and/or data providers. Moreover, they only have limited resources to evaluate such instruments and data and will thus only be able to implement it once general consensus regarding applicable instruments and standards has been reached. We also refer to our explanations under Question 2 that an asset manager should have the option to decide not to establish an environmental risk management framework, resulting in the respective reduction of the senior management's responsibilities. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.**

		We welcome MAS' approach that the designation of a member of senior management is only required where environmental risk is material. Alternatively, it could be left entirely at the discretion of the asset manager. Where it is important to the asset manager to demonstrate to its clients that it has a focus on environmental risk, it will appoint a member of senior management to this task. In order to operate effectively and efficiently, the number of members of senior management must remain limited. Although the management of environmental risk at senior management level must be ensured, where it is material, it should be sufficient that it is added to the portfolio of an existing member or committee of senior management; e.g. a risk management committee or the chief risk officer. No separate officer should be required within senior management. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Smaller asset managers, such as EAMs, are not in a position to develop and carry out the assessments by themselves. Such effort would be overly taxing and put their commercial viability at risk. They will depend on authorities, academia and/or data providers to provide such assessments. At this stage, such tools, metrics and data are not widely available. Access to them at affordable prices and without great additional effort in its implementation is however crucial for smaller asset managers to be able to consider environmental risk in their research and portfolio construction. Expenses can quickly exceed the small asset manager's resources and thus put its existence at risk. This applies even more to EAMs that need to provide for tools, metrics and data to suit their diverse investment strategies and the wide range of investment

		instruments they invest in. Unless such tools, metrics and date become available, smaller asset managers must not be required to include environmental risk in their research and portfolio construction. Any such requirement would put Singapore's vibrant environment of small asset managers, including EAMs, at risk. More specifically, we would like to comment on the following examples provided in para. 4.4 of the Guidelines: • Fixed income: In order to reduce the cost which is namely of great importance to smaller asset managers, asset managers should be allowed to rely simply on the risk assessment provided by the issuer, most of all where it has been reviewed by an independent body such as the auditor. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Most importantly, we would like to refer to the explanations above and reiterate that smaller asset managers must not be required to include environmental risk in their research and portfolio construction until tools, metrics and date regarding environmental risk become easily available at affordable cost. More specifically, we would like to comment on the following examples provided in the Guidelines: • Monitoring of regulatory changes: The monitoring for regulatory changes is a great challenge for any company with regards to its own operations. Monitoring regulatory changes for multiple investee companies is nearly impossible, most of all where the asset manager manages a widely diversified portfolio, such as an EAM. Guidance should therefore be reduced to monitoring general regulatory trends and their impact rather than regulatory changes.

		• Scenario analysis: Many smaller asset managers, such as EAMs, don't have the capabilities to carry out scenario analysis with regards to direct investment risk such as market risk or volatility. They will be even less in a position to carry out scenario analysis with regards to environmental risk. Until tools for scenario analysis are well established, smaller asset managers will not be in a position to conduct scenario analysis. • Engagement of investee companies to adopt global practices and framework of disclosure: EAMs most of all invest into public listed companies. Yet, their investments into any specific investee company – even on an aggregated basis – remain small. As a result, EAMs have no favourable avenue to engage with their primary investee companies to and instigate any change. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** EAMs most of all invest into public listed companies. Yet, their investments– even on an aggregated basis – remain small. As a result, EAMs have no favourable avenue to engage their primary investee companies to influence corporate behaviour. The only avenue EAMs have, is proxy voting. However, most EAMs do not engage in proxy voting because the preparations for such involvement would absorb resources that the EAM requires in its daily operations, namely in investment management and investment risk management. Diverting these resources would create substantive risk for the clients. Since no meaningful stewardship engagement is possible for smaller asset managers and such stewardship would moreover jeopardise other material functions, smaller asset managers must be allowed to opt out of any stewardship engagement. Such opt-out may be required to be disclosed to customers.

		Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager. We generally support MAS' initiative for disclosure regarding the environmental risk management of the asset manager and exposure of investments to environmental risk. For small asset managers, such as EAMs, it will however be most challenging to provide this disclosure. Requirements should therefore remain at a basic level. Requiring small asset managers, such as EAMs, to meet any higher standard, will exceed their capabilities or their financial resources to obtain respective assistance. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** We note that para. 2.5 of the Guidelines mentions that "asset managers can play a key role in the transition towards an environmentally sustainable economy by channelling capital through their green investment activities" and refers to asset managers' engagement with stakeholders such as regulators, rating agencies, academia and civil society. While we agree that asset managers should take environmental risks into consideration for the protection of their clients' assets, we are of the view that the clients should determine / select the investment strategy of the fund they invest in or their segregated mandate. The client should have the liberty to select an investment strategy fitting his views and needs. The asset manager should simply provide information for the customer to make an informed choice and properly implement the selected investment strategy. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset**

		managers, which would meet the expectations in the Guidelines. No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** Smaller asset managers, including EAMs, will substantively depend on third parties for the environmental risk management, such as assessment tools by external providers, metrics by authorities, academia or services providers and, above all, data from third-party data providers. Until such data is widely and affordably available, smaller asset managers, such as EAMs, will not be in a position to carry out meaningful environmental risk management. As a consequence, we propose a staggered implementation of the Guidelines. In a first stage, larger financial institutions should implement environmental risk management. This will prompt third-party providers to develop their offering with regards to environmental risk as a second stage. Once tools, metrics and data are available, smaller asset managers will be in a position to implement environmental risk management at the third stage. We expect the first two stages to take at least one year each. As a result, the Guidelines should take effect for smaller asset managers three years after their publication. We also welcome MAS' dedication to update the Guidelines as appropriate to reflect the evolving nature and maturity of risk management practices in para. 2.7 of the Consultation Paper. Smaller asset managers, including EAMs, will only be able to implement and develop their environmental risk management over time as authorities, academia and specialised service providers develop their guidance and will welcome any such guidance.

8	Blackrock (Singapore) Limited	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** Introduction BlackRock, Inc. (BlackRock) is pleased to have the opportunity to respond to the MAS' consultation paper on Proposed Guidelines on Environmental Risk Management (Asset Managers) (the "Guidelines"). BlackRock supports a regulatory regime that increases transparency, protects investors, and facilitates responsible growth of capital markets while preserving consumer choice and assessing benefits versus implementation costs. We are supportive of the aim of enhancing the integration of environmental risk considerations in asset managers' investment decisions, in order to in turn enhance the resilience of the funds/mandates that they manage. We welcome the opportunity to comment on the issues raised by this consultation paper and will continue to contribute to the thinking of MAS on any issues that may assist in the final outcome. We welcome further discussion on any of the points that we have raised. Before we proceed with our responses, we would first take this opportunity to set out a few key points, which will also provide context for our submissions. Investment risk vs enterprise risk At the outset, a clear distinction needs to be made between environmental risks at (a) the enterprise level, i.e. the risks that the asset manager as a business undertaking (just like any other

		enterprise) may be exposed to; and (b) the portfolio level, i.e. the risks that each fund or portfolio managed by the asset manager may be exposed to. These are very distinct concepts. We note that in Paragraph 1.1 of the Guidelines, the MAS states the following: "The Guidelines aim to enhance the resilience of funds (including REITs) and segregated mandates (hereinafter collectively referred to as "funds/mandates") that are managed by asset managers, by setting out sound environmental risk management practices that asset managers can adopt." We are fully supportive of this aim which makes clear that the Guidelines are concerned with environmental risk as investment risk at the portfolio level, and not enterprise risk affecting the asset manager. We urge the MAS to be mindful of this important distinction as a guiding pillar when revising the entire set of Guidelines. This is a concept we will keep returning to in our responses. We strongly believe that it is important to keep these concepts distinct in order not to dilute the aim of the Guidelines and also in order not to cause confusion to the industry when trying to implement and demonstrate compliance with the Guidelines' requirements. "Integrating" versus "adding" sustainability as a function It is important to understand that sustainability risk is simply a subset of risks that an investment portfolio may be exposed to, similar to other risks such as market risk, credit risk and liquidity risk. We believe the appropriate way to incorporate sustainability into investment and risk management processes is by integrating it into the existing processes and controls, rather than requiring it to be added as a stand-alone function or input. The latter approach would not be appropriate as investment risk needs to be looked at holistically in the context of each strategy in question. We therefore encourage the MAS to view

		environmental risk through this lens for the purpose of the Guidelines. As the MAS points out in Paragraph 3.2 of the Guidelines, asset managers are already required under Regulations 13B(1)(a) and 54A of the SF(LCB)R to have in place a risk management framework (that identifies, addresses and monitors the risks associated with assets under management) which is appropriate to the nature, scale and complexity of the assets. Typically, in such a risk management framework, investment risk will primarily be considered by each individual portfolio management team and then by risk teams from a portfolio and operational risk perspective as a second line of defence. Compliance and audit teams then act as a third line of defence to ensure the relevant teams have put in comprehensive risk processes and are adhering to them. The primary assessment of sustainability risks should therefore be carried out by investment and risk professionals. We believe this type of structure is not unique to BlackRock but adopted in varying forms by most asset managers. We therefore make two important submissions here. Firstly, we encourage the MAS to view environmental risk not in isolation but in light of investment risks as a whole, such that relevant requirements in the Guidelines will be designed to integrate relevant risks into an asset manager's existing processes. Secondly, for global asset managers like BlackRock it is essential that we are able to refer to the group level frameworks, policies and processes we already have in place in order to demonstrate compliance with the MAS' Guidelines. This includes our governance, investment/risk management and stewardship frameworks which have been designed to be applicable across BlackRock's businesses, and into which we have already made significant efforts to integrate sustainability considerations. We urge the MAS to make this point explicit throughout the Guidelines, that asset managers can reference group structures and policies (in particular, as also mentioned in our responses to

		Questions 2 and 3, references to the "board" and "senior management" in the Guidelines should not be confined to those of the MAS regulated entity). The role of asset manager vs asset owner We take this opportunity to comment on Paragraph 2.5 of the Guidelines, where the MAS states the following: "Besides implementing robust environmental risk management policies and processes, asset managers can play a key role in the transition towards an environmentally sustainable economy by channelling capital through their green investment activities….. Engaging in green investment activities would also mitigate reputational risk for asset managers." BlackRock fully supports the expressed aim of the Guidelines, which is to build resilience into managed assets against material environmental risk. Indeed this is consistent with BlackRock's investment conviction that incorporating sustainability-related factors into investment decisions is likely to provide better risk-adjusted returns to investors over the long-term. From BlackRock's perspective, incorporating ESG insights into our investment decision making is consistent with an asset manager's fiduciary duty to manage the assets of our clients, the asset owners, in their best interest and in a manner which is faithful to the stated objectives of the fund or mandate in which they have chosen to invest. The suggestion then, in Paragraph 2.5 of the Guidelines, that asset managers can "channel" capital, raises concerns as this is inconsistent with an asset manager's fiduciary duty; is not our position to channel assets but rather the decision belongs to the asset owner. Similarly, we consider the reference to an asset manager's reputational risk is inappropriate here; as a fiduciary, an asset manager's reputation should not be a primary

		motivating factor to the decisions we make on behalf of our clients. Whilst we appreciate that in Paragraph 1.2 of the Guidelines the MAS states that the Guidelines shall not prohibit or restrict an asset manager from complying with and discharging its fiduciary duties and other legal obligations to its customers, in order not to create any ambiguity or confusion around the fundamental fiduciary principle, we strongly suggest deleting references to asset managers “channeling” capital and to asset managers making investment decisions to mitigate their own reputational risk. We wish to draw the MAS’ attention to the proposed rule issued by the US Department of Labor’s (“DoL”) on 23 June 2020 regarding the consideration of financial factors in selecting plan investments (the “DoL Proposal”). Notwithstanding that BlackRock has expressed concerns about certain aspects of the DoL Proposal, we are in full agreement with the DoL’s position that ERISA fiduciaries must always put first the economic interests of the plan in providing retirement benefits and cannot sacrifice investment returns or take on additional risk to promote goals unrelated to the financial interests of the plan participants and beneficiaries. We highlight this point as a prominent example where a manager’s fiduciary duty is additionally codified into regulatory obligations, which further underscores the importance of ensuring the Guidelines do not impose (or appear to impose) requirements that conflict with the fiduciary principle. Please see: • the DoL Proposal: https://www.dol.gov/newsroom/releases/ebsa/ebsa20200623 • BlackRock’s response: https://www.blackrock.com/corporate/literature/publication/dol-financial-factors-in-selecting-plan-investments-073020.pdf

		Response to Question 1 We do not have issues with the proposed entities and business activities that are in the proposed scope of the Guidelines. In Paragraph 1.2 of the Guidelines, we welcome the express acknowledgement by the MAS of the evolving nature of environmental risk management and that "asset managers should implement these Guidelines in a way that is commensurate with the size and nature of an asset manager's activities, including the investment focus and strategy of its funds/mandates". We believe this last point is crucial as the approach to managing environmental risk must be tailored to the specific strategy and portfolio in question. We believe it is important for the MAS to provide further clarity here on whether and to what extent the Guidelines apply in the context of passive strategies. We use the term "passive strategies" to include index strategies (where the fund manager has no ability to change portfolio construction above and beyond replicating exposure to a particular security and its weighting in the underlying index) and rules-based investment strategies which are built around specific quantitative factors (for example, price momentum or value-based strategies) where the fund manager follows an explicit strategy that limits what factors and potential inputs their investment decisions are based on. With the exception of stewardship obligations, we consider the Guidelines' requirements relating to Research and Portfolio Construction and Portfolio Risk Management (together with the associated disclosure requirements) are inconsistent with the nature of passive strategies. We strongly suggest the MAS to be explicit that, when managing passive funds/mandates, asset managers are able to exercise their judgment and determine that environmental risk considerations are irrelevant to the portfolio construction and risk management processes with the exception

		of stewardship and consequently any associated disclosure obligations will not apply. In Paragraphs 1.4 and 1.5, it remains unclear how the Guidelines will apply where the MAS-regulated entity acts only as a sub-adviser with delegated discretion over a fund/mandate or a part thereof. In such circumstances, the sub-adviser as delegate must adhere to the guidelines and requirements imposed upon it by the primary manager, including any relevant regulatory requirements which the primary manager is subject to in its home jurisdiction. Accordingly our view is that the Guidelines should not apply where the Singapore entity is acting as a sub-adviser in order to avoid the burden and duplicity of potentially conflicting regulatory requirements. Paragraphs 1.4 and 1.5 of the Guidelines should therefore be amended to make this explicit. We recognise that Section 2 of the Guidelines is primarily scene setting and background material, and hence we do not have major concerns. We note however that Paragraph 2.3 seems oddly out of place; whilst the other paragraphs discuss environmental risk as it impacts funds/mandates (which we see as directly relevant to the Guidelines), Paragraph 2.3 talks about reputational risk to asset managers. As discussed above, our view is that an asset manager's own reputational risk should not be a primary motivating factor to the decisions we make on behalf of our clients and it appears to us that this may be another example of the conflation of portfolio-level investment risk with entity-level enterprise risk. We therefore recommend the MAS delete this paragraph in order not to cause confusion around the Guideline's objectives (note that this may necessitate revising Diagram A as well). Consider instead discussing reputational risk to investee companies under Paragraph 2.2. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk**

		management, including its role in approving the environmental risk management framework and policies. As we discuss in our response to Question 1, we would first note that it is generally not within the corporate board's remit to directly manage risks of investment portfolios. Although individual fund boards have more involvement with products, the approval of specific risk management frameworks at the portfolio level sits more squarely within the remit of portfolio management and risk management teams to decide. We therefore recommend refraining from references to the board/board committee "managing" environmental risks of funds/mandates. Instead, the board should have a role in overseeing the integration of environmental risk considerations into the investment decision making process. We urge the MAS to bear this in mind when articulating the board's role. For example, in Paragraph 3.4 of the Guidelines, we do not agree that it is the board's role to be responsible for training and capacity building of investment and risk teams' expertise. We believe the MAS should take a principles-based approach when articulating the board or senior management's role in the Guidelines. We do not see merit in overly prescriptive requirements as each asset manager will have different governance structures and different investment/risk processes in place. As mentioned in our response to Question 1, it is important that large asset managers are able to rely on our global framework to satisfy the Guidelines. We therefore urge the MAS to make it clear that references to "board" and "senior management" in Section 3 of the Guidelines are not confined to the board or senior management of the MAS-licensed entity in Singapore. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing**

		environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed. We refer to our response to Question 2 above and reiterate the importance of being to rely on global frameworks and processes to demonstrate compliance with the Guidelines. Again, we would welcome the MAS setting this out clearly in the Guidelines. As a general comment, we are concerned that the responsibilities imposed on senior management in Paragraph 3.5, as currently drafted, fail to acknowledge that asset managers are already operating with an existing risk management framework. For example, references to senior management being responsible for "developing", "implementing" or "establishing" processes specific to environmental risk are inconsistent with the concept of integration. We refer to the discussion in our response to Question 1 ("Integrating" versus "adding" sustainability as a function) and urge the MAS to revise this section to better reflect integration. To give an example to provide an international perspective, we note that in the UK, the Climate Financial Risk Forum on 29 June 2020 published its guide to climate-related financial risk management (the "CFRF Guide", which can be found here: https://www.fca.org.uk/transparency/climate-financial-risk-forum). In its Risk Management Chapter, the CFRF Guide says this: "When assigning senior management responsibility for climate risk, consider where responsibility for other financial risks is managed and align with that responsibility." We consider this a sensible approach which could be taken for the Guidelines as well.

		Finally, there are a number of places in Section 3 of the Guidelines where we are concerned that asset manager level enterprise risk is being confused with portfolio investment risk. The current language of Paragraph 3.5 suggests this. Another example is Paragraph 3.6 which contains an obligation for senior management to update the board on material environmental risk issues in a timely manner. In our view, it is not the role of senior management or board to look at portfolio level risk – the investment and risk teams are best placed to do so. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** We question the purpose of designating an individual or committee to oversee a single type of investment risk. As mentioned, environmental risk is only one type of risk that a fund/mandate may be subject to. Asset managers must manage all risks which are material to the portfolio and as such we do not believe it makes sense to artificially create a separate line of accountability for a single type of risk. Instead, asset managers should be encouraged to integrate material environmental considerations into their existing risk management processes. We refer to our response to Question 1, where we emphasize that asset managers should not be required to view or add sustainability as a stand-alone function. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** We appreciate that the MAS in Paragraph 1.3 of the Guidelines already states that the examples of environmental risk management practices featured in the Guidelines are meant to

		be illustrative and neither prescriptive nor exhaustive. Nonetheless, the language of some parts of Section 4 of the Guidelines seems to go further than just providing examples, and instead prescribes specific requirements that asset managers are obliged to follow. For instance: • Paragraph 4.3: asset managers "should apply risk criteria to identify sectors with higher environmental risk" • Paragraph 4.3: asset managers "should develop sector-specific guidance" We encourage the MAS to take a principles-based approach and keep to a minimum any prescriptive requirements relating to data and methodologies. Each asset manager will have its own systems, methodologies and data sources, which it will use and optimise in whatever manner that is most appropriate for its strategies and clients. More importantly, this is an ongoing process for sustainability and a one-size-fits-all approach would compromise innovation. Asset managers should therefore be given flexibility to determine whether and how it will incorporate environmental risk considerations into the internal processes for its investment and risk professionals. Please therefore consider presenting the requirements listed above (and anything similar) as illustrative examples only in the Guidelines. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** We are supportive of the high level requirement for asset managers to put in place appropriate processes and systems to monitor, assess and manage material environmental risk. However we express reservation to the Scenario Analysis requirements under Section 5 of the Guidelines. Whilst we acknowledge that much of this section is drafted to provide examples and suggestions only, we are nevertheless concerned

		that such prescriptive language on an area as nascent as environmental scenario analysis would be inappropriate at this stage. As an overarching point, our view is that, as an industry, we are simply not at a stage where prescriptive regulatory requirements on scenario testing and disclosure would be desirable to the fund manager or meaningful to the investor. For fund managers, being bound by overly-prescriptive regulations may significantly affect innovation and ongoing development of the tools and techniques necessary for scenario analysis. Whilst we have observed rapid development of methods of climate risk analysis over the past 10 years, there is currently no consensus and the variance in methods and underlying assumptions means that results can be highly subjective and lead to a wide range of possible outcomes for any given scenario. Furthermore, aggregating results of scenario analytics on a portfolio or fund level has significant constraints which in turn make it difficult to provide any reliable or decision-useful disclosures to investors. Consequently, we believe it is too early for regulation to mandate the performance and disclosure of scenario analysis. Gaps in data and methodologies will continue to narrow as the industry and policy makers work to address them, but in our view this requirement is premature. In addition, we note that there are a number of points in Section 5 of the Guidelines where again there seems to confusion between portfolio-level investment risk as opposed to entity-level enterprise risk: • The first sentence of Paragraph 5.3 suggests that scenario analysis should be used by asset managers for “strategic planning” purposes. • Paragraph 5.5 requires asset managers to use the results of scenario analysis when reviewing their environmental risk management policies and practices.

		Remembering that scenario analysis, as a tool of risk management, is to be performed on the investments of funds/mandates managed by an asset manager, it quickly becomes apparent that any information flowing from portfolio level scenario analysis should be irrelevant to an asset manager's strategic planning or its environmental risk management policies and practices at the corporate entity level. We would again ask the MAS to keep these concepts distinct, otherwise it could create significant issues for asset managers trying to implement the Guidelines (please refer to our response to Question 1). For the same reason, in Paragraph 5.7 of the Guidelines we suggest clarifying that capacity building referenced here is in the context of managing environmental risk as investment risk to portfolio investments. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We support the policy objective of enhancing asset managers' stewardship activities as a lever to manage environmental risk of the portfolios that we manage, as it is consistent with BlackRock's own approach to engagement on sustainability. We would however make a few suggestions to the following provisions of the Guidelines: • Paragraph 6.1: Bearing in mind that stewardship principles are generally linked with equity ownership of companies, we suggest adding the underlined words: "Asset managers, through their equity holdings of investee companies, are expected to exercise sound stewardship…" This will make it clear that the stewardship obligations contained in the Guidelines are generally not intended to apply to non-equity holdings such as fixed income

		investments or Depositary Receipts (e.g. ADRs, GDRs) holdings, where voting rights may not apply. At this juncture we would flag that, even with equity investments there could be no voting rights or limited voting rights attached. For example, where a company has securities with different voting rights (i.e. weighted voting rights), the size of an asset manager's holding in such securities may not be proportionate to the level of voting rights that the asset manager can in fact exercise through its stewardship team. There are also regulations in some jurisdictions (in particular in emerging markets), which limit the ability of offshore investors to exercise their voting rights. In such circumstances the effectiveness of an asset manager's engagement can be significantly impacted, and we urge regulators to calibrate their expectations on asset managers' stewardship efforts accordingly. • Paragraph 6.2(a): Identifying a company's environmental risk and opportunities is the responsibility of the board and management, not investors. Investors can engage with companies to better understand how company boards and management are addressing these risks and opportunities – we recommend re-wording this provision accordingly. • Paragraph 6.2(b): We are cautious with the word "influence". Corporate behaviour and the decisions that drive it is under the purview of the board and management, not investors. We therefore suggest replacing with the word "encouraging". • Paragraph 6.3: Given various acting-in-concert and disclosure requirements across jurisdictions, we suggest inserting wording that specifies that asset managers have the discretion to choose whether to engage collectively and in a manner which is not inconsistent with relevant rules and regulations.

		Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager. We welcome the balanced approach the MAS is taking in not imposing prescriptive disclosure requirements. As a large asset manager committed to our presence in Singapore and globally, BlackRock as an investment adviser and product provider is subject to regulation in a number of jurisdictions in addition to Singapore. These include relevant EU regulations governing UCITS ranges which we distribute globally and disclosure practices aligned with US SEC requirements (e.g. Form ADV) in respect of mandates and separate accounts. As such we consider it imperative that regulation provides flexibility and avoid conflicting requirements across jurisdictions, in order to ensure a level playing field for product providers and also enhance comparability for investors. We therefore encourage the MAS to ensure the Guidelines are not inconsistent with regulatory developments overseas or globally accepted frameworks. That said, however, we are concerned that the current drafting of Section 7 of the Guidelines makes it extremely unclear what disclosure obligations are in fact being imposed on asset managers. Paragraph 7.1 is especially problematic. There is clearly confusion of portfolio-level investment risk with entity-level enterprise risk. We feel that the use of the wording "stakeholders, including existing and potential customers" is inappropriate as it is ambiguous. Again we return to the aim of the Guidelines, which is to enhance resilience of managed funds/mandates; in this context then, we submit that Paragraph 7.1 needs to be very specific and explicitly state that disclosure obligations therein are targeted at investors of managed funds/mandates. This clarity is crucial as disclosure intended for investors is very different from disclosure intended for other types of stakeholders.

		Paragraph 7.1 also encourages asset managers to disclose the potential impact of material environmental risk, including quantitative metrics, to customers. We wish to emphasize that disclosure on impact is necessarily portfolio-specific. The extent, format and contents of disclosure need to be driven by an assessment of relevance and materiality to the specific investment strategy in question. In particular, we believe quantitative metrics associated with environmental risk of managed assets are only meaningful at the product level – it is at the product level that such metrics could be useful to investors as they compare and evaluate products. We therefore recommend removing this expectation if the MAS' intention is that the Guidelines will form conduct requirements, separate and distinct from product requirements (which we would agree with). Alternatively if the MAS moves forward with including product requirements, we would ask that it be made clear by replacing the relevant sentence with: "Asset managers are encouraged to provide fund-/mandate-level disclosure of the potential impact of material environmental risk to that fund/mandate, including where relevant and considered decision-useful for investors quantitative metrics such as exposure to sectors with higher environmental risk." The last sentence of Paragraph 7.1 suggests that an asset manager's disclosure may be consolidated at the group or head office level. We would ask the MAS to clarify whether this is meant to provide asset managers with flexibility to rely on global processes/policies to demonstrate compliance with the various requirements of the Guidelines (please refer to our response to Question 1), in which case we would welcome the approach and encourage the MAS to make this clearer. The use of the word "consolidated" here raises confusion as it seems to suggest some aggregated metric at the enterprise level, which we believe would be irrelevant for investors of managed funds/mandates. As we discuss in the preceding paragraph, we believe quantitative

		metrics associated with environmental risk are only meaningful at the product level; by extension, we firmly believe that aggregation of portfolio-level metrics would not yield any useful information about the portfolio or the asset manager. We are strongly of the view that disclosure to investors needs to be meaningful and decision-useful, and as such we urge policymakers to consider quantitative metrics only at the portfolio level. The ambiguity of Paragraph 7.1 described above is not cured by Paragraph 7.2, because the TCFD recommendations attempt to tackle disclosure both at entity level and portfolio level and, in our view, even the TCFD recommendations are currently open to debate and subject to differing interpretations. Extreme caution is therefore needed before taking a voluntary and evolving framework (TCFD) and prescribing it in the form of regulatory requirements on asset managers. We would therefore suggest changing "Asset managers should take reference from international reporting frameworks, including…" to "Asset managers may consider taking reference from international reporting frameworks, including…" In addition, we suggest adding the following to Paragraph 7.2 to explicit acknowledge that the TCFD is merely an example, "For the avoidance of doubt, the above framework is for reference only. MAS recognizes that there is no one-size-fits-all approach to the contents and format of disclosure, and ultimately asset managers should ensure that the disclosure provided to investors is meaningful and appropriate for a fund/mandate they manage, taking into account the nature of the investment objectives and strategies of the relevant fund/mandate." Limitations on use and disclosure of environmental metrics At this juncture, we would like to emphasize that quantitative metrics on environmental factors, even at the portfolio level, is

		currently subject to significant limitations. Within the investment and risk management processes, one of the key constraints of using and reporting on environmental metrics such as carbon emissions is that they are dependent on disclosure by the issuer companies. Particularly in the emerging markets context, the level of disclosure by corporates is generally low and not necessarily mandated by regulators. Even though external vendors, such as MSCI ESG, Sustainalytics, Bloomberg, etc., provide carbon emissions data, in cases where companies did not disclose this data themselves, data providers apply their own methodologies to estimate companies' carbon emissions. The level of reporting for other environmental metrics depends in large part on regulatory requirements in the relevant jurisdiction. Even where companies do provide environmental metrics, whether voluntarily or required by regulation, they may do so with varying degrees of accuracy. For example, definitions of reporting boundaries may differ from company to company; a company may choose to only include emissions from plants in one location and infer company-wide emissions based on these numbers, whilst the emissions in other locations may be much higher. Furthermore, as discussed in our response to Question 6, climate/environmental scenario analytics are still at a developing stage as they require access to underlying data (e.g., product data for fossil fuel-related companies), modeling capabilities to make use of the underlying data (e.g., how to link production data to scenario data to potential investment impact), and technological infrastructure to embed these analytics alongside existing investment information to inform processes and decision-making. These ingredients require resources in both time and money as well as expertise to make use of and implement the data. Presently there are still significant gaps that need to be filled in terms of availability, quality and consistency of both data and methodologies before such sophisticated analytics can

		become meaningful and reliable across a broad range of portfolios. We would therefore urge the MAS to avoid imposing prescriptive requirements on the disclosure of quantitative information. At the present stage of development in sustainability, asset managers should be provided flexibility to report on sustainability metrics where they consider it appropriate for informed decision-making by investors as to the products they wish to invest in. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** As mentioned in our response to Question 7, we believe there should be a clear distinction between conduct regulation (which is the primary focus of the Guidelines) and product regulation. Thus we do not recommend adding any product requirements to the Guidelines. That said, we believe that given the inter-connected nature of the different parts of the ESG/sustainability picture, natural next steps (or concurrent steps) for the MAS should include a consideration of sustainable products. Today there is already a range of sustainability-related products but the lack of consistency around sustainable investing terminology leads to confusion, which in turns dampens investor confidence in these products. From a policy standpoint, there is a need for industry and policymakers to work together to achieve clarity. We strongly believe that a key driver will be to converge around a system of high-level categories of sustainable investing strategies, which is underpinned by transparent data at the product or portfolio level. This will enable both regulators and asset owners to better understand sustainable products and ensure they remain true to label. This type of industry level

		alignment and standardisation would, in our view, go far in reducing investor confusion around sustainable investing and in turn minimise the potential for greenwashing. We encourage the MAS to consider BlackRock's recommendations in this topic, as detailed in our ViewPoint dated January 2020 and entitled Towards a Common Language for Sustainable Investing. BlackRock currently adopts the categories "screened", "ESG" and "impact". We note that there are also significant industry-led initiatives in this space: • In October 2019, the Institute of International Finance ("IIF") convened a group of financial institutions including banks, insurers, and asset managers to discuss the need for a product taxonomy. Their report, The Case for Simplifying Sustainable Investment Terminology, identified three key categories: exclusion, inclusion, and impactful. • In July 2020, the Investment Company Institute ("ICI"), a US-based fund industry association, published Funds' Use of ESG Integration and Sustainable Investing Strategies: An Introduction, in which ICI identified three key categories of "ESG funds": ESG exclusionary investing, ESG inclusionary investing, and impact investing. The ICI board members – which represent more than 50 asset managers and directors of mutual funds – unanimously approved this report. As can be seen there is a lot of commonality and overlap amongst the three naming conventions outlined above. In particular, both the ICI and the IIF reports underscore the broad industry recognition of the need for a common language and support for a product taxonomy that provides transparency to help end investors differentiate among products and choose the right product for their investment needs. For the MAS, endorsing a market-led product taxonomy would provide clarity and enable the MAS to identify and mitigate specific areas of concern.

		The papers mentioned above can be found here: > https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-towards-a-common-language-for-sustainable-investing-january-2020.pdf > https://www.iif.com/Publications/ID/3633/The-Case-for-Simplifying-Sustainable-Investment-Terminology > https://www.ici.org/pdf/20_ppr_esg_integration.pdf **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** Our firmwide ESG integration statement articulates BlackRock's definition of ESG integration and our firm-wide investment approach, firm-wide governance structure, and portfolio manager accountability (available at this link: https://www.blackrock.com/corporate/literature/publication/blk-esg-investment-statement-web.pdf). BlackRock also discloses our firm's approach to ESG incorporation through comparable industry relevant reporting frameworks, such as the Principles for Responsible Investment (PRI). **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We encourage the MAS to consider an implementation timeline that would not be out of sync with the developments in other jurisdictions, most notably the EU, UK and other Asia Pacific jurisdictions such as Hong Kong.
9	Carbon Care Asia Pte. Ltd	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.**

		No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** No comment. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.**

		No comment. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** No comment. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Asset managers should clearly disclose how they considered environmental risks and how they integrated those risks into the different steps of the investment process. The EU's Regulation on sustainability-related disclosures in the financial services sector (the SFDR) was published in December 2019 . The regulation applies to EU asset managers but might have some implications for non-EU asset managers. According to this Disclosure Regulation, websites of asset managers have to include how the firm integrates sustainability risk into the investment process and how the firm integrates sustainability risks into the remuneration policy. Furthermore, offering documentation and pre-contractual disclosures have to include how sustainability risks are factors into investment decisions and the adverse sustainability impact of investment decisions. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** No comment.

		Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines. No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** No comment.
10	CFA Society Singapore	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** CFA Society Singapore are in agreement with MAS on the entities and business activities that are in the proposed scope of the Guidelines. However, should entities not covered under the Guidelines engage in equivalent business activities to entities in the Guidelines, such as offering and distributing investment products, the licencing of these products for distribution in Singapore should take into account asset managers who have discretionary authority over these products to do the same or equivalent to their counterparts in the Guidelines. This is to ensure equal treatment to all investment products offered for distribution in Singapore. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** We agree that the Board should be responsible in overseeing environmental risk management, including its role in approving

		the environmental risk management framework and policies. However, the Board is unlikely to have the knowledge and expertise to effectively implement the above. Based on the experience of CFA Society Singapore Members who are in the process of implementing or have already integrated ESG practices into the fund management space, we propose a pragmatic step-by-step phased route as an alternative to achieving the above: • Delegate the responsibility for development and implementation of the environmental risk management framework and policies to preferably a senior in-house ESG expert(s). This could either be individuals or a committee (which may include a board representative) such as an ESG or environmental oversight committee with adequate representation from various key stakeholder groups such as investment teams, client relationship managers as well as ESG experts • Apart from defining the policies and processes, this group should regularly track environmental risk metrics for each of the firm's strategies, and on a periodic basis such as semi-annually, update the Board on key risks in various strategies and how they are being managed. In this manner the Board will have oversight on environmental risk issues • On a concurrent basis, the Board should undergo training to acquire the knowledge, expertise and skills required to ultimately be able to perform the proposed oversight responsibilities In implementing the above suggested route, we should consider the following: • Asset managers are in different phases of integrating environmental risks into their processes. Some managers have not started. Others are revising their governance framework to take into account environmental risks, whilst the more advanced

		managers are incorporating environmental risk into their fund management processes • Managers of different asset classes may experience different challenges in implementing an environmental risk framework. For example, availability of data needed for private equity managers to implement the risk framework may be scarce and difficult to obtain • In general, asset managers with huge AUMs are in better position to implement the framework due to more resources at their disposal. Small AUM fund houses will struggle to do the same, and may experience significant increase in costs, especially if they have to rely on vendor data and expertise, putting them at a disadvantage compared to bigger AUM fund houses. Hence, there should be a differentiation in timeline for different asset managers • Nevertheless, there are numerous no-charge online training material for many asset classes which asset managers can subscribe to build in-house capabilities. Alternatively, the authorities or regulators may want to make available or catalyse the development of courses and training for the benefit of financial professionals. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** [Refer to response in Question 2]

		Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material. [Refer to response in Question 2] **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** We should give careful consideration in specifying metrics for different asset classes. Data may not be available or within reach in terms of costs consideration, especially if engaging an external vendor, for certain asset managers. In specifying such metrics, MAS may want to consider what is reasonably achievable by various asset managers. CFA Society Singapore would also like to highlight the following: • Environmental factors should be part of the investment process. However, the starting point should be the Governance factor for sovereigns (and for any asset class). In general, the higher the governance standards of a country, the better the environmental policies. Therefore, governance standards would need to be addressed in order to effectively be able to attribute risks to the environment (given government policies dictate environmental policies and many sovereign issuers don't disclose environmental matrices or not in a standardized way). Hence, it makes it more challenging to assess environmental risks • Fair value of companies held in an asset manager's portfolio are significantly impacted by country and global drivers. Therefore, in addition to factoring in company-level environmental risk assessment, asset managers may need to include macro or country-level environmental risks. For example,

		a country's higher exposure to erratic weather patterns (floods, droughts, wildfires) would expose certain sectors such as agri-commodities as well as their supply chain – both upstream and downstream significantly both in terms of operational resilience and price volatility. Even the most sustainably managed companies in these sectors are hostage to such macro-driven physical climate risks. Similarly, the degree of air and water pollution in a country or region will have a direct impact on both health expenditure as well as related deaths – which would lower the level of discretionary spending, especially in emerging markets, thereby impacting revenue growth for consumer discretionary companies. These examples highlight the need to evaluate and factor in macro or country level environmental risks in order to perform a more robust investment analysis and portfolio construction. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** There are Task Force on Climate-related Financial Disclosures (TCFD) guidance, tools and data suggestions available under: https://www.tcfdhub.org/scenario-analysis/ However, we are of the opinion that these tools and metrics should be used as a starting point in identifying high risk companies in portfolios. Emphasis should instead be on company engagement. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.**

		Engagement is a key tool to manage environmental risk, and to support investee companies' transition to sustainable business practices. However, engagement can come at a hefty price especially for asset managers with a small AUM. Hiring a dedicated team or specialist third party is costly. The alternative to an in-house team or specialist third party could be via collaborative engagement action (such as Climate Action 100+). Nevertheless, such collaboration may only work for publicly listed companies, not for all asset classes. As such, stewardship of this nature requires differentiation in requirements and adherence if made mandatory. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** We are in agreement with MAS on the need for meaningful disclosure. We view the TCFD framework or other equivalent framework as viable reference points. Nevertheless, there needs to be differentiation in terms of scope of disclosure and time frame for compliance for different asset classes. The availability of data necessitates this differentiation – publicly listed company data are in general more readily available compared to data required by private equity. When data is scarce, asset managers may also be offered the option of non-compliance. However, they need to explain the reasons for not complying. Another point to note would be comparability on what matrices asset managers are expected to disclose on environmental risks – do asset managers disclose dollar impact on greenhouse gas reduction, or the actual reductions in volume or weight for example? There needs to be an agreed starting point for comparability – on what to disclose? And what is the

		aim/objective of doing so? Not all issuers (in any asset class) disclose these matrices globally in a standardized matter. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** MAS might want to consider a broader based ESG implementation approach instead of just focusing on E. Once asset managers incorporate ESG factors into portfolio management, refinement on environmental factors can follow. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** From the experience of CFA Society Singapore Members who are already in the ESG space, the 12 months implementation timeframe would be sufficient for asset managers who have already laid the foundation on ESG risk evaluation and integration into their investment processes. The same cannot be said for other asset managers who have not started or are at the very early stages of the ESG / environment or climate risk journey. It will be challenging to comply with the proposed guidelines in 12 months. Availability of data, size of AUM and many other factors may also affect the ability of different asset managers of different asset class to comply.

		Secondly, with the availability of third-party data providers, evaluating and disclosing climate risks is plausible within 12 months but systematic integration into investment analysis and portfolio construction will take much longer. Mainstream analysts are not familiar with such factors and will require practical training to be proficient. In addition, the variety of assumptions made during scenario analysis makes integration even more complex as it is not clear when and how these risks could play out. Lastly, the suggested phased step-by-step approach as per response in Question 2 will definitely require more than 12 months to implement.
11	Eastspring Investments (Singapore) Limited	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** General comments: We would like to express our appreciation to MAS by tailoring the proposed Guidelines on Environmental Risk Management (the "Guidelines") to the respective industry sectors. We respectfully suggest that MAS adopts more of such approach for its regulations and guidelines going forward rather than a one-size-fit-all approach. Feedback on Question 1: We agree that the Guidelines should be implemented in a way that is commensurate with the size and nature of its activities, including the investment focus and strategy of its funds/mandates. If the strategy is niche or restrictive e.g. an Energy / Natural Resources strategy, then the degree to which the environmental risk management framework applies should be different from that of a broader strategy e.g. Global Equities. We would appreciate MAS' clarification on whether the requirements under the Guidelines are to be applied to all

		portfolios managed by asset managers, and not only those with specific environmental, social and governance ("ESG") focus. In addition, we agree that where asset managers delegate the investment management to sub-managers or advisors, asset managers still retain overall responsibility for environmental risk management, which is also in line with the MAS Outsourcing Guidelines. However, we would appreciate MAS' confirmation that if the asset managers are only feeding into funds (that are managed by other asset managers), the Guidelines would not apply in this case as the asset managers do not get to dictate the environmental risk management practices of these funds since the asset managers are just investors. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** For asset managers which are part of a Group, the Group may develop a ESG strategy (which includes environmental risk management frameworks and policies) that its subsidiaries have to adopt. We would appreciate MAS' clarification on how to also consider the role of a Group's Board that is based outside of Singapore with multi-jurisdictional accountabilities. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment.

		Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material. We agree that senior management accountability for an overall sustainability strategy is vital and that environmental risk management should form part of the overall strategy. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** There are a range of third party vendors that offer tools to accommodate the impact assessment of environmental risk at both the individual investment and portfolio level, e.g. MSCI, which provides ESG and climate data. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** There are a range of third party vendors that offers tools to accommodate this e.g. MSCI, which provides ESG and climate data. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** No comment. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.**

		We would appreciate MAS' confirmation that disclosures should be at an aggregate level, which would be consistent with the Financial Stability Board's Task-Force on Climate-related Financial Disclosures ("TCFD"). We would also appreciate MAS' confirmation that disclosures would only include the assets under management ("AUM") in the asset manager's own asset book where it has direct control, and will not include AUM attributable to co-mingled vehicles or assets where the asset manager does not have a direct influence over the strategy e.g. investment in ETFs. We respectfully suggest that it would suffice for such disclosures to be made on the asset manager's corporate website (instead of on each fund prospectus) to facilitate easier maintenance. Asset managers could specify in the fund's prospectus for investors to refer to the asset manager's corporate website for the company's approach to environmental risk management. If MAS intends for specific disclosures to be included in the respective prospectus of the funds managed by asset managers, we respectfully suggest that MAS could align to similar disclosure requirements under the EU regulations on sustainability-related disclosures in the financial services sector that asset managers may already be subject to when offering funds under the SICAV platform, in particular under Article 6 (on Transparency of the integration of sustainability risks), Article 8 (on Transparency of the promotion of environmental or social characteristics in pre-contractual disclosures) and Article 9 (on Transparency of sustainable investments in pre-contractual disclosures). We would further appreciate MAS' clarification on whether MAS will be prescribing disclosure formats that asset managers would need to comply with.

		Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions. Paragraph 4.3: It is set out that "asset managers should apply risk criteria to identify sectors with higher environmental risk", and that "the risk criteria may include the level of GHG emissions, vulnerability to extreme weather events, and linkages to unsustainable energy practices, deforestation and pollution". We would appreciate MAS' clarification on whether the asset manager has the sole discretion to set the risk criteria for identifying sectors with higher environmental risk, and how would MAS assess the asset manager's level of compliance with this requirement based on the risk criteria set by the asset manager. Paragraph 4.4: It is set out that "in considering the materiality of environmental risk with respect to the different asset classes (such as public equity, fixed income, private equity, real estate/infrastructure), asset managers can take reference from the following examples" in the Guidelines. We would appreciate MAS' clarifications on how the asset manager would be assessed on its level of compliance with this requirement based on the indicators that the asset manager has considered. In addition, we would appreciate MAS' guidance on the type of documentary evidence that should be recorded/retained to demonstrate the asset manager's consideration of the indicators. Paragraph 5.2: It is set out that "asset managers should develop capabilities in scenario analysis to evaluate portfolio resilience and valuation under different environmental risk scenarios, where relevant". As stress testing environmental/ extreme/ social events (which are rare or qualitative in nature) may be challenging, we would appreciate MAS' clarifications on whether MAS would be prescribing how asset managers can fulfil this requirement and whether asset managers would be given a

		transition period of longer than 12 months to comply with this requirement. Paragraph 5.3: It is set out that “for example, on physical risk, an asset manager could assess the impact on revenue and profitability of investee companies that are more exposed to sea level rise (such as companies owning seafront properties) or extreme weather events (such as agriculture companies). On transition risk, asset managers could assess the level of sensitivity of an investee company’s cost of doing business to higher carbon price; whether higher costs could be partially offset by increasing prices and its impact on consumer demand.” This may increase the regulatory costs and burden on asset managers as significant investment in data would be required. While paragraph 5.4 has set out that “where data may be limited, asset managers should consider qualitative assessments”, it may also be challenging for asset managers to ensure consistencies across all investments. A transition period longer than 12 months may be required for asset managers to comply with this requirement. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We would appreciate MAS’ clarification on whether asset managers are expected to comply with all the requirements in the proposed Guidelines (including MAS’ perscribed disclosure formats, if any) within the transition period of 12 months. Taking into account the various challenges that asset managers may face

		in the implementation of the Guidelines as highlighted in our response to the questions above, we respectfully suggest that MAS provides a transition period of longer than 12 months. We also understand that TCFD provides a transition period that is longer than 12 months for new signatories to TCFD to comply with its disclosure requirements.
12	Ernst & Young	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment.

		Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level. No comment. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** The latest publication by World Economic Forum (WEF) together with the Big 4 accounting firms can also be considered to identify relevant indicators. SASB and GRI provide industry specific indicators that can be used to manage material environmental risks. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We are supportive and are of the view that engagement process is an integral part of managing the identified environmental risks material to the investments and on a wider ecosystem perspective, tackles climate change at the global and national levels, in driving the practices of the investee companies through the asset managers. However, barriers to effective engagement need to be recognized and consideration for collaboration with other stakeholders (including other investors) should be included. In addition, in the market, engagement with investee companies may be outsourced and MAS might want to consider highlighting the need for outsourcing risk management for these instances.

		Voting is also a key aspect of active ownership that asset managers practice to influence the practices of investee companies, in addition to engagement. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** MAS to consider expanding disclosure to include control activities, which support risk management given that this is an area that investors focus on as part of their due diligence on asset managers. We would like to recommend a common framework/standard on disclosure of environmental risk as it will contribute to more accurate and higher quality information and data for the stakeholders This standardization will result in more comparable, relevant and reliable disclosures. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** EY believes environmental/climate risk is a priority now. Greater transparency/disclosure in this area would address investor's growing interest on this topic. Having assurance over such disclosures would also improve market confidence. External Assurance To create added impetus for and trust on the disclosures of approach to managing environmental risk, MAS could consider the requirement for external assurance over the disclosures. In addition, independent assurance on the asset managers' control environment in relation to environmental risk management can assist investors in their initial and ongoing due diligence of the asset managers and support investors in their own environment risk management mandate.

		Internal Assurance Additionally, or alternatively, the internal audit function can play a role in ensuring that the framework, policies and procedures established by the asset manager to manage environmental risk are appropriate and that the internal control environment in relation to managing environmental risk is designed and operating effectively. Overall The focus on environmental risk is a first step in the right direction, as we seek ways to ensure sustainability of the environment in our daily business and activities. Alongside environmental risk, we should also consider sustainability risk from a wider perspective, including social objectives, in the provision of financial services. MAS should consider guidance on managing social risks as we embark on new initiatives. A good balance would have to be struck as certain practices arising from new initiatives have negative externalities. We should also take into account the competition and realities that financial institutions in Singapore face vis-à-vis their regional and global peers. A calibrated and phased-in approach balancing short and longer-term benefits should be considered. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** No comment.

13	First State Investments (Singapore)	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** FSI believe that all entities under the supervision of MAS should be considered in scope for the Guidelines and they should apply to pooled as well as segregated vehicles. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** FSI agree that board should have accountability for climate and environmental risk management from both the entities operations and emanating from the investment activities. FSI have a strategic learning and development program specifically aimed at board members, NED's and senior management to ensure that have the knowledge and expertise to make appropriate business decisions. FSI wish to seek guidance if the Board can rely or leverage on the risk management framework and policies set by its Group/affiliate entity. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** Senior management members should participate in the appropriate risk management or other oversight committees which have responsibility for setting policies and frameworks for the business regarding climate and environmental risks.

		FSI wish to seek guidance if entities can rely or leverage on the resources from their Group/affiliate entity in meeting the responsibilities of senior management. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** FSI's Group CEO chairs the businesses Responsible Investment Steering Group which has responsibility for setting and approving policies and activities across the business for the management of climate and environmental risks. In addition to this, material environmental risks are reported to our Global Investment Committee. Therefore we fully support this proposal. FSI wish to seek guidance if entities can rely or leverage on the resources from their Group/affiliate entity in the oversight of environmental risk. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** FSI would urge the MAS to follow the requirements of the EU's Sustainable Finance Disclosure Regulations (SFDR) regarding the issues and metrics on environmental matters that are to be disclosed and monitored on an aggregate basis. These are contained in the SFDR's Principal Adverse Impacts requirements and include all the issues that will enable an assessment of the physical and transition risks emanating from climate change and encompassed in the TCFD Framework which is informing the MAS consultation. This is equally applicable to active and passive as well as direct investment driven strategies. The harmonization

		of standards across market is critical for investment institutions to ensure that efficiencies (cost and other) are achieved to the benefit of the savers and investors of Singapore. In relation to sector and individual investment level research, each investment team at FSI has a process for identifying and assessing the relevance and materiality of ESG issues for their respective asset classes. For all active teams, company engagement is a key source of insights on such risks and opportunities. These insights, coupled with the best available third party ESG research, are assessed by the relevant company analyst and incorporated into stock notes or reviews and influence company valuations. FSI currently subscribes to research from Sustainalytics, MSCI and RepRisk. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Please see response to Q5. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** Stewardship is a critical component of successful asset and risk management and plays an important role in holding companies to account for their impacts on the climate and environment. Stewardship is more than the process of voting and engagement and FSI would urge the MAS to adopt the key principles in the UK Stewardship Code 2020 which is in our view, the most progressive code of industry practice for stewardship and stewardship disclosures in any market globally.

		Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager. FSI support the adoption of the TCFD Framework as a reporting tool as well as the requirements for the various disclosures required by the EU's SFDR. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** FSI would reiterate the importance of fungibility between different Regulations, Code and Guidelines across markets to ensure efficiency and comparability for the benefit of the users of financial markets and their advisers. We would encourage the MAS to be bolder in setting the expectations that investment institutions play a positive role in addressing climate and environmental impacts and that disclosure guidelines ensure that investors and their advisers have meaningful information in order for them to make informed choices as to whom they entrust their pensions, savings and investments. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** FSIS would be delighted to share case studies and examples of our approach to managing climate risk with MAS. Our overarching approach is set out in our TCFD-aligned Climate Change Statement, which is available on our website: https://www.firstsentierinvestors.com.au/content/dam/web/australia/responsible-investment/au-climate-change-statement.pdf Examples of how this is applied in practice by our investment teams are provided in the Climate Change section of our case

		studies map on our website: https://www.firstsentierinvestors.com.au/au/en/institutional/responsible-investment/responsible-investment-case-studies.html#issue_type:Climate-Change We are very happy to go into further detail as required. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** FSI believe the proposed transition period is reasonable however this should clearly be stated as a "maximum" not minimum transition period.
14	Global Reporting Initiative	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** The GRI Standards (see GRI 102) require a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy for addressing sustainability. We therefore support Board oversight of sustainability-related issues and believe this is appropriate given the nature of these issues and their potential impact (both on the firm and the environment). **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in**

		developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed. In addition to requiring a statement setting out senior responsibility for management of a firms' significant environmental, social and economic impacts, the GRI Standards (GRI 102) also require disclosure around relevant strategic priorities and key topics, broader trends (such as macroeconomic or political) affecting the organization and influencing its sustainability priorities; key events, achievements, and failures during the reporting period; and views on performance with respect to targets. The Standards also require a description of governance mechanisms in place specifically to manage these risks and opportunities, and identification of other related risks and opportunities. We therefore support the MAS proposal in relation to the role of senior management and believe this level of oversight and ongoing monitoring is necessary given the nature of the risks and opportunities that these issues present. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** No comment.

		Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management. No comment. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** A recent research report (Kölbel, Heeb, Paetzold, and Busch - Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact) finds that "(o)ur results suggest that investors who seek impact should pursue shareholder engagement throughout their portfolio". Thus, to the extent that MAS wishes to ensure support for a sustainability transition (and thereby effective management of portfolio risks), it would seem that active stewardship is a necessary component. The ability of asset managers (financing institutions) to effectively assess and manage sustainability related risks is obviously dependent on the availability of accurate, timely, comparable and reliable disclosures from the investee companies. As MAS notes in its consultation document, the GRI Standards are a widely-used global set of disclosure standards aimed at enhancing the availability of such information. Stakeholder engagement is also a foundational part of the GRI Standards and provide a reference point for "encouraging investee companies to provide relevant and timely environmental risk data and/or clearer disclosures to improve data availability and consistency". **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.**

		We support MAS's reference to widely-used, globally accepted disclosure standards such as GRI for purposes of reporting. The GRI Standards are the world's first and most widely adopted global standards for sustainability reporting with more than 10,000 reporting organisations globally. As GRI, we believe the practice of disclosing sustainability information inspires accountability, helps identify and manage risks, and enables organizations to seize new opportunities. This results in the creation of more robust and resilient organisations and societies. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** GRI respectfully suggests that MAS may wish to extend the proposed guidelines (now or in due course) beyond just environmental issues, to also include economic and social impacts. As MAS notes in the consultation, funds are exposed to a range of risks, which may include environmental risks. We respectfully submit that there is a growing body of evidence that possible sources of risk extend beyond just environmental risks to include social and other risks. We cite a few examples in support of this proposition: - Recent Morningstar research (July 2020) argues that "the long-term profitability of any investment can be undermined by unmanaged ESG (environmental, social and governance) risks, which means that considering these risks cannot be a tick-the-box exercise. Because ESG risks are relevant for long-term investing, they should be considered as part of security analysis." - The newly revised UK Stewardship Code (2020) notes that "(e)nvironmental, particularly climate change, and social factors, in addition to governance, have become material issues for investors to consider when making investment decisions". - The European Union has introduced regulation covering sustainability-related disclosures in the financial services sector. The regulation requires financial market participants and advisers

		to disclose (amongst other matters) how they consider sustainability risks in their investment decisions and insurance or investment advice. For purposes of the regulation, a sustainability risk is defined as "an environmental, social or governance event or condition that, if it occurs, could have a negative material impact on the value of an investment." **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** No comment.
15	HSBC Global Asset Management (Singapore) Ltd	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** HSBC Global Asset Management (Singapore), on behalf of HSBC Global Asset Management worldwide, welcomes the opportunity to respond to the consultation of the Monetary Authority of Singapore's proposed Guidelines on Environmental Risk Management and is supportive of the intention to enhance financial institutions' resilience to and management of environmental risk. We are early signatories to the Principles of Responsible Investment, when they were established in 2006, and consider the governance, risk management and disclosure of environmental, as well as social and governance, risks as core to our investment approach.

		As a global asset manager committed to sustainable investment, we welcome the leadership of MAS on the sustainable finance and investment agenda and believe that international alignment on this agenda will drive more effective implementation. The proposed scope looks sensible. However, further clarity would be welcome on the practicalities of application and implementation, for example, how these guidelines are intended to apply to funds managed outside Singapore but distributed within Singapore. With respect to disclosures, we would suggest that aligned disclosures, for example the Taskforce on Climate-related Financial Disclosures (TCFD) and the EU Sustainability Disclosure Requirements, disclosed at the Group entity level would be considered acceptable provided the relevant Singapore registered fund management company was in scope. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** We agree that the Board should be responsible for approving an environmental risk management framework and policies, and setting clear responsibilities of senior management. We see such framework and policies as being part of a broader Sustainability framework, covering Environmental, Social and Governance risks. The Board should approve this broader framework. We would expect that in most firms the Board will require additional training in order for them to be able to perform this duty. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating**

		adequate resources to manage environmental risk of the assets managed. We agree that senior management should be responsible for developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed. Again we see such framework and policies as being part of a broader Sustainability framework, covering Environmental, Social and Governance risks. And again in some firms senior management may require additional training in these areas. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** We believe that for any particular fund/mandate the Portfolio Manager should be responsible for managing the environmental risk, within the firm's and the fund's policies and procedures. We agree that there should be an additional oversight forum to oversee Sustainability Risk (including Environmental Risk) across relevant funds and mandates. Depending on the scale of the firm this could be a dedicated forum, or it could be part of an existing forum, for example Risk Committee or Investment Committee. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** We agree that asset managers should identify, assess, monitor and mitigate material environmental risk at both an individual investment and/or portfolio level. This is part of our core commitment to integrate ESG considerations into investment

		decisions as part of the Principles for Responsible Investment (PRI). We are strong supporters of the TCFD framework which includes suggested metrics. We use our own analysis and engagement to evaluate company performance along with information from third parties to develop our own in-house ESG ratings for issuers. We use a range of third-party data providers to ensure that we have comprehensive coverage of issuers and ESG data. Metrics and tools are evolving in this area and we would therefore suggest disclosure on how ESG data is used rather than exhaustive disclosure of specific metrics. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** We support the use of scenario analysis as outlined in the Taskforce on Climate-related Financial Disclosure (TCFD) recommendations for disclosure of the resilience of an organisation's strategy to different climate-related scenarios, including a 2 degree or lower scenario. From our early work on climate transition scenarios, we know how critical the specifics of the scenarios are in understanding and disclosing climate-related risks and opportunities. There are a number of 'off-the-shelf' scenarios and tools, as well as asset managers developing their own scenarios. We note that this is an area of on-going development. It would be helpful to better understand the expectations of disclosure at a portfolio level. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We support 'sound stewardship to help shape positive corporate behaviour and manage environmental risk associated with investee companies through engagement, proxy voting and

		sector collaboration' as outlined in our commitments to a number of stewardship codes, including the latest UK Stewardship Code and requirements under the EU Shareholder Rights Directive. In line with these requirements, we would support the disclosure by asset managers of a public engagement policy and annual disclosure of aggregated engagement and voting practices and outcomes where possible. We also note the important role that regulators and stock exchanges can play in improving disclosure of material ESG issues. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** As stated previously, we are strongly supportive of the TCFD disclosure recommendations and agree that they provide a useful framework for the disclosure of climate-related risks. However, we would note that specifying further quantitative metrics such as exposures to sectors with higher environmental risk, may be problematic without further guidance, definitions and considerations of data availability. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** We would like to encourage close alignment between MAS guidelines and TCFD disclosure recommendations, even if this requires an extended transition period, so as to minimize the burden on issuers (investee companies) as well as investment firms which complying with multiple regulations would entail. We would also strongly support any measure taken by MAS and other arms of the Singapore government to strengthen and incentivise data production and disclosures by issuers in Singapore and South East Asia. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset**

		managers, which would meet the expectations in the Guidelines. We are happy to share our overall approach as outlined in our TCFD aligned disclosure - Climate change policy: https://www.assetmanagement.hsbc.co.uk/-/media/files/attachments/common/resource-documents/hsbc-climate-change-policy-en.pdf **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We would suggest a transition period of 12-18 months to allow for preparation and alignment with existing annual reporting timelines.
16	ICI Global	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** We are responding to this consultation on behalf of the members of ICI Global, which carries out the international work of the Investment Company Institute, the leading association representing regulated funds globally. ICI's membership includes regulated funds publicly offered to investors in jurisdictions worldwide, with total assets of US$31.7 trillion. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of regulated investment funds, their managers, and investors. ICI Global has offices in London, Hong Kong, and Washington, DC. Paragraph 1.1 proposes to apply the Guidelines to holders of a capital markets licence for fund management (LFMC) and real estate investment trust management (REIT) and registered fund management companies (RFMC), which are registered under paragraph 5(1)(i) of the Second Schedule to the Securities and

		Futures (Licensing and Conduct of Business) Regulations (Rg. 10) (hereinafter collectively referred to as “asset managers”). We welcome the language in Paragraph 1.2, which recognizes that the scale, scope, and business models of asset managers and the investment strategies that they employ can be different and that managers will need to implement these Guidelines in a way that is commensurate with the size and nature of their activities, including the investment strategy of their funds/mandates. We similarly support the language in Paragraph 1.2 that states that the Guidelines shall not prohibit or restrict an asset manager from complying with and discharging its fiduciary duties and other legal obligations to its customers. We have some concern, however, that the prescriptive nature of the Guidelines is not entirely consistent with this language. We urge the MAS to provide flexibility in the Guidelines so that managers can use the Guidelines as a tool for management of material environmental risk without triggering concerns about potential conflicts between the Guidelines’ approach and client mandates or preferences. Given the increase in investor focus on environmental risk, we do not believe that providing additional flexibility would result in an outcome that is inconsistent with the MAS’s objectives in implementing these Guidelines. Paragraph 1.4 states that the Guidelines would not apply to asset managers that do not have discretionary authority over the investments of the funds/mandates. We support this approach and recommend clarification on whether and how the Guidelines would apply to management of passive funds/mandates given that certain elements of the Guidelines do not seem well-suited for passive investment strategies. We strongly recommend that the Guidelines permit managers to apply them in ways that are appropriate for different types of strategies.

		Paragraph 1.5 states that asset managers that delegate investment management to sub-managers or sub-advisers still retain overall responsibility for environmental risk management. We ask the MAS for clarification on how the Guidelines would apply to sub-managers or sub-advisers. Where a Singapore licensed or registered manager acts only in the capacity of a sub-adviser (whether they are a delegate exercising discretion over the entire portfolio or just a sleeve), they are contractually bound to follow parameters set by the primary manager. If the primary manager is located in another jurisdiction and subject to requirements covering matters that are similar to those of the Guidelines (e.g., if the primary manager is subject to EU regulation, which imposes extensive requirements related to environmental risk management), there may be potential conflict or unnecessary duplication for the sub-adviser. Paragraph 2.3 defines environmental risks as (1) physical and transition risks to an investee company's business activities that pose a financial risk to an investor's returns, and (2) reputational risk to an asset manager, where investments in companies that have a negative environmental impact may create negative perception of asset managers' business practices and adversely affect their abilities to maintain or grow their assets under management. We are concerned that this reference to reputational risk to asset managers appears inconsistent with the Guidelines' focus on investment risks that have a potential financial impact on investors' returns (i.e., physical and transition environmental risks). Reputational risk to an asset manager's overall business is a business risk, not an investment risk, and it does not present a potential financial impact to funds/mandates managed by asset managers on behalf of fund investors/clients. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.**

		As the MAS develops its Guidelines, it is essential to differentiate between risk to the value of a particular investment (e.g., physical and transition risk) and risk to an asset manager as an organisational entity (e.g, reputational risk). Throughout the rest of our consultation response, we refer to these two categories of risk as “investment risk” and “business risk.” We recognize the importance of the Board in ensuring that a manager has in place a robust risk management and governance framework. We are concerned, however, that the Guidelines’ requirements, among others, appears to intermingle business risk management with investment risk management. The Board is best placed to oversee business risk to the firm, while investment risks at the portfolio level are best managed by the portfolio managers themselves. An asset manager’s Board, for example, should not be responsible for managing material risks to an investment portfolio. Elevating environmental risk for review at the Board level (unlike other specific investment risks that may, in fact, be more critical to the performance of an investment firm’s particular strategies) and suggesting that a particular individual be responsible for this specific risk gives the mistaken impression that environmental risk trumps other material investment risks, as discussed further in our response to Question 4. We therefore ask the MAS to better clarify and distinguish between investment risk management and business risk management in its Guidelines. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating**

		adequate resources to manage environmental risk of the assets managed. Although we agree that senior management responsibilities should include oversight of a rigorous risk framework for the investment process, we have concerns that the Guidelines around this requirement, similar to the Board oversight requirement, appear to confuse business risk management with investment risk management. We note that senior management responsibilities generally are not intended to address specific investment risks to the value of individual portfolio securities. Rather, senior management responsibilities are intended to address business risks such as valuation or the risk that a fund's approved investment strategy is not being appropriately followed. The Guidelines should not specify senior management's responsibility for security-level investment risks because integration of these material investment risks is a core responsibility of the investment team. As an overarching comment, an asset manager should be permitted to establish its governance framework in a manner that reflects the size, nature, and complexity of its business. For example, global financial institutions with multiple business divisions (e.g., banking and asset management) should have the flexibility to establish cross divisional or geographical governance frameworks (e.g., board/committee). In this scenario, an asset manager may have a divisional committee for overseeing environmental risk management, while there also may be a Board/committee at the group level to establish the framework and policies for the group as a whole. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.**

		We do not see merit in requiring (expressly or otherwise) the designation of a single person or committee to be responsible for oversight of material environmental risk to investments. Mandating a person within the firm to be responsible for oversight of material environmental risk to investments could lead to a compliance-heavy, box-ticking approach, which would undermine the focus on integrating material ESG information in the investment process. ESG integration is part of the investment process. The portfolio management team is best positioned to analyze the ESG factors affecting a particular investment and incorporate that analysis into investment selection, allocation, and stewardship. Requiring the designation of a single person across an entire organisation would only encourage the separation of environmental risk analysis from the investment process, which would be contrary to the purpose of ESG integration. Having a specific designee responsible for environmental risk integration also would jeopardize skewing the overall risk assessment of an investment. The fact that a particular risk is conventionally classified as an environmental risk will not be conclusive as to whether it is financially material or not. We note that Question 4 seems to assume that a particular environmental risk would be material for all investments, and we further discuss the importance of materiality in our response to Question 5. Environmental risk may be only one material risk that the portfolio management team takes into account in the investment process, and designating a responsible designee only for this risk would unnecessarily elevate this risk above all else. If the MAS moves forward with requiring a specific designee to oversee environmental risk, it will be essential for asset managers to have flexibility on where to locate that individual or committee.

		Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level. Paragraph 4.1 states that asset managers should embed relevant environmental risk considerations in their research and portfolio construction processes if they have assessed them to be material. We welcome the emphasis on materiality. Portfolio managers do not (and should not) treat all risks equally or treat them as being meaningful in all circumstances. In determining whether environmental risk is material to a particular investment, a portfolio manager analyzes the relevance of the information to the industry in which it operates and the potential impact on the financial health of the investment in the context of a fund's investment strategy. Similar analysis is often applied at a sector and mandate level. The fact that a particular risk is conventionally classified as an environmental risk will not be conclusive as to whether it is financially material or not to a specific investment, and/or to one sector or strategy and not another. A particular environmental risk may be material to one portfolio investment but not material to another depending on various factors. Paragraph 4.3 states that, for sectors with higher environmental risk, asset managers should develop sector-specific guidance internally to aid its investment personnel in understanding the environmental issues pertinent to such sectors. We question the utility of prescribing sector-specific guidance that does not take into account materiality. An asset manager should have flexibility to develop guidance for its investment personnel depending on strategy and investment objectives. We generally caution against a prescriptive approach to the use of tools and metrics for management of environmental risk to investments. Fund managers consider material environmental

		risks in the investment process as they do other material investment risks, such as interest rate risk or credit risk. Because of the unique nature of each fund manager's individualized and proprietary investment process, there is no uniform way to integrate material environmental risks into the investment process. In fact, developing uniform criteria for environmental risk assessments would turn these assessments into a check-the-box exercise that is less meaningful than the more in-depth, tailored risk analysis that many asset managers currently are performing. Asset managers should, instead, be provided the flexibility to adapt their environmental risk analyses in a manner that is appropriate for their particular investment process. We believe that continued market development of this practice, driven by burgeoning client demand and market competition, is most likely to lead to efficient, well thought-out approaches. For this reason, it is critical that any regulation of or requirement for integration of environmental risk be principles-based, provide flexibility, and not negatively impact the investment process. An inflexible, prescriptive approach could disrupt evolution of good investment practices, turning environmental risk integration into an artificial compliance checklist, or impose a separate overlay onto the investment process that would defeat the purpose of the MAS's objective of fostering true integration of environmental risk. Paragraph 4.6 states that asset managers' approach to managing environmental risk could be influenced by the investment objective and strategy (active vs. passive) of the fund/mandate that they manage. This paragraph focuses solely on management of environmental risk in active and passive strategies. We note, however, that the need for flexibility and a principles-based approach applies far more broadly than simply to the differences between active and passive. For example, a fund manager may integrate environmental risk information differently for a fixed

		income investment strategy as compared to an emerging markets equity strategy (or even between two emerging markets equity investment strategies, depending on clients' preferences as reflected in each fund's guidelines), and the MAS's approach must allow for these differences. Moreover, a manager may vary its approach to managing environmental risk for a sustainability-focused fund as compared to a fund that does not have that same focus. We also note that it is essential that global managers have the flexibility to implement global processes, where relevant, to be able to satisfy the MAS's requirements. Integration of material environmental risk should not be a separate process, but rather part of a manager's existing paradigm used to manage investment risks more broadly. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** We are deeply concerned about the prescriptive nature of the proposed Guidelines with respect to scenario analysis. We believe the current state of scenario analysis is unlikely to provide useful information to investors and may even be misleading to investors that place undue reliance on its outcome. Service providers use a variety of methodologies in estimating the level of climate risk associated with specific climate change pathways. Most of these analyses seek to provide insights on the purported exposure to physical risks, transitional risks, and opportunities associated with climate change. In general, the methodologies behind these analyses are highly sensitive to inputs that are subjective and can, in fact, vary extensively. Therefore, the range of potential outcomes of the analyses will also vary widely, depending on the methodology used and the assumptions made.

		For instance, transitional risk is dependent on many inputs, including the probability, timing, magnitude, and scope of governmental regulation. It is impossible to gauge many of these inputs with any precision (e.g., estimates of a carbon tax that have over a 5x range from low to high). Scenario analysis for specific 1.5 or 2.0 degree (or other) pathways also assumes some probability of governmental response (e.g., imposing a carbon tax); this is often based on a subjective view of risk. The methodologies also may not account for timing of potential government action. In addition, some providers choose not to provide details on the proprietary methodology used to calculate their results. Further, most of these methodologies do not account for differences both between and within sectors in how climate risks may impact profitability/long-term viability based on differences in industry structure, geographic mix, and other factors. Although service providers are focused on developing scalability of scenario analysis methodologies, we note that scale cannot come at the expense of security-level accuracy. In sum, scenario analysis is still nascent, and mandating that asset managers use scenario analysis in a particular way would be counterproductive at this juncture. We instead recommend including a high-level reference in the Guidelines stating that asset managers should incorporate scenario analysis where appropriate. This would allow flexibility for assessing physical risks and scenario analysis, recognizing the developing nature of this discipline and that the data available on the market remains incomplete as well as a lack of adequate disclosure from investee companies. In addition to our overarching comments on scenario analysis, we also caution that the requirements seem to conflate business risk management with managing investment risks. Section 5.4 in particular seems aimed at managing investment risk, while the other provisions seem linked to business risk management.

		We separately urge the MAS to include language that emphasizes the importance of materiality in this context and that scenario analysis is intended to help the manager focus on material risks. We also are concerned that it is unclear how the principle of proportionality would apply for firms in complying with these scenario analysis requirements. Asset managers must have flexibility to manage environmental risk in the investment process, in a manner that is proportional to their size, organisational structure, and other elements. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** Asset managers often take material ESG factors into account in their engagement activities under their particular circumstances, and we generally support the proposed Guidelines' principles-based expectations with respect to stewardship. Asset managers engage with companies held in a variety of mandates to encourage them to adopt robust business practices consistent with sustainable long-term performance. The language in Paragraph 6.1 discusses prioritising issues and companies for engagement in a way that is consistent with client interests and aligned with the asset manager's investment objective and strategy. We welcome this language and further urge the MAS to link engagement expectations to materiality. The fact that a particular risk is classified as an environmental risk will not be conclusive as to whether it is financially material or not to a specific investment. Depending on a variety of factors, a particular environmental risk may be material to one portfolio investment but not to another, and managers' stewardship activities cover a wide range of important matters beyond environmental risk.

		Although asset managers engage with investee companies on a broad range and variety of issues, Paragraph 6.2 lists only environment-related examples. We recommend framing this list with introductory language as follows: "In the context of environmental risks, topics for engagement with investee companies may include but are not limited to . . . ." We have concerns with the language in Paragraph 6.3 around collaborative engagement, as this could potentially conflict with strict antitrust requirements in other jurisdictions, particularly in the US. The Guidelines around engagement with investee companies should not conflict with antitrust requirements in other jurisdictions, as many asset managers employ group-level engagement policies. We recommend replacing Paragraph 6.3 with the following language: "Asset managers may consider collaborative engagements with other investors, to the extent consistent with applicable law." This language would provide asset managers with more flexibility to collaborate on issues such as developing and supporting the development of reporting frameworks, while complying with all applicable antitrust laws. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Paragraph 7.1 states that asset managers should disclose their approach to managing environmental risk in a manner that is clear and meaningful to their stakeholders, including existing and potential customers. We urge the MAS to revise this sentence as follows: "Asset managers should disclose their approach to managing environmental risk in a manner that is clear and meaningful." We believe that the MAS intended this disclosure to assist investors in understanding how the manager is managing material environmental risks to client assets.

		We disagree with the requirement to consolidate an asset manager's disclosure at the group or head office level. We recommend against mandating this disclosure given that group or head office level disclosure is not likely to be meaningful to a fund investor or client invested in a segregated mandate. Similarly, aggregate disclosure of quantitative metrics does not provide any useful information to end investors about the materiality of a particular investment risk to a particular security. We urge the MAS to reconsider this disclosure requirement so that it is useful for end investors. Institutional clients already request and receive extensive and tailored reporting, while retail end investors may be best served with qualitative disclosure about how the manager addresses material sustainability risk to their investments. Paragraph 7.2 states that asset managers should take reference from international reporting frameworks, including the TCFD recommendations, to guide their environmental risk disclosure. Rather than codifying a particular reporting framework such as the TCFD, we recommend clarifying that this is an example of one international framework that managers could use. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Paragraph 2.5 notes that asset managers can play a key role in the transition towards an environmentally sustainable economy by channeling capital through their green investment activities. We are concerned that this statement is not consistent with the purpose of the Guidelines, which involves identifying and mitigating material risks to protect client assets. With respect to asset managers' channeling of capital, we emphasize that asset managers are not asset owners but fiduciaries acting on behalf of investors. Client assets are entrusted to the asset manager subject to fiduciary duties and

		contractual constraints. We therefore strongly support the statement in Paragraph 1.2 clarifying that the Guidelines shall not prohibit or restrict an asset manager from complying with and discharging its fiduciary duties and other legal obligations to its customers. This statement appropriately recognizes that asset management is based on an agency relationship: asset owners hire asset managers to invest assets on their behalf. Asset managers act as fiduciaries, which means acting in the best interests of the client and faithfully executing the investment mandate provided by the client. Asset managers invest within the guidelines specified by their clients for a given mandate as set out in the investment management agreement. For regulated funds, a fund's manager invests in accordance with investment objectives and policies that are established by the fund's offering or constituent documents. In both contexts, the client or fund investor assumes the risk of investing rather than the asset manager. It is therefore essential that asset managers make investment decisions in the interest of their clients/investors only and invest in a manner that they assess will best achieve a client's mandate or a fund's stated investment objectives. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We strongly recommend that the MAS provide asset managers with a 24-month implementation timeline to ensure a meaningful implementation of the Guidelines. Global managers typically

		address ESG-related implementation projects on a global basis, and asset managers are currently dealing with an unprecedented implementation schedule of new ESG-related regulatory requirements in other jurisdictions, such as the HKMA environmental risk framework and a host of extensive new obligations on EU financial market participants and financial products. We also urge the MAS to ensure that the requirements under the Guidelines do not conflict with those introduced in other jurisdictions, in particular in Hong Kong and the EU. This is particularly important for firms with global footprints that will need to comply with multiple requirements.
17	Investment Management Association of Singapore	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** We agree that the proposed Guidelines should, as a general matter, apply to those Asset Managers which have discretionary investment authority over the funds/ mandates they are managing and would like to seek clarification from MAS on the following: Application on foreign funds • The requirement for those foreign funds which delegated investment management to the Singapore Entity but at the same time is subject to the regulation in its home jurisdiction? There is a preference for the requirement from the home jurisdiction to be deemed sufficient for the funds and the investment management, and thus be exempted from the Guidelines. • In the case where the fund manager in Singapore manages funds that are governed under the Luxembourg regulations, whether the proposed Guidelines would be applicable in this context. Application on fund managers who distribute foreign funds • Whether the Guidelines are applicable to those asset managers responsible for distributing the foreign funds (e.g. Lux fund) in Singapore

		• How these Guidelines are intended to apply to funds managed outside Singapore but distributed within Singapore. Application on non-ESG funds or non-ESG focused investment strategies • The Guidelines states that an asset manager should implement the Guidelines in a way that is commensurate with the size and nature of its activities, including the investment focus and strategy of its funds/mandates. If the strategy is niche or restrictive e.g. an Energy / Natural Resources strategy, then the degree to which the environmental risk management framework applies should be different from that of a broader strategy e.g. Global Equities. We would like to seek MAS' clarification on whether the requirements under the Guidelines are to be applied to all portfolios managed by asset managers, and not only those with specific environmental, social and governance ("ESG") focus? • Would MAS consider scoping out funds/mandates where the client does not expect the fund manager to integrate ESG characteristics in the investment decision-making process? Does MAS expect the Asset Manager to still unilaterally impose the guidelines if the client does not view environmental risk as an important consideration in conjunction with investment performance/on funds that do not claim to be "ESG Integrated" and have not been awarded the ESG integration status? Application on sub-managers • As a sub-manager in the management of a fund/mandate, does MAS expect the Guidelines to be in scope only for the portion in which the asset manager has discretionary authority over? • As a sub-manager in the management of a fund/mandate where there are prescribed investment guidelines in order to

		achieve targeted returns, is the Asset Manager expected to impose the Guidelines on the delegated mandate? • For sub-delegation of discretionary management to related entities, would there be flexibility for expectations to be addressed within group-wide or head office's policies, procedures and standards, which could see only partial adoption of the proposed guidelines? • We note that the Guidelines require asset managers to convey environmental risk management expectations to sub-managers and monitor compliance (as stated in paragraph 1.5). Given that MAS is at the forefront of requiring asset managers to consider sustainability across all of their activities, we would like to stress that these "expectations" will most likely be at a higher level - and therefore less detailed - than what might be in place at a Singapore-based asset manager. By way of example, the European Commission has recently published draft rules which would require European asset manager equivalents to further incorporate environmental risk management into their activities. It is not expected that these rules will be finalised and in effect before end 2021 at earliest. At the current time, and potentially for the foreseeable future, European asset managers would not be able to comply with the MAS Guidelines as currently written. • If the asset managers are only feeding into funds (that are managed by other asset managers), whether the Guidelines would not apply in this case as the asset managers do not get to dictate the environmental risk management practices of these funds since the asset managers are just investors. Others • With respect to disclosures, one of our members suggested that aligned disclosures, for example, the Taskforce on

		Climate-related Financial Disclosures (TCFD) and the EU Sustainability Disclosure Requirements, disclosed at the Group entity level would be considered acceptable provided the relevant Singapore registered fund management company was in scope. • In addition to applying the Guidelines to managers that have discretion over the investments managed (as stated in paragraph 3.3 of the Guidelines), one member recommended that this be extended to index-based, ETFs, and otherwise "passive" products. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** IMAS welcomes the proposed responsibilities of the board and senior management. We agree that the Board should be responsible for approving an environmental risk management framework and policies, and setting clear responsibilities of senior management as they are instrumental in driving transformational change within the organisation. However, asset managers should be allowed to establish its governance framework in a practical approach, and proportional to the size of its business. For global financial institutions which have various business division (eg. banking and asset management arm), they should have the flexibility to leverage Group Level Framework and Policies, and establish cross-divisional or geographical governance framework (e.g. board/committee). For example, an asset manager can have the divisional committee for overseeing of environmental risk management and the corresponding financial impact to the investment/portfolio at regional or global level, while at the same time they can have the Board/committee at Group level to establish the framework and policies for the group as a whole.

		Leveraging Group level framework and policies Most licensed fund managers in Singapore are subsidiaries of multinational corporations where the global initiatives, such as ESG, are spearheaded by resources at the firm's HQ. Where the environmental risk framework has been implemented at the Group level, we respectfully ask that MAS consider providing guidance on how the asset manager may leverage on the policies that have been tabled at the Group level. Similarly, where the Group's ESG committee is responsible for providing overall oversight of the integration of ESG factors in the investment process, we seek MAS' clarification on whether asset managers may work with the Group's ESG committee in meeting the Guidelines. If the framework has been approved at the Group's Board level where the ESG resources reside, we also seek MAS' clarification on whether MAS expects an additional committee and layer of oversight at the local asset manager level. Also, we would appreciate MAS' clarification on how to also consider the role of a Group's Board that is based outside of Singapore with multi-jurisdictional accountabilities. Global organizations require board supervision of multiple jurisdictions and it would be helpful to clarify how this is intended to fit within a global framework. We recommend that the framework and policies are able to reference global frameworks and policies. It will be helpful if MAS can elaborate on the regulator's thoughts to designate a senior management member or committee for this purpose. Further, clarification that oversight at Group (not at the local Board level) is adequate will be useful. Location of designated personnel Given that many members leverage off the broader group resources on its implementation of ESG policies, we would like to request for MAS to exercise flexibility on the need for designated personnel for overseeing environmental risk to be located in Singapore and would like to seek further confirmation on its expectations.

		Integrating environmental risk as part of overall risk management framework Such framework and policies could be part of a broader Sustainability framework, covering Environmental, Social and Governance risks. One member suggested that the Board should approve this broader framework and it expects that in most firms, the Board will require additional training in order for them to be able to perform this duty. Environmental risk is one risk to be considered amongst others under a company's investment risk management framework which the Board oversees. There appears to be an over-emphasis on environmental risk issues when there should be reasonable expectations to manage risks more holistically for the assets managed. We would like to seek MAS' clarification that it is acceptable under the proposed guidelines, that environment risk management is overseen by the Company's existing risk committee, and to be embedded within the existing risk management framework and governance structure, to monitor and manage different types of risk. We agree that environmental risk should be integrated into the asset manager's risk management framework (paragraph 3.3), and that the Board should oversee the integration and periodically review the risk management framework's adequacy and effectiveness. However, the way that the Guidelines are currently written would appear to require asset managers to create a separate framework for environmental risk management (paragraph 3.4). Asset managers should be able to either (a) incorporate environmental risk in an existing risk management framework or (b) develop a specific environmental risk framework. This is particularly important for global asset managers who have a set of risks – and accompanying risk appetite – which is defined at a group level. Additionally, we question whether an asset manager would later be required to define a social risk framework, followed by a governance risk framework. We recommend clarifying section 3 to allow for environmental risk to be managed as part of a broader risk

		management framework, rather than requiring this to be a separate framework. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** As above, we would like to seek MAS' guidance on how the asset manager in Singapore may leverage off the oversight work performed by the senior management/committee at the Group level, where the oversight function resides in the firm's HQ. Also, we would like to seek MAS' clarification that the proposal is not intended to prioritise environmental risks over other types of risk, and it remains for the fund manager to assess all relevant risks and deliver performance for clients. Many global firms integrate ESG into their investment process, which is an approach defined by the UN Principles for Responsible Investment as "the explicit and systematic inclusion of ESG issues in investment analysis and decision making". Assessments are only carried out on issues that are material, which would mean that the firm's overall environmental risk management exposure might not be measured, nor would fund resilience to different environmental scenarios be considered. However, the Guidelines in its current form, appears to mandate an investment approach for all asset managers (e.g. the use of tools and metrics to monitor environmental risk management exposure and determine fund resilience to different environmental scenarios (point 3.5(a)). We would like to clarify that this is not the intent, and suggest that in order to not require a change in global investment processes and potentially lead to conflicts between fiduciary duties and MAS environmental risk management requirements, that the specific use of tools and

		metrics, as well as scenario analysis, is recommended by MAS but not mandatory. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** We agree that senior management accountability is vital, notwithstanding that for any particular fund/mandate the Portfolio Manager should be responsible for managing the environmental risk, within the firm's and the fund's policies and procedures. While there could be an additional oversight forum to oversee environmental risk, either directly or indirectly (where the environmental risk forms part of, for example, a firm's Sustainability risk) across relevant funds and mandates, the company should have the discretion to decide, subject to it scale, whether the Committee should be a dedicated one, or part of an existing Committee, such as a Risk Committee or Investment Committee. Our members are of the view that a mandatory separation between environmental risk and all other risk factors should not be imposed. As such, we would recommend that MAS allow asset managers to designate a senior management member or a committee to oversee risk in general (and not specifically call out environmental risk). For example, environmental risk may be managed by a Committee that also reviews social risks and sustainability risks other than those within the environmental and social categories, or environmental risk management may form part of a firm's overall sustainability strategy. Given so, we would respectfully ask that MAS view this arrangement as adequate and therefore an additional environmental risk-specific committee is not required.

		In the event that the Group has designated a senior management member or committee to oversee ESG risks, we seek clarification from MAS on whether the asset manager in Singapore is expected to duplicate efforts. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Challenges in research and portfolio construction We would like to highlight that there is a general absence of sufficiently detailed, reliable and consistent ESG data available to fund managers. As metrics and tools are evolving in this area, one of our members suggested disclosure on how ESG data is used rather than exhaustive disclosure of specific metrics. A clear industry-wide standard has yet to emerge and as a result, it is vital that asset managers have scope to innovate in the development of new tools and metrics. Innovation is vital to strengthening the investment management industry's ability to effectively measure and manage environmental risk. It is important to note that any tools inform but require the judgement of experienced investment analysts with their knowledge of industries and companies for meaningful application. Current practices A majority of our members who responded use a range of third-party tools obtain coverage of issuers and ESG data. Some members shared that, in addition, they are supported by in-house research and tools. For example, one of our members shared that they use their own analysis and engagement to evaluate company performance along with information from

		third parties to develop their own in-house ESG ratings for issuers, and also took reference to the TCFD framework which includes suggested metrics. Another member shared in greater detail on how they incorporate ESG on a mandatory basis within their investment decision-making process. Please see the section below titled “Approach to assessing ESG factors”. There are a range of third-party research and data providers that offer tools to accommodate the impact assessment of environmental risk at both the individual investment and portfolio level which provides ESG and climate data. Examples of tools and metrics Examples of third-party tools that our members have listed include: - the Notre Dame Global Adaptation Index can be used as an input to the ESG rating of sovereign issuers. The index summarises a country’s potential future vulnerability to climate change and other global challenges in combination with its readiness to improve resilience - company ESG reports - Sustainalytics’ ESG ratings - MSCI ESG Ratings - ISS ‘Climetric’ data Other matters One of our members requested that MAS also provide examples of tools and metrics for public and private equity, on top of fixed income investments and direct real estate investment One of our members opined that, with respect to paragraph 4.6, the extent of deviation from an index may not necessarily be a direct contractual constraint, thus they suggest that the term “contractual” be removed. Reposted the relevant clause below: “Similarly, active managers may be constrained in the extent to which they can deviate from a reference benchmark or index. Where such contractual constraints exist, asset managers can still

		manage and mitigate environmental risk in their portfolios by influencing their investee companies to have sound environmental risk mitigation measures." Example of approach to risk assessment One of our members' approach to assessing ESG factors from an investment perspective commences with an assessment of ESG factors as they relate to risk management, profitability and continues with engaging with management at investee companies. Their Credit & Equity Research Analysts are required to assess ESG issues, as required and outlined by their Investment Governance Framework. These assessments are required in all the company research reports that they publish on a regular basis. The consideration of ESG issues including environmental risks is incorporated in the company's Proxy Voting Investment Standard. Investment teams across countries where the company operates should be able to demonstrate compliance against these internal standards. When assessing their investee companies' ESG performance, as ESG issues are often highly country and industry-specific, their Credit & Equity Research Analysts, with their understanding of local markets, will employ their "on the ground" knowledge to analyse and monitor ESG issues when and where they arise. Their Credit & Research Analysts shall refer to any company ESG reports as a proxy for how ESG issues are being managed by the relevant Issuer. Analysts are encouraged to stay up to date on contemporary ESG research and risk uses, whether through attending internal or external training courses or through considering ESG research produced by, or received from, third party research providers in their assessment. Their Credit & Equity Portfolio Managers are responsible for considering the aforementioned factors and analysis, guarding against risks associated with investments and the potentially negative impact on society and the environment.

		Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management. Portfolio Risk Management As highlighted in question 5, our members face challenges in obtaining comprehensive ESG data to conduct their portfolio risk management. For example, carbon metrics data which are offered by ESG research providers in the markets are used to conduct portfolio risk management. While these offerings provide a solid foundation in baseline carbon emission data (i.e. Scope 1, Scope 2 emissions, energy mix/ renewable energy usage), the offerings providing forward-looking climate scenario analysis or an analysis of physical climate change risk are much more limited. Current offerings on the market are often not transparent and use numerous assumptions that are often unclear to investors. As a result, we would expect the requirement on portfolio risk management to be principles-based and flexible as opposed to prescriptive, in particular, to allow for flexibility of approaches to assessing physical risks and scenario analysis, recognizing that the data available on the market remains incomplete and reflecting also a lack of adequate disclosure from companies. One of our members also requests that the requirements to be harmonized to the EU framework given that currently, it is the most advanced regulation. Comparing with the EU requirement, the Scenario Analysis is prescriptive (e.g. including both short term and long term scenarios, and assess both physical and transition risk). Being a global asset manager, a global ESG framework is usually adopted across the group for all jurisdictions, rather than tailored made a local framework for each jurisdiction. As such, if it is mandatory for asset managers to incorporate all the portfolio risk management requirements (ongoing monitoring and scenario analysis), it will take extensive

		efforts in fulfilling such requirements. In this connection, we respectfully ask the MAS to grant the asset manager the flexibility on how to manage environmental risk in the investment process, proportionate to its operational model and size of business. Having flexible and principle-based regulations would encourage asset managers to conduct climate scenario analysis in their investment portfolios. In addition, one of our members shared that they use a screening approach to modify existing portfolios due to increased risks, excluding tobacco manufacturing and cluster munitions from their investments. Scenario Analysis One of our members expressed its support for the use of scenario analysis as outlined in the Taskforce on Climate-related Financial Disclosure (TCFD) recommendations for disclosure of the resilience of an organisation's strategy to different climate-related scenarios, including a 2 degree or lower scenario. From their early work on climate transition scenarios, they know how critical the specifics of the scenario are in understanding and disclosing climate-related risks and opportunities. There are a number of "off-the-shelf" scenarios and tools, as well as asset managers developing their own scenarios. It is noted that this is an area of on-going development and it would be helpful to better understand the expectations of disclosure at a portfolio level. However, in relation to paragraph 4.8, one of our members highlights that there is a general lack of robust portfolio/investment models available for asset managers to run a meaningful scenario analysis. A scientific approach would not be possible without access to detailed standardized data at an individual asset level. Examples of tools and metrics

		Our members have also listed examples of tools and metrics for portfolio risk management: - climate value-at-risk scenario analysis, - climate-related targets, - weighted average carbon intensity - in-house capability to conduct carbon footprinting of portfolios - MSCI RiskMetrics - ICE Liquidity Indicators - Sustainalytics - ISS Data Example of portfolio risk management One of our members provided an example of their firm's approach towards portfolio risk management. They shared about the increasingly unsustainable production of palm oil, which bears significant negative social and environmental impacts, including deforestation, pollution and biodiversity loss. They have therefore assessed their exposure to palm oil producing companies in their portfolio, across both fixed-income and equity asset classes, engaging with these businesses on improving their sustainability practices both in their operations and supply chains. Their Group ESG and Investment team identified companies with Palm Oil exposure and looked into their practices, making a preliminary assessment of these palm producing companies using, for example, their membership and work with the RSPO (Roundtable on Sustainable Palm Oil), their commitment to no deforestation, child labour issues etc. The company Analyst team engaged with the identified companies using a questionnaire to make further assessments. The ESG team used the information from the questionnaire to internally rate the engaged companies. While the company does not share private ratings externally nor with the engaged companies, they sought to use the information to consider whether the performance of these companies is sustainable, or where there

		may be potential risks due to the lack of a (or inadequate) policy, control or practice. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We are supportive of MAS' expectations on stewardship as set out in section 6. We agree with the principle-based expectations for assets managers to demonstrate active ownership and stewardship through engagement and dialogue with investee companies, facilitating the faster transition towards more sustainable business practices. We believe shaping corporate behaviour of investee companies positively will help position our investee companies favourably. Stewardship is also an integral part of the asset management industry to act as a "force for good"(with respect to paragraph 2.4). Asset managers' abilities to use their votes to influence companies is a particularly important part of their stewardship responsibilities. One of our members has designed their voting policy to reflect their conviction that companies should measure and manage climate risks in their business and expect that other asset managers should take similar steps. As issuers are expected to be able to identify key environmental risks to their business, we generally support shareholder proposals asking for increased disclosure from investee companies, which is particularly relevant in our region (in relation to paragraph 5.4). Where existing materials are significantly lagging behind recognized frameworks, it is necessary for investors to assess these risks. We are broadly supportive of the work of the Task Force on Climate-related Financial Disclosure (TCFD) and the Sustainability Accounting Standards Board (SASB), and issuers can look to those frameworks as a reference of

		leading best practices. For example, one of our members expects directors to be familiar with those recommendations and be able to discuss how they relate to the risk assessment for their business. Where the asset manager finds significant failings by the board in its oversight of these issues, it may withhold support. However, we are also cognizant to the fact that stewardship extends beyond management of environmental issues with investee companies, and fund managers would need to determine the most important issues for investee companies to address in order to maximise shareholder value. One of our members highlights that there are limitations in the influence of minority shareholders over investee companies, and such limitation should be recognised. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Aggregating disclosures at group level We welcome the proposal of allowing asset managers to have the flexibility of consolidating disclosure at the group or head office level. One of our members recommends that disclosure should be at the fund level, and not aggregated. The environmental risks should be incorporated into the investment strategies and process, and the nuance could be lost when aggregated at the group or head office level. Disclosure frameworks We agree that the TCFD recommendations provide a useful framework for the disclosure of climate-related risks, and suggest that proposed disclosures could also be based on UNPRI's climate-related disclosure indicators that can be used to align with TCFD recommendations in the 2020 PRI Reporting

		Framework. Asset managers may complete the PRI Climate Transparency Report as a proposed form of disclosure to its stakeholders. This will ensure alignment to global standards and enable easy referencing to facilitate comparison for stakeholders and cross-sharing amongst the industry. One of our members also suggests that asset managers may complete the PRI Climate Transparency Report as an alternative form of disclosure to its stakeholders. However, we would note that specifying further quantitative metrics such as exposures to sectors with higher environmental risk, may be problematic without further guidance, definitions and considerations of data availability. For clients, product-level information will be the most relevant. We are supportive of disclosure measures that aim to increase transparency and enable investors to choose investment products and services that are right for their needs and investment preferences. We believe that the approach should be descriptive rather than a prescriptive list of criteria. Eventually, we hope that regulators could curate a globally consistent reporting framework for environmental metrics. Others We would appreciate MAS' confirmation that disclosures should be at an aggregate level, which would be consistent with TCFD recommendations. We would also appreciate MAS' confirmation that disclosures would only include the assets under management ("AUM") in the asset manager's own asset book where it has direct control, and will not include AUM attributable to co-mingled vehicles or assets where the asset manager does not have a direct influence over the strategy e.g. investment in ETFs. One of our members suggests that it would suffice for such disclosures to be made on the asset manager's corporate website

		(instead of on each fund prospectus) to facilitate easier maintenance. Asset managers could specify in the fund's prospectus for investors to refer to the asset manager's corporate website for the company's approach to environmental risk management. However, if MAS intends for specific disclosures to be included in the respective prospectus of the funds managed by asset managers, we respectfully suggest that MAS could align to similar disclosure requirements under the EU regulations on sustainability-related disclosures in the financial services sector that asset managers may already be subject to when offering funds under the SICAV platform, in particular under Article 6 (on Transparency of the integration of sustainability risks), Article 8 (on Transparency of the promotion of environmental or social characteristics in pre-contractual disclosures) and Article 9 (on Transparency of sustainable investments in pre-contractual disclosures). **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Country like Singapore to help lead the way in this. We urge Singapore to continue its active participation in global efforts. Separately from the Guidelines, a stronger set of regulatory and policy incentives can support companies committed to transitioning to a low-carbon economy. MAS can also consider a climate mitigation credit guarantee programme, to serve as a wrap to transition bond issues. Definition of environmental risk On the definition of environmental risk, one of our members is of the view that: • Changes in the environment can pose varying risks to different stakeholders, and these impacts can be concentrated within specific stakeholders or more indirect and systemic in nature. It suggested that the definition could be narrowed such

		that it would be most relevant to the purposes of asset managers to provide more clarity. • There are a variety of topics other than climate change that present challenges that are imperative to address. Water scarcity, biodiversity, waste generation, pollution, and resource scarcity are mentioned, but these can differ substantially from climate risk in their severity and frequency, and in the way they can be measured. • It is important to separate the impact of the environment on companies from the impact of companies on the environment. • It is important to separate environmental risks to the asset manager and their business from the environmental risks to the portfolios and investee companies. • The guidelines are focused on environmental risk, but the environmental changes and the need for solutions also create many opportunities for companies. The framework would benefit from including these and focusing on environmental management overall, including both risks and opportunities. Alignment with TCFD disclosure recommendations We would like to encourage close alignment between MAS guidelines and TCFD disclosure recommendations, even if this requires an extended transition period, so as to minimize the burden on issuers (investee companies) as well as investment firms which complying with multiple regulations would entail. We would also strongly support any measure taken by MAS and other arms of the Singapore government to strengthen and incentivise data production and disclosures by issuers in Singapore and South East Asia. Alternative to environmental data Environmental data from companies is often lacking and is not reported in a common format. This means that portfolio level environmental data is currently of questionable utility from a risk management perspective. One of our members is of the view that fundamental company analysis, and a review of environmental

		risk in the context of an individual company and sector, is the most meaningful way to look at environmental risk. Portfolio level data can only at most be an indicator or benchmarking tool that feeds into this work; it cannot replace a more complete fundamental company analysis. Comments on specific paragraphs within the Guidelines On paragraph 2.1, we welcome the science-based reference to IPCC's report for policymakers. We are encouraged by MAS's initiative to urgently highlight the importance of environmental risk for financial institutions, for the resilience of our industry, the broader financial system and society at large. On paragraph 4.3, it is set out that "asset managers should apply risk criteria to identify sectors with higher environmental risk", and that "the risk criteria may include the level of GHG emissions, vulnerability to extreme weather events, and linkages to unsustainable energy practices, deforestation and pollution". we would appreciate MAS' clarification on whether the asset manager has the sole discretion to set the risk criteria for identifying sectors with higher environmental risk, and how would MAS assess the asset manager's level of compliance with this requirement based on the risk criteria set by the asset manager. On paragraph 4.4, it is set out that "in considering the materiality of environmental risk with respect to the different asset classes (such as public equity, fixed income, private equity, real estate/infrastructure), asset managers can take reference from the following examples" in the Guidelines. We would appreciate MAS' clarifications on how the asset manager would be assessed on its level of compliance with this requirement based on the indicators that the asset manager has considered. In addition, we would appreciate MAS' guidance on the type of documentary evidence that should be recorded/retained to demonstrate the asset manager's consideration of the indicators.

		On paragraph 5.2, it is set out that "asset managers should develop capabilities in scenario analysis to evaluate portfolio resilience and valuation under different environmental risk scenarios, where relevant". As stress testing environmental/ extreme/ social events (which are rare or qualitative in nature) may be challenging, we would appreciate MAS' clarifications on whether MAS would be prescribing how asset managers can fulfil this requirement and whether asset managers would be given a transition period of longer than 12 months to comply with this requirement. On paragraph 5.3, it is set out that "for example, on physical risk, an asset manager could assess the impact on revenue and profitability of investee companies that are more exposed to sea level rise (such as companies owning seafront properties) or extreme weather events (such as agriculture companies). On transition risk, asset managers could assess the level of sensitivity of an investee company's cost of doing business to higher carbon price; whether higher costs could be partially offset by increasing prices and its impact on consumer demand." This may increase the regulatory costs and burden on asset managers as significant investment in data would be required. While paragraph 5.4 has set out that "where data may be limited, asset managers should consider qualitative assessments", it may also be challenging for asset managers to ensure consistencies across all investments. A transition period longer than 12 months may be required for asset managers to comply with this requirement. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** In general, our members follow the voluntary disclosure recommendations under the TCFD. For example, one of our

		members published a firmwide Climate-related Corporate Strategy in line with the voluntary disclosure recommendations of the TCFD, and outlines how climate-related factors are integrated in the firm's business and investment risk assessments. The strategy specifically covers investment risk and opportunity as well as the operational resilience of their business. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** Due to the complexity of establishing the process to fulfil the requirements as set out in the Guidelines (e.g. process for ongoing monitoring and scenario analysis), asset managers may require additional time to comply with the guideline and thus we suggest to extend the transition period to at least 18 months. We would also appreciate MAS' clarification on whether asset managers are expected to comply with all the requirements in the proposed Guidelines (including MAS' prescribed disclosure formats, if any) within the transition period. The transition will be especially challenging if there is duplication of governance structure, where MAS does not allow asset managers to leverage on existing Group Frameworks, or if MAS were to impose additional requirements that do not align with the Groups' approach towards ESG. We also understand that TCFD provides a transition period that is longer than 12 months for new signatories to TCFD to comply with its disclosure requirements. Moreover, we would suggest MAS to take into account the timeline of the EU regulation on this topic and may further extend the transition period if there is any delay in the implementation timeline in EU given that the EU framework is the most advanced regulation and global asset managers will usually make reference to it on implementation.

18	Keppel Capital Holdings Pte. Ltd.	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** Are Business Trusts to be included in these guidelines? **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** Clarification is required on MAS' recommendation on having individual accountability over the environmental risk management. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.**

		Clarification is required on the extensiveness of the environmental risk and the level of due diligence required. It would be good if guiding notes can be provided by MAS. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Clarification is required from MAS on the proposed recommendation of tools to be adopted moving forward. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** No comment. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** No comment. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** For reporting, the GRI Sustainability Reporting Framework can be adopted. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.**

		Depending on the asset class, consultants are engaged to advise on the appropriate risk evaluation and management system. Hence, flexibility must be built in on the type of reporting format and reporting system that can be adopted if legislation is imposed to manage the risk. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** Transition period of between 12 and 24 months is proposed to allow managers with different starting points to get up to speed on the proposed requirements.
19	Lymon Pte. Ltd.	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** In paragraph 3.3, it was stated that the Guidelines would generally apply to asset managers that have discretionary authority over the investments of funds/ mandates that they are managing. In this regard, we seek MAS' clarification on whether discretion refers to one which is strictly formalized, i.e. in an investment management agreement, or if it refers to discretion in substance. For example, if a Cayman overseas investment manager ("IM") is formally the IM, but in reality accepts all investment proposals from the Singapore entity which is formally only the investment adviser to the Cayman IM. Further, in relation to the proposed scope of the Guidelines, we respectfully propose that MAS include Venture Capital Fund Managers ("VCFMs") in the scope of the Guidelines. VCFMs should also play a part in the financial sector to address the impact of environmental risk and support a smooth transition to an environmentally sustainable economy.

		Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies. No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** No comment. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** No comment.

		Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices. There is a limit of influence with respect to asset managers which hold only a small percentage of shareholdings in their investee companies. Such asset managers are likely not be able to influence the management of environmental risk in their investee companies or be able to meaningfully shape the business processes and corporate behaviour of their investee companies. As such we would like to propose that this expectation for asset managers to engage investee companies for the purpose of environmental risk management only be imposed where the asset managers hold or control at least 20% of the voting rights in the investee company. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** We recommend that where such disclosures are made should be standardized to enable easier tracking and accountability. For example, the asset manager's financial statements. How they disclose can be at the asset manager's discretion. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** No comment. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.**

		No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** No comment.
19	M&G Real Estate Asia Pte. Ltd. & M&G Investments (Singapore) Pte. Ltd.	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** M&G agrees with MAS' proposal to apply the Guidelines to: (a) Holders of a capital markets licence for fund management (“LFMC”) and real estate investment trust management (“REIT”); and (b) Registered fund management companies (“RFMC”), which are registered under paragraph 5(1)(i) of the Second Schedule to the Securities and Futures (Licensing and Conduct of Business) Regulations (Rg. 10) (hereinafter collectively referred to as “asset managers”). M&G also supports that an asset manager should implement these Guidelines in a way that is commensurate with the size and nature of its activities, including the investment focus and strategy of its funds (including REITs) and segregated mandates. M&G is also supportive of the guidelines only being applicable to asset managers that have discretionary authority over the investments of the funds/mandates that they are managing. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** M&G supports the MAS' proposed responsibilities of the Board in overseeing environmental risk management given that this

		approach would align neatly with the existing oversight responsibilities of the Board. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** M&G supports the MAS' proposed responsibilities of senior management given the existing involvement in and oversight of the FI's day to day activities by senior management. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** M&G supports the MAS' proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is materials, based on the understanding that this is on an non-exclusive basis. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** M&G believes that investors need companies to report environmental data to the same quality as financial data. The establishment of metrics and datasets is the foundation for elevating assessment of environmental risks. Currently widespread environmental regulation exists, but corporate

		reporting of environmental performance is not compulsory. So, there are widespread gaps in data. There is a long way to go in improving the quality of reporting towards that of financial data, namely in independent verification, authenticity, homogenous comparable reporting located & collated in widely accepted specified locations (annual reports, collated preferably Bloomberg data fields for download). Investors expectations are driven by a high quality of financially reported data, leaving a large gap to close, just to be able to begin the process of identifying the scale of the problem. We believe that environmental factors, need to be systematically integrated into our investment decision-making process to support the identification and management of risks and opportunities both at an investment, portfolio and entity level. Notably climate change, where the current expected investments and changes to energy delivery and land use requirements are so great that we expect them to materially impact many investee companies profit and loss, cash flow, balance sheets and business models over the next 3 decades, driven by: policy change; customer demand preferences; and impacts from climate change due to resource issues and natural disasters. To demonstrate this M&G aims to achieve carbon Net Zero investment portfolios in aggregate by 2050 across its total assets under management. (See Q10 for how we use these tools). In 2019 M&G participated in the UNEP FI TCFD reporting project in partnership with Carbon Delta (now part of MSCI) and the PRI to collaborate, coordinate and advance the financial industry's capabilities. Real Estate found the tool wanting for evaluation of physical risk, however Equities and Fixed income found use in transitional risk evaluation. We currently have 2 enterprise wide licences for ESG tools with MSCI and ISS. Both have climate assessment capabilities.

		Although Climate change is the most notable environmental factor, there remain other important results of human interaction with environmental systems including but not limited to pollution, diminution and unsustainable use of natural resources and capital, for example deforestation and land use. Of course, these are inextricably interconnected and characterised by sub optimal outcomes whereby external costs are not taken into account. We are a long way for being able to ascribe a value for these 'free lunches', but use of environmental metrics is a necessary starting point. M&G considers the SASB reporting metrics to be an excellent collection of environmental operationally specific and appropriate metrics to analyse companies individually and by peer group. We align our ESG approach to this framework. Widespread lack of reported data across the relevant KPIs make this far from a comprehensive usable solution. Currently these form a qualitative list of topics which inform analysts/fund managers when meeting management (contained in an engagement question bank), and when looking for further non-financial disclosure. The topics of our engagement are recorded internally and presented to clients (see answer Q9). TCFD is a clear step forwards in financial regulatory emphasis (central banks and G20), elevating the climate agenda and providing a high level framework for reporting on: Governance; Strategy; Risk management; Metrics and targets. As of 2018, 329 corporates reported under the framework, but it is set to increase significantly from this level as the UK expects all listed companies to report as well as all asset owners by 2022, and the pipeline of supporters has expanded to 1022 as at February 2020. It is an indicator of corporates who are embarking on a climate action plan. It is notable though, that reporting coverage is not widespread, and is mainly qualitative in output. Analysing these reports is currently labour intensive.

		The Carbon Disclosure Project-CDP provides a high quality quantitative and qualitative resource specialised in climate change, and its associated indicators of resource intensity such as Water and Forests. It is often the source for other third parties on GHG emissions data. In short, it is an advanced database providing a one stop shop for a climate deep dive on a corporate. It is great for a number of reasons: • Independent with a purpose to influence climate paths in the corporate sector, and map out a journey towards environmental stewardship • Estimate checking and verification of the scope of GHG disclosures which can sometimes be misleading, so that outliers can be identified in a peer group, with commentary provided outlining why an estimate is preferred • Ratings for quality and quantity of GHG emission disclosure (1-7)and overall ratings A-D with A&B ratings reserved for leaders in an industry • Huge amounts of qualitative information broken into critical areas of: o Disclosure o GHG Governance (generally with the highest responsibility held at Board level) o Business strategy (climate risks & opportunities integrated into business strategy) o Carbon pricing (internal price of carbon) o Engagement (with supply chain and policy lobbying) • It is a questionnaire that's is aligned with TCFD • It is a means by which investors can engage with corporates in order to respond to CDP because we find the information incredibly valuable and unique • Its coverage is ~2500 corporates on Governance (3461 were sent the questionnaire but did not respond), we would very much like to work with CDP to expand this coverage and would encourage regulators to do so too

		Its output although containing a wealth of rich information, requires an ability to integrate it into a data hub and present it in a form that analysts, fund managers can consume comfortably for screening, due diligence, portfolio monitoring and reporting. We have developed this tool in house using our Data Science and AI team, producing a Power BI in house product. Some screenshots of the output are contained in section Q10. Science Based Targets initiative (SBTi) is a definitive independent verification of a corporates planning with respect to setting a net zero target. To date there are >900 companies affiliated, growing rapidly each year (aided by current trends in adoption of NetZero in local legislation). Differentiation is made by corporates that have had plans checked and become accredited members with those that wish to do so. Given the independent verification, we consider this a useful flag for our own data hub, attempting to avoid corporate greenwashing going forwards. The Transition Pathway Initiative is powered by the Grantham Institute, the London Stock Exchange, large asset owners, and asset managers. It is a carbon benchmark tool which is useful to evaluate companies in heavy carbon sectors (mainly upstream industries with homogenous production) on management and the quantitative sector specific metric (eg fleet CO_2e/Km driven for autos or CO_2e/KWh for utilities). The coverage is good for the world's largest corporate emitters, focussing on intensive upstream sectors. It has the added advantage that it is free and easy to use, located on their website. The framework delivers value in evaluating: a corporates stage in its carbon mitigation and adaptation journey; its level of ambition; and changes in direction. Internal analysts in heavy carbon sectors currently refer to this especially for high scope 1 & 2 sectors. It does not cover sectors with large scope 3 footprints such as Food & Beverage. We have integrated TPI output into our proprietary tools (reference Q10).

		Scope 3 GHG data is far from meeting our standards for data quality. A summary table prepared by EDHEC on an academic paper illustrates the high degree of correlation in scope 1 & 2 among providers but little or none for scope 3. In large part this is driven by lack of knowledge of supply chain emission data as collected and procured by companies. Additional confusion is layered onto this by corporate reporting which does not clearly state what is covered by the scope 3 disclosure (how many of the 15 categories within the GHG scope 3 are covered in reporting). Lastly but most importantly scope 3 has double counting issues, namely counting emissions from all stages of the supply chain and customer use a number of times. This is notably compounded for financials who share a large responsibility across all stages of the economy, stages of supply chain and end use of products. Lastly, this is further compounded if owning stakes across the financial structure too, be it equities, fixed income, ABS, private equity, securitisations or real assets. Although there are large issues in scope 3, we see value in considering the data as a share of corporate responsibility from which we can engage on climate change with respect to supply chain engagement. Looking at scope 3 requires qualification by climate knowledge of the origins to adjust priorities appropriately. ISS acknowledge the challenges in accuracy, consistency and comparability of company-reported Scope 3 data by refusing to collect reported scope 3 data today, only providing their own model estimates. MSCI are currently developing and adding categories to their estimation models covering downstream scope 3, which will be released shortly. This will lead to a widespread changes in what are considered to be the highest emitting sectors- Food, Beverage and Tobacco is expected to be the highest emitter.

		ESG ratings for third party providers vary hugely due to differing approaches, for example absolute or relative rankings, but also differences in what is measured and their respective weights. The JPIF fund report encapsulated this lack of correlation and potential source of confusion for our clients, especially in retail. Our focus is to applying discipline, rigour and focus on modular high quality data commensurate with our financial expertise. In order to truly do so we recognised that this requires development of an internal M&G ESG data hub to select data and handle the complexity, but also deliver appropriately targeted and calibrated outputs. More information is provided in section Q10. The European Union has published the EU Taxonomy detailing the technical summary of what is considered to be 'green'. In a similar way to SASB, the technical measures when presented in the context of sector specific data points and metrics are interesting information. Asset managers and owners are increasingly required to report metrics in UK and EU legislation, yet the data is not widely available across the majority of metrics, and is incomplete for those where there is some disclosure and reporting. Preliminary analysis suggests that the EU taxonomy covers approximately 18% of the market cap of MSCI world, yet only as little as <3% is 'aligned'. M&G and third parties are looking to develop our data capability & solutions here. However, much improved independently verified reporting by corporates is necessary, as is a real reorientation of corporate strategy and products to towards climate solutions. The last 4 taxonomy modules covering the environment are expected to be available to complement the first 2 climate ones over coming years. Evaluation of climate and environmental tools available from third party providers: We consider it good practice to conduct a review of environmental and climate tools available in the market given the

		rapid pace of development of both technology and industry knowledge and its applications. Through this process we continue to add to our datasets (paid and unpaid), and develop modules capable of delivering solutions either to key topics, or product/asset class level (ref Q10). **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** M&G has enterprise wide ESG agreements with both MSCI and ISS. These are used widely for portfolio evaluation interactions between the Stewardship and Sustainability team and fund managers on a quarterly basis. This section details the metrics used and outlines specific feedback: MSCI Carbon Portfolio Analytics tool: Presentation is aggregated at the portfolio level, sector level, and relative to the benchmark. • GHG emissions: - CO2e per $1m of AUM - CO2e per $1m of revenue - Weighted average of CO2e per $1m of revenue ➢ These are useful serving to highlight the highest absolute exposures to high emitters and companies with high GHG utilisation within their business model. The report highlights the largest contributors to portfolio footprint taking into account the position sizing in portfolio construction by the portfolio manager. ➢ These are widely used across our industry which aids comparability, and highlight exposure to potential policy changes in order to get GHGe on track to a 1.5 or 2°C trajectory. However they can be influenced by non-

		carbon movements in the denominator affecting the output even if the real world GHG has not changed so come with associated warnings (pass through revenue, currency movements, cyclicality of revenue etc). ➢ They do not aid the financial quantification of externalities possible impact to the portfolio ➢ The EU is adopting the Enterprise Value denominator which we will consider going forwards, and we would expect these third parties to adapt to this too. This has its use when considering M&G ownership across asset classes, allocating the emissions across the entire market cap and debt structure, adjusting the metric for capital structure. • Exposure to fossil fuel reserves: - Useful for exclusion based compliance, although we have other in house tools which we rely on for negative fund exclusions policies adherence. Useful none the less in report for fund manager awareness. • Revenue exposure to companies offering clean technology solutions: - MSCI tool measuring the revenue exposure of companies with exposure to clean technology solutions such as Alternative Energy; Energy efficiency; Green building; Pollution prevention and Sustainable Water. - This is potentially a good tool highlighting (imperfectly) exposure to the potential solutions for climate change, but it is difficult to determine classifications used by MSCI on what is a solution and how the data has been collected which negates its use for anything other than an indication. • Trend of CO2e emission of corporates held - Very useful performance analysis of the existing holdings from a historical perspective, whist being aware that the past is not a predictor of the future. - The downfall is that it is unclear whether this is achieved by the portfolio construction process tilting away from

		high carbon exposures, or in real world reduction by companies, or currency, revenue changes etc. Ultimately we need to see real world absolute reductions by our investee corporates in line with a Science Based target (see below). • Outline of portfolio exposure to companies for Carbon reduction targets; use of cleaner energy sources; and energy efficiency, categorised by: - No information available - No efforts - Some efforts - Aggressive efforts • This is useful to highlight those that are not doing enough, and can be targeted for specific climate engagement. Where is the company on its climate mitigation and adaptation journey towards net zero? It provides some indication of the future trajectory in a qualitative sense, but does not output whether the portfolio is aligned with a Paris 1.5° trajectory. MSCI, carbon delta are integrating their products post takeover, and it is expected that further releases of the carbon delta tool will be available on the web based tool in the future. ISS Climate Impact Assessment tool: ISS delivers different quantitative carbon output to MSCI. This is driven by a variety of reasons for which are too numerous to summarise here, such as: • Methodology- eg scope 3, model construction combining top down and bottom up • data coverage (by # corporates or by asset class) The tool is useful in to summarise the aggregated portfolio GHG footprint against its benchmark, and disaggregating this by sector allocation and stock selection, and breaking emissions out by leading and laggard companies. There is a useful KPI in the % of

		the portfolio that disclose which is typically much lower where unlisted (and types of securitised) assets are concerned, as well as aggregations of classifications/labels of companies as being a Climate 'out-performer', medium performer, and laggard, as well as GHG intensity versus the peer group. As per CDP ISS rate the quality of disclosure, but not in as much detail. All these metrics can be used as flags highlighting potential room for improvement in laggards, and are once again a potential target for further work (checking and researching) before engaging directly with the company. ISS online functionality goes further today than MSCI, especially with respect to forward looking scenario analysis. Analytical output delivers and estimated temperature pathway (2°,4°, 6°) the portfolio is expected to be aligned to, and a timeframe, which is until 2037 as per the example in the references, whilst illustrating each sector carbon budget for a 2°C scenario. Of most use is a summary of the companies that are aligned to 2°C, and preliminary flags covering the power transition, and fossil fuel exposures. Although MSCI and ISS offer physical risk analysis within their tools, we see their capability as lagging transitional capabilities. A crucial element is the access to datasets with specific locational information that typically forms the basis of an underwriting model for insurance or natural catastrophe business. M&G Real Estate has specific more prominent exposure to physical risk than in equities or fixed income. In their analysis of 3 providers (MSCI/carbon Delta; TCS and 427) MSCI was found lacking in evaluating: • physical climate risk expertise • VAR numbers were too low (sense check from property experts) • Outputs and usability were weak, a new version on the web is only scheduled for 2021

		• Is not usable for infrastructure assets Outputs from TCS and 427 which specialise more in physical risk were preferred: • Peer reviewed & usage cases in real estate (both) • Model different scenarios and different time periods (TCS) • High quality outputs which are easy to understand for lay audience, and clients (427) • Benchmarks provide better context for real estate investors than VAR output Downsides are that: • There is no VAR output for 427, and VARs in TCS seem optically very high (and very different to MSCI). VAR is likely to be required for entity level regulatory reporting • No due diligence capability on purchasing an asset (TCS) • TCS outputs are highly technical for an expert audience • Unpicking the climate model and methodology is “a whole new other exercise” Real Estate is investigating use of specialist consultants to estimate scope 3 GHG emissions using tenant models. Transition risk is covered mainly by well known costs of refurbishing a building, and differences in valuation of appropriate insulation values, and building standards. Summary & suggestions • Data availability, disparate data origination (and verification) and quality are recurring themes. • There is a large gap to close in the quality and quantity of corporate reporting on environmental performance data across resource use (water, waste, pollution, renewable energy used, land degradation, corporate policies etc). Mandatory independently verified corporate reporting of these would solve a lot of the associated issues M&G and our industry tackle day to day.

		• MAS could encourage corporate reporting to CDP in order to assist centralisation and standardisation of climate, water and forest reporting, whilst increasing the depth and qualitative information available. • Scope 3 data is highly unreliable, but is useful for an indication of a share of responsibility a corporate has and can be used for engagement. • Disaggregation of third party tool methodology is a whole large consuming project in itself. • Third party tools tend to be expensive and deliver variable quality of outputs. • There exists huge complexity in sourcing, data fields, methodology and output which requires building our own in house capability. • Some tools are useful for front office and clients, whilst other tools are required for regulatory reporting. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** M&G are long-term stewards of the assets we manage and take the responsibilities that come with this role seriously, informed by the belief that long-term success is dependent on effective stewardship and governance oversight. We consider it one of our core responsibilities to engage with the companies in which we invest on important strategic topics. Engagement is a key means of eliciting change and M&G's journey towards net zero investments by 2050. For M&G's stewardship and investment teams, climate is a central pillar of our engagements across sectors and asset classes. Through meetings with company directors, we gain valuable insights into the climate-related risks and opportunities faced by our investments. We engage with companies to gain a

		deeper understanding of their performance as it relates to climate change, as well as to assess progress towards targets the company may have set. When this is below our expectation, as shareholders and debt holders we outline our expectations and set clear expectations for improvement going forwards. We believe it is vital to fully understand how companies are dealing with these challenges, and feel it is our duty to hold the boards of our investee companies to account. Our proprietary ESG databank features climate-specific questions that assist our equity analysts, credit analysts and fund managers with their company engagements across asset classes. The ESG engagement framework helps us understand corporate performance and progress on issues such as climate-related disclosures, board oversight and ownership, incentivisation in relation to climate governance, scenario planning, TCFD reporting, supply chain management, management of physical risk exposures and whether the company has or is considering the adoption of science based targets (SBTs). We seek to work with investee companies to encourage positive change. In particular, we believe investors have an important role to play in encouraging businesses to embrace the low-carbon energy transition, meeting society’s long-term energy and infrastructure needs in a sustainable and responsible manner. In line with our fiduciary duty concerning our clients’ assets, if we believe that a company is insufficiently managing key, material climate risks and we see little change after ongoing engagement efforts, we will use the available levers to take appropriate action including voting against board members where our efforts have been unsuccessful. M&G has conducted preliminary analysis on our exposure to the largest corporate carbon emitters globally, as per Climate Action 100+ engagement list. For internal purposes we have named this

		the 'Hot List' and have begun a program to conduct targeted climate engagement going forwards in addition to our participation in initiatives such as Climate Action 100+, and examples of supporting industry tabling of resolutions at AGMs such as with Shell on climate change. (reference more detail in Q10). **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** M&G supports the MAS' proposal that an asset manager disclose its approach to managing environmental risk and the potential impact of material environmental risk on the assets it manages. M&G also agrees with the proposed approach that an asset manager's disclosure may be consolidated at the group or head office level. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** The guidelines suggest that investee engagement should be pursued. We firmly believe that the financial industry needs to fulfil its fiduciary duty as owners and providers of capital. Access to capital and what it is used for are critical for our future. Channelling capital without due regard for environmental consequences will not serve our clients, our capital or our business prospects well. Our investee companies need to hear this message loud and clear. M&G are cataloguing our corporate engagements internally using a hashtag system, measuring and categorising occurrences across the front office. The industry would benefit from further transparency on asset managers, and owners to disclose more detail of their engagements for clients and to defend against reputational risk issues.

		Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines. ISS climate impact tool: For reference purposes we have covered the forward looking nature of the ISS tool in Q6, illustrating portfolios' alignment to a temperature until a certain date. Our current tools do not allow for adjustments to inputs, such as policy change driven by a Green deal or a minimum carbon price to then evaluate changes in portfolio risk. This is one of the factors under consideration in our project mentioned in Q5 to evaluate available market climate tools to find best practice. M&G ESG Data Hub, Tools: We believe that environmental factors, need to be systematically integrated into our investment decision-making process to support the identification and management of risks and opportunities both at an investment, portfolio and entity level. Notably climate change, where the current expected investments and changes to energy delivery and land use requirements are so great that we expect them to materially impact many investee companies over the next 3 decades. M&G has developed the following climate tools during 2020: 1. Climate Deep Dive: • Capability to screen by sector or across universe for a combination of backward and forward looking indicators (listed universe, bonds): • GHG emission intensity • Quality of GHG emission quantitative disclosure

		• Qualitative CDP factors such as integration of Climate in to Governance, Strategy, Carbon pricing, Engagement of supply chain • CDP ratings • Science Based Targets • Identify potential issues on data quality by GHG intensity outliers versus peer group • Evaluate leaders and laggards in qualitative answers across peers on a particular topic • Evaluate company transcripts for climate action intent • Rank leaders and laggards on internal score system 2. ESG Dashboard Tool: • Designed as a tool to assist by collection of indicators (forward and backward looking) combined with analysis to assist analysts complete the ESG research template across multiple companies. The analyst input covers the majority of the weight in the output to fund managers. • Integration of disparately located carefully selected datapoints • Allow evaluation of: • Disclosure checking by corporate • Emissions, scope 1,2,3, Emission intensity • Incorporate internal credit ratings, net indebtedness to evaluate transition vulnerability • Carbon Management scores combining CDP, TPI, MSCI, Eikon and Factset data fields to highlight sound Governance and operational setup addressing Climate change • Climate Performance score utilising GHG longevity of data disclosure, trends in GHG, baseline year and reduction target year, highest responsibility for climate change in company, alignment with TCFD Further potential future in house tool development: We have a pipeline of ESG tools under consideration, such as development of a climate solutions filtering process, and a green bond module

		to assist new product development and ultimately launches of vehicles targeting climate and environmental solutions. Financial Evaluation of M&G climate Hotlist: The M&G climate 'Hotlist' (referenced in Q7) is a target list for specific in house climate engagement. The list was compiled using: • Scope 1 & 2 GHG, GHG intensity per $m revenue at the company level • M&G value of holding across asset classes • Input from the 2 inhouse climate tools with specific focus on CDP, TPI, TCFD, SBTi, and analyst experience of closing tracking the company • Analysis of financial information and vulnerability to changes in demand affecting profitability, cash flows, ability to finance capex, age and length of assets using the HOLT capability. The output highlights corporates that may be better placed to cope with the potential demands of the energy transition over the next 3 decades, and cope with any demand shocks that may result from changing preferences. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** M&G supports the proposed implementation approach, including the proposed transition period of 12 months.
20	Maitri Asset Management Pte. Ltd.	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk**

		management, including its role in approving the environmental risk management framework and policies. Combined response for Questions 2, 3 and 4: We agree with the responsibilities of the Board and Senior Management in the proposed guidelines, especially that the Board has to be ultimately responsible for ensuring an effective environmental risk management framework to be put in place. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** Please refer to the response for Question 2. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** Please refer to the response for Question 2. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Combined response for Questions 5 and 6: Examples of metrics at both the individual investment and portfolio levels include carbon emissions scopes 1, 2 and 3 (absolute and intensity); carbon emissions reduction targets; frequency and severity of environmental controversies; stranded

		assets; fossil fuel exposure; carbon risk rating. To manage portfolio risk, metrics such as stranded assets, fossil fuel exposure and carbon risk ratings are more meaningful. Methods used to assess investments for environmental risks at the individual and portfolio level include tapping on in-house expert research teams to review publicly available information of the investments, as well as engaging third-party data vendors specialising in providing climate risk research - especially those furnishing scenario analysis information. We are also a supporter of the Transition Pathway Initiative (TPI), a free-to-use tool which assesses companies' preparedness for the transition to a low carbon economy, covering 300+ companies. As a signatory to the Climate Action 100+ initiative, we lead corporate engagement with global systemically important emitters, through which we gain insights on company-specific and industry-wide environmental risks, enabling us to develop our house view on managing environmental portfolio risks. At this point, we respectfully query MAS on the assistance to be provided by the authority for asset managers to adopt environmental risk management frameworks as the cost of implementing these tools to obtain relevant metrics can add significant financial burden on asset managers, especially on smaller players who have yet to begin their journey. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Please refer to the response for Question 5. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact**

		of environmental risk and support their transition towards sustainable business practices. We are in favour on the expectations for asset managers to engage investee companies to manage the impacts of environmental risks because we recognise that climate change is a key global risk and a key component of environmental risks. As a signatory of the TCFD, TPI, Climate Action 100+, and the Investor Agenda, we welcome the proposed guidelines as we believe it is critical for the regulator to step in and push the industry to adopt a minimum standard towards addressing environmental risks. In our interactions with companies, some have expressed appreciation in our interest in the measures they are taking to mitigate climate change, while others have acknowledged our requests for more ESG disclosures. This indicates that, apart from investors, companies are also on a wide spectrum in terms of their sustainability practices and disclosures. Investor support is certainly one of the ways to get companies to transition towards more sustainable business practices. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** In order to have a standardised reporting framework, we favour adopting the TCFD framework for the disclosure of climate-related risks on an annual basis. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** No comment. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset**

		managers, which would meet the expectations in the Guidelines. No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We are prepared and ready to implement the requirements proposed in the guidelines, therefore the proposed transition period of 12 months will be sufficient.
21	MSCI	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** MSCI has worked with a variety of asset managers, asset owners and insurance companies on environment risk management issues over the past twenty years. In our experience, environmental frameworks work best when cross functional

		teams have been tasked with the implementation of new frameworks. When working with our clients, we have often engaged with senior management from sustainability teams, the CIO's office and the CRO's office. Transparent endorsement for environmental risk management at CEO level is usually a clear sign that environmental initiatives will receive the support and substantial emphasis that they need to become mainstream. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** In MSCI's engagements with asset managers on environmental risk management and disclosure either the CIO or CRO has been directly involved with the selection of a data provider or the approval to publish metrics relating to environmental risks. We have witnessed that their involvement has been a driver in the publication of meaningful insights and goal setting with regards to climate change risk management. The earlier that teams involves those constituents in the process, the more support we see throughout firm in general. Their buy-in to the data, methodologies and metrics to be disclosed seems to make the publication run more smoothly and become concrete during early stages of the disclosure process. Without senior management's direct involvement and strong support, concrete and stringent environmental risk management frameworks seem to move much slower and roadblock can eventually emerge during the disclosure process. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.**

		The notion that there is "climate risk" in financial portfolios has been gaining momentum with investors over the last decade. What started as a somewhat contrarian point of view, that fossil fuel reserves would be "stranded assets" because of future climate policy, has developed into a substantially broader, industry-wide debate. Today, it has become difficult to keep track of the many academic and industry initiatives aimed at evaluating this "new" risk. Briefly put, the idea behind climate risk in financial portfolios is that climate change impacts the financial performance of companies and therefore also the risk-return profile of the securities they issue. Climate risks are usually divided into two broad categories: transition risks (the risks associated with transitioning to a low-carbon economy – for instance, shifts in policy, technology or supply and demand in certain sectors) and physical risks (the risks associated with the physical impacts of climate change on companies' operations, resulting from for instance extreme temperatures, floods, storms or wildfires). Climate risk is not theoretical, nor is it confined to a distant future. The World Bank reports that, in 2019 alone, there were globally as many as 57 initiatives to put a price on carbon emissions – with significant policy developments in Canada, Germany, Singapore, South Africa and the Netherlands. New policy developments can materialize in substantial policy risk for investee companies; for instance, in the United States, over 100 gigawatts of coal-fired power plants were shut down during the 2010s. Likewise, on the physical risk side, the recent news flow from Australia has been dominated by the wildfires that affected an estimated 100,000 km2 since July 2019 – an area nearly as big as England (130,395 km2). Last year's Hurricane Dorian was the strongest to ever hit land in the Atlantic; UBS estimated that the losses for the insurance industry alone could mount to as much as US$40bln.

		So, it is sensible for investors to measure and manage climate risk exposures. But there is increasing pressure on investors to also report on their climate risk exposures and climate risk management practices. The G20's Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) has introduced a framework for such disclosures that encompasses governance, strategy, risk management and metrics and targets. Although TCFD only issues recommendations, which do not have the power of law, a number of countries have started formulating and implementing some regulatory reporting requirements that incorporate some of recommendations of the TCFD. For instance, in December 2019, the Bank of England issued a discussion paper requiring banks and insurance companies in the United Kingdom to perform climate strange stress tests – one of the key recommendations of the TCFD. With our holistic MSCI Climate Solutions toolkit we aim to empower financial institutions with the tools necessary to build more climate resilient portfolios, protect assets from the worst effects related to climate change and also help identify new, innovative low carbon investment opportunities. (MSCI's Climate Modeling Approach - Refer to MSCI's response submission) **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** The MSCI Climate VaR currently covers approximately 10,000+ corporate equity and bond securities of issuers. Through sophisticated financial modelling, the Climate VaR assessment is performed at a security level, allowing for a differentiated treatment of equity and bond securities.

		In addition to security-level Climate VaR analysis, MSCI also performs asset-level Climate VaR analysis of real estate asset portfolios. MSCI ESG Research's product development pipeline also includes sovereign bonds, private equity and private credit (including infrastructure investments). What makes the Climate Value-at-Risk approach unique? The methodology has been developed by climate and policy experts since 2015 and has gone through a number of development cycles in cooperation with large institutional investors such as asset owners and asset managers. Climate Value-at-Risk provides a truly forward-looking dimension for assessing transition risks and opportunities for publicly listed companies, their issued securities as well as real assets. As shown by the TCFD, managing climate-related risks through a forward-looking approach requires: (i) the development of scenarios that illuminate the materiality of climate-related physical and/or transition risks; (ii) the translation of such scenarios into relevant corporate metrics for a financial institution (or supervisor); (iii) the interpretation of such results in terms of immediate responses (e.g. changes in portfolio mix or need for new climate-related prudential regulation). The Climate Value-at-Risk model provides a multitude of data points and quantitative metrics for both transition & physical climate risk reporting on portfolio-level which are aligned with the TCFD recommendations. The TCFD taskforce itself has highlighted the model and its research in its 2019 status update as a viable solution that can provide informative metrics and allow institutions to report in a transparent and comparable manner to stakeholders. The methodology has been developed by climate and policy experts since 2015 and has gone through a number of development cycles. It should also be highlighted that the Climate VaR model was selected as part of the 2018 UNEPFI

		investor initiative by 20 large institutional investors to help them pilot the disclosure requirements of the TCFD recommendations. The following methodological aspects of Climate VaR are fully compliant with TCFD reporting requirements: • Climate Value-at-Risk provides a truly forward-looking dimension for assessing transition risks and opportunities for publicly listed companies, their issued securities as well as real assets. • The framework is unique in that it provides a large number of scenarios which incorporate different pathways to help assess the climate impact of investment portfolios -a total of 10 transition and 2 physical scenarios are available. • Furthermore, Climate Value-at-Risk is the only scenario model in the market that has quantified the entirety of national emission reduction pledges that countries have committed to under goals of the Paris Agreement to limit the global temperature increase to 2° Celsius or lower. Also, Climate Value-at-Risk is the only model that has incorporated a score on low carbon patents and is therefore uniquely positioned to identify the longer-term future innovation potential of companies in the transition to a low carbon economy. Moreover, on the physical side, Climate VaR is not restricted to scoring the exposure on extreme weather hazards but goes further in that it quantifies the cost impact of extreme weather hazards on each individual company facility in the database. This has been achieved through to the development of a comprehensive vulnerability sector system that assesses cost impacts based on damage and business interruption functions in each of these sectors. • Finally, the model is unique in that it calculates climate-related costs and green profits on issuer level and apportions them adequately to the equity and liability side of a company based on the Merton model, a capital structure framework.

		We recommend using Climate VaR in order to assess the portfolio impact from climate change as laid out by the TCFD recommendations: • The approach is fully forward-looking. • The approach provides a quantitative metric that allows to assess the financial impact of climate-related risks. • The approach provides the ability to perform sophisticated quantitative scenario analysis. MSCI.© 2020 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document. COM | Page 13 of 15 MAS ENVIRONMENTAL RISK MANAGEMENT CONSULTATION | AUGUST 2020 • In addition to a wide variety of 2°C or lower scenarios, the approach also includes an NDC scenario. • The approach considers both transition and physical impacts. • The approach assesses both future risk and opportunities. • The approach relies on third party verified data sets and provides a comprehensive documentation about methodology, assumptions and data sources. • The approach provides a high degree of transparency and granular data output. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** Before making portfolio adjustments due to new or newly foreseen risks, investors often aim for direct engagement activities to cover a certain proportion of the portfolio. This sometimes takes the form of committing to directly engage with corporate issuers representing at least a portion of portfolio emissions and participating in collective engagement initiatives to reach higher indirect coverage levels. In our experience, investors have referred to direct engagement coverage of around 10% or issuers in their portfolio. Nevertheless, there are

		collective initiatives, such as the Climate Action 100+, which aims for engagement with corporate issuers accounting for around 70% of global emissions. There is no firm rule or standard for what the appropriate levels engagement might be. One of the key intended outcomes from the engagement process is for a climate risk management or risk reduction target to be announced. Company climate targets take many shapes. However, the majority of targets outline the type of emissions covered, quantity of reductions and time period. MSCI thinks that the standardization of climate target setting, and reporting approaches would help the scenario analysis model process. We also believe that company climate target announcements will expand and increase in the coming years. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** No comment. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** No comment. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.**

		No comment.
22	Münchener Rückversicherungs-Gesellschaft, Singapore Branch	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** No comment.

		Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management. No comment. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** No comment. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** No comment. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** The Guidelines recommend that asset managers evaluate the potential impact of material environmental risk on an investment's return potential when carrying out research and portfolio construction, and to measure and manage environmental risk factors that are present in a portfolio on an aggregate basis. The Guidelines also note that the occurrence of natural disasters may affect the operations and financials of an investee company and recommends that asset managers put in place systems to monitor, assess, and manage the potential and actual impact of material environmental risk on individual investments and portfolios on an on-going basis. For direct real estate investments, the Guidelines recommend asset managers to consider the possible impact from climate change and extreme weather events.

		From this perspective, some of these recommendations may benefit from insurance/reinsurance expertise. In particular, the insurance/reinsurance industry possesses expertise in pricing for catastrophic and other physical risks, which could possibly form the initial basis for asset managers to reflect the potential cost of catastrophic risks in its assessment of an investment's return potential. In many instances, insurers and reinsurers utilise and deploy proprietary catastrophic models to assess the level of natural catastrophe risk, and in some cases, climate models to assess current and future climate risks covering a range of hazards for single asset location and portfolio level analysis. These can be used to provide current or forward looking assessments for specific physical assets underpinning an investment, or to assess accumulation and concentration risk of such physical assets to investment manager investment portfolios. In some cases, insurers/reinsurers also possess specialist underwriting expertise for project financing/green tech/infrastructure risk to provide the assessment for specific projects/physical assets on a stand-alone basis. In this regard, we would urge MAS to encourage the asset management and insurance/reinsurance industries to collaborate, combine their respective expertise and develop more innovative stand-alone and portfolio solutions in the Guidelines. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.**

		No comment. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** No comment.
23	Colchester Global Investors (Singapore) Pte Limited	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** The respondent is supportive of MAS' proposal regarding the entities and business activities that are in the proposed scope of the Guidelines. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** Applying an environmental risk management framework and policy can be achieved by becoming a signatory to TCFD for the Asset managers. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** Forming a TCFD committee can take on some of the responsibilities for the Asset managers. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a**

		committee to oversee environmental risk, where such risk is material. Forming a TCFD committee can take on some of the responsibilities for the Asset managers. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Environmental factors should be part of one's investment process, however, in the sovereign asset class, the starting point needs to be the Governance factor. Simply put, if a country has a strong governance framework (i.e. independence of institutions, strong rule of law, etc), it should positively impact the other factors, i.e. social (via education and health for example) and environmental factors. These environmental factors should consider both physical and transitional factors within sovereign analysis which has implications on the individual investment and portfolio level. However, they cannot be considered in the absence of the "G", which makes it difficult to precisely attribute the risk metrics to the G or the E. There are overlaps, therefore a clearer guidance on the impact intent MAS is trying to measure would be helpful. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** This is asset class dependent and scenario analysis remains challenging. There are some TCFD guidance, tools and data suggestions available under: https://www.tcfdhub.org/scenario-analysis/

		Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices. [Confidential] **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** [Confidential] **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** [Confidential] **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** [Confidential] **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** [Confidential]
24	New Forests Asset Management Pty Ltd	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** New Forests supports the proposed scope of the guidelines and wishes to reinforce the notion that the scale, scope, and business models of asset managers should be considered in the degree of

		implementation expected. In addition, New Forests agrees that the differing role of asset managers should be considered; while implementation may be more fulsome in the case of asset managers with discretionary authority, it would be commendable for MAS to encourage all asset managers to enhance environmental risk management practices in a way that is relevant to their business and services to clients. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** New Forests agrees with MAS on the need for Board and senior management to oversee the integration of environmental considerations into an asset manager's strategies, business plans, and products. It is appropriate that this explicitly include Board approval and oversight for environmental risk management and ensuring clear roles and responsibilities of the Board and senior management. In the case of asset management, this requires that the risk management framework be inclusive of risks occurring within the assets managed on behalf of clients. Environmental and climate-related issues are potentially strategic risks for many companies, and it is therefore the duty of the Board to identify and manage them in the same manner as any other strategic risk. Whether or not management for climate or environment risk are specified as a fiduciary duty under a corporate governance code or regulation, directors have the duty to promote the success of the company and to act with due care, skill, and diligence. Failing to identify, assess, manage, or disclose material environmental risks is a potential failure of corporate governance. In keeping with MAS's cognizance that asset managers should implement the guidelines in a way that is commensurate with the size and nature of their activities, New Forests recommends that for asset managers that are part of a larger group of companies

		and for which Singapore-based businesses may be a subsidiary or related company to businesses domiciled elsewhere, that ultimate authority for overseeing environmental risk management may rest with parent company Boards. Nonetheless, New Forests affirms that Boards of Singapore-based businesses should be responsible for ensuring such oversight is in place and with appropriate governance. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** Refer to Question 4 **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** New Forests is supportive of the guideline that a senior management member and / or a committee be responsible for overseeing environmental risk where material. In keeping with MAS's cognizance that asset managers should implement the guidelines in a way that is commensurate with the size and nature of their activities, New Forests notes that it may be appropriate that senior oversight for environmental risk may ultimately rest with senior management who are not based in Singapore, but whom maintain clear responsibility for material environmental risk management. In this case, the Singapore-based asset manager can still comply with guidelines to designate a senior management member or committee to oversee environmental risk where such risk is material by having non-Singapore-based

		senior management involvement. In such cases where the senior management responsible for environmental risk is not directly employed by the Singapore-domiciled business, there should be clear roles, responsibilities, and policies in place that ensure the oversight is adequate and effective. To support MAS in its elaboration of the guidelines, and with consideration for the nature of international asset management businesses, New Forests shares here its approach as an asset manager to ensuring senior management and committee responsibility for material environmental risks. New Forests' approach reflects the international nature and scale of its business. New Forests has a group-wide Head of Risk and Compliance, based in its Australian headquarters, who leads the risk and compliance functions including working closely with New Forests Asia on material environmental risks. In addition, New Forests has a corporate sustainability function with the Director of Sustainability having oversight for environmental and social management policies, systems, and procedures, which are in turn implemented by asset management staff. Specifically, New Forests Asia has an Environmental & Social Manager who is responsible for day-to-day management of environmental and social risks and opportunities in asset management; the Director of Operations for New Forests Asia has oversight for these functions in investments managed by New Forests Asia. The Head of Risk and Compliance works together with these and other staff to develop and implement risk assessment tools, facilitate related dialogue and collaboration at Investment Committee and Board levels, and work with investee company managers in ensuring management and monitoring is appropriate and commensurate with risk and potential impact ratings. Assessment, management, monitoring, and resourcing requirements are reported to the Investment Committee for discussion and approvals. This example demonstrates one way in which senior oversight for environmental risk management may

		be appropriately structured, even when the resource is not based in Singapore. The Board is responsible for establishing and overseeing New Forests' risk management framework. The Board has delegated authority to the Board Risk and Compliance Committee to develop and monitor compliance with the company's risk management policies. The Committee reports regularly to the Board on its activities and includes an independent chair that provides assurance for the adequacy and effectiveness of risk management, inclusive of environmental risk. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** New Forests supports MAS' recognition that environmental risk management may benefit from tools and metrics at both the investment and portfolio level but notes that the availability of such tools and metrics across asset classes is variable. Environmental risk management tools, particularly for physical risk, are rapidly emerging and have varying applicability to different asset classes. The evolving nature of such metrics and tools should be recognized in the guidelines in support of the concept of continual improvement and that asset managers should regularly review and improve their approaches to environmental risk management. New Forests notes that section 4.3 of the proposed guidelines refers to internationally recognized sustainability standards and certification schemes that could support asset managers in developing sector-specific guidance. New Forests recommends that the guidelines elaborate the types of risk factors that may be material across asset classes and sectors and consider expanding the guidance for how asset managers could assess if sector-

		specific guidance is adequate and appropriate. For example, the standards and initiatives referenced in footnote 7 could be greatly expanded upon, both with positive examples of standards and schemes that support sector-specific guidance and negative examples of schemes that are deemed insufficient. Such expanded guidance could better position asset managers to prevent against reputational risk of greenwashing by enabling them to identify and use the most appropriate and rigorous international standards and certification schemes. New Forests uses the sector-specific guidance of the Forest Stewardship Council® (FSC) to support its management of sustainable forestry investments and applies the International Finance Corporation Performance Standards (IFC PS) to all investments in emerging markets. In its applied experience, New Forests finds that within the Southeast Asian regional forestry sector, the IFC PS are not broadly understood and implementation requires considerable capacity development, training, and support to investee companies. The adoption of such guidelines therefore may present a barrier to some asset managers, and MAS could consider its role in building capacity to identify and apply sector-specific guidelines. New Forests notes the example initiatives identified in footnote 6 and pertaining to section 4.2. While these initiatives variously support risk management, New Forests' understanding is that these initiatives are primarily aimed at disclosure; inherently, by addressing the risk issues that are material to disclose, business must consider the underlying issues and risk management. However, these initiatives are not designed to be standards or frameworks that can directly guide and inform environmental risk management by asset managers. A notable exception is that the Task Force on Climate-related Financial Disclosure (TCFD), which provides detailed recommendations with specification for asset managers on the topic of risk management for climate-related risks. New Forests also suggests MAS consider reference

		to the sector-specific guidance of the TCFD not only for financial institutions but for the sectors of assets under management, because the guidance includes suggested metrics that may be used for environmental risk monitoring and to support development of Key Risk Indicators and Key Performance Indictors. Environmental and climate considerations feature throughout New Forests' policies and procedures that support asset management. New Forests welcomes engagement with MAS regarding its experiences in developing and applying sector-specific guidance for its private markets investments in sustainable forestry, including with the FSC, IFC PS, and TCFD. For example, New Forests' group-wide commitment to integrating the TCFD recommendations in asset management builds on the company's existing corporate policies and procedures that support the management of environmental and social risks and opportunities at the asset and fund levels. New Forests found that there were insufficient toolkits and metrics available to support effective implementation of the TCFD, especially scenario analysis, in the forestry asset class. The company therefore initiated its own research and development program to support TCFD alignment throughout its asset management. New Forests has developed a pilot program to create a focused toolkit that supports New Forests and our forest management partners in each region by establishing risk tolerances and mitigation measures appropriate for each material environmental risk parameter, defining relevant asset-level metrics, and providing guidance on how scenario analysis may be applied at the asset level. The toolkit's purpose is to guide New Forests' staff and partners through the process of assessing environmental and climate-related risks and opportunities against three possible climate scenarios. By working through the toolkit and collaborating with

		New Forests, it is expected that partners and investee companies will be able to: • Better understand the long-term risks and opportunities that climate change poses for their operations and markets. • Make relevant decisions to mitigate environmental risks, where possible, and take advantage of opportunities. • Report to New Forests in a structured and consistent manner on the processes followed and decisions made. New Forests also recommends the consideration of the ISO 14001 standard for Environmental Management Systems as a tool that may support asset managers; the standard prescribes a Plan-Do-Check-Act cycle that ensures identification and management of significant environmental risks. New Forests' group Social and Environmental Management System (SEMS) was designed using this standard as guidance and requires the identification of significant environmental risks and that operational management controls be in place to manage or mitigate significant risks. New Forests developed a Sustainable Landscape Investment (SLI) framework and tools, which include a wide range of metrics for ESG and impact assessment and reporting, including site specific risks and baseline conditions for parameters that may be at risk for impact if not appropriately managed. These metrics were selected from some of the initiatives identified by MAS, e.g. the Global Reporting Initiative, but also from additional investment-specific standards such as the Global Impact Investing Network's IRIS and IRIS+ systems and from sector-specific sets of metrics, such as the Montreal Process for Sustainable Forest Management. As a learning for asset managers from the extensive development of the SLI framework and tools, New Forests recommends the review and consideration of existing metrics and tools, while noting that customization may be necessary to best align with the asset manager's business model and services to clients.

		Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management. New Forests agrees with the recommendation of tools and metrics to support asset managers in conducting portfolio risk management. The COSO / WBCSD guide titled Enterprise Risk Management – Applying enterprise risk management to environmental, social and governance-related risks1 provides useful guidance that asset managers can use to ensure their enterprise risk management (ERM) framework include environmental risks, with design implications that allow a scaled ERM from asset to fund to portfolio. As an example from New Forests' experience, climate-related risks are integrated into New Forests' group-wide ERM framework, such that significant policy, market, and environmental risks are monitored and discussed to facilitate sound management and continuous improvement. The ERM is guided by the risk appetite statement endorsed by New Forests' Board of Directors and includes regular reviews of risks at the New Forests corporate level, as informed and supported by fund-level and asset-level risk assessment and management. Each risk is assigned a risk rating and tolerance, with stated mitigations and residual risk ratings determined. The ERM includes a workbook-based environmental and climate risk assessment tool that is applied as part of due diligence and investment appraisal, as well as a dedicated component focused on key risk parameters that span transition and physical risks. The assessment results are documented and considered in investment decisions. During asset management, the ERM requires that asset risk registers be developed and regularly maintained as part of active management. New Forests' management of climate-related risks spans from financial risk

		mitigations (such as insurance for tree crops), to ensuring local property management strategies include operational risk mitigation, through to stakeholder engagement in industry and policy forums. New Forests hopes the above example is demonstrative of how portfolio risk management may be implemented by asset managers, particularly those in real assets and private equity that share commonalities of investment process. New Forests notes that section 5.2 of the proposed guidelines recommends the development of capabilities in scenario analysis to evaluate portfolio resilience and valuation under various risk scenarios. As noted above, guidance and tools in this area are rapidly evolving. New Forests believes that asset managers may continue to face significant challenges in identifying and/or developing scenario analysis tools that provide adequate portfolio risk management. This is particularly the case for asset classes like private equity and real assets where ESG data may be less standardized and potentially unavailable. The process described in response to Question 5 provides an example from New Forests' experience in developing a bespoke scenario analysis approach, which was deemed necessary in light of insufficient available tools from third-party providers or in the public realm. Lastly, New Forests must underscore that financial valuation of environmental risks can be an extremely challenging exercise and that even with scenario analysis, making a quantifiable estimate of financial impacts may not be possible. The MAS guidance should acknowledge that the field of environmental scenario analysis is relatively new and will need to mature over time, ideally with more tools and metrics becoming available to support asset managers in portfolio risk management.

		Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices. New Forests is supportive of this expectation and structures risk / impact management accordingly. Investees' buy-in to management strategies and funding requirements to meet obligations and objectives is necessary. • Investee companies are well placed to develop practical management and mitigation measures that can be effectively implemented with respect to regional context and resource availability. • Asset manager collaboration with investee companies is critical for ensuring that controls / management strategies meet New Forests' obligations for robust risk and impact management, best practice standards, certification requirements, etc., which are determined at the Board level, managed by the asset manager, and implemented by the investee. • Investee companies are technologically capable of developing appropriate management strategies, with their respective agreement on expectations necessary to instil robust programs. • Routine asset manager review of investee risk management procedures and outcomes is required to ensure expectations align and risk is effectively mitigated. Regarding the stewardship criteria described in section 6.1 of the proposed guidelines, it should be made clear that not all stewardship approaches may be appropriate for all asset managers. For example, private market investors would not engage in proxy voting. There should not be an expectation that all stewardship activities be undertaken but that the most appropriate stewardship activities are prioritized by the asset manager.

		Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager. New Forests supports the disclosure recommendations for asset managers, particularly the acknowledgement that consolidated group-level disclosures may be appropriate. New Forests discloses details on environmental risk and asset performance in a publicly available annual sustainability report. Additional avenues for disclosure include investment marketing materials, due diligence questionnaires, client reporting, and AGM materials. New Forests underscores that disclosure approaches to environmental risk management should be generally and openly provided by asset managers but that disclosure levels of specific environmental risks require careful consideration, owing to the asset manager's fiduciary duty. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** New Forests emphasizes the recognition by MAS that the scale and nature of an asset manager's business should be considered in implementation of the guidelines. The guidelines should make consistent, clear, and overarching reference to group-level practices, such that if a business' parent or group complies with the guidelines, that this is generally considered in line with the guidelines and duplication within Singapore-specific activities may not be required, as long as environmental risk management for assets managed from or by the Singapore business is ensured. Singapore's role as a regional sustainable finance hub is poised for significant growth, and the guidelines should be supportive of international asset management businesses that form a part of the country's financial services sector, but which are part of larger regional and international businesses. This presents an opportunity for Singapore to encourage the adoption of leading environmental risk management practices throughout financial services that extend beyond its borders and for Singapore-based

		asset managers to learn from peers in other markets and geographies. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** Throughout its response to the consultation, New Forests has provided examples of how its governance, strategy, and risk management practices implement various aspects of the proposed guidelines. New Forests would be pleased to engage with MAS to provide further information regarding our efforts and experience in this area. Risk management is built into the environmental, social, and health assessment regime that the New Forests group requires of itself and its investee companies. Specifically for New Forests Asia's activities throughout Southeast Asian forestry investments, risk assessment is typically initiated through requirements for investee companies to conduct an Environmental and Social Impact Assessment (ESIA) that meets applicable national statutory requirements and specific international standards, such as the IFC PS and the FSC Principles and Criteria. To meet these obligations, investee companies must structure an ESIA around risk management, whereby following the establishment of baseline conditions; risk assessment guides the development of management, monitoring, and reporting frameworks. New Forests Asia also requires investee companies to obtain third-party certification (e.g. FSC Forest Management certification). In part, New Forests requires investee companies to develop risk management practices in-line with these standards due to the robust management requirements embedded within them, such as:

		• Environmental and Social Management and Monitoring Plans need to be developed, with measures consistent with best practices / good international industry practices for risk / impact management / mitigation. • Risk and impact management and mitigation developed in compliance with the IFC / World Bank General Environmental, Health, and Safety (EHS) Guidelines and IFC industry specific EHS guidelines. • Undergo a High Conservation Value (HCV) Forest Assessment to identify critical environmental and social features within a landscape for which risk assessment is required and management / monitoring plans developed to avoid significant impacts and mitigate risk. By requiring investee companies to conduct these assessments and develop these monitoring plans, best practice management for risk is thoroughly evaluated and employed. Examples of risk management measures typical for plantation projects includes: • Research and development / trials for climate, drought, and pest / disease resistant crops. • Spatial analyses for flood risk / avoidance. • Robust geographic information system (GIS) analysis for natural forests to avoid and protect. • Identification, mapping, and avoidance and / or restoration of HCV forests or habitat, such as riparian corridors, wetlands, critical habitat, areas where clearance would significantly impact key ecosystem services for nearby communities, etc. • Use of databases such as the IUCN Red List and similar national information repositories to better understand the likelihood for threatened species to occur in the region, which guides baseline assessment and management determinations to minimise risk for impact and maximise potential for enhancing key biodiversity values such as corridor development liking high value habitat. • GIS analysis for landscape level decision making such as preservation / enhancement of natural corridors.

		• Stakeholder engagement with communities to manage for ecosystem services, minimise likelihood of encroachment, and minimise the likelihood for wildfire. • Development of appropriate stormwater, erosion, and sediment control to protect topsoil, surface water quality, aquatic biodiversity, and beneficial uses of water. • Measures to avoid introduction or spread of invasive plants, such as washing vehicles / equipment prior to moving them from an infested area to one with a more natural vegetative composition. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** New Forests is supportive of the proposed implementation approach. The transition period will be critical for aligning current management and disclosure methods with the MAS guidelines.
25	Moody's Analytics & Moody's ESG Solutions and its affiliates, Four Twenty Seven and Vigeo Eiris	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** The MAS Guidelines cover a comprehensive range of entities and business activities. In addition to the list of key entities in scope, and within the scope of application context, we acknowledge the fundamental logic to apply the principles of materiality, context and proportionality, in a commensurate and proportionate manner with respect to the scale, scope, size and business models of a broad range of financial institutions. Frameworks and defined timelines for managing and measuring operational complexity and resilience require alignment with this fundamental logic. Factors such as scale and size can determine the ability and speed of business transformation and transition, especially where sustainability and innovation are concerned.

		Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies. ESG-related risks that were once considered as "emerging" and / or "intangible" are now more widely recognized as being significant. These include Climate Risks, Cyber Risks, Social Risks etc. The evolving risk management landscape prompts many board of directors to take a more active role in understanding and addressing ESG-related issues and to demonstrate how boards are evaluating risk exposures to various issues, including ESG. We believe it is important for boards to implement processes to provide oversight of management's measurement and mitigation efforts with respect to managing these risks . We believe boards should provide oversight of ESG risks while senior management should be responsible for the management of ESG risks in relation to the implementation of a risk management framework . This would help make certain that ESG risks are integrated into an entity's strategic thinking and decision making processes at the highest level of the organization. From a risk perspective, we believe ESG risks should be fully integrated within the existing internal control and risk management framework. The board (and, when appropriate, a designated committee) should be responsible for establishing the governance and culture for risk management including both ESG and non-ESG related risks. This approach was highlighted by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in their paper "Demystifying Sustainability Risk - Integrating the triple bottom

		line into an enterprise risk management program" (May 2013), "Managing sustainability risk is not the responsibility of one function, nor should it be a stand-alone proposition. […]. Sustainability must permeate organizational thinking from the boardroom and executive suite to the shop floor. It needs to be integrated into division, business unit and operations planning and activities to be truly effective." The assessment goes beyond the classic analysis of board composition, election cycles and independence in order to understand how ESG factors are integrated in board committees, audit functions, remuneration plans and more. We believe ESG risks may in turn affect credit, counterparty, operational, and market risks. Therefore, incorporating ESG risks into a financial institutions' Risk Appetite Framework is well-aligned with the aim of proactive risk and resilience management. institutions. The allocation of dedicated resources and the type of committees tasked with overseeing ESG risks needs to be appropriate in the context of the size and complexity of an organization. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** We believe boards should provide oversight of ESG risks while senior management should be responsible for the management of ESG risks in relation to the implementation of a risk management framework.

		Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material. We believe environmental risk management and oversight should be incorporated into an organization's overall risk management framework to provide for a strengthened, effective and integrated risk management process. Organizations should consider existing governance frameworks for the management of financial risks when integrating their ESG risk frameworks since environmental risks are being quantified and managed in alignment to the relevant financial and operational risks and opportunities. The common practice is for organizations to create sustainability and climate change taskforces or committees which are led by an existing executive such as the chief financial officer, chief risk officer or the chief investment officer (also as referenced as part of the Climate Financial Risk Forum Guide 2020, issued by the FCA, UK, https://www.bankofengland.co.uk/news/2020/june/the-cfrf-publishes-guide-to-help-financial-industry-address-climate-related-financial-risks) who will assume the overall responsibility for environmental risk management and its implementation. Essentially the taskforce and or designated committee is tasked with the implementation of a climate change risk management framework within the organization and, following its implementation, will monitor and enforce the integrated risk management operating model. In addition, the taskforce and or designated committee should have a clear mandate, defined roles and responsibilities and should include representatives and roles assigned from across the three lines of defense.

		The executive in charge, should be tasked with raising the awareness of the environmental risk agenda among the board committees and leadership teams within the organization, and should make recommendations to drive the strategy and mindset of the organization in this space. This means targets for environmental risk management (identification, quantification and reporting), defined targets and metrics in line with the organizations' risk appetite, and recommendations for new lines of business or products. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Asset managers may consider the following: • ESG ratings and scoring (score thresholds to be set). If issuers that fall below the threshold are included in the portfolio there should be an engagement process. (Further materials on methodology can be shared by Vigeo Eiris upon interest) In addition to information on GHG emissions and vulnerability to extreme weather events, asset managers can consider their exposure to environmental risks including physical climate change, through the locations of their investee company's operations. Vulnerability to environmental risks such as climate change are most meaningful when overlaid with information on exposure. Leveraging forward-looking climate data is a critical way to understand exposure to physical risks such as floods, heat stress, hurricanes & typhoons, sea level rise and water stress.

		For scenario analysis it is important to consider that in any scenario there will be physical risk exposure, due to the climate impacts already locked-in from past emissions. Further, while some sectors are indeed more sensitive to climate hazards than others, physical risks are relevant for companies across many sectors, including those with energy-intensive operations such as data centers and manufacturing sites, those with complex supply chains such as automobiles and pharmaceuticals and those with reliance on outdoor labor or site-specific operations such as mining and construction. Understanding what percent of a company's facilities are exposed to hazards alongside how vulnerable its operations are to each hazard will help assess climate risk exposure of investment portfolios. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Asset managers may consider the following: • ESG ratings and scoring (score thresholds to be set). If issuers that fall below the threshold are included in the portfolio there should be an engagement process. (Further materials on methodology can be shared by Vigeo Eiris upon interest) In addition to information on GHG emissions and vulnerability to extreme weather events, asset managers can consider their exposure to environmental risks including physical climate change, through the locations of their investee company's operations. Vulnerability to environmental risks such as climate change are most meaningful when overlaid with information on exposure. Leveraging forward-looking climate data is a critical way to

		understand exposure to physical risks such as floods, heat stress, hurricanes & typhoons, sea level rise and water stress. For scenario analysis it is important to consider that in any scenario there will be physical risk exposure, due to the climate impacts already locked-in from past emissions. Further, while some sectors are indeed more sensitive to climate hazards than others, physical risks are relevant for companies across many sectors, including those with energy-intensive operations such as data centers and manufacturing sites, those with complex supply chains such as automobiles and pharmaceuticals and those with reliance on outdoor labor or site-specific operations such as mining and construction. Understanding what percent of a company's facilities are exposed to hazards alongside how vulnerable its operations are to each hazard will help assess climate risk exposure of investment portfolios. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** The engagement opportunities identified by MAS are comprehensive and meaningful. It is commonly perceived as good practice to foster engagement with firms, clients and investee companies to improve an environmental risk profile. PRI signatories, are required to take such a proactive role in conducting their business. The engagement phase is paramount in the risk identification and measurement phases. An operating framework set up to manage the associated risks while originating financial resources (e.g.

		lending/investments) instead of distributing such risk meets the ultimate goal of reducing environmental risks. A drawback of enhancing expectations towards more relationship-based business models for financial institutions may be the higher costs of such an organizational model which in turn disadvantages smaller firms (size bias). Organizations of all sizes have a role to play in order to meet the 1.5-2 degrees Paris Agreement goals. As per Moody's affiliate, Vigeo Eiris ESG assessments for banks, approaches to corporate customer engagement may include: • Drawing from the findings of risk identification to strengthen management systems to better track information and flag risks, including those associated with the clients, geographies, products or sectors, before adverse impacts occur. • Building up sectoral expertise that includes understanding what preventive measures can be put in place and working with clients on implementing those. • Defining exclusionary criteria that prohibit the provision of a financial service to companies under specific circumstances or for specific clients. • Defining conditions for the provision of financial services to companies based on their adherence to well-established and recognized standards (UN Convention on Biological diversity, CITES, OECD guidelines on MNE…) and/or good practices. • Providing training that is fit-for purpose for the bank's relevant staff and management. • Assigning relevant senior responsibility to oversee implementation of preventive measures. • Seeking to influence a client to develop stronger environmental risk management systems. • Joining geographic or issue-specific initiatives that seek to prevent and mitigate adverse impacts in the areas identified (e.g. country, commodity, or sector roundtables or multi-stakeholder

		initiatives), which may also include engagement with governments. Specifically, for corporate lending activities: • Assigning responsibility for ensuring that bank activities that cause or contribute to adverse impacts cease. • Encouraging clients to create a roadmap for how the client can cease the activities that are causing or contributing to adverse impacts, involving impacted or potentially impacted rightsholders and other stakeholders as relevant. Banks can recommend the client to hire an external environmental and social consultant to support mitigation activities. • Engaging with prospective and existing clients through face-to-face meetings with its representatives from operations, senior management, and/or board level to discuss on how their clients are approaching the key environmental matters relevant to their business and to request time-bound action to address or mitigate an impact. • Collaborating with other banks involved in the transaction or other stakeholders to exert leverage on environmental matters, subject to legal obligations. • Connecting clients with needed resources to address impacts and manage risks. • Providing prospective clients with incentives to meet certain environmental related targets (e.g. coupling the interest rate of the loan with the company's sustainability performance). • In certain high-risk cases, requiring third party review of compliance with environmental policies and/or requirements for high-risk clients on behalf of the banks can be conducted For underwriting securities activities: • Where a deep level of due diligence is required e.g. for an environmental impact assessment, to encourage the client to

		report on the related risks in investor information disclosures (prospectus). • Advising clients to include environmental issues in disclosure documents (e.g. the prospectus or brochure in a securities underwriting transaction) and requesting the client to explain how it is planning to address the key issues that are likely to affect its future performance. • Challenging a client's perception of material risk issues (with related risks often being not financially material, or not relevant to investors). • In the case of securities underwriting, if a company in a carbon-intensive industry does not consider environmental and climate change to be a risk because there is no foreseeable short-term impact on the company, then the bank can play a role in explaining to the client the significant environmental and social risks that climate change poses and its potential material impact for the client, for example due to changing investor sentiment and increasing regulation. For insurers, we can break down as underwriting and investments as follows: Underwriting: • Active dialogue with insured companies with high environmental impacts (i.e. Systematic engagement with companies having high environmental impacts (i.e. palm oil; climate change, biodiversity): support companies' management of material risks related to climate change and establish the transition away from coal) • As risk experts, engaging with consultative dialogue and sharing of expertise can add value to improve overall risk awareness and mitigation. Investments (proprietary assets/asset management activities): • Active ownership – ESG engagement • Active ownership – voting

		• Exclusions policies • Membership in engagement initiatives at a sector level **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Some level of partial disclosure or phasing in of the disclosures as part of the transition period may be considered to allow the firms time to comply and add the required level of complexity. In addition, banks and asset managers may consider the recommendations outlined in the report, “Advancing TCFD Guidance on Physical Climate Risks and Opportunities” that outlines guidance for disclosure on physical climate risk. Given the level of assessment and metrics that are considered for a firm level disclosure, as well as the scenarios and the horizons that are being considered, a widely accepted disclosure frequency for banks, insurers and asset managers is following an annual cycle, typically as part of an annual report which is used by shareholders and other stakeholders for resource allocation decision-making. For asset managers product level disclosures which by nature are more dynamic and short term may require a more frequent level of disclosure.. There is also an increasing trend among supervisory authorities to assess financial stability in response to ESG risks and climate change on a periodic basis through the climate stress test exercises and/or incorporating climate scenario analysis in existing risk frameworks, such as the Bank of England 2021 biennial exploratory scenario on the financial risks from climate change, published in December 2019.

		Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions. In terms of content: Disclosures under the TCFD framework are considered as important in terms of value added and cross regional appeal. Within our TCFD reporting alignment research we have already identified the cross regional reach these recommendations are having (as well as the limited number of issuers from across the financial sector that are currently reporting in line with the TCFD requirements). MAS recommending the TCFD framework could further develop the current global status and bring different regions under the same framework thus facilitating approaches and data comparability. In terms of form: the TCFD recommends placing ESG disclosures in the annual financial reports. We understand the view that one integrated financial/ESG report at group level can provide complete view on Banks' (or any other companies) exposure to environmental risks. However, we do not consider integrated reporting formats to be absolutely necessary. Ultimately, the most important element is that the information is disclosed publicly. In terms of frequency: we agree with the MAS proposal of annual reporting, at the same time with the financial disclosure. As mentioned, these can be complemented by relevant stress testing and other risk management practices. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** Below is a non-exhaustive, select number of examples collated from publicly available sources.

		Examples for Asset Managers: BNP Paribas Credit evaluation: for sensitive sectors, the Group benefits from CSR sector and credit policies assessment tools; specific analysis made by in-house engineers (mandatory before any new project financing or when the client’s profile is reviewed); Sustainable Assessment Tool, to categorize projects covered by the Equator Principles (EP); CSR Screening tool for CIB Corporates not covered by existing policies, to be completed by the CSR Evolution tool under construction. For every sector covered by a CSR policy, in addition to internal experts on site visits (e.g. Industry Research Department and engineers in the business lines), support is often requested from external experts performing on-site visits (e.g. TFT for Palm Oil). Before financing a new project, IBAT tool is used to check biodiversity impact. As per EP, for all sensitive projects, an independent E&S expert is mandated to review the assessment, action plan and consultation process documentation. Due diligence: The main tool to evaluate environmental risks is the General Credit Policy as environmental risk is identified as key. Furthermore, 18 credit policies include specific ESG criteria. On top of credit policies, clients have to comply with the 9 existing sector policies which focus on sensitive sectors and define more precise criteria. To ensure ESG risk management tools are strictly applied in all entities, the Group has deployed a CSR operational control plan since 2015. After defining the controls to be carried out, the periodic controls were generalized in 2017. The due diligence includes criteria such as GHG emissions, water management and projects’ location and footprint (which impact on biodiversity and communities), among others

		Tools for banking professionals: A CSR risk assessment table to evaluate ESG risks of every sector is used by Risk officers and is distributed to business lines so ESG risks may be identified and assessed at the very beginning of the process. CSR Screening is used to assess ESG risks (based on 20 risks reflecting challenges related to pollution, protection of natural resources, security and working conditions, impact on communities, ethics, corruption) for large corporate clients belonging to sectors not covered by sector policies. Fundamental research: The Bank is part of several initiatives such as EP, UNEP FI, Soft Commodities' Compact and PRI Montreal Pledge. Adoption of best practices and adherence to international standards is stimulated by their integration in its sector policies. In 2017, BNP Paribas continued to participate in think tanks on the link between economy and environment (BEI Soft Commodities Compact targets 0 net deforestation by 2020; TCFD). The Bank also ensure its efforts are in line with the 2° scenario by regular contact with the IEA. Engagement with clients: BNP Paribas engages with clients on CSR by enforcing CSR sector policies and promoting CSR practices. In some cases, the bank may engage a dialogue with a client to make sure it aligns with the Group's standards. As an example, the Bank ensures that a major pipeline, the Southern Gas Corridor/TAP project crossing Caucasus and Europe, did not impact communities negatively. The bank also initiated dialogue with other financial institutions to discuss on the amelioration of the practices. To keep up with its focus on environmental performance, the Bank's has widened its measures on fossil fuels and published a new policy on unconventional Oil & Gas. The Group is proactive in raising environmental awareness with industrial clients through several environmental commitment initiatives. As an example, BNP Paribas has been a member, since 2004, of Entreprises pour l'Environnement (French partner of the

		World Business Council for Sustainable Development whose Climate Change Commission is chaired by the Group’s Head of Environment and Extra-Financial Reporting); in addition, since 2011 BNP Paribas has been a member of the Roundtable on Sustainable Palm Oil (which oversees the main CSR certification available in the palm oil industry). DWS Group DWS reports that it has integrated a climate transition risk and opportunities (CTTR) metric in its research, investment processes and ESG investment standards. The company has also published reports on the investment implications of climate change or active ownership on the topic by communicating how it integrates climate related data in the investment process. In December 2019, DWS introduced its CTRR into its ESG investment standards for its dedicated ESG mutual funds which have a uniform application of sectoral exclusions, avoiding norm violations and applying best-in class assessment for overall ESG quality. The company reports on several investment actions to promote climate risks integration, such as: a clean energy fund to invest in climate solutions in China in the context of the China Clean Energy Fund, the conversion of the DWS Invest Climate Tech into an ESG version, the development of the Africa clean energy strategy with the UN Green Climate Fund, the promotion of retail distribution campaigns for DWS Invest Green Bond fund and DWS Invest SDG Global Equities fund to scale up capital market investment. Of note, other examples of corporate engagement include: • Engagement with major investees on corporate governance including on climate change related issues and support for voting in favour of climate-related AGM resolutions in the US.

		• As co-chair of the Institutional Investors Group on Climate Change's (IIGCC) property working group, DWS continued to help developing climate-related expectations of listed real estate companies. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** Moody's agrees with the observation made by MAS that the methodologies for assessing, monitoring and reporting environmental risk will evolve and that these Guidelines will be updated as appropriate to reflect the evolving nature and maturity of risk management practices.
26	Principles for Responsible Investment	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** The PRI recommends amending the introductory paragraph mentioning fiduciary duty: "The Guidelines are not intended to prohibit or restrict asset managers from complying with and discharging their fiduciary duties and other legal obligations to their customers." The current text may be misinterpreted to imply that managing environmental risks may be opposed to fulfilling fiduciary duties. The modern understanding of fiduciary duties is that they require investors to: • Incorporate environmental, social and governance (ESG) issues into investment analysis and decision-making processes, consistent with their investment time horizons. • Encourage high standards of ESG performance in the companies or other entities in which they invest. • Understand and incorporate beneficiaries' and savers' sustainability-related preferences, regardless of whether these preferences are financially material. • Support the stability and resilience of the financial system. • Report on how they have implemented these commitments.

		More analysis and evidence can be found in the PRI report on Fiduciary Duty in the 21st Century. The PRI recommends that The Guidelines should include a broader scope on systemic and sustainability risks that may affect investment portfolios. Beyond climate and other environmental risks, other ESG factors are also material to investors and therefore should be included in the risk management process. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** No comment. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** No comment. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** No comment. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the**

		impact of environmental risk at both the individual investment and portfolio level. On metrics, the PRI recommends setting out a core set of basic metrics which should apply to all managers above a certain threshold, as well as an optional set of more advanced metrics. This could be drawn from the metrics table listed below: 1) Emission foot printing • Total GHG emissions; • Carbon intensity; • Weighted average carbon intensity of each portfolio in MtCO2e/$m AUM versus a benchmark; • Exposure to carbon related assets. 2) Governance related / forward looking • The % investee companies where executive remuneration is linked to climate targets; • The % of sovereign bonds in the portfolio issued by countries with net zero 2050 targets; • Portfolio warming potential of investments in °C; • Financial products / funds and portoflio's % alignment with the EU Taxonomy Physical climate risk • % or absolute value of assets exposed to identified key indicators of physical climate risk in specific geographic areas, including sovereign risk monitoring; • Weather-related operational losses for real assets. Transition and physical risk • Disclosure of climate-related metrics used to determine executive remuneration (both how they are calculated and how they are used); • Quantitative, scenario-based impairment metrics, for example, using carbon prices and forward-looking climate models (see the scenario analysis chapter for guidance). Firms should disclose the

		results of scenario analysis from a range of scenarios, including the potential impact on AUM/expected revenues in $bn. Any limitations or uncertainties around assumptions and analytics should be reported, as should the % assets/loans/liabilities assessed. For asset managers, this may include a change in the market value of investments/total investment returns. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** No comment. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** No comment. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** No comment. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** The PRI recommends that MAS incorporates key aspects of the environmental risk management guidelines within relevant existing financial regulations. ESG risks are material to investors, and climate risks are financial risks. Evidence demonstrates that mandatory regulations are more impactful than voluntary guidelines and can also create market efficiencies, as today global and regional investors are required to manage climate risks in multiple jurisdictions. Mandatory regulation, aligned with

		international standards, will not only help to codify terminology (for greater consistency), it will also level the playing field on existing best practices rewarding first movers and the best environmental performers. The PRI recommends an alignment of environmental risk management with the TCFD framework, and that climate and broader environmental risks are integrated into existing risk management processes. Climate-related risks exist alongside other investment risks, it is therefore important to undertake a materiality assessment and to stipulate where the priorities sit compared to other investment risks. The PRI recommends that MAS adds to the Guidelines the setting of targets to improve environmental performance and align portfolios with the Paris agreement. In describing their targets, asset managers should consider including the following: • Whether the target is absolute or intensity based or a combination of the two, • Time frames over which the target applies, • Base year from which progress is measured, • Key performance indicators used to assess progress against targets. The outputs from scenario analysis should also be a key consideration for asset managers when setting targets. The TCFD recommends the use of a range of scenarios, including a 2^{o}C or lower scenario, to assess resiliency of an investment strategy. A table of reference climate scenarios may be found on the PRI website Climate Scenario Analysis section. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment.

		Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months. No comment.
28	Schroder Investment Management (Singapore) Ltd.	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** No comment. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** Schroders welcomes the proposed responsibilities of the board and senior management. We have experienced how instrumental these are to drive transformational change in the organisation. For the wider industry, we believe it will be helpful if MAS can elaborate on the regulator's thoughts to designate a senior management member or committee for this purpose. Further, clarification that oversight at Group level (not at the local Board level) is adequate will be useful. At Schroders, our board plays a critical role in ensuring investment desks and other areas of the firm are supported to examine issues like climate change and to ensure mechanisms are in place to do so, which they execute through their commitment of resources to the Sustainable Investment team and regular review of the firm's capabilities. Our board has approved Schroders' Strategic Capability strategy, and Sustainability's inclusion in this. The specific plan includes ensuring that we integrate ESG factors across all of our investments by the end of 2020, and that we are developing

		innovative products to meet sustainability challenges. There is a three-year plan around this, the implementation of which is monitored by the Group Management Committee ("GMC"). Our Group Chief Executive (who is a board member) has supported system wide interventions such as early support for the TCFD recommendations. We are committed to aligning the business to those goals, which we recognise will be an ongoing process of improvement. Our policy activity is focused of building the right ecosystem for sustainable investment to become mainstream. We believe the sooner the Board and senior management embrace these responsibilities, the more beneficial it will be for asset managers and the industry to solve for environment-related systematic risks. Schroders actively participates in industry forums to collaborate and share best practices with the industry. Examples include the FCA & PRA climate financial risk forum in UK, where we have been heavily engaged in the development of EU requirements in this space. Closer to home, we serve as the Vice-Chair or the Asia Investor Group on Climate Change (AIGCC). **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** Please refer to our response in Q2. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a**

		committee to oversee environmental risk, where such risk is material. Please refer to our response in Q2. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** At Schroders, we employ a range of proprietary and third-party tools and research to support our investment teams. We do not believe a clear industry wide standard has yet emerged and as a result, believe it is vital that asset managers have scope to innovate in the development of new tools and metrics, indeed we consider that innovation vital to strengthening the investment industry's ability to effectively measure and manage environmental risk. It is important to note that any tools inform but require the judgement of our experienced investment analysts with their knowledge of industries and companies for meaningful application. At the individual investment level, our proprietary tools to assess environmental risk include: Our CONTEXT tool provides a framework for our investors to analyse their companies against seven stakeholder groups, including Environment. Dedicated ESG sector analysts from our Sustainable Investment team develop sector-specific guidance and metrics on material environmental and social issues. It draws on metrics from various third-party providers. Our SustainEx tool measures the costs companies would face if all of their negative externalities were priced, or the boost if

		benefits were recognised financially. That quantification relies on systematic analysis of global impact costs or benefits, company exposures and impact attribution. We realise that a systematic model distilling multifaceted externalities into dollar values for individual companies cannot fully reflect the complexity of the issues, individual company positions or the nuances of which actors in value chains should bear the burden of those impacts. It is deliberately blunt, forces values on activities that are not typically priced and aggregates very different activities in a single monetary figure. Nonetheless, the analysis provides a valuable insight into companies' exposures. Our Climate Progress Dashboard monitors 12 indicators to show the progress governments and industries around the world are making towards decarbonising the global economy. It compares projections made by international organisations to estimate the temperature change implied by the progress in each area. Together, they suggest we are heading for a rise closer to 4° than the 2° commitment global leaders made in Paris in 2015. More information can be found at: http://www.schroders.com/en/lu/professional-investor/featured/climate-change-dashboard/. Our proprietary carbon Value at Risk model provides a systematic and objective guide on the effect of higher carbon prices on companies' earnings and value. It takes into account a number of factors neglected by standard methods of analysis such as carbon footprints. More information can be found at: http://www.schroders.com/globalassets/global-assets/english/pdf/climate-change---redefining-the-risks.pdf. We have also developed a proprietary model to help our analysts, fund managers and clients measure and manage the physical risks climate change poses. Effectively, we ask "what would it cost a company to insure against physical risks caused by climate change for the remaining life of their assets?". More information

		can be found at: https://www.schroders.com/en/sysglobalassets/digital/insights/2018/thought-leadership/climate-change---the-forgotten-physical-risks_final.pdf Most recently we have looked into avoided emissions. Data on scope 3 emissions is emerging and - although not perfect - is beginning to prove useful for more systematic analysis. We assessed over 10,000 companies on their net emissions, based on a "full system" (including scope 3), rather than simply focusing on direct operations. We believe it is important to understand a company's CO2 emission profile from a holistic value chain perspective, as it may allow investors to capture unpriced future earnings potential as part of the transition to a low-carbon economy. We will publish our research in 2020. At the portfolio level, we have a fund-level reporting tool available for our equity and fixed income strategies that provide the following standard climate-related metrics, also based on company level data in those areas: - Total scope 1 carbon emissions - Total scope 2 carbon emissions - Carbon contained unconventional oil and gas reserves - Carbon contained in oil and gas reserves - Carbon contained in coal reserves - Scope 1&2 carbon intensity - Carbon intensity of fossil fuel reserves - MSCI Environmental score (do we want to exclude this?) - Exposure to fossil fuel power generation - Exposure to oil sands We believe we have made a good start with climate related disclosures, but we recognise the importance of continually reviewing and evolving our approach in line with regulatory developments and evolving market best practice.

		Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management. Please refer to our response in Q5. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** We are supportive of MAS's expectations on stewardship as set out in section 6. We believe shaping corporate behaviour of investee companies positively will help position our investee companies favourably. Stewardship is also an integral part of the asset management industry to act as a "force for good" (wrt 2.4). Wrt 5.4, we appreciate MAS highlighting engaging investee companies to improve disclosures which is particularly relevant in the region. Furthermore, we believe asset managers' abilities to use their votes to influence companies is an importance part of their stewardship responsibilities. We have designed our voting policy to reflect our conviction that companies should measure and manage climate risks in their business and expect that other asset managers should take similar steps. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** We suggest the proposed disclosures to be based on UNPRI and TCFD. This will ensure alignment to global standards and enable easy referencing to facilitate comparison for stakeholders and cross-sharing amongst the industry. Our publicly available UNPRI Disclosure for 2020, including TCFD, is available here: https://reporting.unpri.org/surveys/PRI-reporting-framework-

		2020/AFAFB85D-4DC7-4020-841B-3D86CDD08F56/79894dbc337a40828d895f9402aa63de/html/2/?lang=en&a=1. Our reporting against the TCFD framework, which summarises details in our UNPRI report, is also available in our Annual Report. For clients, product level information will be the most relevant. We are supportive of disclosure measures that aim to increase transparency and enable investors to choose investment products and services that are right for their needs and investment preferences. We believe that the approach should be descriptive rather than a prescriptive list of criteria. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Schroders is grateful to MAS for the opportunity to participate in the working group for these Guidelines. We are committed to continue working with MAS to support the local financial ecosystem. The desired outcomes will only be achieved if there are coordinated approaches, and a country like Singapore to help lead the way in this. We urge Singapore to continue its active participation in global efforts. Wrt 2.1, we welcome the science-based reference to IPCC's report for policymakers. We are encouraged by MAS's initiative to urgently highlight the importance of environmental risk for financial institutions, for the resilience of our industry, the broader financial system and society at large. Separately from the Guidelines, a stronger set of regulatory and policy incentives can support companies committed to transitioning to a low-carbon economy. MAS can also consider a climate mitigation credit guarantee programme, to serve as a wrap to transition bond issues.

		Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines. Information relating to Governance and Strategy, and Disclosure are provided in responses to Q2 and Q8 respectively. The following examples pertain to the Research and Portfolio Construction, and Stewardship sections, on climate transition risk, climate physical risk, and other environmental risks. We are happy to arrange a call with MAS, if more details or examples are desired. (Equity, for a Chinese Oil & Gas company) Using our CONTEXT framework for ESG analysis, under the Environment stakeholder category, we evaluate the adverse impact (and negative perception) from climate change leading to higher costs and/or stranded assets (if tough global taxes are imposed on CO_2). To that end, we apply an explicit discount to the long-term fair value estimate and adjust our NAV to be based on conservative volume estimates. Our equity sector analyst keeps abreast of latest developments in the oil & gas sector in the market and also globally, with the support of our dedicated ESG sector analyst where required. The value from our proprietary tool Carbon VaR is used as a prompt and sanity-check in the analysis. We engage the company both individually and collaboratively with other investors through the Climate Action 100+ initiative, leveraging on resources from the covering equity analyst and the Sustainable Investment team. Engagement responses are monitored and help to inform the equity analyst's view of the company. (Equity, for a Chinese Textile company) The textile industry is facing higher regulatory pressure from the implementation of environmental protection legislation by multiple governments. While the company in subject is not immune to these industry

		headwinds, the company has mitigated the challenges by vertical integration, diversification of production across the region and investment in automation. We view this company as the best-in class operator, including on pollution prevention, water efficiency and energy efficiency of its own operation and source of materials. The stricter environmental and labour regulations and the comprehensive compliance standards demanded by brand customers, will lead to even higher entry barriers for the industry in the long term. We believe this company's business model justifies a longer-than-standard fade period in our DCF analysis. Our equity analyst engages this company on its practices and disclosures to inform her view, including for data points that are comparable against peers. (Fixed Income, for Indonesia coal sector) From a macro perspective, we expect the energy demand in Indonesia to increase. However, we recognise the transition risk of a shift to cleaner energy and change in consumer base for coal substitutions. Besides the greenhouse emissions arising from coal as an energy source, coal mining also has severe negative pollution and biodiversity impacts. We also observed the tightening of funding sources, such as banks, to the coal sector. Given the ESG impacts, we have been progressively reducing our exposure to coal mining companies, including passing up a recent IPO by a fundamentally solid coal miner. (Fixed Income, for an agricultural company) We did not participate in the issuance despite a decent credit profile due to ESG concerns. There have been multiple allegations of unsustainable land clearing practices at their operational subsidiaries, and lack both international and local environmental certifications. Unilever suspended their purchases, and accounts for about 3% of total sales. Further, they were alleged to have kidnapped and violently assaulted environmentalists from the Environmental Investigation Agency (EIA) in 2000. While the company had indicated they will try to attain the environmental

		certifications and have engaged The Forest Trust (TFT), a not-for-profit organisation that counts Nestle, 3M and Danone as its members, we have mixed views on TFT and will gain more comfort if the likes of Unilever lifts the purchase suspension. In addition, the key sponsor has a very checkered past, which we should not discount. Notably, the majority owner of the company has been previously accused of illegal logging and kidnapping undercover EIA agents. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** The proposed transition period is reasonable. We envision that it will be helpful for MAS to provide guidance on training soon after the Guidelines are finalised, to support capacity building and set out best practices.
29	Singapore Environment Council	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** Singapore is a major global trading and financial hub, with its part to play in greening the financial system. A 2018 report by climate change impact market intelligence firm Four Twenty Seven found that 35% of REITs properties globally are currently exposed to climate hazards. Amongst them, REITs concentrated in Hong Kong and Singapore display the highest exposure to rising seas. The value of commercial real estate held as a long-term income stream by asset managers will therefore be impacted. Asset owners/investors tend to rely on asset managers to deliver their responsible investment policies. Asset managers have a responsibility to engage asset owners/investors on their investing mandate and guidelines to take into account long-term risks, while fostering positive impacts and encouraging sustainable behaviours in investee companies, be they part of an indexed or actively managed portfolio. A study by Morgan Stanley found that

		close to 11,000 ESG funds matched non-ESG funds in performance from 2004 to 2018, while enjoying lower downside risks. Bound by their fiduciary duty to meet the full and changing fiduciary duties of their asset owners/investors, asset managers with discretionary authority value-add when they make a difference financially, environmentally and socially. By IPCC projections, 70 to 80% of proven fossil fuel reserves must be stranded in order to realise a <2C warming future. However, IEA estimates have found that life-time emissions from available equipment are already expected to exceed that. Asset managers are thus critical to nudge portfolio assets towards environmentally-beneficial practices such as investing in energy-efficient properties, renewable energy systems, incorporating recycled content into product packaging and implementing take-back models. In so doing, asset managers influence counter-parties along the corporate value chain through active stewardship and strategic asset allocation. Greening the financial system for a low-carbon future requires a comprehensive, multi-year road map and these Guidelines form an essential building block. Although they do not exert the force of legislation, they serve as guidance to drive institutional readiness which could pave the way for future legislation to be built on. As regulator and supervisor, MAS is instrumental in strengthening the practice of environmental risk disclosure since financial institutions are unlikely to be called upon by their clients to do so voluntarily. While implementation of these Guidelines may commensurate with the risk profile, the size and nature of activities of asset managers, SEC appeals for asset managers to exhibit ambition and adopt a more proactive approach to environmental risk integration, driven by best practices that extend beyond legislative requirements.

		SEC welcomes MAS' view to subject these Guidelines to regular reviews and revision as part of ongoing efforts to capture the evolving nature and maturity of risk management practices. Review exercises can help to bolster risk management systems which may be informed by discoveries from stress testing exercises carried out on a multi-factor, multi-scenarios and multi-horizon basis. In view of this, the unit of environmental risk analysis could broaden beyond sector granularity to include the company and asset level which will can be aggregated to levels of industry and segments. Asset managers play a critical role in safeguarding asset value and spurring innovation for a greater climate action and social inclusion in order to strengthen the resilience of our financial system. Although such obligations are not always specified in contracts (e.g. LPA and PPM), asset managers should not narrowly define their relationship with asset owners/investors/investors as purely financial, and instead proactively take social and environmental issues into consideration. By adopting these Guidelines, asset managers can play their part in mitigating Singapore's non-traditional security risks and advancing our goal to create a vibrant green finance hub for the world. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** Commitment and accountability begins at the top. Boards should be responsible for strategic oversight and integration of material environmental risks within enterprise risk management systems and in ensuring that organisational risk appetite does not conflict with the UNFCCC's goal of limiting warming to 1.5 C.

		In this regard, Boards should champion the integration of environmental risks with enterprise risk management systems, review and approve material environmental issues identified and ensure that a process of gaps analysis and action planning is set in place and adhered to. Boards bear the fiduciary duty to care for stakeholders, to review and alert where unexpected concentrations of environmental risks may occur and build up. Boards should caution against overly optimistic assumptions and/or mild scenarios. Especially given these challenges facing banks and finance companies - the non-linearity of environmental risks, difficulties in estimating frequencies and severities of environmental events, and the limitation of historical data to cater for future predictions. To carry out their responsibilities competently, Board should be appointed while taking into account their experience and/or expertise in managing environmental risk. Boards should ensure at least one member of the Board is equipped with expertise in environmental risk management. Banks and finance companies should also implement a training plan to guide board members in developing strategies for environmental risk management. Ideally, these responsibilities would be written into the committee's charter. As part of Board meetings, a record of the agenda and discussions on environmental risk topics and management responses should be kept for review. The emphasis on board-level oversight is also encouraged by sustainability reporting frameworks such as the Global Reporting Initiative (GRI) Standards and also features as a primary component under the Singapore Exchange Sustainability Reporting Guide. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in**

		developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed. It is important that Board oversight is cascaded via delegated authority to senior management whose role is to develop comprehensive review mechanism, set in place effective internal escalation process and an effective strategy deployment process. Senior management should consider allocating resources and organising roles & responsibilities along 3 lines of defence: • First line – Engage clients to carry out initial environmental risk assessment during on-boarding clients or periodic review of existing clients o Measure energy use, water & effluent discharge, chemicals use and carbon intensities and understand their business plans for environmental risk management o Assess uncertainties and developments around timing and channels of environmental risk along supply chains • Second line - Set-up and manage central risk frameworks that integrate business and factory floor operations o Support first line activity to understand, assess and consider uncertainties and developments around timing and channels of environmental risk o Develop tools for identifying and assessing environmental risks o Develop scenarios, review parameters & assumptions and undertake stress-testing o Deliver environmental risk training • Third line – Monitor and review design, adequacy of controls and implementation of environmental risk management processes based on second and third line activities above To back up the three lines of defence, SEC's enhanced Singapore Green Labelling Scheme (SGLS+) incorporates the following

		monitoring and control measures to facilitate escalation and enable engagement with errant organisations on remedial actions and improvement plans, based on severity of the breach. • Serving a written notice. In our User Agreement, a serious breach will lead to an automatic dis-qualification from the labelling scheme, with written notice given for the use of our Green Label on the company's product(s) to be immediately terminated. • Suspending use of the Green Label. Depending on the severity of the breach, SEC may suspend the use of our Green Label by the company for a given period of time to be determined by the Council. If it is a relatively minor breach, SEC may give the company the chance to improve their environmental performance to the standards required. • Imposing temporary restrictions. Instead of exercising SEC's right under this User Agreement to suspend or terminate the approval to use the Green Label, the Council may also chose to impose temporary restrictions on the user's right to represent its product(s) as approved by SEC to qualify for use of the Green Label. SEC can choose to further subject the user to investigations, inspections, evaluations or audits that may be more than what would normally apply. • Non-compliance. These restrictions may also be imposed on the user should there be reasonable grounds to believe or suspect that any term of this Agreement has not been complied with. In which case, SEC reserves the right to take legal action against such acts of non-compliance. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.**

		Asset managers should not treat environmental risk reporting to boards merely as a compliance exercise. Instead, environmental risk reporting to the board should be used to inform decision-making. A good practice is to require a named senior manager to be responsible for the management of environmental risks as overseeing material environmental risks will help to promote accountability and ownership on a day-to-day execution basis. The designated member should be vested with the authority and command of knowledge to monitor, red-flag and propose interventions that will engage multiple actors and add rigor to risk identification, risk assessment, risk control & monitoring and risk mitigation processes. Forming a committee is another possible approach to decision-making. For the committee to be effective, they must be empowered by senior management and be equipped with cross-functional expertise. Due the lack of data and uncertainties around environmental risk analysis, a cross-function composition is important to balance environmental risk analysis with considerations of other asset management functions such as finance, technology, policy, operations, and human resources etc. - critical functions that impact the operational capacities and competitiveness of any organisation. To support this core committee structure, asset managers may also induct environmental ‘ambassadors’ to span every level of the organisation. While promoting greater consensus and diversity of views, caution should be exercised on the available time for committee members to make decisions. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the**

		impact of environmental risk at both the individual investment and portfolio level. These metrics can be deployed to assess portfolios' environmental risk exposure, identify risk hot spots and to offer snapshot of a portfolio's brown-green assets share: • Weighted average carbon intensity (exposure to carbon-intensive companies) • Portfolio emissions footprint normalised by revenue (portfolio efficiency per unit output) • Portfolio emissions footprint normalised by investment sum • Total portfolio emissions footprint • Portfolio exposure to stranded assets • Portfolio exposure to fossil fuel investments Next to enhanced disclosures, the deployment of tools and metrics are critical in facilitating decision-making for effective environmental risk management. Despite the gap between macro-economic and environmental risk analysis, asset managers should try to measure and track environmental risk exposures at the portfolio, sub-portfolio, and even transaction levels. - Singapore Green Labelling Scheme (SGLS) - Instead of starting from scratch, SEC would propose for re/insurers to adopt, where applicable, credible certifications as tools for portfolio screening and industry analysis. Due to their availability, market acceptance and subject to rigorous standards, credible environmental certifications offer cost-effective and expedient means for re/insurers to assess the green-ness of a transaction while taking into account geography and sector information.

		The Singapore Green Labelling Scheme (SGLS) is a prime example of how credible certifications create an enabling regulatory environment and signal quality for industry change. Launched in 1999 by the Singapore Environment Council, the SGLS is a 3rd party verified Type 1 Eco label that evaluates the impact of a product on a life cycle basis. Beyond the composition of a product, SGLS evaluates environmental criteria across life cycle stages of material extraction, manufacturing, transportation, packaging, use and end-of-life. SGLS thus promotes supply chain transparency and facilitates the incorporation of environmental & social risks. By considering the impact on both the techno-sphere and biosphere, SGLS also promotes circular product considerations. Environmental aspects evaluated under SGLS include: • Fit for purpose – product that meets performance requirements • Environmental & health factors – ISO 9001, 14001, 45001, 50001 • Prohibited substances – carcinogens, mutagens, reproductive toxins, heavy metals, dioxins, flaming additives, AOX etc. • Energy & Water consumption – resource use and intensity • Emissions to air – VOCs, Formaldehyde, particulate matter • Emission to water – suspended solids, heavy metals • Recycled & sustainably-sourced materials – incorporate recycled content to packaging and final product, biodegradability • Safe storage of raw materials – effective policies & procedures to prevent contaminants to water, air and soil • Waste management – effective policies & procedures that cover manufacturing operations • Take-back at end-of-life – take-back for reuse, recycling, energy recovery - Enhanced Singapore Green Labelling Scheme (SGLS+) -

		In 2017, SEC enhanced the pulp & paper category of SGLS (SGLS+) to incorporate environmental & social risk and fire management considerations into the certification, going above and beyond RSPO requirements. SGLS+ uses a comprehensive risk management profiling to complement its more extensive qualification criteria which are based on internationally recognised practice. In 2019, SEC was awarded ISO/IEC 17065:2012 accreditation for its SGLS+ processes which are based on impartial, independent, sound and reliable risk management profiling, making SEC the first NGO certifying body in the world to receive this accolade. The environmental strength of SGLS+ lies in the range of material environmental and social risk factors evaluated which are translated into a risk score and assessed to be of risk levels – low (1), medium-low (1.5), medium (2), medium-high (2.5) and high (3). Companies need to demonstrate they comply with each of the 25 audit criteria under the SGLS+ certification. Under requirements of this enhanced scheme, companies are required to improve their peatland management and commit to the early detection and suppression of fires when they occur. They must also comply with the existing requirements of zero-burning on their plantations. In addition to desktop audits of 3rd party accredited test lab reports, site surveillance are carried out at the source (e.g. plantations, mills) to ensure that upstream supply chain practices and conditions are compliant with minimum standards. In other words, the entire supply chain of an SGLS+ applicant will be assessed and audited on site. This includes forests and plantations, pulp and paper mills and converting plants. The audit process is enabled by data transparency and documented evidence of products having met with environmental and social performance thresholds, which ultimately facilitates wider supply chain transparency and can become inputs for environmental risk models.

		The rigor and enabling role of SGLS+ to mobilise green financing for the region can be observed through the scope of the Responsible Financing Guidelines published by the Association on Banks in Singapore (ABS), which identifies pulp & paper as part of the high-risk environmental sector of agriculture. In summary, key features of SGLS+ criteria include: • Full disclosure of supply chain - the entire supply chain of a manufacturer will now be assessed and audited. This includes forests and plantations, pulp and paper mills, converting plants as well as distributors and retail companies. • Fibre source - all fibre is required to be sourced from legal sources and the use of wood and fibre from protected or high conservation value areas is banned. The use of recycled fibre is required to be maximised. • Zero-Burning Policy - the company, owner or concessionaire in charge of the plantation is required to have a zero-burning policy. • Fire Management - companies are now required to undertake a comprehensive range of fire prevention and preparation activities so they can quickly detect and supress fires before they get out of control. This includes the identification and mapping of fire risks, a fire prevention budget, engaging the community to promote alternatives to fire as a land preparation tool, daily hotspot monitoring, and putting in place firefighting training and equipment. • Peatland Management - proper peatland management is crucial to the prevention of haze. Peatland is a naturally water-saturated landscape and an efficient carbon sink. Uncontrolled draining of peat to plant pulpwood timber makes it susceptible to fire and releases the stored carbon. Companies are now required to protect the biodiversity of peatlands through proper assessment and water management.

		• Annual Audits - SEC will undertake annual surveillance audits of companies awarded the SGLS+ certification to ensure the criteria is continually met. More than 4,000 products from 43 countries have been certified since inception of SGLS/+. Being a member of the Global Ecolabelling Network (GEN), SEC is networked with other Type 1 Ecolabelling organisations around the world. The European Commission, which administers the EU Eco Label is also a member of GEN. In addition, SEC has also been awarded the GENICES certification which is peer review framework that promotes mutual and recognition of eco label criteria with other GEN members, thereby fostering information exchange and harmonisation with other Eco Labels at the global level. - Tools: Eco Certifications - Beyond the sourcing, production and distribution of products, environmental risks are also inherent in business management and operations activities. It is hence important to green business activities and people across industries that could have an adverse impact on the environment as they contribute to economic growth. Launched in 2002, SEC has expanded its Eco Certification scheme beyond corporate offices to also cover retail, F&B outlets and MICE activities. These certifications offer a holistic framework that evaluates the impact of operating premises across both hardware and heart-ware features to drive sustainable practices while managing waste and improving on resource efficiency levels. Management oversight in spearheading green strategy and initiatives is also incorporated as key criterion. The environmental factors evaluated across these schemes include:

		• Eco Office Plus – Energy efficiency, Water efficiency, Waste Management, Interior Environment, Management Systems, Staff Awareness & Engagement • Eco F&B – Resource management, Sustainable procurement, Waste management and Environmental stewardship • Eco Events – Provides a comprehensive carbon calculation programme to enable event organisers to understand the carbon footprint of their event, quantify impact and facilitate comparison, and undertake mitigation measures via carbon offset initiatives like tree planting With the Eco Certification schemes' focus on the activities and its impact arising from green procurement choices, resource consumption, waste generation, emissions and wider environmental pollution, the schemes facilitate closer monitoring, higher levels of engagement and the implementation of improvement measures that eventually enables impact reporting for greater transparency. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** Traditional asset allocation methodologies do not adequately capture environmental risks, which requires forward-looking analysis that are not provided for by traditional modelling of historical asset-class relationships. As climate change impacts the macro environment, institutional investors and asset managers need to think about diversification across sources of risk rather than across traditional asset classes (i.e. a factor risk approach to supplement asset-allocation decision making). To better analyse the investment impact of climate change, Mercer developed the TIP™ risk factor framework to examine climate factors as sources of investment risk over the coming 20

		to 30 years due to increased uncertainty about new technology, physical impacts and climate policy. • Technology (T) – broadly defined as the rate of progress and investment flows into technology related to low carbon and efficiency, which are expected to provide investment gains • Impacts (I) – the extent to which changes to the physical environment will affect investments (negatively) • Policy (P) – the cost of climate policy in terms of the change in the cost of carbon and emissions levels that result from policy, depending on the extent to which it is coordinated, transparent and timely. The TIP™ framework suggests that climate policy could contribute as much as 10% to overall portfolio risk, although the impact of climate change can vary significantly across different scenarios, for different asset classes. Initial actions could include the following: • Introduce a climate risk assessment into ongoing strategic reviews • Increase asset allocation to climate-sensitive assets as a climate "hedge" • Use sustainability-themed indices in passive portfolios • Proactively consider and manage climate risks • Engage with portfolio companies to request improved disclosure on climate risks It also highlights the need for asset managers to communicate with policymakers the need for a clear, credible and internationally coordinated policy response and for dialogue to emphasise the potential economic and financial cost of delay. While asset managers might view engagement with policymakers as the responsibility of their asset owners/investors, playing a proactive support role is vital to their overall portfolio risk management.

		Asset managers and underlying portfolio companies do not yet closely track or report these data. However they can begin to do so by establishing bounding metrics to check that their risk appetite does not conflict with the objective of achieving a 1.5 C future. Examples of quantitative metrics include: • Environmental value-at-risk (VaR): metric which weights present value of climate costs & profits against market value, as opposed to book value VaR • Impact on balance sheet: change % in revenue/loss of a portfolio facing a late or abrupt transition Other Tools include: • Heat maps and detailed reports of specific situations where necessary, to highlight high risk exposures by sectors. Heat maps are able to visualise the probability and potential impact of certain risks occurring. • In corporate banking, this kind of measurement and reporting might support a environmentally-adjusted credit scorecard (covering cash flows, capital, liquidity diversification, and management experience) for corporate customers. • Asset managers may then choose to assign specific risk limits. Indeed, some asset managers have already moved to integrate these types of approaches into their strategic asset allocation considerations. • Scenario analysis, which is already commonly used to inform lending decision making, can be applied to environmental problems to assist financial institutions to understand how the concentrations of risk arising from these factors could affect investment portfolios and loan books over the near to mid-term. o In absence of empirical data, asset managers may rely on expert judgement. o Scenario implied probability of default (PD), loss given default (LGD), exposure at default (EAD) will enable investors and asset

		managers to project expected losses (EL). Examples include the Paris Agreement Capital Transition Assessment (PACTA), 2 Degrees of Separation (2DS) and IEA Sustainable Development Scenarios (IEA SDS). • Risk mitigation plan - calculate the cost/benefit ratio of each measure. The loss aversion potential (the benefit) is assessed by modelling the effect each specific measure has in reducing the loss. The cost is calculated by assessing the capital and operating expenses necessary to implement the measure. In addition to sector specific tools outlined in the TCFD Technical Supplement (e.g. IPCC RCP, UNFAO MOSAICC), other data modelling tools include, but are not limited to: • Vivid Economics Climate Risk Toolkit – model both physical and transition risks; paid • Climate Value-at-Risk (VaR) by Carbon Delta – models physical and transition risks; paid • ClimateWise Risk Framework by CISL – models physical and transition risks; paid • Ortec Finance ClimateMAPS - models physical and transition risks; paid • JBA Risk Management – used by BoE to model physical risks; paid The complexity of the climate crisis means no single metric is suitable for determining the risk or impact of any one investment. Subsequently, it is more appropriate for asset managers to deploy a hybrid of metrics that can be customised across different asset classes, depending on the nature of the asset, and the asset owner/investors' objective. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.**

		While climate-sensitive investments may be deemed more risky traditionally on a stand-alone basis, reports have indicated that investments in climate-sensitive assets that emphasise adaption to a low-carbon environment could actually reduce portfolio risk in some scenarios. As active stewards, asset managers can influence investee companies and encourage them to switch to less carbon-intensive operations and improve transparency through improved disclosures, with reference to widely accepted frameworks (e.g. TCFD, GRI Standards, CDP). Asset managers should embrace active ownership (e.g. proxy voting and engagement) as vital to responsible investment while acting in line with their investment mandate and guidelines. One channel of influence is exercising active ownership rights as shareholders at the company or industry level. After all, responsible asset owners/investors do not automatically accept voting recommendations and instead make informed decisions based on a triangulation of internal and external sources of information and expert-judgement. Communication thus forms part of an effective proxy voting process that shapes corporate behaviour. Where possible, asset managers should raise concerns with companies before voting against or abstain to initiate dialogue, receive additional information. Failing which, asset managers should publicly explain the rationale for their votes against management or abstentions and explain their view with interested companies directly either voluntarily or following a company's request. Engagement is a 2-way dialogue where asset managers provide feedback on investee companies' financial and non-financial performance while investee companies clarify information and their environmental risk management strategy. Such engagement is material as the information gathered, in turn,

		informs proxy voting decisions, and helps to integrate environmental factors in valuations. In addition to top-down strategic approaches, prioritisation of engagement environmental issues could adopt these bottom-up considerations: • Long-term environmental trends that are financially-material • Environmental factors that are most financially-material in terms of geography/industry sector/company in the portfolio universe of the asset manager Engagement methods should also integrate top-down functions such as group risk, sustainability, investment teams with bottom-up investment-decision makers such as portfolio managers, financial analysts and stewardship personnel. Channels of engagement with investee companies could include regular company meetings, or other special platforms. Engagement with investee companies should combine all the traditional analytical skills of financial and industry analysis with a more diverse set of expertise in areas such as the environment, climate change, pollution, social and other complex governance issues. This engagement can only be consistently and globally fulfilled by active asset managers with substantial research and portfolio management resources, who meet company management regularly to deliver higher impact performance. While transparency is crucial for investment stewardship, the current state of engagement reporting in general does not provide enough insight into climate-engagement measurement and outcomes. Few asset managers offer a concrete summary and explanation of its climate engagement successes and failures. Best practices by asset managers include:

		• adopting climate change as a stewardship priority, • describing one or more climate-specific engagements, • identifying companies engaged on climate risk, and • measuring and disclosing progress on climate engagements. These indicators can also help investors compare and evaluate asset managers' climate engagement disclosures, so that asset owners/investors select funds whose asset managers sufficiently address climate risk in their engagements. Asset owners/investors can use this approach in selecting and monitoring asset managers on the basis of their environmental stewardship. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** SEC through the Singapore Green Labelling Scheme (SGLS/+) enables disclosure of environmental impact on a life cycle basis and promotes supply chain transparency. Beyond the proposed annual frequency of reporting referencing globally recognised frameworks such as TCFD, SEC notes that in certain jurisdictions, larger institutional investors are required to undertake stress tests and scenario analyses as frequently as semi-annually, at quarterly intervals or when their risk model and/or portfolio changes significantly. This may consequently impact disclosure expectations of asset managers. A key outcome of quality disclosures is that it allows these quantitative outputs to be gathered for scenarios analysis and stress testing: • claims and investment losses; • profitability; • capital requirement; • capital resources; • average annual loss change;

		• aggregate or occurrence exceedence; • market value of investments; and • value-at-risk (VaR) or tail value-at risk (TVaR) **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Asset managers by themselves may find it difficult to identify useful climate scenarios, as such expertise is not typically found within their organisations. There is a need to draw on the expertise of other specialists in this domain, for example, climate scientists and meteorology specialists, in coming up with plausible and useful climate scenarios. Other aspects of risk management policies and processes that would benefit from supervisory guidance include: • Clarify goals of environmental risk management. Presently, asset managers assessing environmental risks using scenario analysis or stress-testing, are likely to cover physical risks only. Beyond that, these Guidelines should encourage asset managers focus on environmental issues that bear transition risks and pose a value-at-risk or potential opportunities for long-term financial performance and impact on the real economy. The environmental risk management system should be applied to determine the potential impact on earnings volatility, capital position or business model viability. • Depth of risk assessment: Asset managers tend to undertake risk assessments between 1-3 years while the full impacts of climate change are expected to unfold over longer time periods. With more data gathered, Asset managers may extend the depth of risk assessment to include sensitivity analysis and adaptive capacity analysis, on top of exposure analysis for both the corporate customers and portfolio assets.

		• 'Tragedy of the Horizon': As the impact of transition risks is felt over a longer term, institutions may under-estimate their importance when assessed over a typical strategic business cycle of 3 to 5 years. Consequently, SEC proposes the transition risk of environmental factors be assessed for its impact over a longer term horizon of 10 to 30 years. This serves to foster long-term thinking and transparency. • Incentives: SEC proposes implementation of green credit be appropriately reflected in the overall KPI evaluation of senior management. • Supervisory statement and road map: SEC proposes asset managers develop on a multi-year road map to communicate their strategic vision and approach to tilt customer lending and their portfolio assets to meet strategic risk and organisational objectives. Supervisors can express their expectations with a supervisory statement, setting out how asset managers should manage these risks from the perspectives of governance and risk management. The supervisory statement can also call for industry action and provide support to front-line supervisors in starting conversations with asset managers on environmental risks. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** • Government Investment Pension Fund of Japan– Analytics partner Trucost measured GIPF's historical performance with Carbon Footprint Metrics, Carbon Disclosure Metrics, Fossil Fuel & Stranded Assets Exposure Metrics; JIPF also conducted forward-looking scenario analysis using reference scenarios by 2 Degree Alignment, Energy Transition, GHG Transition Pathway Assessment and Carbon Earnings at Risk

		• HSBC Global Asset Management - Breaks down climate impacts into three main transmission mechanisms: direct carbon costs imposed on emitters, lower demand for carbon-intensive products and higher demand for 'clean tech' products. • Hermes Investment Management - Incorporates scenario analysis as part of its portfolio climate risk and opportunity management process. Hermes dis-aggregates the process so that investors, portfolio managers and other stakeholders are able to understand the key drivers of the transition, and challenge assumptions, either of companies or of 3rd party data/service providers. • Nordea Asset Management - Nordea Asset Management has chosen to rely on carbon data sourced from MSCI Inc. for Equities and ISS Ethix for Fixed Income. WACI figures are based on data measured or calculated at specific point-in-time, calculations are updated on on a monthly basis in order to provide timely measurements. Companies that do not disclose carbon metrics are assigned an estimated carbon metric using MSCI Inc.'s proprietary carbon estimation methodology. To disclose a fund's WACI, at least 75% of the fund's assets must have CO2 emission information. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** As part of a phased approach, SEC would appeal for asset managers to embark on implementation of the Guidelines as early as possible during the proposed 12-month transition period. Asset managers that are unable to meet the transition period, should be allowed to appeal for an extension before the transition period closes, backing up their requests with reasons. This would offer MAS some flexibility amidst the unevenness in

		readiness - ensuring all asset managers are able to right-track themselves for full adoption of these Guidelines, while being subject to MAS' evaluation where falling short.
30	Singapore Venture Capital & Private Equity Association	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** We note that the MAS has defined the applicability of the Guidelines relatively broadly but has indicated that the size and scale of the FMC and the role they play is relevant. 1. We would suggest that it may be appropriate to exclude VCFMs and RFMCs from the Guidelines (or at least from parts of the Guidelines) on the grounds that with the generally lower AUM that VCFMs manage and the limited amount of AUM that RFMCs can manage, they (i) have limited operational scope to take on new risk processes, and (ii) are usually not in a position to have meaningful impact in terms of ESG and Impact/SRI investing. 2. If the Guidelines are to apply to VCFMs and RFMCs, the manner in which they apply should be determined by the manager's role in the investment process and their level of activity, rather than just whether the manager has discretionary investment authority in Singapore. The following points are pertinent:- o If an international firm delegates the management of only a portion of a fund to their Singapore subsidiary although the Singapore FMC may have discretion over that part of the portfolio they may nevertheless have no influence over to the original structure of the fund and its investment restrictions or risk parameters. o There should be distinctions based on capital type and an asset manager's likely level of control in its investments. For example, debt funds that have minimal involvement in or influence over daily operations of portfolio companies should not be subject to the same guidelines as PE funds which often have controlling stakes in portfolio businesses. Likewise, asset managers that focus on sectors that are not likely to impart any material

		environmental risk (such as insurance, software or fintech) should be allowed to opt out of the Guidelines if their Board has given the matter due consideration. o If the fund is a regulated investment vehicle elsewhere, the Singapore FMC will likely be required to adhere to the requirements applicable in the fund's jurisdiction (see point 3 below). o In certain fund structures (such as a segregated mandate where there is generally only one investor who may have its own ESG requirements or a single asset fund where there is only one investment that may not present any material environmental risk), it would seem appropriate for the Board of the FMC to be permitted to determine that the Guidelines should not be implemented. 3. We strongly urge the MAS to consider an equivalency regime whereby an asset manager who is complying with a substantially equivalent environmental risk or responsible investing regime (be it voluntary such as UNPRI, or one imposed by investors such as the IFC standards) would not be expected to take additional steps to separately demonstrate compliance with the Guidelines. 4. As discussed in our response to Question 12 below, we would encourage the MAS to consider a longer timeline for implementation of the Guidelines and within that timeline we would also suggest a phased approach with larger FMCs being initially asked to comply with the Guidelines with a later/longer roll-out for smaller FMCs/VCFNs/RFMCs. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** To the extent that the MAS proceeds to issue Guidelines on environmental risk, then we believe it is appropriate for the

		Board of an asset management company to be charged with responsibility for overseeing environmental risk management, including its role in approving the environmental risk management framework and policies. It would be appropriate for the Board to be permitted to delegate day-to-day oversight/implementation to senior management, which may include an "investment committee" or other decision-making body properly constituted and empowered within the asset manager. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** To the extent that the MAS proceeds to issue Guidelines on environmental risk, then we believe it is appropriate for the senior management of an asset management company to be charged with responsibility for overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed. It would be appropriate for senior management to be permitted to delegate day-to-day oversight/implementation to a "risk committee" which in the case of a large or global asset manager may be principally composed of employees of the asset manager's affiliates based overseas. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.**

		To the extent that the MAS proceeds to issue Guidelines on environmental risk, then we believe it is appropriate designate a senior management member or a committee to oversee environmental risk, where such risk is material. We would suggest that sufficient flexibility be built into the Guidelines for the designated senior management member or committee to oversee environmental risk as only one part of a larger function that they may serve within the asset manager (i.e. we do not believe that it is necessary to have dedicated headcount for environmental risk oversight). **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** Before turning to the above question, we would like to express certain concerns about sections 4.4 to 4.6 of the Consultation Paper and section 4 of the draft Guidelines. As mentioned above, there are a number of strategies embedded in funds managed or advised in Singapore where environmental considerations are not of particular relevance or are difficult to implement. Examples are mentioned in our point 2 under Question 1 above. We would suggest that the MAS consider a "comply or explain" approach to these requirements which is similar to the approach being adopted in the EU (see below). This would allow the Board of fund managers to whom ESG at this stage in their development or who manage funds or strategies where ESG considerations are typically not part of the investment process are required to proactively identify why they do not follow the draft Guidelines in this respect. Please see our response to Question 6 for a discussion of tools and metrics that are available and are in use by the industry.

		Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management. In relation to paragraph 5.2 of the draft Guidelines on scenario analysis, our members with ESG overlays report that scenario analysis is currently applied where relevant (e.g. in a solar power plant, multiple scenarios are provided to take into account different solar generation efficiencies). However, detailed scenario analysis such as those proposed under the Guidelines is likely impractical given:- 1. Statistical links between natural phenomenon parameters and operational indicators is hard to determine accurately. Historical regression over decades might work but the very concept of climate change negates the veracity of historical correlations 2. Difficulties in isolating/refining the almost infinite number of natural variables to just a few key variables that scenario analysis can be run on. 3. Difficulties in linking the above to the company's specific situation/asset Similarly these members suggest that the metric in paragraph 5.4 of the draft Guidelines would be the natural default. Other members raised points in relation to the proposal that "asset managers develop capabilities in scenario analysis to evaluate portfolio resilience and valuation under different environmental risk scenarios. These scenarios should incorporate forward-looking information to complement historical data, as the latter might systemically underestimate potential risks, in view of the uncertainties and long-term horizon associated with changes in the environment." The general consensus is that this is more equity driven and may not be relevant to debt investment.

		As such, the MAS may wish to consider initially requiring FMCs in Singapore to adopt ESG frameworks which are commensurate or as appropriate to their strategy or operations and in this regard, FMCs may consider:- • Becoming a signatory to the UN PRI; • Firm specific customized ESG frameworks based on internal models (e.g the RobecoSAM product); • TCFD; • IFC Performance Standards. In response to the specific question about other tool and metrics, we note the work of the European Reporting Lab at:- http://www.efrag.org/Assets/Download?assetUrl=/sites/webpublishing/SiteAssets/European%20Lab%20PTF-CRR%20%28Main%20Report%29.pdf&AspxAutoDetectCookieSupport=1 This in turn refers to the following frameworks Through the review of corporate reports for the purposes of its project, the PTF-CRR identified the following list of standards and frameworks used by companies for climate-related reporting : 1. CDP (formerly the Carbon Disclosure Project) 2. Climate Disclosure Standards Board (CDSB) Framework 3. European Bank for Reconstruction and Development (EBRD) and the Global Centre for Excellence on Climate Adaptation (GCECA) – Advancing TCFD guidance on physical climate risks and opportunities 4. Framework for Impact Statements (FIS), Impact Institute 5. Global e-Sustainability Initiative (GeSI) 6. Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) 7. Greenhouse Gas (GHG) Protocol 8. International Integrated Framework, International Integrated Reporting Council (IIRC Framework)

		9. Recital 9 of the NFRD • The Introduction to the EC Guidelines on non-financial reporting 10. Section 2.5 of the EC Guidelines on non-financial reporting: Supplement on reporting climate-related information 11. IPIECA, API and OGP (IPIECA) Oil and gas industry guidance on voluntary sustainability reporting 12. Polish Non-financial Information Standard (Standard Informacji Niefinansowych, SIN) 13. Principles for Responsible Banking, UNEP Finance Initiative 14. Principles for Responsible Investment (PRI) 15. Responsible Care Management Framework 16. Sustainable Development Goals, 2030 Agenda for Sustainable Development – United Nations General Assembly (UN SDGs) 17. Sustainability Accounting Standards Board (SASB) Standards • 18. The Sustainability Code, German Council for Sustainable Development (RNE) 19. United Nations Global Compact (UNGC) **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** Our members are generally happy with stewardship and sustainable business concepts as they are being increasingly developed and adopted amongst certain types of asset managers globally. Some members commented that stewardship/sustainability are not relevant to all fund managers. For example, funds that have a passive strategy or that generally only take small stakes in portfolio companies (giving them minimal discretion/visibility over daily operations) are not going to be in a position to meaningfully drive stewardship/sustainability initiatives.

		We therefore request that the MAS considers flexibility for asset managers to determine the extent to which they will push stewardship/sustainability based on various factors (which could include capital type, the manager's level of influence/control, the strategy being implemented, the market segments or industries being pursued, and the expected duration of the investment). Similar to existing stewardship codes, this could operate as a comply or explain requirement. We would again highlight that many asset managers have adopted (or are in the process of adopting) one or more of the many other existing stewardship/sustainability frameworks/standards. Our members would thus like to have the option of complying with stewardship/sustainability frameworks/standards that are substantially equivalent to the Guidelines. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** Our members have no objection to the broad requirement to make appropriate disclosure of their approach to environmental risk as this is already commonly practiced. We would suggest that the details of how this disclosure is handled (i.e. where it is made, how often, how specific) be left to the discretion of the Board of the asset manager, provided that the Board has considered and concluded that the manner and timing of the disclosure is appropriate and effective. We note that the MAS refers to a number of reporting standards in the Consultation Paper (e.g. the Global Reporting Initiative, CDP (formerly the Carbon Disclosure Project), the Sustainable Accounting Standards Board and Task-Force on Climate-related Financial Disclosure and particularly the Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-related Risks and Opportunities and the International Finance Corporation

		Performance Standards and the Roundtable on Sustainable Palm Oil.) However, in the draft Guidelines, the focus is primarily on the use of concepts arising from the TFCD system. We would note that the TCFD reporting methodology is complicated and at this stage has not been broadly implemented globally. In 2019 the Global Sustainable Investment Alliance conducted a poll for TCFD which included responses from 84 international asset management firms. The results were published in 2020 and show that only 16% of respondents were reporting in line with the TCFD recommendations. A further 19% intend to do so in 2020, with an additional 28% of respondents reporting that they were exploring the possibility. This is illustrated in the following charts:- (please see original response) It is fair to assume that many of those firms that initially replied that they would be reporting by 2020 will have changed their plans in light of the Covid-19 pandemic which has forced asset managers into crisis management mode this year. Whilst reporting is only one aspect of the TCFD framework in light of these results, we consider that it will be difficult for a number of Singapore based fund managers to achieve meaningful adherence to TFCD requirements around scenario analysis, portfolio risk monitoring from an environmental perspective and ultimately reporting given that in many cases they are part of an international group, have limited operational capacity or small AUM (eg RFMC). Our understanding is that very few Singapore based asset managers have adopted TCFD to date. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** An unfortunate trend that has emerged globally off the back of the push for stewardship/sustainability/impact is “green-washing” or “impact-washing”. This occurs where managers

		exaggerate the level of ESG implementation or social impact that they are achieving (typically to attract more investors to their funds). It has become such a problem that earlier this year the French Autorité des Marchés Financiers ("AMF") published a doctrine (Position/Recommendation DOC-2020-03) imposing obligations on asset managers with the aim of ensuring that information they provide to investors in relation to non-financial criteria (and in particular relating to sustainable investing) is proportionate to the actual importance of these factors in the investment process. We raise this so that the MAS is aware that the implementation of the Guidelines (and in particular the proposed requirements around implementation and reporting on stewardship) may lead to some asset managers overstating the true extent of their stewardship/sustainability/impact. Consideration may need to be given to including provisions in the Guidelines along the lines of what the AMF is doing. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** Our members would be supportive of a broader and more inclusive ESG framework in Singapore rather than a framework that is specifically focused on just environmental risk and stewardship. Current Standards Given that the historic driver to the adoption of any ESG and Impact/SRI has been institutional investor demand, most international asset managers have developed approaches to the implementation of ESG and/or Impact/SRI that takes into account various global standardization initiatives and advocacy groups which include, amongst others:-

		1. The UN Principles for Responsible Investment (which has more than 2500 signatories). 2. The UN Environment Programme Finance Initiative (UNEP FI) which operates the Sustainable Real Estate Investment-Implementing the Paris Climate Agreement: An Action Framework which has requirements specific to each of • Asset Owners and Trustees, and their Investment Advisors • Direct Real Estate Investment Managers and Property Companies, and their Real Estate Consultants • Real Estate Equity and REITs, Bond and Debt Investors, and their Financial Advisors 3. The UN Sustainable Development Goals which set out 169 specific targets to be achieved by 2030. Private sector participation is voluntary, relying on market pressure and incentives. 4. Task Force on Climate Related Financial Disclosures Reporting 5. The IFC's Policy and Performance Standards on Social and Environmental Sustainability 6. The IFC Environmental and Social Management Toolkit for Private Equity Funds. 7. The Equator Principles. 8. The US Private Equity Council Responsible Investment Guidelines. 9. The CFA Institute's Guide to ESG Investing for Investment Professionals. 10. The European Development Finance Institutions (EDFI)Principles for Responsible Financing. 11. The American Investment Council's (AIC) Guidelines for Responsible Investing which cover environmental, health, safety, labor, governance and social issues and are explicit and prescriptive regarding what member firms are called to do. 12. The Walker Principles a joint effort led by Sir David Walker and the British Private Equity and Venture Capital Association to craft Guidelines for Disclosure and Transparency in Private Equity. The resulting "Walker Report" made specific recommendations for improving the level of public disclosure,

		including environmental, by private equity firms operating in the UK. 13. The Global Sustainable Investment Alliance composed of the national sustainable alliance bodies of Europe, Australasia, Canada, the UK, the US, the Netherlands and Japan. 14. CDC (a division of the British development finance institution (DFI) and owned by the UK government's Department for International Development (DfID)) which has published a Toolkit on ESG for Fund Managers. Fund Level Requirements In many cases multinational asset managers are also required to comply with ESG requirements imposed at the fund level. Some of these are required by law/regulation. These include the following EU regulations, of relevance in Singapore given the large number of EU domiciled fund structures advised, managed or marketed in Singapore. (Please refer to original response) Similarly fund managers with investment by US ERISA funds regulated by the Department of Labor which on June 23,2020 proposed a new rule relating to the consideration of non-pecuniary factors that would have a pointed impact on the use of ESG factors in the context of investment decisions by fiduciaries of employee benefit plans ("Plans") subject to the Employee Retirement Income Security Act of 1974 . The proposal is designed to make clear that ERISA Plan fiduciaries "may not invest in ESG vehicles when they understand an underlying investment strategy of the vehicle is to subordinate return or increase risk for the purpose of non-financial objectives." The incorporation of ESG principles must occur to ensure the following outcomes:- 1. Elect investment options based solely on pecuniary factors which refers to a decision having a material effect on the risk

		and/or return of an investment based on appropriate investment horizons consistent with the plan's articulated funding policy and the investment objectives. 2. Not put others' interests ahead of plan participants' economic interest. 3. Consider ESG (and other similar non-pecuniary) factors only where investment returns will not suffer and where the Plan will not take on additional risks or higher fees. 4. Determine that ESG (and other similar non-pecuniary) factors present appropriate pecuniary risks and rewards under general investment theories. **Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.** We expect a 12 month period for full implementation of the Guidelines will be very challenging for many asset manager (in particular if the Guidelines apply to smaller managers/VCFMs/RFNCs). There are challenges in the implementation of ESG strategies as highlighted in the previously referenced KPMG study. Our members tell us that it often takes several years to fully implement an ESG framework across investment processed, portfolio management and reporting. (Please refer to original response) Challenges to rapid implementation of ESG frameworks include:- • investment in talent (retraining existing staff or hiring experienced ESG specialists); • drafting of policies and procedures, which often has to be done with the assistance of external experts (thus incurring not insignificant costs)

		• investment in ESG tools such as external datasets, datamining technology and reporting systems; • training of all staff across investments, portfolio operations, finance etc; and • investments in marketing and stakeholder management We would strongly encourage the MAS to take a phased approach over a longer timeline (three to five years being more realistic) so as to not divert an inappropriate amount of asset manager resources to implementation of the Guidelines in a single year.
31	The Alternative Investment Management Association Limited	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** We note that the proposed baseline requirements are in line with global regulatory developments to make Environmental, Social and Governance ("ESG") concerns a central plank of regulation in the financial services industry. While we understand the rationale for the requirements on governance, investment management decision making, risk management and tools and metrics, asset managers are concerned with the practical implications on these requirements. For example, it is unclear whether the Guidelines would mandate specific fund disclosures in the case where the asset manager does not specifically pursue ESG strategies, or for managers managing investments in certain types of products, eg. interest rate futures. It would be helpful if MAS could provide further clarity whether it would be sufficient for an asset manager to provide general explanations that their funds do not pursue ESG strategies, or whether a detailed product-by-product disclosure is required to demonstrate that the relevant fund does not have an express ESG focus.

		For firms that pursue global macro or quant trading strategies, we would suggest that it may be onerous for these firms to have to provide detailed statements as to whether the ESG disclosure requirements do not apply to such funds. Any disclosure obligations should only be applicable for ESG focused products which promote environmental or social characteristics, have sustainable investment as an objective, or has a reduction in carbon emissions as its objective. **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** We agree that the Board has a critical role to play in ensuring proper oversight of ESG risks. The oversight should be informed, strategic and closely aligned with the company's business model and operations to create long term value. To fulfill this responsibility, directors need to be able to understand and evaluate the risks that arise from ESG factors. We note that boards can examine ESG risks in various multi-faceted ways, including but not limited to: - Governance risks: Linking executive compensation to ESG factors, considering diversity of the board, consideration of whether to recruit directors with ESG or climate expertise; - Board approval risks: ESG performance considered as a factor in mergers and acquisitions-related valuations, accessing capital; and - Enterprise risks: Considering fines and penalties arising from ESG violations, the impact of ESG regulations, and ESG based litigation. There may also be a duty of care for the Board to ensure that senior management has consulted all relevant internal and external sources of information about which ESG risks could pose

		a material impact to the company. This evaluation could include consulting cross-organizational management teams, employee surveys, customer feedback, peer benchmarking and shareholder engagement. The Board will need to ask management whether and how the risk identification process surfaces ESG risks in the short, medium and long-term, and how these risks could impact corporate strategy over each time frame. Boards should ask questions about corporate culture and management's degree of openness in sharing concerns, problems and response to mistakes. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.** See our response for Q2 for applicable considerations regarding senior management. **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** See our response for Q2 for applicable considerations. We note that given the coverage and expertise for such a role, a committee may be more well placed for such considerations. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.**

		There remains the question of access to reliable data for asset managers, which is needed in the implementation of their ESG targets or processes as required under the proposed Guidelines. Even where third party ESG experts are engaged, the same data limitations may be faced. We would ask the MAS to provide guidance as to (1) the level of detail of such processes, controls, procedures, actions, goals and targets; (2) how will asset managers be expected to evaluate their performance against such goals and targets. We also suggest that the requirements give flexibility to asset managers, so that quantitative assessment should be optional, and that any regulatory expectations consider the level of maturity and availability of data in the industry. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** See comments for Q5. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** Discretionary authority alone may not be sufficient influence for compliance, where the manager is only a minority shareholder, as it may not have binding impact on corporate behaviour. Some asset managers have also noted the limitations of access to investee companies. Proxy voting may not be relevant to certain hedge fund strategies e.g. those that are not direct equity strategies such as those that use only derivatives which usually do not carry voting rights. In such circumstances, the ability and

		scope for a hedge fund manager to be able to influence investee companies will depend on whether the manager has any access to the investee company. We note that the Guidelines permit asset managers to implement the measures commensurate with their respective business models, size, and particular circumstances. This is essential as asset managers need flexibility and discretion to apply different approaches and considerations as to how climate-related considerations are integrated into the investment management process. Asset managers should be permitted to implement the Guidelines in a way that is commensurate with the size and nature of its activities, including the investment focus and strategy of its funds. Engagement with companies should not be conducted in a tick-box approach. Asset managers should be encouraged to have engagement activities that combine the perspectives of their portfolio managers, analysts and ESG specialists in order to form a rounded and deep opinion of each company. Intervention should be based on the asset manager's understanding of the company and ongoing dialogue with the company. The extent to which the asset manager would be expected to effect change will generally depend on the specific situation, the amount owned by the asset manager, and where the asset manager sits in the capital structure. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** It would be helpful to have more information on the regulatory expectations in relation to disclosure of environmental risk. We note that in the EU, the Sustainable Finance Disclosure Regulation ("Regulation") requires in-scope firms to:

		• publish written policies on the integration of sustainability risks in their investment decision-making process; • make pre-contractual disclosures on how they incorporate sustainability risks in their businesses; • comply with pre-contractual transparency rules on sustainable investments; • publish an online description of the sustainable investments target and information on the methodologies used to assess, evaluate and monitor the effectiveness of investments; • describe in periodic reports the specification of the impacts of sustainable investments by means of relevant sustainability indicators; and • ensure that all the information published on their websites is kept up to date, including a clear explanation of any amendments to the published information. We note that best practices will likely continue to develop in this space as given the scope and applicability of the Regulation to AIFMs, UCITs managers and MiFID firms providing the service of portfolio management. We note that the level of disclosures expected from firms should be commensurate with their respective business models, size, and particular circumstances, as well as best practices in the market. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** No comment. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** No comment.

		Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months. We agree that some asset managers may face considerable initial challenges in implementing the baseline requirements, including in relation to the availability of data and resources, and documentation amendments required. As such we agree that the proposed transitional period will give asset managers more time to prepare.
32	WWF Singapore	**Question 1. MAS seeks comments on the entities and business activities that are in the proposed scope of the Guidelines.** The current wording, "For avoidance of doubt, the Guidelines shall not prohibit or restrict an asset manager from complying with and discharging its fiduciary duties and other legal obligations to its customers," is not clear—is the intention to indicate that 1) the Guidelines are consistent with fiduciary duty, or 2) that asset managers may ignore the Guidelines, if the Guidelines conflict with their fiduciary duties or legal obligations. While there is growing global recognition that robust management of environmental risks and other ESG issues are a key aspect of stewardship and fiduciary duty, we are concerned that asset managers may use fiduciary duty as an excuse to avoid implementing the Guidelines. As such, we believe it is important that MAS be stronger in clarifying that implementation of the Guidelines is consistent with fiduciary duty. WWF Singapore does recognise that these Guidelines would generally be applicable to asset managers that have authority over the investments of funds/mandates that they are managing. However, we do believe that applying these Guidelines – especially as a tool to better understand and identify environmental risks – is not irrelevant to asset managers that do not have discretionary authority over the investments of the funds/mandates. Similarly, we believe asset managers play an

		important role in raising awareness of their clients regarding the management of environmental risks. As such, WWF Singapore recommends that asset managers without discretionary authority be expected to at least engage their clients over the implementation of the Guidelines. This suggestion aligns with the goals of the Guidelines to improve FIs' resilience to and management of environmental risk and in particular, article 2.5: "It is crucial for asset managers to ensure the resilience of their customers' assets against the impact of environmental risk." **Question 2. MAS seeks comments on the proposed responsibilities of the Board in overseeing environmental risk management, including its role in approving the environmental risk management framework and policies.** In general, WWF Singapore agrees that it is key to enforce the Board's oversight of and accountability for environmental risk management. This is in line with good practices, such as the NGFS Guide for Supervisors published in May 2020 (in particular, recommendation #4 on setting supervisory expectations), as well as with the TCFD recommendations. It reinforces the Board's role in providing a clear signal, and tone from the top, regarding the importance of integrating environmental risk throughout the investment cycles. WWF Singapore supports article 3.1's highlighting of the Board's role in approving the environmental risk management framework and policies, as well as the expectation of article 3.3. for the Board to periodically review the adequacy and effectiveness of the environmental risk management framework. Where the Board designates a senior management member or a committee to oversee environmental risk, as described in article 3.3, WWF Singapore recommends to set a clear expectation for the Board to establish communication procedures between the Board and the designated senior management member or committee, including through regular reporting to the Board.

		Notwithstanding these arrangements, the Board and senior management should remain responsible for their respective duties, as set out in section 3.4 and 3.5 of the Guidelines. A critical success factor for the successful implementation of the ERM Guidelines (and the proper management of climate and environmental risks in general), is to ensure that key staff are equipped with the adequate knowledge and understanding of the issues at stake and how they can be addressed in an investment context. This is particularly important for key decision-makers (Board and senior management). As such, while training and capacity building are explicitly addressed in the proposed ERM Guidelines (notably in section 5.7), WWF Singapore recommends to clarify and strengthen the following paragraph: "3.4 The Board [...] is responsible for: c. ensuring adequate Board and senior management expertise and resources for managing environmental risk, including through training and capacity building". In addition, for the Board members to be able to effectively carry out their oversight responsibility, and for key staff to have the right incentives, we believe it is necessary to add the following expectations in the Guidelines: • Formally include sustainability considerations in the Board charter / terms of reference, and • Include sustainability-related criteria in the appraisal and remuneration policy of board members. **Question 3. MAS seeks comments on the proposed responsibilities of senior management in overseeing environmental risk management, including its role in developing an environmental risk management framework and policies, regularly reviewing their effectiveness, and allocating adequate resources to manage environmental risk of the assets managed.**

		WWF Singapore fully supports the clear setting of responsibilities not only for the Board but also for senior management. This is line with good practices, such as the NGFS Guide for Supervisors published in May 2020 (in particular, recommendation #4 on setting supervisory expectations). It is particularly important that the senior management is tasked with ensuring a proper implementation of an asset manager's strategy and environmental risk framework, that it provides regular updates to the Board on environmental risk, and that it allocates resources and ensures appropriate expertise is available. WWF Singapore also recommends that training expectations for senior management are clarified, and that sustainability-related criteria are included in the appraisal and remuneration policy for senior management (please refer to the answers to question #2). **Question 4. MAS seeks comments on the proposal for asset managers to designate a senior management member or a committee to oversee environmental risk, where such risk is material.** WWF Singapore fully supports the need to promote clarity in accountability over environmental risk management and recognise flexibility can be given to asset managers on implementing the accountability mechanisms – a designated senior management member or a committee. However, we do believe that environmental risks such as climate change – defined as an existential challenge and national priority for Singapore – should be considered as material across a broad range of sectors. Given the lack of standardized definition of "materiality", and given the extensive use of this materiality qualifier throughout the Guidelines, we recommend that during the supervision process, asset managers are expected to provide MAS with details on the qualitative and/or quantitative analysis performed

		to determine which risks are material to their investment activities and which are not. MAS would then be able to discuss, and potentially challenge, the asset management firm in order to refine the analysis over time (taking into account new developments, tools, data availability, etc.). Please also refer to the further comments on materiality in the answer to question 9. **Question 5. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to assess the impact of environmental risk at both the individual investment and portfolio level.** WWF Singapore fully supports MAS' expectation for asset managers to measure and manage environmental risk factors at both the individual investment and the broader portfolio levels, and recommends asset managers to: • Use science-based and forward-looking tools. These tools should focus on climate change related impacts such as the PACTA tool (developed by 2Dii), as well as environmental issues beyond climate such as water or deforestation. The tools, leveraging geospatial technology and data, are developing rapidly and include platforms such as the Water Risk Filter (developed by WWF) or Global Forest Watch (developed by WRI). • Set science-based targets. The Science Based Targets initiative (SBTi) is currently finalising the carbon target setting methodology for financial institutions. Methodologies for numerous other industry sectors are available, with more in development. Science-based targets provide companies and financial institutions with a clear and Paris-aligned pathway to reduce their greenhouse gas emissions. As mentioned by SBTi, financial institutions are the vital link in enabling system-wide change as their lending and investing decisions have the power to redirect capital to technologies and solutions compatible with a net-zero economy. WWF Singapore would like to point to a number of useful resources that are available, such as the

		Aligning Finance For One Planet framework (and associated reports accessible through this webpage) as well as a recent report commissioned by the French Ministry for the Ecological and Inclusive Transition and WWF France that provides a comparative assessment of various portfolio-alignment methodologies (The Alignment Cookbook) • Understand the dependencies of industry sectors on natural capital and ecosystem services, using tools such as ENCORE. • Use ESG benchmarks. For passive investors especially, tracking robust ESG benchmarks is an important tool for constructing portfolios that are resilient to environmental risks. We recommend following the developments related to the EU Climate Transition and Parisaligned Benchmarks requirements. The analysis generated by these different tools, complemented by insights from direct engagement with investee companies, can be compiled in internal dashboards that offer a comprehensive view of an asset manager's exposure to certain environmental risks, that can also be broken down by industry sectors and/or geographies. **Question 6. MAS seeks feedback on the examples of tools and metrics that may be used by asset managers to conduct portfolio risk management.** WWF Singapore fully supports MAS' inclusion of scenario analysis in the ERM Guidelines as we believe this is a key tool to evaluate portfolio resilience and measure exposure to climate-related and other environmental risks. We would recommend that MAS provides further guidance on the scenarios that asset managers should use as reference in their analysis - specifying the mention of "conservative and regularly reviewed assumptions" used in article 5.3. This would ensure consistency across the Singaporean asset management industry.

		Asset managers should also include a scenario that addresses a higher level of warming such as 3C or 4C, whilst recognising the limitation of existing climate scenarios. For example, as noted in the recent NGFS guidance report on climate scenarios3, most climate models do not take into account tipping points in the climate system such as the loss of important ecosystems such as coral reefs, meaning that they could be an underestimate of the true impacts of climate change. The tools mentioned in our answer to question 5 are also relevant for the purpose of portfolio risk management. **Question 7. MAS seeks comments on the expectation for assets managers to engage investee companies to manage the impact of environmental risk and support their transition towards sustainable business practices.** Active ownership is key to manage environmental risks efficiently. As included in the Guidelines, asset managers should exercise sound stewardship through engagement, proxy voting and sector collaboration. WWF Singapore believes the following elements are also key to sound stewardship and should be considered by asset managers when exercising active ownership: • Monitoring of portfolio companies' environmental risks and performance (as already highlighted in 5.1); • Setting robust expectations for portfolio companies – which reference internationally multistakeholder science-based standards and frameworks where possible – and track portfolio companies' implementation of these expectations; and • Defining time-bound plans when companies fall short of expectations, as well as an escalation mechanism for addressing situations where companies are not responsive to bilateral engagement. This can include collaborative engagement, as mentioned in 6.3, but could also include additional measures such as voting, shareholder resolutions and divestment.

		We propose that asset managers should not only establish, but also disclose their process to prioritise issues and companies for engagement. **Question 8. MAS seeks comments on the proposed form of disclosure of environmental risk by an asset manager.** WWF Singapore fully supports the need for asset managers to disclose their approach to managing environmental risks and the potential impact of material environmental risk on the assets they manage, including quantitative metrics. It is also encouraging to see clear expectations for asset managers to use the TCFD recommendations as the reference for their climate-related disclosures. The number of institutions supporting the TCFD recommendations is continuously growing and there are increasing calls to make TCFD reporting mandatory, especially as countries strengthen their climate commitments ahead of COP26. We also believe asset managers should disclose: • Policies or expectations for companies in high risk sectors (e.g. coal, oil & gas, mining, agriculture, etc.), as well as any sectors or activities that they do not support (exclusion principles) • Policies covering their approaches to responsible investment, engagement and voting; • Progress on engagements made across their portfolios; • Voting records; and • Updated list of holdings. We believe the above disclosures are important transparency measures that will help asset managers' customers and other stakeholders better understand how asset managers are addressing environmental risks and discharging their fiduciary duty as stewards.

		We believe disclosures should be provided regularly and at least on an annual basis to align with the reporting cycle of industry-wide initiatives such as PRI. **Question 9. MAS seeks comments on any aspects of the Guidelines that have not been covered in earlier questions.** Throughout the Guidelines terminology such as “where relevant” or “where material” is used. Hence, WWF Singapore recommends that the Guidelines include a definition of materiality and guide asset managers to carry out robust materiality analysis (alternatively, such guidance can be provided separately). During the supervision process, MAS can also consider requiring asset managers to provide details on the qualitative and/or quantitative analysis performed to determine which risks are material to their investment activities and which are not. MAS would then be able to discuss, and potentially challenge, the asset management firm in order to refine the analysis over time (taking into account new developments, tools, data availability, etc.). WWF Singapore would recommend referring to the double materiality perspective highlighted in the EU Non-Financial Reporting Directive (mentioned in these guidelines from the European Commission, starting p6), looking both at the material impacts of environmental risks on the asset manager, and at the material impacts of the asset manager on the environment (e.g. through its investments). In particular, it is important to note the following text: “the two risk perspectives already overlap in some cases and are increasingly likely to do so in the future. As markets and public policies evolve in response to climate change, the positive and/or negative impacts of a company on the climate will increasingly translate into business opportunities and/or risks that are financially material.” Therefore, both perspectives on risk and materiality are important to consider for robust

		environmental risk management and asset managers should be encouraged to consider both. Further resources on materially include: • the SASB Materiality Map ® which identifies "sustainability issues that are likely to affect the financial condition or operating performance of companies within an industry", or • GRI Universal Standards (GRI 101: Foundation) which defines material topics that reflects an "organization's significant economic, environmental and social impacts; or that substantively influences the assessments and decisions of stakeholders." • The report published by the Climate Disclosure Standards Board on Materiality and climate-related financial disclosures. Suggested wording changes when defining environmental risks For clarity purposes, we recommend making the following changes in the 2. Scope section of the Guidelines. For paragraph 2.1 (current wording): "Environmental risk arises from the potential adverse impact of changes in the environment on economic activities and human well-being." Suggested wording: "Environmental risk refers to the potential adverse impact of environmental issues on asset managers and their portfolio companies." For paragraph 2.2 (current wording): "Environmental risk poses potential financial impact to funds/mandates managed by asset managers (refer to Diagram A for an illustration), through physical and transition risk channels" Suggested wording: "Environmental risk translates into potential financial and reputational impact to funds/mandates managed by asset managers through various transmission mechanisms

		(refer to Diagram A for an illustration). Environmental risks are typically classified as either physical risks or transition risks." In addition, WWF Singapore recommends that the structure of this section on the impacts of environmental risks follows a structure similar to that of the Guidelines for Banks and Insurers (i.e. with a paragraph on physical and transition risks, followed by another paragraph explain how environmental risks can translated into credit, market, liquidity and/or operational risks. Diagram A To clarify the risk transmission channels, WWF would recommend replacing Diagram A by more detailed figures 1 &2 in the NGFS Guide for Supervisors (May 2020, p.13). Social risk management As a next step, WWF Singapore strongly recommends that MAS develops and implements similar guidelines / supervisory expectations for the management of social risks. **Question 10. MAS requests for examples of sound risk management practices currently implemented by asset managers, which would meet the expectations in the Guidelines.** WWF has developed the RESPOND tool (Resilient and Sustainable Portfolios that Protect Nature and Drive Decarbonisation), that assesses and tracks progress on the integration of environmental & social considerations by a number of international asset managers with significant investments in Southeast Asia. The detailed assessment results (accessible after free registration to the platform) allows the identification of asset managers that score positively on each indicator, thereby highlighting good practices. Links to the source of information are provided.

		Question 11. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months. WWF Singapore recommends adding a description of how MAS will ensure the proper implementation of the Guidelines by the asset managers. Additionally, WWF Singapore believes that in any case where asset managers consider the Guidelines not to be applicable or feasible they should be required to provide a justification. While we understand the increased supervisory workload this would entail, such a measure would help MAS to better understand the extent to which the Guidelines are being adopted, and any implementation challenge faced by the industry. WWF Singapore believes that a 12-month period is a reasonable and realistic transition period, given that: • Singaporean asset managers are increasingly signing-up to the UNPRI (24 asset managers are signatories); • International asset management firms with offices in Singapore have already been able to develop robust E&S risk management policies in place; and • The COVID-19 crisis has largely highlighted the impacts of systemic environmental risks and increased the need for robust risk management policies. WWF and its knowledge partners under the Asia Sustainable Finance Initiative stand ready to provide further support to MAS and asset managers based in Singapore in the implementation of these Guidelines and related sustainable finance topics.

Monetary Authority of Singapore