



Financial Reporting Advisory Board Sustainability Reporting Update (FRAB-SSC 07)

Issue:	The paper sets out the FRAB Sustainability Subcommittee’s (FRAB-SSC’s) recommendations from the March 2024 meeting and asks for the Board’s approval to publish the Task Force on Climate-related Financial Disclosure (TCFD) -aligned disclosure Application Guidance (the ‘AG’) for Phase ¹ 2.
Impact on guidance:	The AG will be published on GOV.UK and will impact the FReM. Relevant signposting has been included in FReM 2024-25.
IAS/IFRS adaptation?	No IAS/IFRS adaptations are proposed in this paper.
Impact on WGA?	There is no immediate impact on WGA in the paper. Advice on climate- and sustainability-related reporting may impact WGA’s performance reporting in the future.
IPSAS compliant?	The TCFD recommendations and guidance align with the International Sustainability Standards Board’s (ISSB’s) <i>IFRS-S2 Climate-related Disclosures</i> . IPSASB are using IFRS-S2 as the basis for developing their Climate Exposure Draft.
Interpretation for the public sector context?	No IAS/IFRS interpretations/adaptations are proposed in this paper. The AG interprets/adapts the TCFD recommendations in a public sector context.
Impact on budgetary and Estimates regimes?	N/A
Alignment with National Accounts	N/A
Recommendation:	The Board are invited to comment on the papers, and are asked to approve the AG.
Timing:	Approval at this meeting - for prompt publication on GOV.UK in early 2024-25 (the financial year to which the application guidance applies) and subsequent use by annual report preparers.

¹ With the agreement of FRAB, HM Treasury has set out a three-year phased implementation approach for TCFD-aligned disclosure in central government – refer to Appendix 1 in [FRAB 149 \(13\)](#) - with:

- Phase 1 (for 2023-24 financial year) – for the Governance recommended disclosures, as well as the scope, concepts and principals to application.
- Phase 2 (for 2024-25 financial year) – for the Metrics and Targets and Risk Management recommended disclosures.
- Phase 3 (for 2025-26 financial year) – for the Strategy recommended disclosures.

Background

1. This paper follows the last FRAB meeting and accompanying paper, [FRAB 151 \(09\)](#) in November 2023, where the Board approved the TCFD-aligned disclosure Exposure Draft for Phase 2 (the 'ED'). The ED consultation responses were used to develop the final TCFD-aligned disclosure Application Guidance for Phase 2 (the 'AG'). Refer to Appendix 1a (final version of the AG – refer to [GOV.UK](#) with minor drafting changes from FRAB included) and Appendix 1b (tracked changes version from the ED).
2. At FRAB-SSC 07 on 7 March 2024, the Subcommittee discussed the consultation responses, and the proposed updates, before agreeing to recommend that FRAB review and approve the AG.
3. The Government Actuary Department (GAD) also presented to the Subcommittee advice on approaches for climate scenario analysis which will be used in the development of application guidance for Phase 3. The Subcommittee provided initial views and requested that further analysis and options be provided.
4. GAD will join FRAB for this agenda item to discuss their report/advice on climate scenario analysis – refer to Appendix 2 - and answer any questions from Board members. *To facilitate discussions at FRAB, HMT and GAD utilised summary slides on the proposals for scenario analysis, with additional detail on time horizons and scenario assumptions/definitions. These have been added as [Annex 4](#) for completeness.*
5. The associated papers and minutes for the FRAB-SSC 07 meeting have been included in this paper – refer to [Annex 1](#) and [Annex 2](#) respectively.

Summary and recommendations

TCFD-aligned disclosure Application Guidance for Phase 2

6. The ED consultation ran from 19 December 2023 to 26 February 2024. Nine formal responses were received, including from ministerial (2) and non-ministerial departments (1), arm's length bodies (2), devolved executive agencies (1), professional institutes (2) and a public sector training association - *removed respondent details from published version*. Phase 2 disclosure requirements were presented and discussed at two TCFD training events (partnering with PwC) during the consultation/review period. HMT discussed the formal responses with the TCFD Technical Working Group (TWG) – comprised of cross-public sector annual report preparers and technical experts.
7. FRAB-SSC was content with the level of engagement and affirmed that the respondents' feedback had been addressed.
8. HMT's proposed changes to the application guidance to address feedback include the following:
 - changes to the guidance on scope for central government arm's length bodies. Specifically, the size threshold has been changed to include grant-in-aid and other funding when considering the total operating income (exceeding £500 million). This is relevant for ALBs that rely on their sponsor departments for income rather than from sales of goods and services.
 - the guidance on whether an entity falls into TCFD's sector and industrial group guidance has been clarified.

- a table and flow chart has been added to aid preparers in identifying reporting requirements depending on whether climate is a principal risk.
 - the guidance on reporting boundaries for qualitative and quantitative disclosures has been clarified - with a focus on entity-level reporting (rather than group-level reporting) for the latter.
 - the guidance on assurance procedures has been simplified.
 - high-level guidance on reporting climate-related opportunities, integrating existing performance reporting principles has been introduced.
9. Overall, all respondents supported the approaches for the TCFD framework's interpretation and adaptation, and proposed application guidance. Accordingly, no fundamental changes have been proposed by HMT to the underlying requirements or approaches.
10. The proposed changes have been discussed with the TCFD-TWG, who were supportive of the changes. FRAB-SSC were content with the proposed AG.

FRAB-SSC recommends that the Board approve the TCFD-aligned disclosure Application Guidance for Phase 2 (Appendix 1a and 1b). Do you agree?

Climate scenario analysis for Phase 3

11. Phase 3 of TCFD-aligned disclosure focuses on Strategy, emphasising scenario analysis where organisations assess their Strategy's resilience to various climate scenarios, including a 2°C or lower scenario. TCFD guidance directs organisations to consider risks related to transitioning to net zero and heightened physical climate risks. Organisations should also evaluate how climate issues could impact financial performance, position and planning, detailing associated scenarios and timeframes.
12. HMT commissioned GAD to analyse government guidance and scenario analysis practices, proposing options for applying scenario analysis in Phase 3 guidance. GAD have modelling expertise and TCFD-related experience with existing customers, which are relevant to these disclosure requirements. GAD's report and advice on climate scenario analysis (Appendix 2) were discussed by the Subcommittee.
13. GAD's proposed approach, which is supported by HMT, requires setting more detailed requirements for climate scenario analysis beyond TCFD's high-level recommendations. This is to encourage consistency across the public sector, support preparers in implementation and improve comparability. In GAD's view, it is better for preparers to use their resources to analyse and understand the impacts of different climate scenarios on their organisations, rather than try to define the climate scenarios themselves.
14. Generally, the Subcommittee agreed with GAD's proposed approach and supported standardization and clear guidance, to simplify the climate scenario analysis process, where possible. Balancing simplicity with usefulness in setting assumptions was highlighted. The Subcommittee discussed the usefulness of providing key central assumptions and principles in application guidance for climate scenario analysis, while also acknowledging the potential difficulty in providing these, given the inherent uncertainty and complexity in predicting future government policies and other areas relating to climate change.
15. The Subcommittee discussed defining climate- (e.g., temperature, sea-level) and transition- (e.g., switching to new technologies) driven scenarios, with a consensus on the importance of both. However, the Subcommittee acknowledged that transition-driven scenarios posed challenges due to their subjective nature and uncertainties surrounding government policy responses. There were also mixed views on whether and how time horizons should be defined in application guidance for climate scenario analysis, with specific suggestions given for how

to define different time frames and also more general discussion on the practical implications and complexities of different timeframes.

16. The Subcommittee requested that HMT provide them with further options for climate scenario analysis focused on:

- General assumptions and principles for the scenario analysis (e.g., transition-vs-physical focus, government policy, etc.)
- Time horizons

17. A further FRAB-SSC meeting will be scheduled in April/May 2024 where HMT will provide these more detailed options for the Subcommittee. HMT will then develop the Exposure Draft for Phase 3, taking into account the feedback given by the Subcommittee at the next meeting. HMT plan to present this application guidance for FRAB's approval at the June meeting.

18. Any FRAB members who wish to participate in the further discussions around options for climate scenario analysis application guidance should inform HMT as secretariat so they can be invited to the next FRAB-SSC meeting.

HMT and GAD welcome early comments and views from the Board on GAD's climate scenario analysis advice and report (Appendix 2), which can be considered when developing options for the Subcommittee and the eventual Exposure Draft for Phase 3 guidance.

Annex 1 – *for reference only*

Meeting paper (FRAB-SSC 07)

Where sections of the subcommittee paper have been incorporated into the covering paper - they have not been duplicated here. Subsequent clarifications/updates to this paper, after the Subcommittee meeting have been included in italics.

Summary and updates

Background

1. This paper is for the FRAB–SSC meeting on 7 March 2024. This paper follows on from the last FRAB meeting and accompanying paper, [FRAB 151 \(09\)](#), in November 2023, where the Board approved the [TCFD-aligned disclosure Exposure Draft for Phase 2 \('the ED'\)](#). The ED set out the recommended disclosures for the Risk Management and Metrics and Targets pillars, as well as provided additional detail on the scope, remit, and broader considerations for disclosures.
2. This paper updates members on the sustainability reporting landscape, summarises the responses and proposed changes to the ED, and lays out high-level options for the Subcommittee concerning the TCFD-aligned disclosure for Phase 3.

Updates

Private Sector Developments

True and Fair Requirement

3. Social Value International (SVI), a global network advocating for social value and impact management, commissioned George Bompas, KC to give a new legal opinion on *to what extent, if at all, must directors and auditors consider whether, in order to satisfy the True and Fair Requirement (TFR), sustainability related information set out in International Sustainability Standards needs to be disclosed in accounts, as an additional disclosure*. The opinion asserts that UK company directors have a duty to consider and incorporate relevant sustainability issues into their financial statements to present a true and fair view of their company's position.
4. The TFR in financial reporting is a legal concept, with courts responsible for determining compliance. It is dynamic, evolving with time and circumstance, requiring directors and auditors to exercise judgment. TFR stands apart from accounting principles, imposing a duty on directors and auditors to ensure accounts provide an accurate view of a company's financial status. While compliance with accounting standards is important, it doesn't guarantee meeting TFR; additional disclosures may be necessary, especially regarding sustainability-related matters.
5. Directors and auditors must consider the relevance of sustainability disclosures in meeting TFR. The emergence of standards like IFRS-S1 and S2 aids in identifying and addressing these impacts. Directors are expected to actively engage with sustainability information, applying an enquiring mind and making further inquiries if necessary. As sustainability reporting gains importance, directors and auditors must consider its impact on financial statements, ensuring compliance with TFR.

UK Public Sector Emissions Measurement, Reporting and Target-setting approaches

6. The Department for Energy Security and Net Zero (DESNZ) has started a research project² to consider different public sector emissions monitoring, reporting and target-setting approaches, and what their purposes are. The project will consider other existing or planned emissions reporting policies, and the evolving wider landscape of emissions reporting initiatives. Academic researchers are interviewing stakeholders (e.g., standard setters, policy leads and experts) from across the public sector, as well as conducting a desk-based review.
7. The aim is to develop further emissions monitoring and reporting guidance to build on existing support for public sector organisations in England. This is to enable the public sector to achieve its decarbonisation goals, particularly for sites across the UK, which managed by central government. The resultant guidance is expected in 2025.
8. While developing the new guidance, DESNZ will continue working closely with Defra and HMT to harness synergies, and consider consolidation and alignment with existing reporting requirements, where appropriate, to deliver coherent and consistent emissions monitoring and reporting policy for the public sector.

International Standard Setters and Regulation

International Sustainability Standards Board

9. The ISSB published amendments to the Sustainability Accounting Standards Board (SASB) Standards, enhancing international comparability to facilitate the application of IFRS-Ss. The incorporation of SASB Standards in IFRS-S1 supports preparers to consider SASB industry-specific topics and metrics in the absence of a specific IFRS-S Standard, and the incorporation of SASB Standards in IFRS-S2 supports preparers to provide industry-specific disclosures.
10. The Department for Business and Trade (DBT) continues with the endorsement process for IFRS-Ss and the incorporation into UK Sustainability Disclosure Standards (UK SDSs). In August 2023, DBT set out aims to publish UK SDS by July 2024 – however, there have not been further announcements, even as the target date is fast approaching.

European Sustainability Reporting Standards

11. The European Union (EU) agreed to a 2-year delay in adopting sector-specific European Sustainability Reporting Standards (ESRS)³, originally set to be required in 2024. This responded to corporate feedback, allowing listed SMEs to focus on implementing sector-agnostic ESRS, which was introduced in July 2023. Furthermore, the EU has also agreed to a 2-year delay to the non-EU ESRS, applying to overseas companies operating in the jurisdiction - from 2026 to 2028. As well as reducing reporting obligations, this allows EFRAG time to develop sector-specific ESRS.

Global Reporting Initiative

12. GRI has published Exposure Drafts⁴ (EDs) for Climate Change and Energy with a consultation period closing on 29 February 2024. While the Climate Standard aligns closely with the ESRS-

² www.gov.uk/government/publications/public-sector-emissions-monitoring-and-reporting-guidance/public-sector-emissions-monitoring-and-reporting-guidance-timeline

³ www.europarl.europa.eu/news/en/press-room/20240122IPR17036/sustainability-reporting-meps-agree-with-later-adoption-of-standards

⁴ www.globalreporting.org/standards/standards-development/project-for-climate-change-standards/

E1 Climate Change, significant differences remain on other topics and the materiality assessment process.

International Public Sector Accounting Standards Board

13. IPSASB continues to draft a Climate-related Disclosure ED. The exposure draft updates:

- differentiate between policy implementers and policy setters;
- add significantly more detail on Governance, Risk Management and Strategy related disclosures – with Metrics and Targets to be addressed in the upcoming period;
- develop and incorporate more detailed application guidance to support preparers;
- add more definitions aligning with IFRS-S2 as well as other areas (e.g., national and international agreements);

14. The ED remains closely aligned with IFRS-S2, while incorporating some GRI's concepts, including - impacts referring to *the effects an entity has on climate as a result of its activities or relationships, which in turn have or could have an effect on the economy, environment and people, as a result of the entity's activities or relationships.*

Task Force on Climate-related Financial Disclosure (TCFD) implementation in UK public sector

TCFD-aligned Disclosure Application Guidance – Phase 1

15. Feedback so far on Phase 1 has been positive. HMT has continued with its efforts to offer training on the topic (e.g., ICAEW hosted an event for FDs, PwC for a wider central government audience). Announcements on TCFD-aligned disclosure (e.g., Launch of Phase 2 Exposure Draft consultation, FRAB Position Statement on One Finance) have included the reference to new requirements for 2023-24, as well as direction in the FReM and PES paper on annual report and account (ARA) preparation. Refer to [Annex 3](#) for reference.

TCFD-aligned Disclosure Exposure Draft – Phase 2

Technical Working Group

16. HMT has chaired the third TCFD-TWG meeting on 5 March 2024, where the group discussed the consultation responses for the Phase 2 ED, the resulting proposed changes for the application guidance, and the proposed options for scenario analysis prepared by GAD. A brief oral summary of discussions at TCFD-TWG 03 will be provided separately.

Early adoption pilot

17. HMT launched the early adoption pilot for TCFD requirements for 2023-24 annual reports and accounts (ARAs). The objective of the pilot is for more ambitious and technically able departments to engage with the requirements early to identify challenges, which can be addressed collaboratively, before updating and improving guidance and training for the rest of the sector. Pilot departments will adopt Phase 1 and 2 requirements in 2023-24, and Phase 3 requirements in 2024-25. The following departments are taking part in the early adoption pilot:

- The Ministry of Defence (MoD),
- Ministry of Justice (MoJ),
- HM Revenue and Customs (HMRC),

- the Department for Education (DfE) – *DfE withdrew from the pilot in mid-March 2024 post circulation of papers*; and
- The Government Actuary Department (GAD)

18. These early adopters are involved in the TCFD-TWG, and have fed in views throughout the development of the application guidance.

Exposure Draft

19. As previously agreed by FRAB, the TCFD application guidance is additive with future phases incorporated into the existing guidance and published in updated versions.

20. The Phase 2 ED consultation closed on Monday 26 February 2024. In total, nine formal responses were received.

removed detail on respondents for publication

21. While the number response of responses was relatively low compared to similar consultations (for example, the implementation of a new IFRS standard), there was broad representation from across the sector - including larger ministerial and non-ministerial departments, ALBs, other public sector bodies, including partner organisations, and external experts, including professional and training institutions. Many TCFD-TWG participants provided detailed feedback on the drafts that were initially circulated, prior to the ED's publication, and subsequently did not formally respond to the consultation. Verbal feedback at training events held since publication of the ED has been positive, and there has also been more engagement on the Phase 1 application guidance (e.g., queries from preparers) which has helped inform the development of Phase 2.

22. Of the formal responses, all were supportive of our overall approach to adopt TCFD-aligned disclosure in public sector annual reports, as well as the individual interpretations and adaptations proposed for the Risk Management and Metrics and Targets recommended disclosures. The consultation responses have been included in Annex 1a, alongside our views and resulting changes to the guidance. The following table summarises the significant changes for the Subcommittee to consider and provide views on:

Details of change	Location	Reason
total operating income and funding received (including grant-in-aid) exceeding £500m;	Amended Para. 1.20	To scope in income received from grants, when considering the size threshold for central government bodies adopting TCFD-aligned disclosure, given that many public sector bodies are primarily funded from grants rather than operating income
Assessment for sector-specific and industrial groupings should consider: <ul style="list-style-type: none"> - Relative importance of associated risks for these operations, compared to other risks - Relative size of specific operations, compared to overall operations 	Added para. 1.26	Clarification on the considerations for assessing whether or not a reporting entity falls into TCFD's sector and industrial group guidance.

- Responsibility and influence for policy setting		
Introduced flow chart element to identify requirements when climate is (and isn't) a principal risk	Modification of Figure 1.3 and addition of text boxes in Chapter 4	Clarification over reporting requirements when climate is (and isn't) a principal risk.
Introduced separate discussion of reporting boundaries for reporting on performance aspects (e.g., climate risk reporting) and quantitative disclosures (e.g., emissions reporting, impacts on financial planning)	Added Para. 1.73 to 1.77	While consultation responses were supportive of the broader considerations (e.g., impacts on the environment, economy and public) and risks reporting for the overall departmental group, they noted that extending this to quantitative elements would not be feasible and these types of disclosures should be at an entity level.
Moved reference to ISA 720 and negative opinion into a footnote	Amended 1.78 and 1.79	Respondents requested simplified (and less technical) language within the assurance procedures section.
Introduced high-level guidance on reporting climate-related opportunities, utilising existing FReM performance reporting principles (fair, balanced, understandable)	Added para. 4.17 and 4.18	Consultation responses noted that Chapter 4 should include some details on climate-related opportunities to ensure they were considered while addressing the Risk Management recommended disclosures (and not siloed until Phase 3).

23. The ED has been updated for the proposed changes - in Annex 1a – and finalised into TCFD-aligned disclosure Application Guidance for Phase 3 – refer to Appendix 1a and 1b.

FRAB-SSC to discuss the proposed changes (listed above) and provide views. Does FRAB-SSC recommend HMT finalise the application guidance (based on consultation responses and any Subcommittee comments), and take to the TCFD-aligned disclosure Application Guidance for Phase 2 to the Board for approval?

TCFD-aligned Disclosure Exposure Draft – Phase 3

Climate scenario analysis

24. Phase 3 of the TCFD-aligned disclosure will focus on the Strategy pillar, including recommended disclosures (c) on Scenario Analysis which requires reporting entities to *describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario*. The supporting guidance from TCFD requires organisations to consider risks related to the transition to net zero, and where relevant to the organisation, scenarios with increased physical climate-related risks. In addition, organisations are expected to consider the potential impacts climate-related issues on the financial performance and financial position, as well as describe the associated scenarios and time horizons.

25. HMT commissioned the GAD to conduct an analysis of existing government guidance, and scenario analysis practises, and set out options for applying scenario analysis to Phase 3 application guidance.
26. In producing the analysis, GAD considered the current TCFD guidance on scenario analysis, met experts across government departments and ALBs (DESNZ, Met Office, Climate Change Committee, Office for Budget Responsibility, Defra) and met early adopters of TCFD-aligned disclosure (UKEF, MOD, MOJ, HMRC).
27. GAD identified eight factors that feed into climate scenario analysis and set out our recommendations around the guidance for each of these factors, summarised below and covered in detail throughout an accompanying report – refer to *Appendix 2 Advice on Climate Scenario Guidance*. We have also included our views on some other general considerations and background information that could be taken into account in drafting the scenario analysis and wider Strategy guidance for entities.
28. GAD’s analysis includes existing government guidance from the DWP and Department for Business, Energy & Industrial Strategy (BEIS) (now DESNZ) alongside GAD’s experience in delivering occupational pension scheme disclosures and best practices in the market. It advises on various aspects of climate scenario analysis - including the type of scenarios to consider (orderly, disorderly transition), the frequency of climate scenario analysis, narrative suggestions for each scenario, and key metrics (e.g., temperature rise, and GDP levels) for consistent application. Additionally, it outlines time periods for analysis (short-, medium-, and long-term), consideration for the transitional and physical risks faced by the government and wider public sector, and guidance on assessing the materiality of risks or opportunities for each department. GAD’s detailed assessment and advice on climate scenario analysis has been included in Appendix 2.
29. GAD advice from the executive summary is as follows:
 1. **Scenario definition:** Scenarios for physical risk will be defined centrally by HMT, either by referring to particular SSP-RCP combinations, or temperature pathways (2 and 4 degrees by the end of the century). Transition scenarios are to be defined by entities if relevant.
 2. **Scenario provider:** IPCC SSP-RCP scenarios will form the base for physical risk analysis, providing information relating to emissions (and associated temperature rise) and socioeconomic development for different levels of temperature rise. Met Office data (currently the most up-to-date of which is the UKCP18 and UK SSP) provides UK-specific downscaled climate metrics following SSP-RCP scenarios so this will be useful for entities.
 3. **Scope of analysis:** Analysis will cover full departmental operations.
 4. **Timeframes:** Short, medium and long timeframes will be considered. Specifically for scenario analysis, it is recommended that the following timeframes are included:
 - Short – to be defined by the entity in line with their business planning cycle
 - Medium – 2050
 - Long – end of century
 5. **Frequency of updating analysis:** Scenario analysis will be updated every 3 to 5 years, or more frequently if there are any significant developments or events that mean the assumptions used are no longer suitable.
 6. **Number of scenarios:** All entities will consider one low physical risk scenario (2-degree aligned) and one high physical risk scenario (4-degree aligned). Where

- entities have a material exposure to transition risk, they can consider low/high transition risk scenarios as appropriate.
7. **Quantitative or qualitative:** Quantitative scenario analysis is preferred and recommended.
 8. **Entity on climate impact:** The impact of climate risks and opportunities on the entity will be the main focus of the scenario analysis. The impact of the entity on climate risks and opportunities can be considered but will likely need to be qualitative.
30. Preliminarily HMT supports GAD's advice and would propose using the following principles in the upcoming Phase 3 guidance for scenario analysis (we will present a draft of this guidance to the Subcommittee in June ahead of the June FRAB meeting).
1. **Scenario definition:** HMT to centrally define scenarios using SSP-RCP combinations and temperature pathways, while allowing reporting entities the ability to diverge from these central scenarios, where appropriate, with an explanation (e.g., regulatory requirements, policy remit).
 2. **Scenario provider:** HMT to use IPCC SSP-RCP scenarios – as they are the most common and are consistent with other frameworks that already exist across the UK public sector (e.g., National Adaption Programme under the UK Climate Change Act 2008).
 3. **Scope of analysis:** Guidance to state that scenario analysis will include the full reporting entity's operations.
 4. **Timeframes:** Specific question for the Subcommittee, see below
 5. **Frequency of updating analysis:** Guidance to state that scenario analysis is updated every 3-5 years to maximise alignment with timeframes for political cycles, spending reviews and updates to models and cross-government climate risk reporting framework.
 6. **Number of scenarios:** Guidance to instruct preparers to utilise 2°C (low physical risk) and 4°C temperature (high physical risk) based scenarios, with the ability to diverge with appropriate explanation where necessary (e.g., regulatory requirements). This aligns with most existing climate-related reporting frameworks for public sector bodies.
 7. **Entity on climate impact:** Guidance to instruct preparers to focus on climate-related risks and opportunities on the entity and a encourage quantitative assessment of impacts of the entity on the environment, economy and public where possible.

Does FRAB-SSC provisionally support the development of TCFD-aligned disclosure application guidance for Phase 3, in line with GAD's advice and supported by HMT?

Time horizons for climate scenario analysis

32. HMT is seeking views from the Subcommittee around how prescriptive the Phase 3 guidance should be in defining time horizons for climate scenario analysis.
33. GAD proposed time horizons are defined as follows:
 - short-term is defined by the entity in line with their business planning processes
 - medium-term is 2050
 - long-term is the end of the century

34. GAD notes the advantages of incorporating a degree of flexibility in establishing time horizons, encompassing both short and long-term perspectives. However, given the significance of 2050 as a pivotal date (e.g., in the Climate Change Act 2008 and the UK's Net Zero commitment period), the proposed time frames are longer compared to those typically seen in the private sector (aligning with the nature of governmental).
35. By delineating specific timeframes for scenario analysis, there is enhanced potential for comparability across reporting entities, as opposed to allowing each entity to select its own timeframes. While the risk profiles of various entities (and even within the same entity) may differ, adhering to predefined timeframes enables reporting entities to assess their exposure to a spectrum of climate-related risks and opportunities over a sufficiently extensive horizon for those risks to manifest, particularly in the case of physical risks.
36. Time horizons are not defined in TCFD's implementation guidance, which notes:

The Task Force is not specifying time frames for short, medium, and long term given that the timing of climate-related impacts on businesses will vary. Instead, the Task Force recommends preparers define time frames according to the life of their assets, the profile of the climate-related risks they face, and the sectors and geographies in which they operate.
37. Short, medium and long-term planning horizons are used for strategic decision-making. These are not specifically defined in comparable standards (e.g., IFRS-S2, UK government guidance for private companies), or in the Orange Book, the government's risk reporting guidance.
38. There are examples where HMT has defined time horizons in other financial reporting guidance. For example, the general provisions discount rate defines the following time horizons for discount rates: short-term – up to and including 5 years from the year-end; medium-term – 5 to 10 years from year-end; long-term 10 to 40 years from the year-end date; and very-long term – more than 40 years. However, this is internal guidance to assist in the underlying calculations for discounting provisions – and is not presented in the annual reports and accounts.
39. There are clear benefits associated with defining time horizons, primarily in assisting comparability of scenario analysis across the UK public sector and the simplification of requirements for accounts preparers. In addition, the short-term planning horizons for strategic decisions are likely to be relatively similar across the public sector (e.g., political cycles, funding and budget-setting periods). Medium and long-term planning horizons often align with the UK national and international commitments (e.g., Net Zero by 2050 and The Paris Agreement). Existing climate reporting frameworks (e.g., Adaption Reporting Power (ARP)) sets similar time horizons for reporting entities (reporting outside of annual reports).
40. There are also disadvantages associated with setting specific time horizons. Reporting entities lack the flexibility to define their own time horizons. For example, some departments and the nation of Scotland have set their own more ambitious Net Zero target (e.g., Net Zero by 2045). Additionally, setting a specific time horizon could be seen as infringing on an organisation's internal risk management, particularly when central time horizons do not align with internal risk management time horizons. However, the guidance could make it clear these time horizons are only required to be used in the reporting context and would not directly force changes on an organisation's own internal risk management procedures.
41. HMT supports GAD's proposal to define time horizons for comparability. However, adding a further category for "very long-term" - and shifting short-, medium- and long-term

leftwards - may improve alignment of time horizon terminology with the existing internal risk management processes (where long-term is likely to be much earlier than end of the century). In addition, short- and medium-term could then be defined by the entity in accordance with their business planning processes.

Does FRAB-SSC support:

- *Not defining short-term time horizons, but defining medium (as 2050) and long-term time horizons (as end of the century) in the TCFD-aligned disclosure application guidance?*
- *The potential addition of a 'very-long term' time horizon (as end of the century), and re-defining long-term (as 2050) (and medium- and short- term not being defined in the application guidance).*

Subcommittee membership

31. The Subcommittee previously asked HMT to consider broader representation on the subcommittee with a more diverse set of sustainability reporting experts to ensure the group composition was proficient in advising on the agreed objective and remit.
32. TCFD-aligned disclosure was supported by FRAB because of its strong financial focus, and close alignment with the Board's existing remit. To remain aligned with the FRAB-SSC terms of reference, Appendix 1 [FRAB 145 \(16\)](#), HMT plans to utilise the existing authority for inviting technical experts, as they have done with the Government Actuary Department (GAD), to address specific technical topics related to TCFD-aligned disclosure to develop guidance.
33. FRAB, with its diverse representation from across the UK public sector and technical expertise, is well placed to monitor developing sustainability standards, as there is significant overlap with standard setting for annual reports, which is usually overseen by finance professionals. However, future decisions and commitments on UK public sector sustainability standards would likely to be a policy decision. This may require broader stakeholder representation compared to FRAB membership. Policy decisions may be driven by other government departments. Furthermore, devolved administrations and relevant authorities take very different approaches to sustainability standard setting with different reporting channels. The devolved administration has authority over this space.
34. In summary, HMT do not recommend making any formal changes to the subcommittee at this time while we are focussed on implementing TCFD requirements, but will work with additional stakeholders as necessary when the time comes to decide on the implementation of any additional sustainability standards.

Annex 1a- Consultation responses

Consultation response	1 Overview	Action
<i>Question 1. Is the guidance on 'Primary users and materiality' sufficiently clear? Does the guidance on materiality and broader considerations adequately set out the boundary considerations for disclosure? If not, what further detail should be added?</i>		
<i>Overall respondents agreed that the section on 'Primary users and materiality' was clear, and that guidance on materiality and the broader considerations was set out appropriately, noting a few areas (below) for clarification.</i>		
Primary users	<p>Almost all respondents agreed that the guidance on primary users was sufficiently clear.</p> <p>One respondent queried the appropriate primary user, where a company is owned by central government.</p>	The ED guidance on primary users for central government, is in line with FReM principles, with Parliament designated the primary user.
Materiality assessment and interaction with comply or explain	A few respondents asked for further clarity to be added on materiality assessments and how this interacts with the recommended disclosures. One respondent requested that this be presented in a table.	A table has been added to indicate the interaction of the materiality assessment with each of the recommended disclosures.
Reporting boundaries, specifically Risk reporting	While all respondents were supportive of the risk reporting boundaries at a group level, a several respondents requested additional clarity in this area.	Separate reporting requirements have been set out for qualitative and quantitative reporting for departmental groups.
Reporting boundaries, specifically Metrics and Targets	Two respondents noted differences in the reporting boundaries for metrics and targets under the GGCs or equivalent frameworks. For one relevant authority that responded, emissions are reported at a national consolidated level - and not at an individual entity level. There are similar challenges for other relevant authorities for their own emissions (and sustainability) reporting frameworks. Another respondent noted the lack of consistency across the wider sector in reporting boundaries and underlying emissions methodologies.	Separate reporting requirements have been set out for qualitative and quantitative reporting for departmental groups.

Industry specific guidance for impacted sectors or industrial groups	Some respondents noted that the application of sector and industrial group specific guidance was unclear – noting that “significantly impacted” was not well defined.	Added para. 1.26 adding further clarification where organisations operate within certain sectors and industrial groupings.
Income threshold and grant income	The size threshold for operating income set for central government ALBs does not consider grant-in-aid.	Added reference to grant income in para. 1.21 (formerly para. 1.20).
<i>Question 2. Does Chapter 1 provide sufficient detail on TCFD-aligned disclosure for central government and public sector bodies? Does this adequately set out the scope, principles, and concepts for disclosure? If not, what further detail should be added?</i>		
Overall respondents agreed that Chapter 1 included sufficient detail, including the scope, principals, and concepts for disclosure, noting a few areas (below) for clarification.		
Position and integrated reporting	A respondent requested further guidance on where to include the TCFD section in the annual report.	Added further guidance on where to include the main TCFD section within the Information Location and section of Chapter 1. Added further guidance on cross-referencing within the annual report (e.g., Governance Statement) and signposting to external information.
Assurance procedures	A respondent noted that the assurance section may be too technical for readers from a non-finance background.	Moved ISA 720 and reference to negative opinion to a footnote. Clarified that TCFD-aligned disclosures “in their own right” are not subject to audit procedures at this stage.
Layout of guidance	A couple of respondents asked for the flow charts and diagrams to be incorporated into the relevant section of Chapter 1 – rather than included at the end of the chapter.	Figure 1.1 to 1.3 have been moved into the relevant section of Chapter 1.
Alignment with upcoming reporting frameworks	Several respondents commented on the development of competing frameworks by standard setters, namely IPSASB and ISSB, and the benefits of alignment with these frameworks.	None; this is outside the scope of TCFD Phase 2 guidance
<i>Question 3. Guidance has been included on how TCFD-aligned disclosures interacts with existing UK public sector risk reporting requirements in the ‘Principal, new and emerging risks’ section. Is the guidance sufficiently clear on this interaction? If not, what further detail should be added?</i>		

<i>Most respondents noted that the section was sufficiently clear, although some requested further clarity on the specific requirements for when climate is (and isn't) a principal risk.</i>		
Climate as a principal risk	Several respondents felt the disclosure requirements for when climate was considered a principal risk (or a new and emerging risk) were unclear.	<p>Modified wording in para. 1.54 to remove double negative on materiality and simplify.</p> <p>Figure 1.3 has been updated from a diagram to a flow chart, setting out the steps and requirements for when climate is and isn't considered a principal risk.</p> <p>Added text boxes to Chapter 3 clarifying the requirements when:</p> <ul style="list-style-type: none"> - climate is a principal risk - a description of climate as a principal risk; and - climate isn't a principal risk – to articulate the rationale.
Opportunities	A respondent noted that providing guidance on climate-related opportunities would be useful.	<p>Para. 4.17 and 4.18 were added with some additional detail on climate-related opportunities (fair, balanced and understandable).</p> <p>Further guidance on climate-related opportunities will be included in Phase 3.</p>
<i>Question 4. No interpretations and adaptations have been made to Risk Management recommended disclosure (a). Do you support this proposal? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?</i>		
<i>All respondents agreed with the approach for RM (a) and confirmed that the section was sufficiently clear. Although several requested further guidance on the relative importance and magnitude of risks.</i>		
Prioritisation and relative importance of risks	Several respondents noted that using the terminology of "magnitude" with respect to climate risks was unhelpful as they are quantified at this point. Similarly, further clarity was requested on the relative prioritisation of risks, and the need for proportionate risk reporting in annual reports.	<p>Added para. 4.6 with details on considering the proportionality of climate in relation to other principal risks the organisation faced.</p> <p>Added para. 4.15 on the prioritisation of principal risks and required proportionality of climate-related information.</p>
Alignment with existing emissions	A couple of respondents noted the lack of consistent emission reporting methodology across the UK public sector and the need for better alignment.	None; The TCFD application guidance aims to offer flexibility on emissions reporting across the sector. HM Treasury only has authority to set reporting requirements for central government.

reporting frameworks		Further work is needed to improve alignment - outside of TCFD-aligned disclosures - with DESNZ and representatives from across the relevant authorities.
Question 5. No interpretations and adaptations have been made for Risk Management recommended disclosure (b). Do you support this assessment? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, why not? What further detail should be added?		
<i>All respondents agreed with the approach for RM (b) and confirmed that the section was sufficiently clear. A couple of respondents asked for further clarification on the public sector applicability of the TCFD's risks and opportunities.</i>		
Public sector applicability of TCFD's risks and opportunities	A couple of respondents asked for explanations around the public sector applicability of the example TCFD risks and opportunities, included in Annex A of the AG.	
Question 6. No interpretations and adaptations have been made for Risk Management recommended disclosure (c). Do you support this assessment? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, why not? What further detail should be added?		
<i>All respondents were content with the approach to not adapt or interpret for RM (c); however, two respondents noted further clarification was needed where climate wasn't considered a principal risk.</i>		
Integration where climate is not a principal risk.	A couple of respondents requested further clarity on the disclosure requirements where climate is not considered a principal risk.	Added para. 4.24 which notes that where climate is not a principal risk, and there are no bespoke climate risk management procedures, organisations should cross reference to the general risk management procedures addressed in the Governance Statement.
Question 7. Do you have any further comments on Chapter 4 Risk Management?		
<i>Most respondents had no further comments for Chapter 4, with a few respondents raising minor wording changes for clarify.</i>		
Linkage to the FReM	One respondent requested further linkage to the existing reporting requirements in the FReM (including the Accountability section on risk reporting).	Para. 4.5 was added to reference existing FReM performance reporting requirements.
Question 8. Metrics and Targets (a) has been adapted to remove the reference to 'revenue goals from for products and services designed for a low carbon economy. The reference to 'Examples of Climate-Related Risks/Opportunities and Potential Financial Impacts' and 'Cross-Industry, Climate-Related Metric Categories' have been included in Annex A. Do you support this approach? If not, why not? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?		

<i>All respondents were content with adaption to M&T (a); however, one respondent commended on the need for additional guidance and more consistency across the UK public sector on emission reporting.</i>		
Public sector applicability of TCFD's risks and opportunities	A respondent asked for explanations around the public sector applicability of the example TCFD metrics and targets, included in Annex A.	Added an explanation noting that not all metrics and targets will be relevant for public sector bodies.
Unable to response	<i>The respondent noted that they were not in a position to fully assess this requirements at this stage, based on an ongoing consultation.</i>	
<i>Question 9. No interpretations and adaptations have been made for Metrics and Targets recommended disclosure (b). Do you support this assessment and is the Supporting guidance from TCFD appropriate? Is the information in 'Public sector considerations and further guidance' sufficient for preparers?</i>		
<i>All respondents were content with the approach to not adapt or interpret for M&T (b); however, two respondents requested additional guidance, as well as consistency across the UK public sector, on emission reporting more generally.</i>		
Scope 3 GHG emissions reporting	Further guidance is needed for Scope 3 GHG emissions measurement.	None; emissions reporting methodologies are not being addressed in the TCFD guidance. DESNZ is responsible for setting the emissions reporting methodology for the UK public sector. HMT has raised Scope 3 GHG emissions as an area for DESNZ to consider in their emissions guidance.
<i>Question 10. Metrics and Targets (c) has been adapted to add a reference to 'service delivery' in product lifecycle emissions considerations, and remove reference to 'revenue goals from for products and services designed for a low carbon economy'. Do you support this adaptation? Reference to TCFD's 'Cross-Industry, Climate-Related Metric Categories' have been included in Annex A. Do you support this approach? If not, why not? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?</i>		
<i>All respondents were content with the proposed adaption to M&T (c) - however, a couple of respondents asked for further clarifications on specific points.</i>		
Service delivery lifecycle for emissions reporting	A respondent requested for more information around service delivery lifecycle, with examples given as this currently lacks definition.	None; emissions reporting methodologies are not being addressed in the TCFD guidance. DESNZ is responsible for setting the emissions reporting methodology for the UK public sector.

		HMT will raise “service delivery lifecycles” as an area for DESNZ to consider in their emissions guidance.
Question 11. Do you have any further comments on Chapter 5 Metrics and Targets?		
<i>Most respondents had no further comments for Chapter 5, with a few respondents raising minor wording changes for clarify.</i>		
M&T (b) in the Foreword	M&T (b) is required for Phase 1; however, this isn’t reflected in the Foreword.	Moved M&T (b) from Phase 2 into Phase 1.
M&T (a) targets set outside of the organisation	One respondent noted that “Where climate-related targets have been set on an organisation, performance against them should be reported” should be “set by”.	Para.5.8 updated to include both targets set by an organisation, and targets set on an organisation by an external authority.
Other feedback or responses that straddle multiple questions		
Linkage with the FReM	Several respondents requested further linkage to the existing reporting requirements in the FReM (including the Governance Statement, performance reporting requirements).	Para. 1.66 was added with detail on referencing the Governance Statement for Governance-related recommended disclosures.
Links to further guidance	A couple of respondents noted that links to further guidance to climate related risk reporting would be useful (e.g., existing reporting under the Climate Change Act).	Reference to other climate risk reporting frameworks will be introduced in Phase 3 for the Strategy recommended disclosure (a).
Revisions to previously published guidance	One respondent noted that the relevant updates to Phase 2 Exposure Draft and Application Guidance (AG) should also be reflected in Phase 1 guidance.	The Phase 1 guidance has been approved and published on GOV.UK. As Phase 2 guidance is additive, covering Phase 1 requirements too - our view is that preparers can read the Phase 2 guidance for Phase 1 requirements. To clarify this, a note (and link) will be added to the Phase 1 guidance once the Phase 2 application guidance has been published.

Notes

1 - Individual respondent details have been removed from the paper prior to publication on GOV.UK

Annex 2

Agenda and minutes for FRAB-SSC 07

Time: 4pm to 5.30pm on Thursday 7 March 2024 (virtual via MS Teams)

Attendees

Name	Initials	Position	FRAB Role
Karen Sanderson (Chair)	KS	CIPFA	Relevant authority
Mike Sunderland	MS	DfE	Preparer representative
Conrad Hall	CH	Newham Council	CIPFA/LASAAC Chair
Ian Webber	IW	DESNZ	Preparer representative
Max Greenwood (Secretariat)	MG	HMT	-

Apologies

Iain Murray	IM	CIPFA	Relevant authority
Sarah Geisman	SG	HM Treasury (HMT)	Relevant authority
James Osbourne	JO	National Audit Office	Auditor representative
Lynn Pamment	LP	Jersey Audit Office	FRAB Chair

Agenda

Time	Item	Details
4-4.05pm	Welcome, and introductions	<ul style="list-style-type: none"> GAD colleagues will be joining (with Matt Gurden, the Deputy Government Actuary, is joining from 4.30pm)
4.05-4.30pm	TCFD-aligned disclosure application guidance for Phase 2	<ul style="list-style-type: none"> Overview of responses and feedback from the Exposure Draft consultation HMT to provide verbal update on feedback from the third TCFD-TWG on the application guidance (on Tue 5 March) High-level discussion on the changes outlined in para. 22, and any other comments from the Subcommittee on the draft Application Guidance. Approve the Application Guidance for Phase 2 for FRAB's approval in the March meeting
4.30-5.15pm	Climate Scenario Analysis Guidance (for Phase 3)	<ul style="list-style-type: none"> GAD to provide a brief overview of advice for developing Climate Scenario Analysis Guidance – paper taken as read. Subcommittee to discuss and agree recommendations for climate scenario analysis Subcommittee to discuss and provide views on defining time horizons
5.15-5.25pm	Sustainability Reporting Updates	<ul style="list-style-type: none"> HMT public sector updates taken as read The Subcommittee to discuss wider sustainability reporting developments
5.25-5.30pm	AOB and close	

Actions

	Item	Details	Progress
FRAB-SSC 04 on 1 March 2023			
1	Sustainability Reporting Expert	HMT to identify potential candidates with sustainability reporting expertise and consider updates to update the FRAB-SSC Terms of Reference.	Open – ongoing work to identify potential candidates, although external advice has been sought from GAD who have presented at FRAB-SSC and will present at FRAB.
FRAB-SSC 06 on 8 November 2023			
2	Position Statement	HMT to draft, agree and publish a Position Statement on implementing TCFD-aligned disclosure and sustainability reporting developments.	Closed – position statement agreed with Subcommittee and published in January 2024.
3	TCFD-aligned disclosure Exposure Draft for Phase 2	HMT to update the ED with the subcommittee comments, and take to FRAB for review and approval prior to publication	Closed – ED updated for Subcommittee comments, approved by FRAB on 23 November 2023 and published on 19 December 2023.
FRAB-SSC 07 on 7 March 2024			
4	TCFD-aligned disclosure Application Guidance for Phase 2	HMT to take AG to FRAB for review and approval prior to publication.	Open
5	Climate Scenario Analysis Options	Based on GAD's climate scenario report and advice, and the Subcommittee's discussion, HMT to develop options for the Subcommittee to review and decide in a future meeting.	Open
6	Support for implementation	HMT and FRAB-SSC to consider the practicalities associated with TCFD-aligned disclosure implementation	Open

Publication procedures and details

1. The summary minutes for the FRAB-SSC meeting have been circulated to the Subcommittee for comment in advance of the FRAB meeting.
2. These minutes should be read in conjunction with the supporting paper for FRAB-SSC 07 – refer to [Annex 1](#). The summary minutes have been grouped by discussion category – rather than the chronological order of discussion – to improve their readability.

Summary minutes

1. The Chair started the meeting and welcomed GAD guests, noting apologies from others.

TCFD-aligned disclosure Exposure Draft and Application Guidance (for Phase 2)

2. HMT provided an overview of responses to the TCFD-aligned disclosure Exposure Draft, with eight formal responses received. The response from Northern Ireland's Department for Agriculture, Environment and Rural Affairs (DAERA) was received after the Subcommittee paper had been circulated.

3. Respondent feedback highlighted the need for improved clarity on materiality assessments and reporting boundaries (e.g., sustainability-related risks and broader considerations), which HMT have incorporated into the updated guidance.
4. In addition, the operating income threshold was changed to incorporate other funding and grant-in-aid. The intention to include all income sources and capture grants in the reporting process was confirmed.
5. HMT confirmed that the Technical Working Group were content with the proposed changes.
6. Challenges related to financial reporting boundaries were discussed, with subcommittee members (or 'members' herein) emphasising alignment with existing practices across the public sector. Efforts will be made to drive entity-level reporting for the more quantitative requirements (e.g., Metrics recommended disclosures) while acknowledging discrepancies across the sector and broader impact reporting. Emphasis was placed on discussing the cost-effectiveness and value-added aspects of the proposed changes.
7. Concerns were raised regarding the inclusion of wider public sector and central government bodies (e.g., Academy schools) in the scope of the application guidance. HMT confirmed that incorporated organisations would likely fall into the requirements of the Companies Act - although this guidance may be useful in setting out public sector-specific considerations.
8. The group agreed they had no further comments on the updated Phase 2 application guidance and were content for the application guidance to be taken to FRAB for approval.

Recommendation: *FRAB-SSC recommends that the TCFD-aligned disclosure Application Guidance is approved at the March 2024 FRAB meeting*

TCFD-aligned disclosure climate scenario analysis guidance (for Phase 3)

Introduction and presentation

9. GAD colleagues introduced themselves with backgrounds in pension consulting, climate risk management, and actuarial expertise – including on TCFD-related disclosures.
10. GAD emphasised the importance of effective TCFD climate scenario analysis for government entities. Criteria for assessing GAD's recommendations to the subcommittee on climate scenario analysis application guidance included consistency, complexity, and conviction. Each recommendation was scored based on these factors, ranging from low to high, to provide guidance on their suitability and applicability. GAD representatives shared a summary breakdown of the eight steps involved in scenario analysis guidance, developed through experience and feedback from various entities. GAD recommended that HMT should provide guidance beyond the TCFD's high-level recommendations. GAD noted the benefit better for preparers to use their resources to analyse and understand the impacts of different climate scenarios on their organisations, rather than try to define the climate scenarios themselves. In addition, consistency across reporting was highlighted as a key driver for providing detailed guidance, as diverse scenarios could hinder comparability and usability of TCFD disclosures.
11. The abbreviation 'IPCC SS-PRCP' refers to the Intergovernmental Panel on Climate Change and Shared Socio-economic Pathways combined with Representative Concentration Pathways, used for modelling future climate scenarios. GAD explained that these pathways assess possible future emissions and socio-economic factors to model potential climate outcomes up to 2100, providing a gold standard for modelling

physical climate risk. Detailed information on these scenarios is available in the report's appendices for reference.

12. GAD representatives highlighted the importance of defining scenarios for both physical climate risk and transition climate risk. They explained that physical risk scenarios are crucial for government entities, given their long-time frames and ownership of real estate and infrastructure assets.
13. Recommendations include setting consistent physical risk scenarios based on either IPCC SSP-RCP pathways or global warming levels (e.g., 2 degrees and 4 degrees Celsius).
14. Transition risk scenarios were subject to more debate due to their subjective nature and government's role in policymaking. While government entities are less exposed to policy-related transition risks, they may face challenges in adopting new technologies, changing energy costs, or meeting net-zero targets. Success in early transition initiatives may mitigate future transition risks, offering examples like transitioning to electric vehicles ahead of schedule.
15. GAD representatives indicated that the main points of discussion had been covered and they were open to addressing any remaining questions or concerns regarding the other recommendations in the report. In addition, they asked whether there was a need for additional guidance in long-term scenario analysis, particularly in setting assumptions for organisations regarding their future environment.

Transition-driven scenarios (including the impact of government Net Zero policy)

16. The Subcommittee discussed the implications of government policy on operational areas like local authorities, health, and education. Transition scenarios were acknowledged as complex and nuanced, requiring detailed definitions to encompass entity-specific impacts. HMT agreed that transition risks pose challenges for smaller entities in predicting government policy responses.
 17. A member expressed a preference for clear guidance and top-down assumptions to ensure consistency in scenario analysis, emphasising the challenges faced by preparers in making their own assumptions without guidance.
 18. Another member highlighted the challenge of balancing simplicity with usefulness in setting assumptions, suggesting that while assuming no change to policy may simplify the analysis, it may result in less useful data. They proposed establishing a set of key assumptions, such as car ownership rates, to guide organisations in scenario analysis, acknowledging the difficulty in representing these assumptions as predictions of future government policy.
 19. Another member highlighted the challenge of specifying assumptions for all government departments and organisations - suggesting the need for consistent principles to guide scenario analysis instead.
 20. GAD emphasised the complexity of setting detailed assumptions for each department and the need for higher-level scenarios to provide guidance without delving into every specific assumption. HMT also agreed with the difficulty in agreeing on transition-based scenarios.
 21. Overall, the group acknowledged the challenges of setting assumptions and agreed on the importance of providing consistent principles and higher-level scenarios to guide organisations in scenario analysis (unless there is a compelling reason to deviate from it).
- Climate-driven scenarios (including the impacts of increasing temperatures)**
22. A member highlighted the need to clarify the definition of physical risks versus transition risks to guide discussions for clarity to the users applying the guidance. HMT noted the importance of considering existing climate risk reporting frameworks, particularly in

linking physical risks to financial statements and costs. HMT agreed to provide further clarification and a discussion before the June FRAB meeting.

Macro-economic indicators

23. GAD representatives acknowledged the importance of considering the global context in assessing climate risks, highlighting the relevance of IPCC scenarios and the Met Office's UK-specific impacts. They also suggested pointing organisations to existing data sources on transition impacts and macroeconomic indicators, such as those provided by the International Energy Agency and the Network for Greening the Financial System, as well as the availability of UK-specific socio-economic pathways for reference.
24. A member highlighted the importance of standardised macroeconomic indicators for scenario planning, suggesting that it would be beneficial for departments to use standardised assessments of economic paths under different scenarios.
25. HMT also confirmed that consideration had been given to macroeconomic indicators like GDP growth in scenario analysis and mentioned ongoing efforts to explore the incorporation of such indicators into guidance.

Time horizons

26. GAD representatives highlighted the debate around timeframes for scenario analysis, emphasising the need for longer-term perspectives, especially in government. GAD recommended that short-term timeframes were left to entity discretion, while medium-term was suggested to be defined as 2050 (aligned with net-zero targets), and long-term as "end of century," allowing flexibility while maintaining consistency.
27. A member expressed the importance of specifying precise timeframes for scenario analysis to facilitate data aggregation and consistency across entities. They then raised concerns about the practical implications and complexities of using specific timeframes, particularly regarding assumptions about future government policies and their impacts on climate scenarios.
28. Another member expressed support for standardised scenarios and suggested being more specific about short-term timeframes, particularly aligning them with the five-year planning horizon used by organisations like the Office of Budget Responsibility (OBR). They questioned the meaningfulness of very long-term scenarios, considering potential changes in organisational structure and leadership.
29. HMT emphasised the broader implications of timeframes for scenario analysis, including their connection to risk categorisation. They sought clarification on whether this pertained specifically to an annual reporting perspective – emphasising the importance of consistency in the terminology used across annual reports - acknowledging the potential differences in terminology for internal risk management practices within organisations.

Conclusion and next steps

30. A member expressed the need to set out the pros and cons of different approaches to inform future decision-making and recommended conducting an options analysis. Other members agreed. The Chair echoed the sentiment that more time is needed to discuss and work through the issues.
31. Members agreed with HMT's proposal to hold the next subcommittee meeting in April/May 2024 to discuss time horizons and general assumptions/principles for climate scenario analysis guidance. The agreed options, can then be drafted the exposure draft for approval by FRAB-SSC – and ultimately FRAB, in June 2024. HMT plans to finalise the application guidance for Phase 3 by November 2024.

Any other business

32. A member emphasised the importance of supporting public sector bodies in implementing the guidance, drawing parallels with adopting accrual accounting and the need for cost-effective solutions.
33. The Chair concluded the meeting by thanking everyone for their contributions and emphasising the ongoing need for thoughtful consideration in this area.

***Action:** FRAB-SSC requested that HM Treasury further explore climate scenario analysis and return with options for:*

- *General assumptions and principles for the analysis*
- *Time horizons*

***Action:** HMT and FRAB-SSC to consider the practicalities associated with TCFD-aligned disclosure implementation*

Annex 3

FRAB Position Statement on TCFD-aligned disclosure

In November 2023, FRAB supported the development of a position statement to summarise progress, as well as affirm and explain the adoption of TCFD-aligned disclosure in light of recent developments by standard setters. Following the Subcommittee's approval, HMT published on the Government Finance Function's digital platform, announcements to special interest groups and circulated to relevant authorities across the UK.

In June 2022, the Financial Reporting Advisory Board (FRAB) agreed with HM Treasury's proposal to implement Task Force on Climate-related Financial Disclosures (TCFD): aligned disclosure in annual reports, and to develop cross-public sector guidance to support annual report preparers. In March 2023, HM Treasury set out a three-year phased implementation approach for central government. [TCFD-aligned disclosure application guidance for Phase 1 on the Governance pillar, applying to 2023-24 annual reports and accounts \(ARAs\)](#), was published in July 2023.

FRAB recently approved the [TCFD-aligned disclosure Exposure Draft for Phase 2 on the Risk Management and Metrics and Targets pillar](#), published in December 2023. Annual report preparers and other stakeholders are encouraged to provide feedback by Monday 26 February 2024. Responses will be reviewed by HM Treasury and FRAB in March 2024, with revised and updated application guidance expected in early 2024-25. HM Treasury will draft and consult on the final Phase 3 guidance on the Strategy pillar throughout 2024. This will apply to central government ARAs from 2025-26.

The Board affirms their view that adopting TCFD-aligned disclosure is an appropriate step forward, considering the uptake of the framework's structure and underlying disclosures by the UK private sector and by international standard-setters. With TCFD as a common building block in other frameworks, the 'TCFD-first' approach offers a suitable step forward while maintaining flexibility in any decision on future sustainability reporting standards.

The sustainability reporting landscape continues to develop at pace, with the International Sustainability Standards Board (ISSB) issuing their first two sustainability reporting standards in June 2023 (with the UK endorsement process ongoing). In addition, the International Public Sector Accounting Standards Board (IPSASB) is developing a climate-related exposure draft (expected in June 2024) and a standard (expected in the second half of 2025).

FRAB supports the view that making a decision on a future UK public sector sustainability reporting - beyond the TCFD recommendations - would be premature given the rapid pace of change in international sustainability reporting standard development. FRAB and the FRAB Sustainability Subcommittee will continue to monitor external developments with the aim of assessing whether and when it would be appropriate to decide on and implement any further sustainability reporting standards.

Annex 4

GAD recommendations



Scenario Definition

Physical climate risk scenarios defined by global warming levels or SSP-RCP combinations. Transition scenarios not to be defined centrally.



Scenario Provider

IPCC SSP-RCP scenarios and Met Office UK Climate Projections.



Scope of Analysis

Full reporting entity operations.



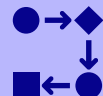
Timeframes

Short – defined by entity
Medium – 2050
Long – end of century



Frequency

Analysis updated every 3 to 5 years or more frequently if there are significant developments.



Number of Scenarios

At least two – one “low” and one “high” physical risk scenario. Additional transition and physical risk scenarios may be considered.



Quantitative or Qualitative

Quantitative analysis is preferred and recommended.



Entity-on-climate impact

Impact of climate change on the entity is the focus of the analysis. Entity-on-climate impact may be considered.

Definitions: IPCC – Intergovernmental Panel on Climate Change. SSP – Shared Socioeconomic Pathways. RCP – Representative Concentration Pathways.



Time Horizons

TCFD Guidance: How should preparers define short, medium, and long-term?

*The Task Force is not specifying time frames for short, medium, and long term given that the timing of climate-related impacts on businesses will vary. Instead, the Task Force recommends preparers define time frames according to the life of their **assets**, the **profile of the climate-related risks** they face, and the **sectors and geographies** in which they operate.*

Selecting and defining time horizons for scenario analysis (short-, medium- and long-), interacts with:

- Other TCFD recommended disclosures (Strategy (a) and the Risk Management pillar)
- Separate time horizons used in annual reports (e.g., in the performance report, and other non-climate risk reporting).
- Organisation's internal views on strategic or planning time horizons

Balance comparability, consistency across annual report, and flexibility for reporting entity



Timeframes

Short – defined by entity
Medium – 2050
Long – end of century

Early views (from experts, TCFD-TWG, FRAB-SSC)

- *Different time horizon definitions can be used for different types of risks, as well as internal RM-vs-external risk reporting*
- *Government's long-term stewardship and national responsibility requires much longer-term targets (e.g., end of century)*
- *Key risk crystallisation points should be used (2050 Net Zero target)*
- *Other private sector frameworks (DWP for pensions, DBT for companies) don't define.*
- *Defra's National Adaptation Power (NAP) uses mid- and end of century. National Risk Register does not use consistent timeframes.*
- *Transition Plans Taskforce recommends that short term is defined as no longer than 3-years.*
- *FRC (thematic review) short (0-1 year), medium (2-4 years) and long (5-10 years); however, note others considered significantly longer timeframes (end of century)*

Scenario definitions, principles and assumptions



Scenario Definition

Physical climate risk scenarios defined by global warming levels or SSP-RCP combinations.
Transition scenarios not to be defined centrally.



Scenario Provider

IPCC SSP-RCP scenarios and Met Office UK Climate Projections.

Physical climate risk driven scenarios

- Used in existing UK government climate risk reporting (e.g., Defra's National Adaptation Program under Climate Change Act 2008)
- Set centrally and possibility for more granular UK regional data.
- Combining with SSP considers wider global trends (e.g., technological changes), but not UK government policy.

Provide consistent principles and higher-level scenarios to guide organisations in scenario analysis

Transition-driven scenarios *complex and nuanced*

- UK government departments set policies which impact the transition of the wider economy (but including public sector bodies).
- Limitations exist to what has been announced – otherwise if set centrally in our guidance, there's a risk this could be seen to pre-empt policy.
- While assuming no change to policy may simplify the analysis, this may result in less useful data
- Used by financial institutions in the private sector for effective capital allocation (e.g., banks, asset managers).

Appendix 1b



HM Treasury

Note - Appendix 1a has not been included in this publication. The approved Application Guidance for Phase 2 was published on GOV.UK on 21 March 2024 - following the FRAB meeting. Only very minor drafting changes were made based on FRAB members feedback. These have been updated in green in this Appendix (1b).

TCFD-aligned disclosure

~~Exposure draft:~~ **Application guidance**

Phase 1 & 2

~~December 2023~~ March 2024

|

DRAFT

|

DRAFT



DRAFT



HM Treasury

TCFD-aligned disclosure
~~Exposure draft:~~ **Application
guidance**

Phase 1 & 2

December 2023 March 2024

DRAFT

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Invitation to comment

Introduction

HM Treasury has published this Exposure Draft to consult on new climate-related financial disclosures. These are based on the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

These requirements follow on from the [TCFD-aligned disclosure application guidance for Phase 1 of TCFD implementation](#), published in July 2023.

This Exposure Draft covers the whole UK public sector, which is the boundary for Whole of Government Accounts. However, the relevant authority for each jurisdiction within that boundary will have their own due process for proposing and approving changes to their reporting regime. This consultation does not supplant those processes. The proposed changes are published for comment only. The proposals may be modified before being formally presented to the Financial Reporting Advisory Board (FRAB) for its approval.

Structure of Exposure Draft

The Exposure Draft provides the proposed application guidance for Phase 2 of TCFD implementation, and the proposed adaptations and interpretations for the TCFD framework, as well as UK public sector specific considerations.

Invitation to comment

HM Treasury invites comments on the new application guidance being applied to central government and the wider UK public sector. Responses to the questions set out in [Chapter 1](#), [Chapter 4](#), and [Chapter 5](#) would be particularly welcomed. Comments are most helpful if they:

- Respond to the question as stated
- Indicate the specific paragraph or paragraphs to which they relate
- Contain a clear rationale
- Describe any alternatives HM Treasury should consider

Comments on this Consultation Paper should be submitted in writing so as to be received by Monday 26 February 2024. Respondents are asked to send their comments electronically to Resource.Accounts@hmtreasury.gov.uk.

All responses will be published on the GOV.UK website unless the respondent requests confidentiality.

HM Treasury will consider all comments received in writing by Monday 26 February 2024. In considering the comments, HM Treasury will base its conclusions on the merits of the arguments for and against the

alternative, not on the number of responses supporting each alternative.

Effective date

The proposed effective date for central government bodies is 1 April 2024.

Other public sector bodies should follow the direction from their respective relevant authority. Public sector bodies may choose to voluntarily apply this guidance—in full or in part.

Questions

Question 1:

Is the guidance on 'Primary users and materiality' sufficiently clear? Does the guidance on materiality and broader considerations adequately set out the boundary considerations for disclosure? If not, what further detail should be added?

Question 2:

Does Chapter 1 provide sufficient detail on TCFD-aligned disclosure for central government and public sector bodies? Does this adequately set out the scope, principles, and concepts for disclosure? If not, what further detail should be added?

Question 3:

Guidance has been included on how TCFD-aligned disclosures interacts with existing UK public sector risk reporting requirements in the 'Principal, new and emerging risks' section. Is the guidance sufficiently clear on this interaction? If not, what further detail should be added?

Question 4:

No interpretations and adaptations have been made to Risk Management recommended disclosure (a). Do you support this proposal? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?

Question 5:

No interpretations and adaptations have been made for Risk Management recommended disclosure (b). Do you support this

assessment? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, why not? What further detail should be added?

Question 6:

No interpretations and adaptations have been made for Risk Management recommended disclosure (c). Do you support this assessment? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, why not? What further detail should be added?

Question 7:

Do you have any further comments on Chapter 4 Risk Management?

Question 8:

Metrics and Targets (a) has been adapted to remove the reference to 'revenue goals from for products and services designed for a low carbon economy. The reference to 'Examples of Climate Related Risks/Opportunities and Potential Financial Impacts' and 'Cross-Industry, Climate Related Metric Categories' have been included in Annex A. Do you support this approach? If not, why not?

Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?

Question 9:

No interpretations and adaptations have been made for Metrics and Targets recommended disclosure (b). Do you support this assessment and is the Supporting guidance from TCFD appropriate?

Is the information in 'Public sector considerations and further guidance' sufficient for preparers?

Question 10:

Metrics and Targets (c) has been adapted to add a reference to 'service delivery' in product lifecycle emissions considerations, and remove reference to 'revenue goals from for products and services designed for a low carbon economy'. Do you support this adaptation? Reference to TCFD's 'Cross Industry, Climate Related Metric Categories' have been included in Annex A. Do you support this approach? If not, why not?

Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?

Question 11:

Do you have any further comments on Chapter 5 Metrics and Targets?

Foreword

This document sets out the principles and standards underpinning the application of the Task Force on Climate-related Financial Disclosure (TCFD) recommendations in central government, and, where relevant, the wider public sector. This disclosure framework is a key part of the UK central government performance reporting framework, providing improved transparency and public accountability.

Year of applicability

This application guidance for TCFD-aligned disclosure applies to reporting periods from 2024-25. A three-year phased implementation approach to TCFD recommendations will be used for central government – refer to Annex B for more details.

Scope

This guidance applies to all departments (ministerial and non-ministerial), central government and wider public sector bodies that meet specific criteria or where they have been directed/instructed to follow the guidance by their respective relevant authority¹. Other central government and public sector bodies may voluntarily choose to follow this guidance in full or in part. Refer to Chapter 1 for more details on the scope of this guidance.

Summary requirements

Phase 1 set out the disclosure requirements for the first year of implementation. In-scope reporting entities must include the following:

- a TCFD Compliance Statement – summarising the extent to which this guidance has been complied with, the reasons for non-compliance, and providing an overview of plans for future reporting.
- the TCFD Governance recommended disclosures:
 - (a) describe the board's oversight of climate-related issues.
 - (b) describe management's role in assessing and managing climate-related issues.
- [the TCFD Metrics and Targets recommended disclosure:](#)

¹ Each relevant authority sets the requirements for entities in their jurisdiction, including HM Treasury for central government bodies, other national governments for their Arms-Length Bodies (ALB) in the devolved administrations (Scotland, Wales and Northern Ireland), the Department for Health and Social Care (DHSC) for NHS bodies, CIPFA/LASAAC for local government.

(b) disclose Scope 1, Scope 2, and, if appropriate, Scope 3 Greenhouse Gas (GHG) emissions, and the related risks -aligning with existing GHG emissions reporting methodologies where appropriate.

Phase 2 of this application guidance sets out the disclosure requirements for the second year of implementation. In addition to Phase 1 disclosure requirements, Phase 2 includes:

- the TCFD Risk Management recommended disclosures:
 - (a) describe the organisation's processes for identifying and assessing climate-related risks.
 - (b) describe the organisation's processes for managing climate-related risks.
 - (c) describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.
- the TCFD Metrics and Targets recommended disclosures:
 - (a) disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.
 - ~~(b) disclose Scope 1, Scope 2, and, if appropriate, Scope 3 Greenhouse Gas (GHG) emissions, and the related risks -aligning with existing GHG emissions reporting methodologies where appropriate.~~
 - (c) describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

Chapter 1

Introduction

1.1 Climate change is a significant crisis facing the global community, and one the UK will need to continue to confront head-on amid warmer winters and hotter summers, plus more variable rainfall and more severe storms. Sea levels are rising by approximately 4 millimetres per year² around the UK coastline, increasing the risk to buildings and infrastructure close to the shoreline. Extreme weather – flooding, storms, heatwaves – already cause significant disruption in the UK every year, so we should not underestimate the challenges that a more extreme climate will have on our lives, the economy and our environment.

1.2 This chapter provides an overview of the Task Force on Climate-related Financial Disclosures recommendations and explains how public sector bodies should use this guidance, as well as why TCFD-aligned disclosure is being pursued in UK public sector annual reports and accounts (herein referred to collectively as ‘annual reports’). An overview of the TCFD framework has been included in [Figure 1.1](#) at the end of this [chapter section](#).

Overview

1.3 The government recognised the recommendations of the Financial Stability Board’s (FSB’s) TCFD as one of the most effective frameworks for organisations to analyse, understand, and ultimately disclose climate-related financial information against.

1.4 The TCFD’s recommendations set out how organisations across sectors and geographies can assess and disclose their Governance, Strategy, Risk Management and Metrics and Targets related to climate change.

1.5 TCFD’s aim is for these disclosures to promote the management of climate-related financial risk and opportunities across the economy and financial system.

1.6 While the TCFD recommendations were designed for the private sector, with the aim of providing markets with clear, comprehensive, high-quality climate-related information for financial decision-making, the public sector similarly requires climate-related information for decision-making and accountability to annual report users. The TCFD

² [State of the UK Climate 2021 - Kendon - 2022 - International Journal of Climatology - Wiley Online Library](#)

principles are being adopted more broadly across different sectors and by international standard setters.

Background

1.7 In 2015, the FSB established the TCFD to develop recommendations for more effective climate-related disclosures to promote more informed decisions and, in turn, enable stakeholders to understand better the concentrations of carbon-related assets³ and exposures to climate-related risks.

1.8 The Task Force published their recommendations in 2017⁴, which proposed:

- four widely adoptable recommendations across four thematic areas (Governance, Strategy, Risk Management, and Metrics and Targets);
- eleven recommended disclosures structured around the thematic areas, representing the core elements of the organisation's operations. The disclosures are intended to interlink and inform each other;
- general and sector-specific guidance for applying the framework;
- seven key principles for effective disclosure:
 - relevant
 - specific and complete
 - clear, balanced, and understandable
 - consistent over time
 - comparable across the sector, industry, or portfolio
 - reliable, verifiable, and objective
 - timely

1.9 Because climate-related risks and opportunities (collectively referred to as 'climate-related issues') are relevant for organisations across all sectors, the Task Force encourages all organisations to implement the recommendations.

1.10 The UK government formally endorsed the TCFD framework⁵ and has mandated TCFD-aligned disclosure for large entities in the private sector⁶.

³ Carbon-related assets are generally considered to refer to assets with relatively high direct or indirect GHG emissions

⁴ FSB's TCFD guidance: www.fsb-tcfid.org/

⁵ www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law

⁶ BEIS Climate-related financial disclosures for companies and limited liability partnerships: www.gov.uk/government/publications/climate-related-financial-disclosures-for-companies-and-limited-liability-partnerships-llps

Figure 1.1 Overview of the TCFD framework



Rationale for public sector adoption

1.11.10 Since their inception, the TCFD recommendations have been adopted by a broad range of organisations across countries, industries and sectors. The guidance in this document has been introduced to improve the quality and breadth of climate-related information in public sector annual reports and align climate-related reporting with the private sector.

1.12.11 In addition, the TCFD recommendations are being adopted as the foundation for new **and developing** international sustainability standards **including the [removed: (e.g., upcoming/proposed sustainability standards from)] [International Financial Reporting Standards](#) (IFRS) Foundation's International Sustainability Standards Board⁷ (ISSB) and the International Public Sector Accounting Standards Board⁸ (IPSASB)**. Implementing TCFD's recommendations aligns the UK public sector with global best practice.

Application

1.13.12 This guidance should be read in conjunction with the [TCFD's Guidance: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures](#) ('TCFD's guidance'). Reporting entities should familiarise themselves with the TCFD recommendations and the relevant supporting guidance.

1.14.13 There are, however, necessary interpretations and adaptations for applying the TCFD framework in a public sector context, which have been addressed in the subsequent chapters. These have been summarised, alongside further guidance, in Annex A,.

Implementation approach

1.15.14 Reporting entities will likely benefit from adopting TCFD-aligned disclosure in a phased approach. This application guidance is also being released in phases. Disclosure requirements for future phases will be

released in an updated version of this guidance, with phasing as follows:

- general principles (including scoping);

Phase 1 (issued July 2023) addressed:

- the Governance recommendation and recommended disclosures (a) and (b);
- the Metrics and Targets recommended disclosure (b) – where data is available; and,
- the TCFD Compliance Statement requirements.

⁷ ISSB www.ifs.org/groups/international-sustainability-standards-board/

⁸ IPSASB's consultation on Advancing Public Sector Sustainability Reporting:

www.ipsasb.org/publications/consultation-paper-advancing-public-sector-sustainability-reporting

Phase 2 (this guidance) addresses:

- the Metrics and Targets recommendation and recommended disclosures (a) and (c); and,
- the Risk Management recommendation and recommended disclosure (a) to (c).

Phase 3 is anticipated to address:

- the Strategy recommendation and recommended disclosures (a) to (c).

~~1.16~~1.15 Allowing sufficient time to implement the TCFD recommendations is essential. However, organisations should engage with the framework early, scaling up based on priorities, materiality, and available resources.

~~1.17~~1.16 The implementation timetable for in-scope reporting entities in central government, including years of applicability, has been outlined in Annex B.

Scope

~~1.18~~1.17 Reporting entities must verify whether they are ‘in-scope’ of this guidance – refer to [Figure 1.2 Flowchart for applying this guidance](#).

Central government

~~1.19~~1.18 HM Treasury sets the requirements for central government annual reports and accounts in consultation with the Financial Reporting Advisory Board (FRAB). FRAB advise on annual reporting requirements for all relevant authorities across the public sector. This guidance has been reviewed and approved by FRAB.

~~1.20~~1.19 All central government departments (ministerial and non-ministerial) must apply this guidance.

~~1.21~~1.20 Arm’s-length bodies (ALBs) are required to follow this guidance where they have:

- more than 500 employees⁹; or,
- total operating income [and funding received \(including grant-in-aid\)](#) exceeding £500m; or,
- been instructed by their sponsoring department to follow this guidance.

~~1.22~~1.21 This guidance is not mandatory for:

- ALBs not explicitly brought into scope in paragraph (para.) [1.20](#)~~1.21~~;

⁹ Full Time Equivalent (FTE) staff averaged across the reporting period.

- Other central government bodies where existing TCFD-related regulatory or legislative requirements override this guidance - refer to para. 1.28;
- Wider public sector bodies (unless specifically directed by their respective relevant authority or relevant regulation/legislation – refer to para. [1.23-24](#)).

Wider public sector

[1.23-22](#) This guidance does not automatically apply to local government, NHS bodies (Trusts, Foundations, Integrated Care Boards), public corporations, and entities in the devolved administrations.

[1.24-23](#) Relevant authorities may direct entities to follow this guidance or choose to adapt this guidance to meet their needs. Entities in the wider public sector may wish to consult with their relevant authority on TCFD-aligned disclosure.

Significantly impacted sectors and industrial groups

[1.25-24](#) Certain sectors and industries are likely to be more impacted by climate-related issues. TCFD identified certain industries and groups, categorised in Table 1.1 (next page), considered to potentially be most affected by climate change and the transition to a lower carbon economy. Accordingly, the Task Force published supplementary guidance for these industries and groups for recommended disclosures related to Strategy, Risk Management and Metrics and Targets.

[1.26-25](#) Climate-related issues may similarly impact public sector bodies operating in these industries and groups. Where they are not already brought into scope, or directly impacted regulation/legislation (para. 1.28), they should strongly consider making TCFD-aligned disclosure.

[1.26](#) Where these activities are not the primary or sole function of the body but might still apply to certain operations, the organisation should assess the overall materiality of the related information and should strongly consider making TCFD-aligned disclosure if this information is material to the organisation as a whole. This assessment should consider:

- The relative importance of the associated climate-related risks (and impacts) from these operations, compared to other risks faced by the organisation.
- The relative size and magnitude of these activities to the entity overall.
- The responsibility and influence of the entity (e.g., policy setting or regulatory role)

[1.27](#) Furthermore, such entities should strongly consider applying the [TCFD Supplementary Guidance](#). Table 1.1 (next page) identifies the

specific industries and groups TCFD has provided supplementary guidance to.

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Table 1.1 TCFD's Supplementary Guidance for Financial Sector and Non-Financial Groups

Industries and Groups		Governance		Strategy			Risk Management			Metrics and Targets		
		a)	b)	a)	b)	c)	a)	b)	c)	a)	b)	c)
Financial	Banks			■				■		■	■	
	Insurance Companies				■	■	■	■		■	■	
	Asset Owners				■	■	■	■		■	■	
	Asset Managers				■			■	■	■	■	
Non-Financial	Energy				■	■					■	
	Transportation				■	■					■	
	Materials and Buildings				■	■					■	
	Ag. Food and Forest Products				■	■					■	

Source: www.fsb-tcf.org/publications/

Entities subject to TCFD-related (or similar) legislation or regulation

1.28 Where an entity is subject to existing legislation or regulation relating to TCFD-aligned disclosure or similar, they must follow the related requirements in full. This can be summarised as follows:

- Publicly quoted companies, large private companies and LLPs should check the BEIS Mandatory climate-related financial disclosure⁶⁵.
- Premium-listed and standard-listed companies should check the Financial Conduct Authority (FCA) Listing Rules.
- FCA-regulated companies should check the FCA Climate-related Disclosure Rules. Relevant types of entities include:
 - asset managers
 - life insurers (including pure insurers)
 - non-insurer FCA-regulated pension providers, including platform firms and Self-invested Personal Pension (SIPP) operators
 - FCA-regulated pension providers

Voluntary adoption

1.29 Applying the TCFD recommendations provides various benefits to both reporting entities and report users. As a result, public sector bodies may choose to voluntarily apply this guidance - in full or in part.

1.30 Where a reporting entity is significantly impacted by climate-related issues, they should consider the need for TCFD disclosure – even

where they do not meet the specific criteria for mandatory disclosure laid out in this chapter. In addition to increased transparency to key stakeholders across the four pillars, the related disclosure provides management with decision-useful information.

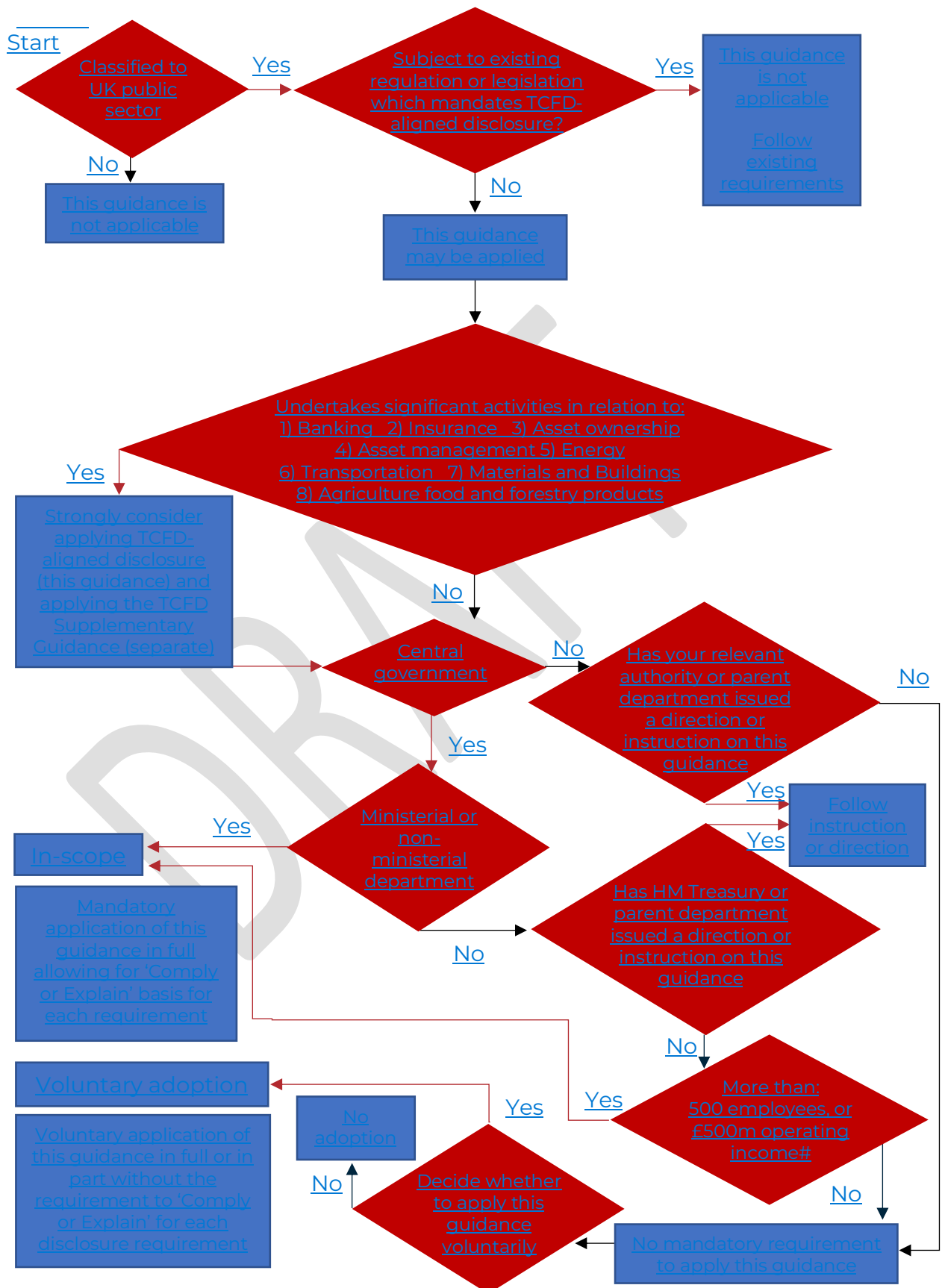
~~1.30~~1.31 Reporting entities that are significantly impacted by climate change should also consider whether other financial reporting disclosures are necessary under IFRS [Accounting Standards](#)¹⁰.

~~1.31~~1.32 Where an entity's policy or regulatory remit is heavily influenced by or has a significant influence on climate change, they should also consider whether disclosure is appropriate based on the informational needs of their annual report users.

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¹⁰ IFRS published educational material on [effects of climate-related matters on financial statements](#) in July 2023

Figure 1.2 Flowchart for applying this guidance



Concepts and Principles

Comply or explain

[1.321.33](#) The TCFD framework is principles-based. In-scope reporting entities must apply a 'comply or explain' basis for disclosure; complying with each of the required TCFD's recommended disclosures; or explaining non-compliance against each of the requirements.

[1.331.34](#) Where an entity chooses to report voluntarily against this guidance, they are not required to explain non-compliance against disclosure requirements.

[1.341.35](#) Public sector bodies may face challenges to implementation and disclosure (e.g., resourcing constraints, availability of expertise, capacity limitations, [data availability](#), etc.). These need to be balanced with the principles in Managing Public Money (MPM)¹¹ concerning the use of public funds.

[1.351.36](#) In rare circumstances, if cost is the reason given for not providing disclosure, the explanation should include enough detail to allow a user to understand why compliance, in that instance, would not deliver value for money.

[1.361.37](#) Moreover, it may not be possible for certain public sector bodies to provide sufficient information to meet the requirements of each of the recommended disclosures (e.g., because of legislative or regulatory constraints, commercial or political sensitivity, significant uncertainty, etc.).

[1.371.38](#) In each case, the reporting entity must explain in enough detail for the user to understand the non-compliance.

Interaction with the phased implementation timetable

[1.381.39](#) In-scope reporting entities must apply the requirements set out in this guidance on a 'comply or explain' basis at each phase of implementation. Compliance is only required for requirements set out in that phase of the application guidance. Non-compliance must be explained until such time as compliance is reached. Please refer to the Example Compliance Statement ([below next page](#)).

Compliance Statement

[1.391.40](#) Reporting entities¹² must also prepare an overall statement of the extent of consistency with the TCFD's recommended disclosures (referred to in this document as a 'compliance statement').

[1.401.41](#) The compliance statement must be presented at the start of the TCFD-related disclosures in the annual report and must detail:

¹¹ MPM: www.gov.uk/government/publications/managing-public-money

¹² Reporting entities adhering to the DHSC Global Accounting Manual (GAM) are not required to include a TCFD Compliance Statement. Refer to DHSC GAM for further details.

- which recommendations and recommended disclosures have been complied with and which have not;
- for those which have not, a short summary of the reason for non-compliance, and any plans for future disclosure.

1.41.42 Where a reporting entity is implementing in line with an authorised phased implementation timetable, the compliance statement must differentiate between compliance with the timetable and the overall framework, from disclosure requirements for future years which are not yet expected.

1.42.43 For example, for Phase 2 a central government department must state which of the recommended disclosures for Governance, Risk Management and for Metrics and Targets have been complied with, and/or explain any non-compliance against each of these recommended disclosures, as well as state progress against the implementation. Refer to Annex B for further information about the phased implementation timetable for central government.

Example: TCFD Compliance Statement

[Entity] has reported on climate-related financial disclosures consistent with HM Treasury's [TCFD-aligned disclosure application guidance](#) which interprets and adapts the framework for the UK public sector. [Entity] [considers climate to be a principal risk, and has therefore](#) complied with the TCFD recommendations and recommendations disclosures around [sic]:

- *Governance - recommended disclosures (a) and (b)*
- *Risk Management - recommended disclosures (a) to (c)*
- *Metrics and Targets - recommended disclosures (a) to (c)*

This is in line with the central government's TCFD-aligned disclosure implementation timetable for Phase 2. [Entity] plans to provide recommended disclosures for Strategy in future reporting periods in line with the central government implementation timetable.

1.43.44 In addition, organisations may use the Compliance Statement to provide a broader context on their climate-related financial disclosures, for example, uncertainty in their assumptions, connectivity with other sections of their annual report, differentiating between qualitative and quantitative responses, etc.

Primary users and materiality

1.44.45 Reporting entities must consider whether climate-related issues are material - to the users of the accounts. In making this assessment, the focus should be on the primary users. Nevertheless,

certain TCFD disclosures are required independent of a materiality assessment as they are fundamental to understanding an organisation's ability to manage climate-related risks – refer to para. [1.17.52](#).

Primary users

[1.451.46](#) Relevant authorities across the public sector require material information in annual reports; however, the decision on who constitutes a primary user may vary. Consequently, relevant authorities may set different requirements concerning where to report information and at what level of detail.

[1.461.47](#) For central government annual reports and accounts, Parliament is the primary user. HM Treasury requires central government bodies to disclose material climate-related information in their annual reports and accounts.

Materiality

[1.471.48](#) Information is material if its omission or misrepresentation could reasonably be expected to influence the decisions primary users take based on the annual report as a whole. As a general principle, entities should disclose material financial and non-financial information in the annual report that is necessary for the understanding of the performance and accountability of the entity.

[1.481.49](#) Materiality assessments of climate-related information should be consistent with the materiality assessment of other information included in their annual report (and accounts).

[1.491.50](#) Across the UK public sector, different reporting channels are used for different reporting purposes. This may also impact judgements on what information is included in the annual report.

Materiality assessments

[1.501.51](#) Parliamentary focus on climate change has increased with various committees, Commons debates and parliamentary questions on the topic. Similarly, there has been an increased interest from the public and other stakeholders.

[1.511.52](#) While annual report preparers need to exercise judgement when considering materiality, the Task Force necessitates disclosures related to the Governance and Risk Management pillars, as well as Metrics and Targets recommended disclosure (b) (on Scope 1¹³ and Scope 2 GHG emissions only) to be included in annual reports, without being subject to a further materiality assessment. This information is fundamental to understanding an organisation's ability to manage climate-related risks. [This guidance aligns with TCFD's view on materiality.](#)

¹³ The GHG Protocol defines emission scopes. An Overview of GHG Protocol scopes and emissions across the value chain has been included in Annex A.

1.52 — In line with the TCFD guidance, the expectation is for in-scope reporting entities to provide recommended disclosures for:

- Governance (a) and (b);
- Risk Management (a) to (c); and
- Metrics and Targets (b) — Scope 1 and Scope 2 GHG emission only;

	Governance		Strategy			Risk Management			Metrics and Targets		
	(a)	(b)	(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(c)
Not subject to materiality assessment	■	■				■	■	■		■	
Subject to materiality assessment			■	■	■				■		■

Scope 1 and 2 GHG emissions only

1.53 There may be capacity, data availability or other challenges, which hinder an in-scope reporting entity from disclosing this information in the reporting period. Any such non-compliance should be explained in the TCFD Compliance Statement.

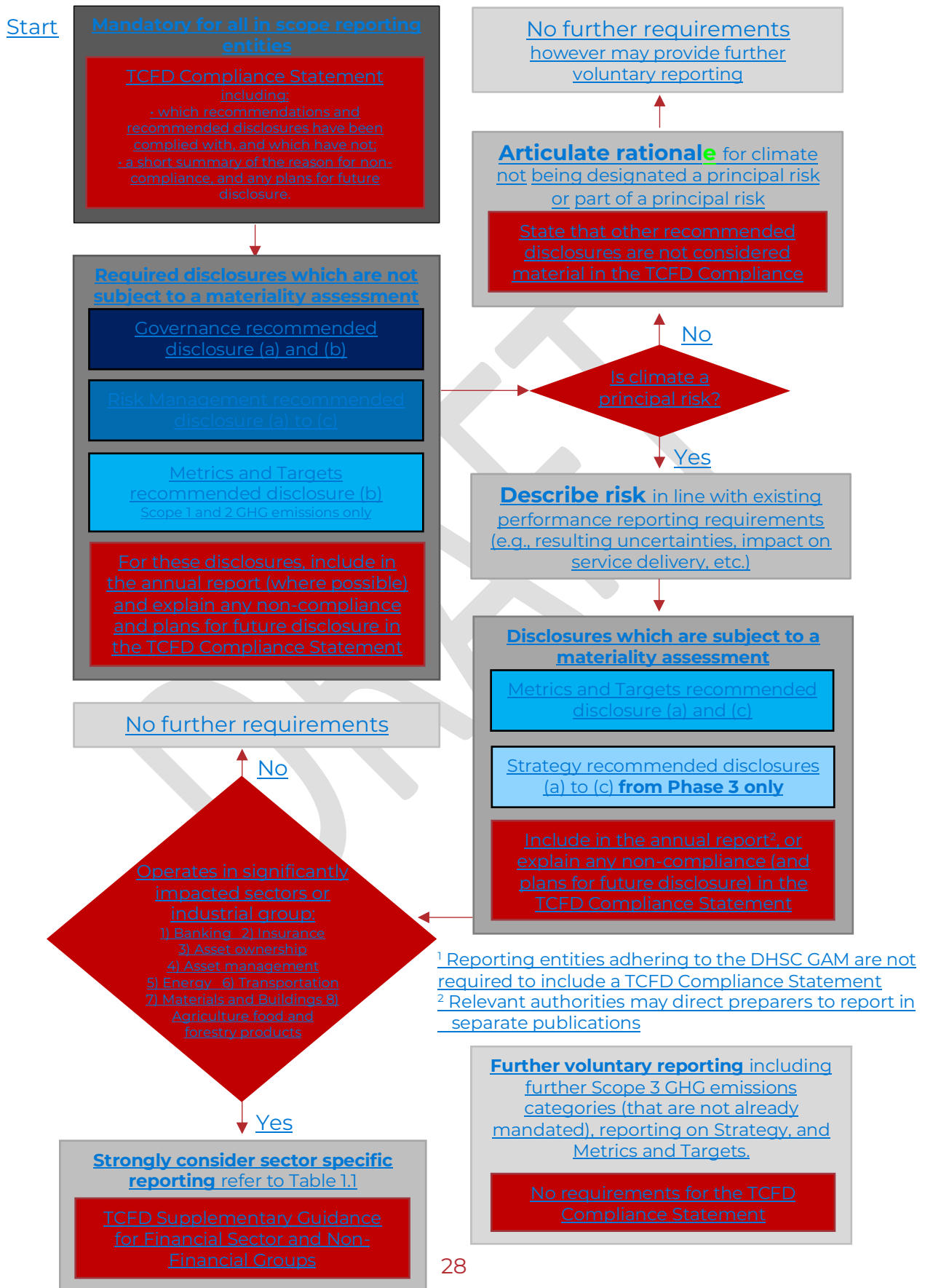
1.54 Other recommended disclosures - Strategy (a) to (c) and Metrics and Targets (a) and (c) – are subject to a materiality assessment. Where [related information is considered immaterial by](#) the reporting entity, [they should state this does not consider climate as a principal risk, these other recommended disclosures are not considered material. In such instances, reporting entities must provide appropriate explanations](#) in their TCFD Compliance Statement to ensure this is clear to annual report users – [in line with this application guidance](#).

1.55 Reporting entities should avoid applying a checklist approach to materiality and should consider the needs of users when judging what is material¹⁴. Irrelevant or superfluous information which is either common knowledge or fails to add value to the primary user’s understanding of the organisation reduces the annual report’s effectiveness. Please refer to [Figure 1.3 Minimum requirements for in-scope reporting entities](#)

1.55.56 [Figure 1.3 Summary of disclosure requirements](#).

¹⁴ April 2019: Government Financial Reporting Review: www.gov.uk/government/publications/the-government-financial-reporting-review

Figure 1.3 Minimum requirements for in-scope reporting entities



Broader considerations

7.561.57 The government and wider public sector bodies act in the public interest. Public sector bodies have wide-reaching responsibilities with respect to the UK population, the environment, and the economy. These duties may be implicit or laid out in policy, regulation, or statute.

7.571.58 Organisations should consider the wider impact of climate-related risks on their broader responsibilities, as well as their direct objectives and priority outcomes.

Sphere of influence

7.581.59 Public sector bodies may have fiscal, legislative, or regulatory powers to influence the wider ecosystem in which they operate. Primary users of public sector annual reports are likely to be interested in the broader risk environment which may extend to the impact on the UK economy, the public and the environment relevant to the entity. Consequently, while the TCFD recommendations are entity-level disclosures, organisations should consider external impacts to their wider organisational strategy.

7.591.60 When considering how to implement TCFD recommendations, reporting entities must apply judgement in setting relevant boundaries. Their breadth will depend on the specific circumstances (e.g., their activities, relationships, stakeholders, etc.). The disclosure is likely to develop over successive iterations, as the organisation's understanding on this topic deepens.

7.601.61 For performance reporting, CIPFA¹⁵ set out an example approach for considering the components of 'materiality' for public sector organisations which may be useful:

- **Impact** - information on the positive and negative impacts of the organisation on the global achievement of the UN Sustainable Development Goals (SDG).
- **State of the environment/outcomes of policies** - information on the state of the economy, society and the environment under the organisation's jurisdiction and other information on policy outcomes.
- **Outcomes/effectiveness** - of programmes and policies.
- **Value creation** - information concerning the creation of long-term value for the organisation, economy, society and the environment.

¹⁵ CIPFA's Public Sector Reporting: time to step up: <https://www.cipfa.org/protecting-place-and-planet/sustainability-reporting>

- **Financial accountability/value for money** - information concerning spend on social, economic and environmental activities.

Question 1. Additional detail has been added to the ‘Concepts and Principles’ section based on feedback from preparers. Is the guidance on ‘Primary users and materiality’ sufficiently clear? Does the guidance on materiality and broader considerations adequately set out the boundary considerations for disclosure?

Information location

Publication

~~1.61.62~~ 1.62 The TCFD recommends ~~including that~~ material climate-related information ~~is included~~ in ~~the an~~ organisation’s main financial filings to improve the linkage and consistency between ~~the information included in the~~ narrative/performance reports and the financial statements. ~~The integration~~ For example, where there are material financial impacts driven by climate change or the transition to net zero, these may link to narrative information on management’s management of related risks in the future. Integrated annual reports which include both performance and financial information tends to improve wider encourages better financial management¹⁶.

~~1.62.63~~ 1.63 The Task Force recommends using separate TCFD reports for certain industries (identified in Table 1.1) where disclosed information is not yet deemed material. While this application guidance is for annual reports, with a focus on information material to primary users, reporting entities may choose to report information which is not yet deemed material in a separate report - signposting where appropriate.

Position

~~1.63~~ 1.63 Reporting entities in central government must include the TCFD-~~related disclosures section~~ in the performance report within their annual reports and accounts - either within the performance overview/analysis section, incorporated into the sustainability reporting section, or as a new section. Please refer to the performance reporting section of the Government Financial Reporting Manual (FReM) for further details.

Interactions with other reporting frameworks

1.64 A variety of different reporting frameworks exist in government and across the wider public sector. This guidance has been designed to complement and enable alignment with existing climate - and sustainability-related reporting frameworks. Applying this guidance does not override existing reporting requirements imposed by statute, regulation or other authority.

¹⁶ December 2013: Review of Financial Management in Government: www.gov.uk/government/publications/review-of-financial-management-in-government

1.65 There may be separate annual reporting requirements, which mandate entity-level sustainability-related information - either as part of an integrated report (e.g., within the performance report) or a separately published report.

1.66 Where an entity utilises existing information to fulfil TCFD-aligned disclosure requirements - care should be taken over the scope, boundaries and time period of the information used – ensuring the disclosures are useful and any differences (e.g., on frequency, boundaries) are appropriately explained. Reporting entities are encouraged to align with existing frameworks for comparability and consistency everywhere that is possible, relevant and useful to users.

Cross-referencing within integrated entity-level reports

1.67 Where existing disclosure requirements (in annual reports) align closely with the TCFD's recommended disclosures, reporting entities should apply judgement in deciding whether the TCFD requirements have already been met – including cross-references where applicable.

1.68 Where existing elements of the annual report contribute to the content of the TCFD disclosures, such as content in the Governance Statement contributing to the disclosures under the governance pillar, preparers should cross reference to content elsewhere in the report rather than duplicate content for the basis of the TCFD recommended disclosures. Concise annual reports, which focus on the needs of the primary user and avoid unnecessary or duplicative information, improve overall effectiveness.

1.69 Where cross-referencing is used, the entity may wish to explain the nature of the relationship or interdependency, rather than just highlighting the existence of the relationship or interdependency¹⁷.

Signposting to external reports and publications

1.70 Where separate reporting channels¹⁸ for sustainability-related information and data exist, these are often used by ~~those charged with governance~~ the organisation to assess and manage climate-related issues. This information should be included in the annual report where it is deemed material to the primary user – unless a respective relevant authority has directed otherwise: (e.g., by DHSC in the Group Accounting Manual (GAM)).

1.71 The performance report should be considered the top layer of information for primary users. Some users may, however, want a greater level of detail.

1.72 Where external reports contain relevant information for the recommended disclosures, entities are not required to duplicate this

¹⁷ FRC, July 2018, Guidance on the Strategic Report: <https://www.frc.org.uk/library/standards-codes-policy/accounting-and-reporting/annual-corporate-reporting/guidance-on-the-strategic-report/>

¹⁸ This may include the GGCs, NHS Greener plans for example.

[information in this part of the annual report. Entities can signpost to the content of external reports for the basis of compiling these TCFD disclosures.](#)

~~1.71.~~[1.73](#) Signposting to external reports enables users to ‘drill down’ to detailed complementary information that is related to a matter in a particular component but that is not necessary to effectively communicate the material or mandated information. Signposting to such information should make clear that it does not form part of the component from which it is signposted. Note, however, that excessive signposting can reduce the clarity of the report.

Reporting boundaries

~~Group~~[Risk reporting and more qualitative requirements](#)

[1.74](#) ~~In scope~~ While TCFD is an entity-level framework, users of annual reports need to understand the wider context for climate-related risks and opportunities. Consequently, reporting entities should consider the risks and opportunities which it can be significantly impacted by or have a significant impact on. Nonetheless, reporting boundaries for performance reporting are often less well defined, compared to IFRS ~~[removed: Financial Reporting]~~ [Accounting Standards.](#)

[1.75](#) Climate-related information should provide a holistic view across a group, considering the principal climate-related risks from the point of view of the reporting entity. For example, central government bodies are expected to report at a group level (i.e., departments are expected to report on should apply their departmental own risk appetite and risk management procedures to determine the relative significance of climate-related risks to the group).

~~1.72.~~[1.76](#) Where in-scope reporting entities are unable to report for their group, they ~~must~~ [should](#) provide an explanation.

[Metrics, targets, financial information and other quantitative requirements](#)

[1.77](#) Where disclosure requirements are quantitative in nature (e.g., metrics and targets, impacts of climate on financial planning, performance and position, etc.), the reporting boundary should be set at the reporting entity level. However, quantitative information on the wider group the reporting entity is a part of may be appropriate (where possible), where there is a significant impact on the reporting entity (e.g., for future funding).

[1.78](#) For Metrics and Targets recommended disclosures, the reporting boundary should be set at the reporting entity level (e.g., for central government in line with the GGCs). However, where existing reporting framework consolidate information, this may not be possible. For example, NHS England provide emissions estimates for the NHS in England - consequently signposting to the external report is more appropriate. A clear explanation of the reporting boundary should be

[provided for quantitative information, where this is not at an individual entity level.](#)

Assurance

~~1.731.79~~ As the TCFD-aligned ~~disclosure is~~ [disclosures are](#) within the annual report, it is within the scope of the auditor's opinion on 'other information'. -Under ~~ISA 720~~ [auditing standards](#)¹⁹, the auditor ~~provides a negative consistency opinion on other information which involves reading the reads~~ other financial and non-financial information and considering ~~ings~~ whether it is materially inconsistent with the financial statements, the ~~auditors'~~ knowledge ~~obtained~~ [they acquired](#) through the audit, or otherwise appears to be materially misstated.

~~1.741.80~~ However, the TCFD-aligned disclosures [in their own right](#) are not subject to an assurance opinion from the auditor, ~~and~~. The auditor will not perform ~~any~~ audit procedures on the underlying TCFD information.

~~1.751.81~~ -Across the public sector, the accountable officer (e.g., Accounting Officer or Chief Financial Officer) takes ultimate responsibility for what is included in annual reports. Appropriate internal review processes and assurance should be in place to ensure the accuracy of the information included – including for TCFD-related disclosures.

~~Question 2. Does Chapter 1 provide sufficient detail on TCFD-aligned disclosure for UK public sector bodies? Does this adequately set out the scope, principles, and concepts for disclosure? Is further detail required in this chapter?~~

¹⁹ Under ISA 720, the auditor provides a negative opinion on the other information.

Figure 1.1 Overview of the TCFD framework



Figure 1.2 Flowchart for applying this guidance

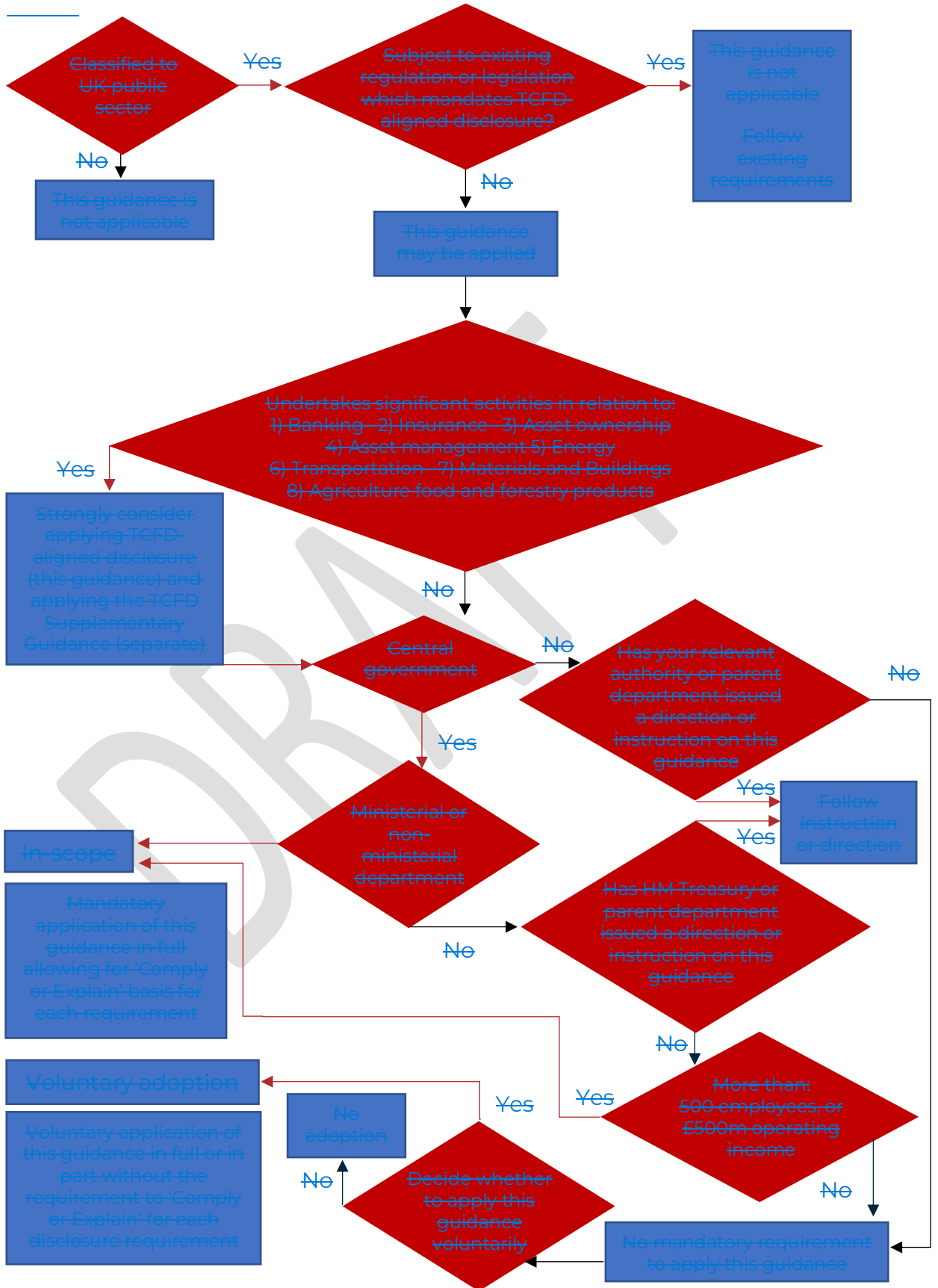
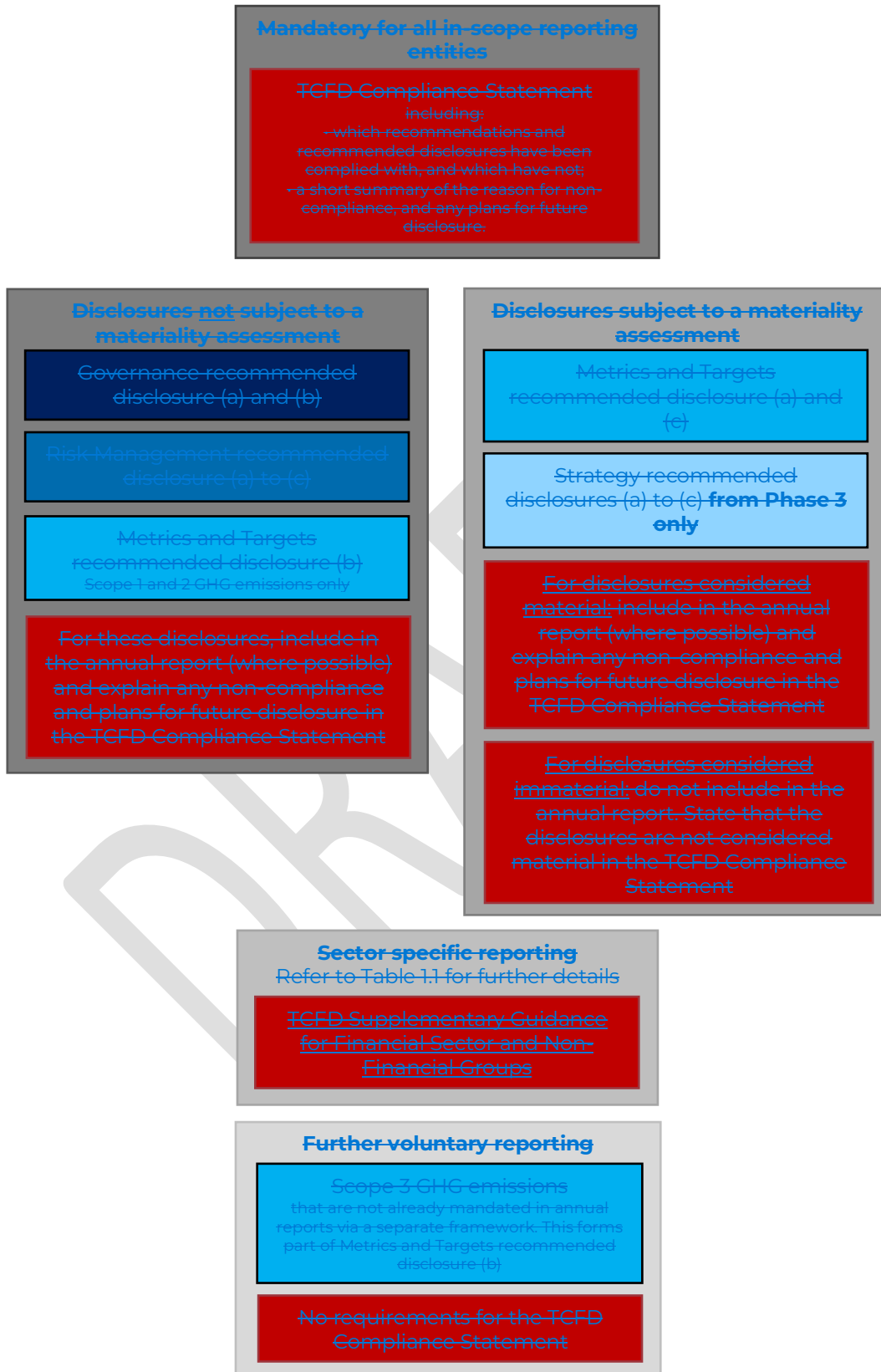


Figure 1.3 Summary of disclosure requirements



Chapter 2

Governance

2.1 Good governance is fundamental to any effective and well-managed organisation – be it private or public sector – and is the hallmark of any entity that is run accountably and with long-term interests clearly in mind.

Recommendation for Governance

Disclose the organisation's governance around climate-related issues.

Overview

2.2 This chapter addresses the disclosure of an organisation's governance arrangements for climate-related issues. These principally qualitative disclosures are designed to assist report users in assessing the adequacy and effectiveness of an organisation's board to oversee, evaluate and manage climate-related issues.

Materiality

2.3 In-scope bodies should provide the recommended disclosures for Governance – refer to para. ~~1.48~~^{1.47} to 1.55. The level of detail provided remains at the discretion of preparers but should meet the needs of the primary users of annual reports.

Applicability

2.4 The management structures for making decisions and holding responsibility in the public sector are not always aligned with the private sector.

2.5 While the Code of Good Practice²⁰ has embedded the 'department board model' into central government departments; other public sector bodies may have governance structures which vary significantly from private corporations. In such instances, the principles for the recommended disclosures should be applied – even if the terminology, composition and structures themselves are different.

²⁰ www.gov.uk/government/publications/corporate-governance-code-for-central-government-departments-2017

Recommended disclosures

2.6 A reporting body should disclose information which allows a user of its annual reports to understand how risks and opportunities relating to climate change are identified, considered, and managed within its governance structure.

2.7 This section outlines the TCFD recommended disclosures (in red boxes) for Governance, with the 'Supporting guidance from TCFD' (in red). The supporting TCFD guidance includes minor public sector interpretations and adaptations (in italics) and explained in Annex A.

2.8 Public sector considerations and further guidance on each recommended disclosure, has been included to support preparers with disclosure (e.g., public sector-specific considerations). This also draws from common findings and identified good practice from the TCFD review on private companies conducted by the Financial Conduct Authority²¹ and Financial Reporting Council²².

Recommended disclosure for Governance (a)

Board's oversight

Describe the board's oversight of climate-related issues.

Supporting guidance from TCFD

In describing the board's oversight of climate-related issues, organisations should consider including a discussion of the following:

- processes and frequency by which the board and/or board committees (e.g., audit, risk, or other committees) are informed about climate-related issues;
- whether the board and/or board committees consider climate-related issues when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, and *organisation plans* as well as setting the organisation's performance objectives, monitoring implementation and performance, and overseeing major capital expenditures investment or grant decisions, and restructures (e.g., *Machinery of Government changes*); and
- how the board monitors and oversees progress against goals and targets for addressing climate-related issues.

²¹ www.fca.org.uk/publications/multi-firm-reviews/tcf-aligned-disclosures-premium-listed-commercial-companies

²² www.frc.org.uk/getattachment/65fa8b6f-2bed-4a67-8471-ab91c9cd2e85/FRC-TCFD-disclosures-and-climate-in-the-financial-statements_July-2022.pdf

Public sector considerations and further guidance

2.9 Disclosure may include information on whether the organisation's climate policies and strategies are addressed by the same governance processes, disclosure controls and procedures used for financial management or alongside other risk management processes (e.g., strategic, stakeholder management, safety, etc.).

2.10 Where an authority outside of the organisation has set certain climate policies and specific strategies, the disclosure should include a brief description and may signpost to external information.

2.11 [The Orange Book](#) sets out principles for effective risk management and applies to all central government departments and their ALBs. The guidance is likely to be helpful to other public sector bodies, as the same principles generally apply, with adjustments for context. Section A: Governance and Leadership in the 'Orange Book: Management of Risk – Principles and Concepts' is pertinent to this chapter.

Recommended disclosure for Governance (b) Management's role

Describe management's role in assessing and managing climate-related issues.

Supporting guidance from TCFD

In describing management's role related to the assessment and management of climate-related issues, *organisations* should consider including the following information:

- whether the organisation has assigned climate-related responsibilities to management-level positions or committees; and, if so, whether such management positions or committees report to the board or a committee of the board and whether those responsibilities include assessing and/or managing climate-related issues;
- a description of the associated organisational structure(s);
- processes by which management is informed about climate-related issues; and
- how management (through specific positions and/or management committees) monitors climate-related issues.

Public sector considerations and further guidance

2.12 In this guidance, management refers to those positions an organisation views as executive or senior management positions and that are generally separate from the board. For central government,

this would include the structures described in the Corporate Governance Report – please refer to the [FReM](#).

[2.13](#) In some cases, a reporting entity's overall climate-related policies and strategies may be determined by another public sector entity, such as departments using their policy setting or regulatory powers. In some cases, organisations may have a governing body within their own structure, or it may be shared with or may be a matrix structure with other public sector bodies. The entity should provide disclosure for a user to understand the structure and level of oversight the governing body provides for the entity specifically and may signpost to external sources.

[2.132.14](#) Reporting entities should disclose the key reporting channels and processes for climate-related issues, and how these are integrated into the organisation's overall governance. The information disclosed may include the responsibilities of relevant committees or individual management positions (e.g., job titles, individuals accountable), as well as identify specific reviews being undertaken.

[2.142.15](#) For example, reporting entities may want to disclose if a member of their Executive Committee is responsible for internal climate change policy, or how climate change issues are considered in investment committees and decisions.

[2.152.16](#) If no directors have oversight of climate-related risks and opportunities and/or no individual within the organisation has responsibility for assessing or managing climate-related issues, then this should be stated.

[2.162.17](#) The disclosures interact with other requirements in annual reports, and reporting entities should appropriately cross-reference to enable users to understand the governance of climate change and the actions by the board in an overall context (e.g., to the Governance Statement).

[2.18](#) The level of detail and/or cross-referencing to elsewhere in the accounts may depend on the extent to which climate policies and their risks and opportunities are addressed by the same governance processes, controls and procedures detailed elsewhere in the accounts as well as the extent to which specific climate policies and strategies have been established.

[2.172.19](#) Where climate change has been identified as a principal risk, entities should indicate how climate change has been addressed as a principal matter for the organisation – refer to Chapter 4.

Chapter 3

Strategy

3.1 HM Treasury intends to publish TCFD Application Guidance for Strategy in an updated version of this document, in line with the announced timetable – refer to Annex B.

3.2 The Task Force has published their recommendations and guidance for Strategy on their website. Public sector bodies can choose to implement the TCFD recommendations independently and are encouraged to do so if these recommendations are deemed material to the users of annual reports.

DRAFT

Chapter 4

Risk Management

4.1 Risk is the possibility of an event occurring that will have an impact on the achievement of objectives. Effective risk management encompasses a series of coordinated activities strategically designed to oversee and address these risks while upholding internal control within an organisation.

4.2 The UK's public sector exhibits a considerable level of diversity, necessitating a wide spectrum of risk management practices. Overarching principles and concepts as set out in [The Orange Book these efforts](#). Organisations must proactively cultivate tailored and efficient risk management, which will naturally vary based on the unique characteristics of the organisation and the dynamics of its operational environment.

4.3 Climate-related risk is the potential negative impact of climate change on an organisation. Climate-related risk management processes should be tailored based on their associated severity, likelihood, and timing. These processes are not static and will need to evolve and mature over time, in tandem with shifts in the risk landscape and as management's comprehension of these risks deepens.

Recommendation for Risk Management

Disclose how the organisation identifies, assesses, and manages climate-related risks.

Overview

4.4 This chapter mainly addresses qualitative disclosures surrounding an organisation's processes for identifying, assessing, and managing climate-related risks, and their integration within the organisation's overall risk management.

[4.5 For central government, existing FReM requirements for the performance analysis and the governance statement expect a significant level of detail to be provided regarding the processes and structures used to identify, evaluate and manage both principal and emerging risks, as well as how the risks and changes in their likelihood and impact may affect performance and delivery in both current and future years.](#)

[4.5.1](#)

~~4.5 While this chapter focuses on climate-related risks rather than opportunities there is overlap in their assessment and monitoring. Organisations are encouraged to include balanced disclosure of climate-related opportunities where they are significant.~~

~~4.6 Guidance on disclosing climate-related opportunities will be addressed in Phase 3 as part of Strategy (Chapter 3).~~

Materiality

~~4.74.6 In line with the Task Force's recommendations, In-scope reporting entities must include [these Risk Management recommended disclosures \(a\) to \(c\)](#) in annual reports – on a comply or explain basis – without further application of a materiality filter (para. [1.481.47](#) to 1.55).~~

~~4.7 This provides annual report users with the information they need to understand the organisation's overall climate-related risk management process; alongside the board and management's judgement of whether climate is a principal, new or emerging risk - or neither.~~

Applicability

4.8 Risk management terminology and risk classifications will vary across the UK public sector. Annex 4 of The Orange Book provides examples of risk categories which preparers may wish to consider. The Task Force identified and categorised certain climate-related risks as set out in Annex A. Examples of public sector specific climate-related risks are also included in the annexe.

Public sector considerations and further guidance

Principal, new and emerging risks

Description of climate as principal risk

Where climate is a principal risk, the reporting entity must describe the risk in line with existing performance reporting requirements (e.g., impact on objectives and outcomes, resulting uncertainties, impact on service delivery, etc.)

4.9 Under existing performance/narrative reporting requirements, UK public sector bodies are required to report on an organisation's principal risks²³, often with additional disclosure requirements on new and emerging risks in the performance report.

4.10 A principal risk is a risk or combination of risks that can seriously affect the performance, future prospects or reputation of the entity.

²³ UK public sector reporting requirements have been driven by Section 414CB of the Companies Act 2006 which requires a description of the principal risks relating to environmental matters, including how an entity manages the principal risks.

Emerging risks are those with uncertain outcomes which may become certain in the longer term, and which could have a material effect on the organisational strategy if they were to occur²⁴.

4.11 Reporting entities must describe the principal risks and uncertainties facing the organisation which relate to climate change, and any significant impacts on service delivery. Disclosures should provide users with information which is specific to the organisation's circumstances.

4.12 Where a climate-related risk could significantly impact the delivery of an organisation's objectives and outcomes, disclosure should provide a clear explanation of the risk and potential impact.

4.13 Climate risks often develop and evolve over longer time horizons. Similarly, the government and public sector usually operate over long-time horizons, working to deliver longer term outcomes. Reporting entities should consider how these risks are likely to change over time when providing disclosure.

4.14 Central government bodies, specifically, are required to disclose how principal risks have changed over the reporting period, their impact on priority outcomes and delivery, and any mitigation strategies applied, as well as disclosure of any emerging risks and their likely impact on performance – refer to the [FReM](#).

~~4.15 — Where climate is not designated a principal risk or part of a principal risk, reporting entities must articulate their rationale.~~

[Risk prioritisation](#)

Question 3. Guidance has been included on how TCFD-aligned disclosures interact with existing UK public sector risk reporting requirements in the 'Principal, new and emerging risks' section. Is the guidance sufficiently clear on this interaction?

Articulate rationale

Where climate is not designated a principal risk (or part of a principal risk) reporting entities must articulate their rationale.

4.15 Reporting entities should clearly set out the relative importance of climate-related risks compared with other risks. They should also set out their assumptions for assessing and prioritising the risks, including judgements on what is material. This will support the requirement for Risk Management (a) – refer to the next page.

²⁴ Definitions align with the Financial Reporting Council's (FRC's) Strategic Report Guidance which has been used to develop public sector performance and narrative reporting: www.frc.org.uk/library/standards-codes-policy/accounting-and-reporting/annual-corporate-reporting/guidance-on-the-strategic-report/, as well as the TCFD's guidance.

[4.16](#) Where climate is not deemed to be a principal risk, the organisation may utilise their usual risk management procedures – without bespoke climate-related procedures. In this instance, and where the risk management process is described in sufficient detail elsewhere in the annual report (e.g., the Governance Statement), the Risk Management recommended disclosures (a) to (c) should utilise this information to avoid duplication, cross-referencing accordingly.

[Climate-related opportunities](#)

[4.17](#) Assessing climate-related opportunities enables the development of proactive strategies that enhance the resilience of the organisation. While this chapter focuses on climate-related risks - rather than opportunities – there is overlap in their assessment and monitoring.

[4.18](#) Reporting entities may wish to provide information on climate-related opportunities and how they are managed, ensuring information is fair, balanced, and understandable. Balanced disclosure should focus on climate-related opportunities that are significant. Further guidance on disclosing climate-related opportunities will be included for the Strategy pillar in Chapter 3.

Recommended disclosures

[4.164.19](#) This section sets out the TCFD's recommended disclosures for Risk Management (in red boxes), with 'Supporting guidance from TCFD' (in red).

[4.174.20](#) No interpretations or adaptations have been made to the 'Supporting guidance from TCFD' for Risk Management recommended disclosures (a) to (c). Updated references (denoted in italics) have been made to recommended disclosure (b). The 'Public sector considerations and further guidance' section provides additional information to annual report preparers - based on common findings and good practice (refer to para. 2.8).

Recommended disclosure for Risk Management (a) Risk identification and assessment

Describe the organisation's processes for identifying and assessing climate-related risks.

Supporting guidance from TCFD

Organisations should describe their risk management processes for identifying and assessing climate-related risks. An important aspect of this description is how organisations determine the relative significance of climate-related risks in relation to other risks.

Organisations should describe whether they consider existing and emerging regulatory requirements related to climate change (e.g., limits on emissions) as well as other relevant factors considered.

Organisations should also consider disclosing the following:

- processes for assessing the potential size and scope of identified climate-related risks and
- definitions of risk terminology used or references to existing risk classification frameworks used.

Public sector considerations and further guidance

~~4.18~~ Organisations should clearly set out the magnitude of the related risk and the relative importance of climate-related risks compared with other risks.

- Reporting entities should set out their assumptions for assessing and prioritising the risks, including judgements on what is material.

Supporting guidance from TCFD

~~Question 4. No interpretations and adaptations have been made to Risk Management recommended disclosure (a). Do you support this proposal? Is the information in 'Public sector considerations and further guidance' sufficient for preparers?~~

Recommended disclosure for Risk Management (b)

Risk management

Describe the organisation's processes for managing climate-related risks.

Organisations should describe their processes for managing climate-related risks, including how they make decisions to mitigate, transfer, accept, or control those risks. In addition, organisations should describe their processes for prioritising climate-related risks, including how materiality determinations are made within their organisations.

In describing their processes for managing climate-related risks, organisations should address the risks included in Tables A1.1 and A1.2 in Annex A, as appropriate.

~~4.19~~4.21 The 'Examples of Climate-Related Risks/Opportunities and Potential Financial Impacts' (Table [A1.1](#) and [A1.2](#)) may be less relevant for certain public sector bodies—and do not need to be considered if not relevant.

Public sector considerations and further guidance

~~4.20~~4.22 As well as considering internal risk management processes, reporting entities should also consider whether information from external risk frameworks is relevant for their disclosures. The government and the wider UK public sector report against various risk frameworks. These often include climate change as a risk. Identifying,

assessing, and leveraging existing risk frameworks will likely aid and improve disclosure. Further guidance is included in Annex A.

Question 5. No interpretations and adaptations have been made for Risk Management recommended disclosure (b). Do you support this assessment? Is the information in 'Public sector considerations and further guidance' sufficient for preparers?

Recommended disclosure for Risk Management (c)

Overall integration

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

Supporting guidance from TCFD

Organisations should describe how their processes for identifying, assessing, and managing climate-related risks are integrated into their overall risk management.

Public sector considerations and further guidance

~~4.214.23~~ Where climate is identified as a principal risk, The organisation must explain how its risk disclosures and management of climate-related risks are integrated into the overall risk management process.

4.24 Where climate is identified as a principal risk, then bespoke climate-related risk management is more likely, which will interact with the organisation's overall risk management. Where climate is not identified a principal risk, the organisation is likely to manage climate-related risks in the same way as other risks as part of their overall risk management, and may benefit from cross-referencing to the Government Statement.

Interaction with strategic and other principal risks

~~4.224.25~~ Climate risk is often an exacerbation of existing strategic risks (e.g., extreme weather, water shortages, etc.). Climate change may make these risks more likely or the related impacts more serious. Hence, climate change risks should not be considered in isolation and should be clearly integrated into the strategy of an organisation.

~~4.234.26~~ Reporting entities must apply judgement in deciding which risks should be addressed in the TCFD-aligned disclosures and which are considered as other strategic or principal risks. Linkages between related risk disclosures should be explained - making use of cross-referencing where appropriate.

4.244.27 While this application guidance sets minimum disclosure requirements, the level of detail should be commensurate with the significance of climate-related risks to the organisation. Care should be taken to ensure the TCFD-aligned disclosures are proportional – considering other risks disclosed in the annual report.

Question 6. ~~No interpretations and adaptations have been made for Risk Management recommended disclosure (c). Do you support this assessment? Is the information in ‘Public sector considerations and further guidance’ sufficient for preparers?~~

Question 7. Do you have any further comments on Chapter 4 Risk Management?

DRAFT

Chapter 5

Metrics and Targets

5.1 Stakeholders require a clear understanding of an organisation's methods for assessing and tracking climate-related risks and opportunities. Access to the metrics and targets employed by the organisation enables stakeholders to make informed evaluations of its performance, level of vulnerability to climate-related issues, and the progress made in effectively managing or adapting to those issues.

5.2 Metrics and targets are essential for monitoring performance and tracking progress. The Climate Change Act²⁵ commits the UK government by law to reduce GHG emissions – similar legislation has been set by devolved administrations. Central government and wider public sector bodies may have set their own net zero commitments.

5.3 Parliament, the public and other stakeholders need to understand how an organisation measures and monitors its climate-related risks and opportunities. This transparency enables them to track an individual entity's performance.

Recommendation for Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related issues where such information is material.

Overview

5.4 This chapter comprises primarily quantitative disclosures related to metrics and targets, as well as qualitative information on how the metrics and targets are used by the organisation.

Materiality

5.5 The Task Force requires organisations to provide Scope 1^{13H} and Scope 2 GHG emissions independent of a materiality assessment and, if appropriate, Scope 3 GHG emissions and the related risks. The disclosure of Scope 3 GHG emissions is subject to a materiality assessment. Further reporting on Scope 3 emissions, beyond the existing categories set out by relevant authorities, is considered voluntary at this time. GHG emission scopes are defined in the GHG Protocol – please refer Annex A for further information.

²⁵ Climate Change Act 2008: www.legislation.gov.uk/ukpga/2008/27/contents

5.6 Other climate-related metric categories remain subject to materiality – except where they are specifically mandated by other reporting requirements (e.g., in legislation, from relevant authorities).

Applicability

5.7 Existing performance reporting across the UK public sector requires disclosure in respect of non-financial and sustainability information. The interlinkage and overlap of climate-related and sustainability-related topics is addressed in Chapter 1.

Public sector considerations and further guidance

Commentary

5.8 Where climate-related targets have been set [on by](#) an organisation, [\(or on them by an external authority\)](#), performance against them should be reported. If performance information has already been published elsewhere, signposting to external sources is acceptable. The related commentary must be clear as to whether performance is improving or worsening and not assume this is clear to the user.

Methodologies and reporting boundaries

5.9 Organisations should ensure they include definitions and methodologies to explain their metrics and targets, particularly where they are organisation-specific.

5.10 Where there are differences in the reporting boundaries for metrics and targets disclosures, these should be explained clearly.

Prior period reporting

5.11 Organisations must provide prior year data to track historical performance. Reporting entities should also provide historical data for past years when doing so enhances the user's understanding of performance.

Baselining

5.12 A base year serves as a reference point for comparing present and past emissions. To keep data consistent, base year figures may be recalculated following significant structural changes.

5.13 When reporting against metrics and targets, it must be clear as to which years have been set as the baseline. Where external cross-sector frameworks (e.g., [Greening Government Commitments or 'GGCs'](#) [GGCs for central government](#)) are being used, the same baseline year should be applied for comparability.

5.14 However, there may be instances where a reporting entity sets a new baseline year – either in the absence of one set externally or where significant structural changes (or other changes) have meant a baseline set internally is needed for monitoring purposes. In such instances, reporting entities should explain their choice.

5.15 Where a base year is used for performance monitoring, the base year data must be updated and reported in line with changes in accounting policies and boundaries. When material changes occur, the prior-year figure reported for comparative purposes must also be updated with an accompanying explanation.

5.16 Prior period comparative information should not go beyond the baseline year.

Broader considerations

5.17 Examples of certain different sustainability measurement types which public sector bodies may choose to use, include²⁶:

- Operational impacts
- Policy effectiveness
- The state of economic, environmental, and social conditions in areas under their jurisdiction.
- Strategies to create value (for the organisation, its stakeholders, lenders, public-private partnerships, and society more broadly)

5.18 When determining what information to include in annual reports, preparers must consider both financial materiality with respect to their accounts and the significance of broader impacts on the organisation's current and future performance with respect to their objectives and strategy.

5.19 The public sector is a sector in its own right - with policy effectiveness, stewardship and value creation forming part of the organisation's strategy, alongside operational impacts. Related disclosures for broader impacts and outcomes should provide a balanced view – noting these are often more challenging to measure and assess.

5.20 The responsibility for setting policy, delivering outcomes, and providing services is often shared by multiple organisations and the boundaries of responsibility may be less clearly defined compared to the private sector – where formal agreements and ownership structures are more common.

5.21 Where information on broader policy and outcomes is relevant, its significance and ability to meet the primary user's needs, must be considered. Summarising this information and signposting to external reports may be more useful – refer to 1.66 to 1.71

5.22 Disclosures related to broader considerations should be clearly separated from disclosures on entity-level operational impacts.

5.23 Organisations are encouraged to consider climate adaptation and resilience, as well as climate change avoidance, when considering

²⁶ CIPFA's [Public Sector Sustainability Reporting: time to step it up](#); [Public Agency Sustainability Reporting](#), GRI, 2004;

Metrics and Targets. This will form a significant component of government's response to climate change.

Recommended disclosures

5.24 This section sets out the TCFD's recommended disclosure for Metrics and Targets (in red boxes), with 'Supporting guidance from TCFD' (in red). Interpretations or adaptations have been made to the supporting TCFD guidance for Metrics and Targets recommended disclosures (a) to (c) – explained later in this section (and in Annex A). The 'Public sector considerations and further guidance' section provides additional clarity to annual report preparers, alongside public sector specific considerations.

Recommended disclosure for Metrics and Targets (a)

Metrics

Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

Supporting guidance from TCFD

Organisations should provide the key metrics used to measure and manage climate-related risks and opportunities, as described in Tables [A1.1](#) and [A1.2 in Annex A](#), as well as metrics consistent with the cross-industry [*or cross-sector*], climate-related metric categories described in Table [A2.1 in Annex A](#). Organisations should consider including metrics on climate-related risks associated with water, energy, land use, and waste management where relevant and applicable.

Where climate-related issues are material, organisations should consider describing whether and how related performance metrics are incorporated into remuneration policies.

Where relevant, organisations should provide their internal carbon prices as well as climate-related opportunity metrics ~~such as revenue from products and services designed for a low carbon economy.~~

Metrics should be provided for historical periods to allow for trend analysis. Where appropriate, organisations should consider providing forward-looking metrics for the cross-industry [*and cross-sector*], climate-related metric categories described in Table [A2.1 in Annex A](#), consistent with their ~~business operational~~ or strategic planning time horizons. In addition, where not apparent, organisations should provide a description of the methodologies used to calculate or estimate climate-related metrics.

5.25 The 'Supporting guidance from TCFD' has been adapted to remove reference to 'revenue goals for products and services designed for a low carbon economy' which is irrelevant for the vast

majority of public sector bodies. TCFD's 'Examples of Climate-Related Risks/Opportunities and Potential Financial Impacts' (in Table [A1.1](#) and [A1.2](#)) may be less relevant for certain public sector bodies - refer to Annex A for further guidance.

Public sector considerations and further guidance

Industry and cross-sector comparatives

[5.26](#)—The TCFD framework emphasises the importance of cross-industry-based metrics and targets for comparability.

[5.275.26](#) Where a public sector body operates in a specialised industry, they should consider reporting cross industry-based metrics – refer to para. [1.267.27](#).

[5.285.27](#) In addition to the cross-industry metrics, existing sustainability reporting frameworks across the UK public sector ~~may be used to draw cross-sector comparatives, which already require reporting on water, energy, land use, and waste management, may be used to draw cross-sector comparatives (e.g., GGCs for central government, NHS Greener metrics, climate and sustainability-related reporting in the devolved administrations which are often collected outside annual reports).~~

Climate-related performance-based remuneration policy

[5.295.28](#) While the TCFD guidance makes specific reference to incorporating performance measures into remuneration policies, UK public sector bodies may have less flexibility in setting remuneration policies and may be subject to additional controls and limitations.

[5.305.29](#) Furthermore, public sector bodies may have a broader set of levers to drive organisational change. Consequently, guidance on climate-related performance-based remuneration policy may be less relevant in a public sector context.

Internal carbon pricing

[5.315.30](#) Internal carbon price refers to a monetary value on GHG emissions an organisation uses internally to guide its decision-making process in relation to climate change impacts, risks, and opportunities. This represents the external costs of GHG emissions.

[5.325.31](#) The government already uses internal carbon prices ('carbon/emissions values') for valuing impacts on GHG emissions for policy and programme appraisals. This represents a monetary value that society places on one tonne of carbon dioxide equivalent (£/tCO_{2e}).

[5.335.32](#) These differ from external carbon prices, which represent the observed price of carbon in a relevant market (such as the UK Emissions Trading Scheme).

5.345.33 Reporting entities that use internal carbon pricing should provide relevant disclosure in their annual reports - signposting to external frameworks and sources where appropriate. This may include information on how carbon values (or internal carbon prices) are used to appraise and evaluate policies, programmes or projects, as well as the absolute value.

Question 8. Metrics and Targets (a) has been adapted to remove the reference to 'revenue goals from for products and services designed for a low carbon economy. Reference to TCFD's 'Examples of Climate-Related Risks/Opportunities and Potential Financial Impacts' and 'Cross-Industry, Climate-Related Metric Categories' have been included in Annex A. Do you support this approach? If not, why not?

Is further detail required in this section or Annex A? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?

Recommended disclosure for Metrics and Targets (b)

Emissions

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.

Supporting guidance from TCFD

Organisations should provide their Scope 1 and Scope 2 GHG emissions independent of a materiality assessment, and, if appropriate, Scope 3 GHG emissions and the related risks. All *organisations* should consider disclosing Scope 3 GHG emissions.

GHG emissions should be calculated in line with the GHG Protocol methodology to allow for aggregation and comparability across *organisations* and jurisdictions. As appropriate, *organisations* should consider providing related, generally accepted industry-specific GHG efficiency ratios.

GHG emissions and associated metrics should be provided for historical periods to allow for trend analysis. In addition, where not apparent, *organisations* should provide a description of the methodologies used to calculate or estimate the metrics.

Public sector considerations and further guidance

Existing emissions and climate-related reporting in central government

5.355.34 Currently, the GGCs require certain central government bodies to report on emissions, including Scope 1, Scope 2, and Scope 3 – business travel only. Central government bodies in scope of the GGCs

should align their reporting with the Sustainability Reporting Guidance¹⁴ (SRG), ensuring the same underlying methodology is applied.

[5.365.35](#) At present, further categories of Scope 3 GHG emissions (in addition to business travel) are not required for GGC or SRG purposes. However, central government bodies may choose to report on other GHG emissions sources - which are out-of-scope of the current GGC framework. Some of these emission sources are considered in the SRG²⁷.

[5.375.36](#) Where applicable, central government reporting boundaries should mirror the GGC boundaries for reporting entities. This may differ from the principle set out in para. [1.741.72](#).

[5.385.37](#) Where central government bodies report on emissions, in line with the SRG, they may choose to include this information in the same location as the TCFD Compliance Statement and recommended disclosures or continue to report in the sustainability report. However, appropriate cross-referencing should be added.

Other public sector bodies

[5.39](#) Other public sector bodies intending to adopt the TCFD recommendations may benefit from considering emissions reporting early on in their implementation plan.

[5.405.38](#) These considerations Emissions reporting requirements may necessitate new reporting procedures, adapting/extending existing voluntary reporting, or assessing alignment of their existing frameworks with the TCFD guidance. Reporting entities will benefit from considering this early and relevant authorities should be consulted where appropriate.

Methodologies and reporting boundaries

[5.415.39](#) The GHG Protocol is the most widely used methodology and underpins most emissions reporting frameworks – including the TCFD's framework.

[5.425.40](#) Reporting entities should provide an explanation of the methodology used to calculate emissions metrics, including whether it is in accordance with the GHG Protocol methodology, the reporting boundaries and highlighting any changes in the basis of reporting. Where organisations align their methodology or reporting boundary with an existing reporting framework (e.g., GGCs for central government) then simply stating this alignment is sufficient.

[5.435.41](#) As there is significant scope for judgement in determining boundaries and which emissions are included, organisations should

²⁷ Refer to the [Sustainability Reporting Guidance](#) for guidance on further Scope 3 GHG emissions categories outside of the business travel.

explain these decisions clearly. This information is expected to be more material where these metrics underpin a major policy or strategy.

Intensity metrics

~~5.44~~5.42 Reporting entities should consider reporting intensity metrics (emissions per chosen unit) and provide clear explanations of the choice of metric.

Scope 3

~~5.45~~5.43 Organisations may choose to undertake an assessment of Scope 3 emissions. If a reporting entity decides to report further emissions, they must clearly identify which emissions categories are included and ensure this is understandable with historical data. Further information on emissions scopes is included in Annex A.

5.44 Where Scope 3 emissions are deemed to be material to primary users, but not disclosed in the annual report - the reporting entity should update their TCFD Compliance Statement, detailing the reason for the omission and setting out the expected timeframe for their inclusion, where appropriate.

~~Question 9. No interpretations and adaptations have been made for Metrics and Targets (b). Do you support this assessment and is the Supporting guidance from TCFD appropriate?~~

~~Is the information in 'Public sector considerations and further guidance' sufficient for preparers?~~

Recommended disclosure for Metrics and Targe (c)

Targets

Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

Supporting guidance from TCFD

Organisations should describe their key climate-related targets such as those related to GHG emissions, water usage, energy usage, etc., in line with the cross-industry *[and cross-sector]* climate-related metric categories in Table A2.1 in Annex A, where relevant, and in line with anticipated regulatory requirements or market constraints or other goals. Other goals may include efficiency or financial goals, *[and]* financial loss tolerances, avoided GHG emissions through the entire *service delivery and product life cycle*, ~~or net revenue goals for products and services designed for a low-carbon economy.~~

In describing their targets, organisations should consider including the following:

- whether the target is absolute or intensity-based;
- time frames over which the target applies;
- base year from which progress is measured; and
- key performance indicators used to assess progress against targets.

Organisations disclosing medium-term or long-term targets should also disclose associated interim targets in aggregate or by business line, where available.

Where not apparent, organisations should provide a description of the methodologies used to calculate targets and measures.

5.465.45 The 'Supporting guidance from TCFD' has been adapted to introduce reference to 'service delivery' in lifecycle emissions considerations relevant for public sector bodies, and remove reference to 'revenue goals from for products and services designed for a low carbon economy' which is irrelevant for the vast majority of public sector bodies.

Public sector considerations and further guidance

5.475.46 Organisations should provide fair, balanced, and understandable commentary on climate and sustainability-related performance, detailing organisational activities and other factors that have led to significant movements.

5.485.47 Annual reports should clearly distinguish between 'targets', 'commitments', 'pledges', 'goals', 'aims', and 'ambitions', explaining which of these policies they have actively pursued and included in organisational plans and budgets.

5.495.48 Organisations should clearly highlight which Key Performance Indicators (KPIs) are used to monitor progress against targets and provide sufficient information to assess performance.

5.505.49 Reporting entities should explain which Scope 1, 2 or 3 emissions are included in their targets and ensure that their relationship with GHG reporting metrics is clearly explained.

5.515.50 Reporting entities should provide comparative information for all metrics alongside current reporting to enable performance against the target to be assessed. Any updates to targets, such as restatements or updates to baselines, should be disclosed and explained.

5.525.51 _____ Organisations should identify any areas where performance was not in accordance with the target, and any actions taken, to address this.

~~Question 10. Metrics and Targets (c) has been adapted to add a reference to 'service delivery' in product lifecycle emissions considerations, and remove reference to 'revenue goals from for products and services designed for a low carbon economy'. Reference to TCFD's 'Cross-Industry, Climate-Related Metric Categories' have been included in Annex A. Do you support this approach? If not, why not?~~

~~Is further detail required in this section or Annex A? Is the information in 'Public sector considerations and further guidance' sufficient for preparers? If not, what further detail should be added?~~

~~Question 11. Do you have any further comments on Chapter 5 Metrics and Targets?~~

DRAFT

Annex A

Further guidance

TCFD's Recommendation and Guidance

A.1 The TCFD framework structure for recommendations and guidance is depicted in [Figure A.1](#). There is an array of existing material and guidance published by TCFD, as well as other external bodies, which may be useful to expand knowledge, build capacity and enhance reporting.

Figure A.1 TCFD's Recommendations and Guidance



Source: www.fsb-tcf.org/publications/

Climate-related risks and risk management

TCFD's guidance on climate-related risks and opportunities

A.2 Climate change can have far-reaching impacts, encompassing not only physical effects on people and the environment but also the consequences of transitioning to a changing climate, along with the necessary tasks of adaptation and mitigation. The Task Force categorise climate-related risks as follows:

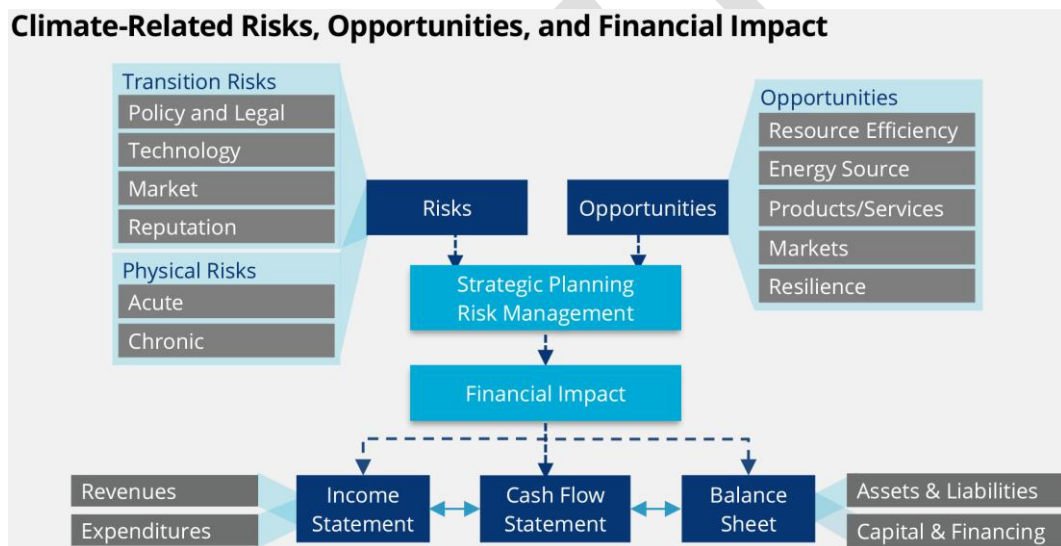
- Physical risks – adverse impacts (e.g., disruption to operations, destruction of property) either event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires) or longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise); or,

- Transition risks - associated with the move to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.

A.3 The TCFD identified certain climate-related risks, opportunities, and financial impacts which may be relevant for disclosure – denoted in [Figure A.2](#). The Task Force also set out examples of climate-related risks and opportunities, as well as the potential financial impacts – included in [Table A1.1](#) and [A1.2](#). Further details are included in [the TCFD guidance](#).

A.4 Not all TCFD’s guidance or examples are relevant to, or can be applied by, public sector bodies. Discretion must be used to determine which are relevant in their own context.

Figure A.2 Climate-related risks, opportunities and financial impact identified by the Task Force



Source: www.fsb-tcf.org/publications/

Table A1.1 Examples of climate-related risks and potential financial impacts

Type	Climate-related risks	Potential financial impacts
Transition Risks	Policy and Legal	
	<ul style="list-style-type: none"> – Increased pricing of GHG emissions – Enhanced emissions-reporting obligations – Mandates on and regulation of existing products and services – Exposure to litigation 	<ul style="list-style-type: none"> – Increased operating costs (e.g., higher compliance costs, increased insurance premiums) – Write-offs, asset impairment, and early retirement of existing assets due to policy changes – Increased costs and/or reduced demand for products and services resulting from fines and judgments
	Technology	
	<ul style="list-style-type: none"> – Substitution of existing products and services with lower emissions options – Unsuccessful investment in new technologies – Costs to transition to lower emissions technology 	<ul style="list-style-type: none"> – Write-offs and early retirement of existing assets – Reduced demand for products and services – Research and development (R&D) expenditures in new and alternative technologies – Capital investments in technology development Costs to adopt/deploy new practices and processes
	Market	
	<ul style="list-style-type: none"> – Changing customer behaviour – Uncertainty in market signals – Increased cost of raw materials 	<ul style="list-style-type: none"> – Reduced demand for goods and services due to shift in consumer preferences – Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment)Abrupt and unexpected shifts in energy costs – Change in revenue mix and sources, resulting in decreased revenues – Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)

Transition Risks	Reputation	
	<ul style="list-style-type: none"> - Shifts in consumer preferences - Stigmatisation of sector - Increased stakeholder concern or negative stakeholder feedback 	<ul style="list-style-type: none"> - Reduced revenue from decreased demand for goods/services - Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions) - Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention) - Reduction in capital availability
Physical Risks	Acute	
	<ul style="list-style-type: none"> - Increased severity of extreme weather events such as cyclones and floods 	<ul style="list-style-type: none"> - Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions) - Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism) - Write-offs and early retirement of existing assets (e.g., damage to property and assets in “high-risk” locations)
	Chronic	
	<ul style="list-style-type: none"> - Changes in precipitation patterns and extreme variability in weather patterns - Rising mean temperatures - Rising sea levels 	<ul style="list-style-type: none"> - Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

Source: www.fsb-tcfd.org/publications/

Table A1.2 Examples of climate-related opportunities and potential financial impacts

Type	Climate-related opportunity	Potential financial impacts
Resource Efficiency	- Use of more efficient modes of transport	- Reduced operating costs (e.g., through efficiency gains and cost reductions)
	- Use of more efficient production and distribution processes	- Increased production capacity, resulting in increased revenues
	- Use of recycling	- Increased value of fixed assets (e.g., highly rated energy-efficient buildings)
	- Move to more efficient buildings	- Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction) resulting in lower costs
	- Reduced water usage and consumption	
Energy Source	- Use of lower-emission sources of energy	- Reduced operational costs (e.g., through use of lowest cost abatement)
	- Use of supportive policy incentives	- Reduced exposure to future fossil fuel price increases
	- Use of new technologies	- Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon
	- Participation in carbon market	- Returns on investment in low-emission technology
	- Shift toward decentralised energy generation	- Increased capital availability (e.g., as more investors favour lower-emissions producers) - Reputational benefits resulting in increased demand for goods/services

Type	Climate-related opportunity	Potential financial impacts
Products and Services	<ul style="list-style-type: none"> - Development and/or expansion of low emission goods and services - Development of climate adaptation and insurance risk solutions - Development of new products or services through R&D and innovation - Ability to diversify business activities - Shift in consumer preferences 	<ul style="list-style-type: none"> - Increased revenue through demand for lower emissions products and services - Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services) - Better competitive position to reflect shifting consumer preferences, resulting in increased revenues
Markets	<ul style="list-style-type: none"> - Access to new markets - Use of public-sector incentives - Access to new assets and locations needing insurance coverage 	<ul style="list-style-type: none"> - Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks) - Increased diversification of financial assets (e.g., green bonds and infrastructure)
Resilience	<ul style="list-style-type: none"> - Participation in renewable energy programs and adoption of energy- efficiency measures - Resource substitutes/diversification 	<ul style="list-style-type: none"> - Increased market valuation through resilience planning (e.g., infrastructure, land, buildings) - Increased reliability of supply chain and ability to operate under various conditions - Increased revenue through new products and services related to ensuring resiliency

Source: www.fsb-tcfd.org/publications/

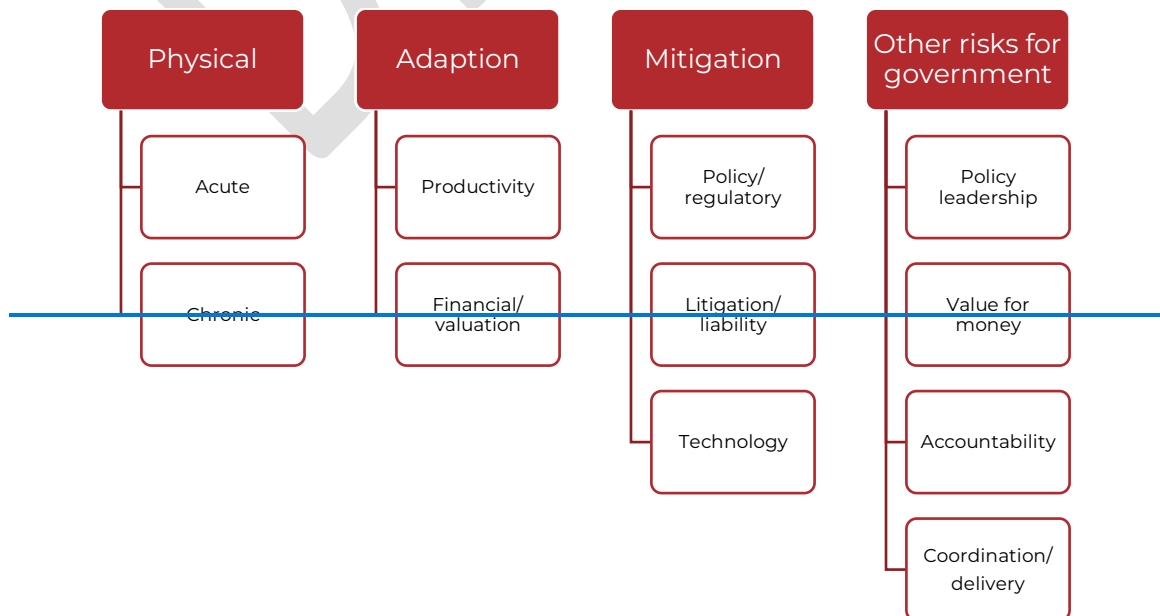
Climate-related risks particularly relevant to the public sector

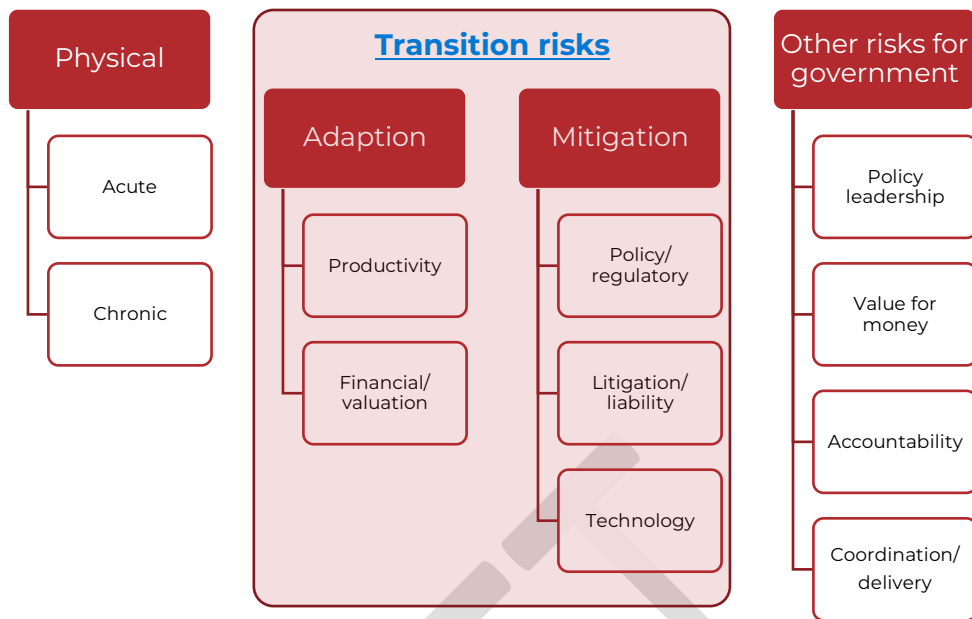
A.5 Public sector bodies face additional climate-related related risks in connection with value for money, accountability, policy leadership, and coordination and delivery. The NAO published [Climate change risk: A good practice guide for ARACs](#) which offers further reading in this area.

A.6 Example of climate-related risk categories that organisations may wish to consider are included in [Figure A.3](#), with those specific to the public sector summarised as follows:

- **Policy leadership risk** refers to the danger of government failing to effectively address climate change due to the lack of a clear, coherent, and flexible strategy across departments. This risk encompasses uncertainties in technological development, changes in behaviour, and the need for transparent, realistic plans to meet long-term objectives like net zero by 2050.
- **Value for money risk** in the context of transitioning to net zero refers to the financial dangers associated with either delayed action or hasty decisions without adequate risk assessment, potentially leading to increased long-term costs or expensive future corrections. This risk highlights the importance of integrating climate change risks in decision-making to balance cost-effectiveness with swift progress towards net zero goals.
- **Accountability risk** is the ambiguity and potential ineffectiveness in achieving net zero goals driven by unclear roles and responsibilities of public bodies outside central government departments.
- **Coordination and delivery risk** refers to the potential failure in effectively addressing climate change due to inadequate collaboration, communication, and sharing of knowledge among different organisations. This risk arises from unclear roles, fragmented funding, and diffuse accountabilities, particularly between central and local governments and other bodies, leading to social and economic costs and failure to meet targets.

Figure A.3 UK public sector climate-related risks





Other public sector risk frameworks

A.7 The government identifies climate change as a risk in the National Risk Register²⁸. The Climate Change Committee (CCC) was established under the Climate Change Act 2008 and produces a periodic UK Climate Change Risk Assessment (UKCCRA). The UKCCRA identifies priority risk areas for the UK government to address (including on freshwater, soil health, carbon stores, supply chains, etc).

A.8 The Department for Environment, Food & Rural Affairs (Defra) publish the National Adaptation Programme (NAP) to respond to UKCCRA's risks facing the natural environment, infrastructure, people and the built environment, business and industry, local government, and adaption reporting.

A.9 Each of the devolved administrations have their own legislation with respect to climate change and are required to develop adaptation plans to respond to the risks (and opportunities) posed by climate change - as identified in the most recent UKCCRA.

A.10 Annually, the CCC independently assess progress toward reducing emissions. The CCC periodically assess progress on climate change adaption plans.

Metrics and targets

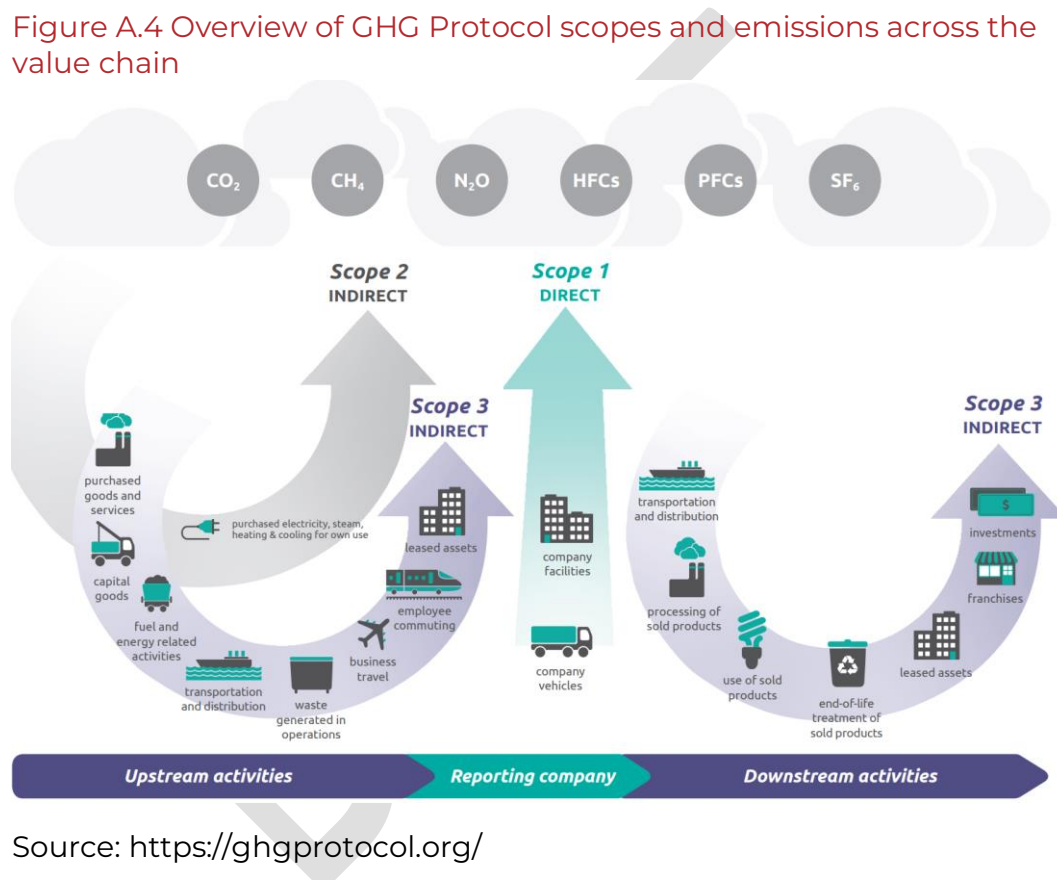
Emission scopes

A.11 The GHG Protocol set out the emission scope levels as depicted in [Figure A.4](#). This can be summarised as follows:

²⁸ <https://www.gov.uk/government/publications/national-risk-register-2023>

- Scope 1 refers to all direct GHG emissions.
- Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam.
- Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.

Figure A.4 Overview of GHG Protocol scopes and emissions across the value chain



Source: <https://ghgprotocol.org/>

TCFD's guidance on metric categories

A.12 The Task Force published Guidance on Metrics and Targets which includes seven metric categories (Table A2.1). The Task Force believes these are generally applicable to all organisations. The table also includes certain public sector interpretations which are in line with the preceding chapters.

Table A2.1 Cross-industry, climate-related metric categories

Metric Category	Example Unit of Measure	Rationale for Inclusion	Public sector applicability
GHG Emissions Absolute Scope 1, Scope 2, and Scope 3; emissions intensity	MT of CO2e	Disclosure of GHG emissions is crucial for users to understand an organisation’s exposure to climate-related risks and opportunities. Disclosure of both absolute emissions across an organisation’s value chain and relevant emissions intensity provides insight into how a given organisation may be affected by policy, regulatory, market, and technology responses to limit climate change.	Reporting on Scope 3 categories beyond those mandated in other existing public sector frameworks is not required.
Transition Risks Amount and extent of assets or organisational activities vulnerable to transition risks*	Amount or percentage	Disclosure of the amount and extent of an organisation’s assets or business activities vulnerable to climate-related transition risks allows users to better understand potential financial exposure regarding such issues as possible impairment or stranding of assets, effects on the value of assets and liabilities, and changes in demand for products or services.	The responsibilities and structures for asset ownership, control and management may differ from the private sector, extending beyond the direct remit of financial reporting. Further guidance on asset management is included in MPM. Reporting entities are encouraged to consider assets belonging to others which they protect or influence. Where such components do not form part of the entity’s balance sheet, this should be clearly stated.
Physical Risks Amount and extent of assets or organisational activities vulnerable to physical risks	Amount or percentage	Disclosure of the amount or extent of an organisation’s assets or business activities vulnerable to material climate-related physical risks allows users to better understand potential financial exposure regarding such issues as impairment or stranding of assets, effects on the value of assets and liabilities, and cost of business interruptions.	

Source: www.fsb-tcfd.org/publications/

Metric Category	Example Unit of Measure	Rationale for Inclusion	Public sector applicability
Climate-Related Opportunities Proportion of revenue, assets, or other business activities aligned with climate-related opportunities	Amount or percentage	Disclosure of the proportion of revenue, assets, or business activities aligned with climate-related opportunities provides insight into the position of organisations relative to their peers and allows users to understand likely transition pathways and potential changes in revenue and profitability over time.	Most public sector bodies are unlikely to generate significant revenue. <i>Organisation activities is more relevant for</i>
Capital Deployment Amount of capital expenditure, financing, or investment deployed toward climate-related risks and opportunities	Reporting currency	Capital investment disclosure by non-financial organisations and financing by financial organisations gives an indication of the extent to which long-term enterprise value might be affected.	

Note: While some organisations already disclose metrics consistent with these categories, the Task Force recognises others—especially those in the early stages of disclosing climate-related financial information—may need time to adjust internal processes before disclosing such information. In addition, some of the metric categories may be less applicable to certain organisations. For example, data and methodologies for certain metrics for asset owners (e.g., impact of climate change on investment income) are in early stages of development. In such cases, the Task Force recognises organisations will need time before such metrics are disclosed to their stakeholders.

Source: www.fsb-tcfd.org/publications/

Metric Category	Example Unit of Measure	Rationale for Inclusion	Public sector applicability
Internal Carbon Prices Price on each ton of GHG emissions used internally by an organisation	Price in reporting currency, per MT of CO2e	Internal carbon prices provide users with an understanding of the reasonableness of an organisation's risk and opportunity assessment and strategy resilience. The disclosure of internal carbon prices can help users identify which organisations have <i>operational</i> models that are vulnerable to future policy responses to climate change and which are adapting their <i>operational</i> models to ensure resilience to transition risks.	Public sector bodies that use internal carbon prices (or carbon values) to assess and evaluate policy and programmes should disclose the values and how they are used. Refer to para. 5.305.31 and 5.315.32 for further guidance.
Remuneration Proportion of executive management remuneration linked to climate considerations**	Percentage, weighting, description, or amount in reporting currency	Remuneration policies are important incentives for achieving an organisation's goals and objectives and may provide insight on an organisation's governance, oversight, and accountability for managing climate-related issues.	Sustainable performance-based pay may be less relevant for public sector bodies. Refer to para. 5.285.29 and 5.295.30 for further guidance.

*Transition and Physical Risks: Due to challenges related to portfolio aggregation and sourcing data from companies or third-party fund managers, financial organisations may find it more difficult to quantify exposure to climate-related risks. The Task Force suggests that financial organisations provide qualitative and quantitative information, when available.

** Remuneration: While the Task Force encourages quantitative disclosure, organisations may include descriptive language on remuneration policies and practices, such as how climate change issues are included in balanced scorecards for executive remuneration.

Source: www.fsb-tcfd.org/publications/

Public sector interpretations and adaptations

A.13 The Task Force developed their recommendations for the private sector. Consequently, certain key principles, concepts and terms used in the TCFD guidance have to be interpreted and adapted for a public sector context – as identified and explained in Table A.3 (below).

A.14 These interpretations and adaptations are limited specifically to this guidance (and the UK public sector) and should not be applied more widely.

Table A.3 Public sector interpretations and adaptations

Private sector	Public sector	Explanation
Business or company	Organisation	Encompasses a wider array of bodies, including those in the public sector.
Business plan	Operational plan	A plan sets out what an organisation does, and what it is trying to achieve. For the private sector, this is focused on making profit; whereas for the public sector, this is focused on delivery. For example, this could be the sustainability enabler with a central government department's Outcome Delivery Plan (ODP).
Business model	Operational model	Transforming inputs through its activities into outputs and outcomes that aims to fulfill the entity's objectives, by providing goods and/or services
Acquisition and divestures	Investment and grant decisions, or restructures (e.g., Machinery of Government changes)	While public sector bodies can acquire and divest other investments; these decisions tend to encompass a broader array of actions, including different types of restructures (e.g., Machinery of Government changes), grants, and investments.

Private sector	Public sector	Explanation
Sectors	Services	Private sector entities are able to define their own sectors for categorisation. TCFD identifies specific sectors, for which 'government' is a single category. For the public sector, standardising categorisations improves comparability and consistency.
Products and services	Public goods and services	The public sector delivers public goods and services, not products and services.
Supply chain and/or value chain	Supply chain	The public sector is focused on the delivery of public goods and services - not profit. This is not limited to monetisable value.
Investment in research and development	Funding research and development	Equity investment in the private sector is common. Other forms of funding (e.g., grant funding) are also used in the public sector. Consequently, funding has been used to encompass the broader funding streams.
Access to capital	Access to parliamentary supply, other funding, and resources	For the private sector, access to capital predominantly refers to cash raised from debt and equity. For the public sector, funds are predominantly raised via taxes (as well as fees and levies), borrowing and other sources (e.g., donations or selling public assets).

Annex B

Phased implementation approach

B.1 The TCFD recommendations are intended to fundamentally change how organisations address climate change and its impacts, culminating in insightful disclosures. A phased approach (both in scope and timing) provides reporting entities with solid building blocks to allow for the most effective implementation of the TCFD recommendations.

B.2 In the private sector, generally, organisations have chosen to provide the Governance disclosures first as these engage senior leadership and are higher level/ more qualitative. Organisations often then provide disclosures for Risk Management and Metrics and Targets, before attempting the more complex and qualitative disclosures for Strategy. This has informed our implementation timetable for central government which is set out in Table B.1 (next page).

B.3 While in-scope central government bodies should follow the implementation timetable set out in Table B.1, the 'comply or explain' principle applies to the overall implementation approach just as it does to individual disclosures. Therefore, entities may choose to diverge from the implementation timetable, on the condition that they provide an explanation in the TCFD Compliance Statement (refer to para. [1.401-39](#)).

B.4 Public sector bodies should assess progress and evaluate performance throughout implementation, with an appropriate level of review and oversight by those charged with governance in their review and approval of each year's annual report.

B.5 Setting out a clear and realistic implementation timetable for TCFD recommendations is likely to improve the quality and effectiveness of disclosure. The phased approach for central government may be used as a template, recognising the differences in users' informational needs, risks and capacity. Relevant authorities may choose to set their own implementation timetables which entities should remain alert to.

B.6 A reporting entity may choose to follow a slower implementation timetable. In-scope reporting entities would provide an explanation for non-compliance with the timetable. Where such information gaps are considered material, the reporting entity should set out its future plans to address the gaps. The information needs of users should be the driving factor in determining what to include in annual reports. Applying appropriate judgement to the level and breadth of disclosure is key to producing effective and useful public sector annual reports.

Table B.1 Overview of TCFD-aligned implementation phases in central government

	Phase 1 – Governance focus	Phase 2 – Risk Management and Metrics and Targets	Phase 3 – Strategy
Target period	2023-24 (for annual reports ending 31 March 2024)	2024-25 (for annual reports ending 31 March 2025)	2025-26 (for annual reports ending 31 March 2026)
Focus	High-level overview	Qualitative disclosures with existing quantitative disclosures	Quantitative disclosures with technical requirements. TCFD-aligned disclosure is fully implemented.
Requirements	Reporting entities shall provide a TCFD Compliance Statement and the recommended disclosures for: <ul style="list-style-type: none"> • Governance • Metrics and Targets (b), only where available from existing reporting processes. <p>Comply or explain basis</p>	Reporting entities shall provide a TCFD Compliance Statement and the recommended disclosures for: <ul style="list-style-type: none"> • Governance • Risk Management • Metrics and Targets <p>Comply or explain basis</p>	Reporting entities shall provide a TCFD Compliance Statement and the recommended disclosures for: <ul style="list-style-type: none"> • Governance • Risk Management • Metrics and Targets, considering wider reporting. • Strategy <p>Comply or explain basis</p>
Interaction with GGC framework	Continue to apply GGC21-25 emissions methodology for Metrics and Targets, in line with SRG	Continue to apply GGC21-25 emissions methodology for Metrics and Targets in line with SRG	Apply new GGC25-30 emissions methodology for Metrics and Targets (GGC21-25 runs until 31 March 2025 with next commitment period for GGC25-30 starting on 1 April 2025). Consider further additional support on emissions methodology (e.g. on scope 3).

Annex C

List of abbreviations

C.1 Please refer to Table C.1 for a list of abbreviations used in this document.

Table C.1 List of abbreviations

ALB	Arm's-length Body
FCA	Financial Conduct Authority
FRAB	Financial Reporting Advisory Board
FReM	Government Financial Reporting Manual
FSB	Financial Stability Board
FTE	Full-time equivalents
GGCs	Greening Government Commitments
GHG	Greenhouse Gas
MPM	Managing Public Money
IPSASB	International Public Sector Accounting Standards Board
ISSB	International Sustainability Standards Board
ODP	Outcome Delivery Plan
SRG	Sustainability Reporting Guidance
TCFD	Task Force on Climate-related Financial Disclosure
ALB	Arm's-length Body [removed]

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Government
Actuary's
Department

Appendix 2

Note - Appendix 1, 2 and 3 from herein refer to the appendices to these slides and GAD's presentation and not the FRAB paper.

Climate scenario analysis guidance for departments, ALBs and public bodies

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Eva Grace

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March 2024

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2	Background
3	Options for climate scenario analysis
4	Next steps
5	Appendices



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Glossary

Key terms along with those that may be less familiar to the audience are defined throughout the report as appropriate. Other acronyms and abbreviations are defined here for completeness.

Stakeholders

CCC	Climate Change Committee
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
HMRC	HM Revenue and Customs
MOD	Ministry of Defence
MOJ	Ministry of Justice
OBR	Office for Budget Responsibility
UKEF	UK Export Finance

Climate modelling

CMIP	Coupled Model Intercomparison Project
RCP	Representative Concentration Pathway
SSP	Shared Socioeconomic Pathways
UKCP	UK Climate Projections

Other relevant bodies

ALB	Arms Length Body
A4S	Accounting for Sustainability
DBT	Department for Business and Trade
DWP	Department for Work and Pensions
FCA	Financial Conduct Authority
FRAB	Financial Reporting Advisory Board
FRC	Financial Reporting Council
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
NGFS	Network for Greening the Financial System

Climate reporting

ARP	Adaptation Reporting Power
CCRA	Climate Change Risk Assessment
NAP	National Adaptation Programme



Executive summary

- Executive summary
- General considerations and next steps



Executive summary

In this report we set out recommendations for guidance around climate scenario analysis for government and public entities. In producing this analysis, we have considered the current Task Force on Climate-related Financial Disclosures (TCFD) scenario analysis reporting landscape, spoken to expert government departments and arms length bodies (DESNZ, Met Office, CCC, OBR, Defra) and early adopters of TCFD-aligned disclosure and climate scenario analysis within government (UKEF, MOD, MOJ, HMRC).

We have identified eight factors that feed into climate scenario analysis and set out our recommendations around the guidance for each of these factors, summarised below and covered in detail throughout the report. We have also included our views on some other general considerations and background information that could be taken into account in drafting the scenario analysis, and wider Strategy, guidance for entities.

- 1. Scenario definition:** Scenarios for physical risk will be defined either by referring to particular SSP-RCP combinations, or temperature pathways (2 and 4 degrees by the end of the century). Transition scenarios are to be defined by entities if they are to be explored.
- 2. Scenario provider:** IPCC SSP-RCP scenarios will form the base for physical risk analysis, providing information relating to emissions (and associated temperature rise) and socioeconomic development for different levels of temperature rise. Met Office data (currently the most up to date of which is the UKCP18 and UK SSP) provides UK specific downscaled climate metrics following SSP-RCP scenarios so this will be useful for entities.
- 3. Scope of analysis:** Analysis should cover the full departmental operations.
- 4. Timeframes:** Short, medium and long timeframes should be considered. Specifically for scenario analysis, it is recommended:
 - Short – to be defined by the entity in line with their business planning cycle
 - Medium – 2050
 - Long – end of century
- 5. Frequency:** Scenario analysis should be updated every 3 to 5 years, or more frequently if there are any significant developments or events that mean the assumptions used are no longer suitable.
- 6. Number of scenarios:** All entities should consider one low physical risk scenario (2 degree aligned) and one high physical risk scenario (4 degree aligned). Where entities have a material exposure to transition risk they should consider low/high transition risk scenarios as appropriate.
- 7. Quantitative or qualitative:** Quantitative scenario analysis is preferred and recommended.
- 8. Entity on climate impact:** The impact of climate risks and opportunities on the entity should be the main focus of the scenario analysis. The impact of the entity on climate risks and opportunities can be considered but will likely need to be qualitative.



General considerations and next steps

General considerations in drafting the guidance for scenario analysis are summarised below.

1. Using **publicly available data sources** to underpin the scenario analysis is preferential for transparency and consistency.
2. The establishment of a **cross-entity team** to develop and undertake scenario analysis is vital.
3. Due to the complex nature of scenario analysis it is likely that reporting entities would benefit from **additional training on scenario analysis**.
4. Entities may find it helpful to buy in modelling solutions and technical support to aid their scenario analysis. Where entities choose to do so, they should **ensure existing reporting processes and principals around modelling, including those in the Aqua Book are followed**.
5. In order to highlight good practice and inspire reporting entities it would be helpful to provide **case studies and examples** alongside the guidance on scenario analysis.
6. Best practice would be that the same **timeframes are used consistently throughout a TCFD report**.

The suggested **next steps** of this project are set out below.

- 1 Sub-committee to discuss and agree recommendations set out in this report (7 March). Provide recommendation to FRAB.
- 2 Discuss with Met Office their future plans for climate data provision to allow GAD to firm up recommendation about physical climate scenario definitions (SSP-RCP-aligned or temperature-aligned). Discuss with other relevant stakeholders as required.
- 3 Summarise the results of this report for FRAB to discuss and agree (21 March).
- 4 Incorporate recommendations into first exposure draft to be presented and agreed at June FRAB meeting.
- 5 Consider a training program for the roll out of the strategy guidance to departments. GAD could assist in the technical aspects.

Background

- Introduction and background to the project
- Considerations to keep in mind when reading this report
- Context and consistency insights from meetings with stakeholders



Introduction and background to the project

This report has been prepared for HMT for the purpose of informing guidance to government entities on climate scenario analysis as part of the TCFD roll out in the public sector. TCFD strategy recommendation (c) requires organisations to undertake scenario analysis.

Strategy (c): Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Key objectives for having government entities complete and report climate scenario analysis in 2025-26 include:

1. Accountability to Parliament
2. Transparency to the public
3. Management information for decision-making
4. Public record
5. Financial information for the purpose of resource allocation

This project aims to address the question of **how government/public sector bodies can conduct TCFD-compliant scenario analysis in the most effective way**, recognising that the key objectives of scenario analysis for government entities are different to those of most private sector organisations.

The analysis and recommendations contained in this report will feed in to HMT's first draft of guidance for Phase 3 of the TCFD roll out to central government entities.



Considerations when reading this report

The guidance around scenario analysis will be based on a “comply or explain” basis

- The TCFD framework is principles-based. Existing HMT Phase 1 and 2 guidance confirms entities must apply a “comply or explain” basis for disclosure; complying with each of the required TCFD’s recommended disclosures; or explaining non-compliance against each of the requirements.
- This approach is also to be adopted for scenario analysis, with the expectation that entities comply with the recommendations set out, or explain where and why they have chosen not to.
- This is particularly important for scenario analysis:
 - The complex nature of the analysis may mean it takes entities several rounds of disclosures to meet the expected standard.
 - Entities may have other regulatory reporting requirements that include specific details of the scenarios that should be chosen.
 - Some entities may have already completed significant work on scenario analysis and hence it may be more appropriate to use their alternative scenarios, rather than our recommended approach.

Whether climate risk is a principal risk determines whether entities will be required complete scenario analysis

- Scenario analysis will only be required where entities have identified climate as a principal risk.
- However, entities may find the process of scenario analysis useful to help them better understand their exposure to climate risk, even if climate change isn’t currently deemed a principal risk. In this case the recommendations outlined in this report would still represent good practice.

The project’s scope has been limited to exclude consideration of changes to future policy that would feed into transition risk analysis

- The impact of future policy would be considered when assessing transition risks (risks that occur due to our transition to a low carbon economy, and the speed of that transition).
- However, future policy is incredibly uncertain, hard to model and potentially politically-sensitive.
- Hence the project scope was refined through discussion with HMT and other stakeholders to exclude policy implementation within scenario analysis guidance. As such, our recommendations focus on temperature based scenarios.



Context and consistency insights from stakeholders

To inform context and areas for consistency we have gathered insights from relevant experts and TCFD report preparers across government and the public sector.

Who we met with

Experts:

- CCC
- Defra
- DESNZ
- Met Office
- OBR

TCFD report preparers:

- HMRC
- MOD
- MOJ
- UKEF

These preparers were chosen due to their more advanced TCFD-related progress and useful experience.

What we learned

Key lessons from **experts** included:

- There is a lot of work going on across government and the public sector around climate risk (particularly risks around adapting to climate change). There are many teams working on different climate related projects, which may directly or indirectly affect scenario analysis. Timeframes on projects vary (with many in situ i.e. Met Office projects to update their climate scenario analysis) and guidance should be flexible enough to reflect this.
- Some existing climate-related reporting guidance, standards or policies include information relating to scenario analysis. Experts outlined the work they have done in this area, to whom their guidance and policies were aimed at and hence consistency with this should be considered.
- The Intergovernmental Panel on Climate Change (IPCC) -style scenarios were often cited. Numerous scenario and data provider options were discussed although IPCC work was commonly quoted as a starting point for scenario analysis work on physical climate risks.

Key lessons from **TCFD report preparers** included:

- There isn't a consistent baseline. Both between departments, and within departments, there is significant disparity in the level of work done directly on, or in support of climate scenario analysis.
- External support has often been required. Generally, where departments have been able to make significant progress on scenario analysis, and supporting work, they have done so with a degree of external support (i.e. private sector consultants). However, the importance of internal upskilling was also noted, especially as the work becomes business as usual.
- Internal stakeholder engagement is vital. The importance of having the correct people engaged from the start is vital, this should include senior representation across the breadth of the organisation. This applies to the wider TCFD implementation as well as our focus, scenario analysis.
- Communication is key. Scenario analysis can be complex and the people completing it may not be climate experts, and so the importance of simple, informative communication and knowledge sharing both within the organisation and externally is vital. Examples and case studies will be particularly important in this regard.

Options for scenario analysis guidance

- Specific factors – summary assessment
- Specific factors – detailed discussion of individual factors
- General considerations for scenario analysis



Specific factors – summary (1)

The summary below sets out our assessment of consistency, complexity and conviction for each of the eight scenario analysis factors that we have identified. Each of these factors are explored in more detail in the following slides.

Consistency	Low	Medium	High	How important is this factor in generating consistent and comparable results across entities and consistent results with other climate change guidance.
Complexity	High	Medium	Low	What is the level of complexity that our recommendation introduces for entities completing scenario analysis.
Conviction	Low	Medium	High	How high is GAD’s conviction in our recommendation for this factor. Where our conviction is low, there are likely other reasonable routes to take.

		Consistency	Complexity	Conviction
Detail and sophistication of scenario definition	Scenarios for physical risk will be defined either by referring to particular SSP-RCP combinations, or temperature pathways (2 and 4 degrees by the end of the century). Transition scenarios are to be defined by entities if they are to be explored.	High	Medium	High
Scenario data provider	IPCC SSP-RCP scenarios will form the base for physical risk analysis, providing information relating to emissions (and associated temperature rise) and socioeconomic development for different levels of temperature rise. Met Office data (currently the most up to date of which is the UKCP18 and UK SSP) provides UK specific downscaled climate metrics following SSP-RCP scenarios so this will be useful for entities.	Medium	Medium	High
Scope of scenario analysis within entities	The recommended scenario analysis should cover the full reporting entity’s operations.	High	Medium	Medium



Specific factors – summary (2)

The summary below sets out our assessment of consistency, complexity and conviction for each of the eight scenario analysis factors that we have identified. Each of these factors are explored in more detail in the following slides.

Factor	Recommendation	Consistency	Complexity	Conviction
Timeframes for scenarios	<p>Short, medium and long timeframes should be considered. Specifically for scenario analysis, it is recommended:</p> <ul style="list-style-type: none"> • Short – to be defined by the entity in line with their business planning cycle (Spending Reviews, election cycles, funding and investment rounds or other) • Medium – 2050, noting that this is a key date that it is important to consider • Long – end of century 	Medium	High	Medium
Frequency of scenario analysis	<p>Scenario analysis should be updated every 3 to 5 years, or more frequently if there are any significant developments or events that mean the assumptions used are no longer suitable.</p>	Medium	Low	Medium
Number of scenarios	<p>All entities should consider one low physical risk scenario (2 degree aligned) and one high physical risk scenario (4 degree aligned). Where entities have a material exposure to transition risk they should consider low/high transition risk scenarios as appropriate.</p>	Medium	Low	Medium
Quantitative or qualitative analysis	<p>Quantitative scenario analysis is preferred and recommended.</p>	Medium	High	High
Impact of entity on environment	<p>The impact of climate risks and opportunities on the entity should be the main focus of the scenario analysis. The impact of the entity on the environment, economy or public (with respect to climate change) can be considered but will likely be qualitative.</p>	Low	Low	High



Detail and sophistication of scenario definition

Recommendation

Scenarios for physical risk will be defined either by referring to particular SSP-RCP combinations (e.g. SSP1-2.6) , or temperature pathways (2 and 4 degrees by the end of the century). To confirm this which of these two approaches we recommend, we recommend we discuss further with the Met Office the approach that they plan to take as their data will likely be used by many entities. Entities will supplement this data with entity-specific data points in order to quantify their risk exposure.

Transition scenarios are to be defined by entities if they are to be explored in scenario analysis, with some high-level additional guidance from HMT. Transition risk could be particularly important for entities which have made a net zero commitment earlier than the government's 2050 timeline or are ministerial policy-setters.

Consistency

Low Medium High

It is important that there are good definitions of the scenarios to have consistency across entities.

Using 2 and 4 degree aligned scenarios is consistent with existing guidance including the Defra adaptation risk assessment guidance. Defra also sets out possible SSP-RCP combinations for their temperature aligned scenarios. Further, DWP, DBT and the TCFD recommend that one scenario should be 2 degrees of warming or lower.

Complexity

High Medium Low

Providing scenarios to use for physical risk analysis will reduce the initial exploratory work for entities.

However, for entities who choose to look at transition risk scenarios, they will have to define these themselves, which could add to the level of complexity of their analysis (versus transition scenarios being defined by HMT).

Conviction

Low Medium High

To ensure a level of consistency we believe it is vital to define at least some high-level aspects of the scenarios considered (e.g. by referring to IPCC SSP-RCPs and/or temperature pathways).

Benefit to entities

Reduces the scope of the work for entities. However, where entities have already done some scenario analysis these scenarios may not be consistent, although we expect this to in only a limited number of cases. Given the 'comply or explain' nature of the guidance, if an entity believes that their scenarios are more appropriate, they will be able to continue to use these.

Scenario data provider

Recommendation

Given transition risk is less material for government entities than in the private sector (due to the public sector's service delivery nature and role in setting climate transition policies), the focus of the scenarios will be on physical risk. IPCC SSP-RCP scenarios will likely form the base for physical risk analysis, providing information relating to emissions (and associated temperature rise) and socio economic development for different levels of temperature rise. Met Office data (currently the most up to date of which is the UKCP18 and UK SSP) provides UK specific downscaled climate metrics for different temperature scenarios so this will also be useful for entities.

These physical risk scenarios do not consider the policy response required to enable the transition. Therefore, where entities consider low/high transition risk scenarios, NGFS, IEA and/or other data could be used as a basis for setting transition scenario narratives. Ultimate consistency for transition risk scenarios would come from developing a set of narratives (and corresponding metrics) that can be consistently used across entities. Without this it will be for each entity to develop their own narratives in a way which is relevant to the scope of analysis they are undertaking and the impacts that they want to assess. However, HMT could point towards relevant data sources (NGFS, IEA) that entities could use to develop their own scenarios.

Consistency

Low Medium High

Defining physical risk scenario providers will help promote consistency across entities for the key physical risk scenarios. Without this there could be significant discrepancy in the key data used.

However, entities will always need some additional, more bespoke data/information which could still lead to some discrepancies.

There is also a greater likelihood of inconsistency in the low/high transition risk scenarios considered as these will be up to the entities to define, if they decide to explore them.

Complexity

High Medium Low

By recommending physical risk scenario providers this will reduce the initial exploratory work required by entities.

However, entities will always have to translate the climate risk data points into what that means for them.

Further, where entities consider low/high transition risk scenarios they will need to research suitable scenario data providers and develop a plausible narrative. Some of this work could be reduced if HMT points to suitable providers of transition scenario data, such as NGFS and IEA.

Conviction

Low Medium High

From analysis we believe that there is no single scenario provider that can provide all of the data necessary for all entities to complete scenario analysis of physical and transition risk.

However, given the focus on physical risk scenarios, IPCC and Met Office data should provide entities with many of the climate data points they need to enable them to quantify their climate risk under different scenarios.

Benefit to entities

Using publicly available data sources defined by HMT, entities are less likely to have to spend significant time and resources defining their own scenarios. However, some entities, particularly those who are very advanced in their thinking on this subject could feel that they have less flexibility to develop their own scenarios, although the 'comply or explain' basis should help to mitigate this.

Scope of scenario analysis within entities

Recommendation

The recommended scenarios should cover the full departmental operations (subject to materiality assessments discussed in Phase 2 guidance).

Within entities, it may be preferable to limit the scope of the analysis initially to the most significant climate risks or the operations most significantly impacted by climate risk. This may allow a higher quality of analysis while capacity and capability within the entity are established. However, in time analysis should be extended to cover the full operations of the entity in order to be fully compliant with these recommendations.

Consistency

Low Medium High

In time, covering the full extent of departmental operations will mean there is consistency across entities. Only in the initial years will the level of coverage that entities use within their analysis impact consistency.

Allowing entities to augment the scope of their analysis over several years is consistent with other guidance, including that from DBT, the FRC and A4S.

Complexity

High Medium Low

Including the understanding that entities may limit the scope initially, analysis complexity can be increased over a number of disclosures.

Conviction

Low Medium High

We want to ensure that the aim for full disclosure is clear but understand this may be challenging initially and hence have added flexibility to the recommendation.

Benefit to entities

Including the full departmental operations in the analysis will help ensure a consistent approach across the department, and ensure that all risks and opportunities are considered appropriately, including those that could be material in the future. Flexibility on scope allows entities to build up their capacity over a number of years which should make this easier.

Timeframes for scenarios

Recommendation

Short, medium and long timeframes should be considered. Specifically for scenario analysis, it is recommended:

- Short-term – to be defined by the entity in line with their business planning cycle (Spending Reviews, election cycles, or otherwise)
- Medium-term – 2050, noting that this is a key date that it is important to consider
- Long-term – end of century

These are relatively long to reflect the nature of government entities.

Specifying the timeframes for scenario analysis ensures greater potential for comparability between reporting entities than allowing entities to choose their own timeframes. Although the risk profile of different entities (and different risks within the same entity) will vary, using the recommended timeframes should allow reporting entities to consider exposure to a range of climate related risks and opportunities over a long enough horizon for those risks to materialise (particularly physical risks).

Consistency

Low

Medium

High

In order for the results of the analysis to be consistent across departments it is important that the timeframes considered are similar, as the impact of physical and transition risks can vary greatly depending on what timeframe is being looked at.

However, most existing guidance does not specify timeframes and hence this recommendation (of specific timeframes) is less consistent with other sources like TCFD, DWP, DBT etc.

Complexity

High

Medium

Low

The timeframes recommended are relatively long compared to those used by some private sector organisations. The longer the timeframes the greater the complexity and uncertainty due to increased time for changes to develop, the potential for tipping points to be crossed and the greater range of potential outcomes.

Conviction

Low

Medium

High

We understand that 2050 is a key date and believe it is important for entities to consider.

However, we know that there can be some benefits in allowing entities more flexibility to align timeframes with other risk and strategic planning activities. This has influenced our recommendations for the flexibility in the short and long timeframes.

Benefit to entities

For scenario analysis it is necessary to define timeframes broadly to have any degree of consistency across departments. Thinking longer term will allow departments to get a fuller appreciation of potential risks.

Frequency of scenario analysis

Recommendation

Scenario analysis should be updated every 3 to 5 years, or more frequently if there are any significant developments, external events, changes in market practice or it is deemed that the assumptions used are no longer suitable. Examples of such events include Spending Reviews, political cycles, alignment with other reporting processes (NAP, ARP, CCRA), updates to underlying data (by the IPCC, Met Office or other providers).

It will be the responsibility of the entity to determine whether this is the case.

Consistency

Low

Medium

High

By not precisely defining the dates when scenario analysis should be undertaken, entities will likely end up doing analysis at different dates which could lead to inconsistency.

However, the underlying data of the scenarios may not change materially from year to year, so this may not be as important.

The approach is largely consistent with other existing guidance.

Complexity

High

Medium

Low

Our recommendation offers greater flexibility than some other guidance (for example DWP and DBT guidance that states scenarios should be updated at least every 3 years).

We have made this recommendation on the understanding that aligning scenario analysis with strategic planning rounds (that may operate at different timescales across entities) should enable more useful and impactful analysis for entities.

It should also reduce the

Conviction

Low

Medium

High

There is significant flexibility in the recommendation, this could be tightened to ensure scenario analysis was updated at least every 3 years and coordinated across entities.

However, tightening this recommendation may strain entities capacity and resources limiting the quality of the analysis produced. The proposed flexibility in the recommendation should hopefully allow for high quality analysis.

Benefit to entities

Flexibility means that entities can align updating their scenario analysis with other suitable business-as-usual activities. This should help make the analysis more decision-useful and easier to embed successfully in the entity operations.

Number of scenarios

Recommendation

All entities should consider one low physical risk scenario (2 degree aligned) and one high physical risk scenario (4 degree aligned). Using the IPCC SSP-RCP and/or Met Office climate data will mean that these scenarios ignore transition risk.

Where entities have a material exposure to transition risk they should also consider low/high transition risk scenarios (such as orderly and disorderly transitions) as appropriate.

Consistency

Low Medium High

To comply with TCFD recommendations entities have to consider at least 2 scenarios. Using at least 2 scenarios is also consistent with DWP guidance.

As the focus is on physical risk, we believe that there would likely be little value added in considering a third scenario (e.g. 3 degrees).

However, general accepted best practice is that at least 3 scenarios are considered, to show the potential variability in outcomes. This leads to the recommendation that where transition risks are material for an entity additional scenarios should be considered.

Complexity

High Medium Low

TCFD recommendations only require 2 scenarios. However 3 (or more) is standard across the market.

Conviction

Low Medium High

Requiring 2 scenarios ensures TCFD compliance. Using widely accepted "low" and "high" physical risk scenarios also helps entities to get a feel for their spread of exposure.

However, using a greater number of scenarios could lead to a fuller understanding of the climate related risks and opportunities that may impact the entity, particularly if the range of outcomes under the 2 and 4 degree scenarios is wide.

Benefit to entities

The recommendation lets entities compare "low" and "high" physical risk scenarios, which should provide an understanding of the potential range of possible impacts. It also provides entities some flexibility to add a transition risk scenario based on their own risk exposure.

Quantitative or qualitative analysis

Recommendation

Quantitative scenario analysis is preferred and recommended albeit with the understanding that some aspects will have to be qualitative (particularly around the impact of the entity on climate risk, as opposed to the impact of climate risk on the department).

We understand that entities may not be able to deliver full quantified analysis initially so instead may focus on a qualitative disclosure. However, it is expected that entities have a plan to achieve quantitative analysis in order to be fully compliant with these recommendations.

Consistency

Low

Medium

High

Consistency can be achieved with quantitative and qualitative scenarios. However, qualitative scenarios would need to be very well defined to achieve consistency in the results of the scenario analysis.

Quantitative scenarios may be easier to define and achieve consistency in the results.

Aiming for quantitative analysis is consistent with other guidance including from TCFD.

Complexity

High

Medium

Low

Quantitative analysis is likely to be more complex than qualitative analysis.

Conviction

Low

Medium

High

Both quantitative and qualitative analyses have their benefits but, for analysis to be useful for resource allocation and entities decision making, quantification is preferred.

Benefit to entities

Quantification of risks can help to ensure adequate mitigation strategies are in place, including using the quantification as evidence when requesting adaptation funding or similar. Decision making can be improved through quantification as considered in the Green Book. Quantification can also help engage senior leadership and a range of stakeholders across the department.

Impact of entity on environment

Recommendation

The impact of climate risks and opportunities on the entity should be the main focus of the scenario analysis.

However, entities should consider the primary users of their annual report and accounts (Parliament) and their interest in policy outcomes for accountability and decision making. Therefore, the impact of the entity (particularly for entities who are policy setters, and less so for policy implementers) on climate risks and opportunities can be considered but will likely be qualitative.

Consistency

Low

Medium

High

There will be a high degree of consistency across entities in analysing the impact of climate on the entity.

However, the recommendation is ranked low in terms of the consistency it will bring because entities are likely to focus on the impact of climate on the entity anyway so defining the two-way impact (impact on the entity, and from the entity) scope is unlikely to add much more consistency across entities.

Complexity

High

Medium

Low

By focussing initially on the climate's impact on the entity and not vice versa, analysis complexity is significantly reduced.

Conviction

Low

Medium

High

It will be challenging to assess the impact of the entity on the climate due to significant uncertainty, including dependence on future policy decisions.

However, entities that have a significant impact on the environment would be encouraged to think about this, qualitatively at least.

The best practice recommendation would be that all entities should consider their impact on the environment.

Benefit to entities

Flexibility on [consideration of the impact of the entity on the environment](#) allows entities to concentrate on the impact of climate risk on the entity, and not on the entity's impact on the climate e.g. through policy setting. This should be easier for entities to analyse and quantify and hence the quality of the analysis produced should be higher.

General considerations for scenario analysis

The issues on this page don't fit into any of the eight factors considered in the previous pages, but we feel that they are important and some have been mentioned several times during our stakeholder interviews.



Using **publicly available data sources** to underpin the scenario analysis is preferential for transparency and consistency. In some situations there may be reasons to use non-publicly available data however publicly available data should be considered first.



The establishment of a **cross entity team** to develop and undertake scenario analysis is vital. Climate risks and opportunities will impact the different areas of an entity's operations and hence it is important that there is a diverse team involved from the initial development of scenarios through to reporting and disclosure and beyond.



Due to the complex nature of scenario analysis it is likely that reporting entities would benefit from **additional training on scenario analysis**, particularly how scenarios and data sources can be tailored and made relevant to an entity's operations.



Entities may find it helpful to buy in modelling solutions and technical support to aid their scenario analysis. Where entities choose to do so, they should **ensure existing reporting processes and principals around modelling, including those in the Aqua Book are followed**.



In order to highlight best practice and inspire reporting entities it would be helpful to provide **case studies and examples** alongside the guidance on scenario analysis.



Best practice would be that the same **timeframes are used consistently throughout a TCFD report**, for example, the timeframes set under Strategy disclosure (a) should align with those used for scenario analysis.

Next steps



Next steps

This report sets out our eight recommendations for guidance around climate scenario analysis for public entities. We have also included our thoughts on several other general considerations that could be taken into account in drafting the scenario analysis (and wider Strategy) guidance for entities.

After considering the recommendations set out in this report, we have set out a series of immediate next steps in order these recommendations into guidance for departments.

1

Sub-committee to discuss and agree recommendations set out in this report (7 March). Provide recommendation to FRAB.

2

Discuss with Met Office their future plans for climate data provision to allow GAD to firm up recommendation about physical climate scenario definitions (SSP-RCP-aligned or temperature-aligned). Discuss with other relevant stakeholders as required.

3

Summarise the results of this report for FRAB to discuss and agree (21 March).

4

Incorporate recommendations into first exposure draft to be presented and agreed at June FRAB meeting.

5

Consider a training program for the roll out of the strategy guidance to departments. GAD could assist in the technical aspects.



Appendix 1

- Methodology and assessment criteria



Methodology and assessment criteria

- We have broken down the question of “how to set scenario analysis guidance” into specific components, or factors, of scenario analysis on which HMT could provide guidance. We have set out relevant considerations and our recommendation for each.
- We have assessed these recommendations against criteria agreed with HMT in setting this guidance, namely consistency of approach and output, and complexity for entities.
- Additionally, there are many factors where several approaches are appropriate and could be justified. Therefore we have also provided a measure for our level of conviction in our recommendation. When our conviction is low, we would likely be comfortable with alternative approaches.

Consistency	Low	Medium	High	How important is this factor in generating consistent and comparable results across entities and consistent results with other climate change guidance.
Complexity	High	Medium	Low	What is the level of complexity that our recommendation introduces for entities completing scenario analysis.
Conviction	Low	Medium	High	How high is GAD’s conviction in our recommendation for this factor. Where our conviction is low, there are likely other reasonable routes to take.

- As well as assessing each of the factors against these three criteria, we have set out the benefits (or drawbacks) to entities of taking the recommended approach.



Appendix 2

- What is climate scenario analysis?
- Risks and opportunities in scenario analysis
- What are climate scenarios?
- What are the IPCC scenarios?
- Data that can help climate scenario analysis



What is climate scenario analysis?

There is no single accepted definition of climate scenario analysis and it means different things to different people. Below we have set out both how TCFD defines scenario analysis and GAD's view of climate scenario analysis in the context of this project.

TCFD's definition

“Scenario analysis is a **process for identifying and assessing the potential implications of a range of plausible future states under conditions of uncertainty.**

Scenarios are hypothetical constructs and not designed to deliver precise outcomes or forecasts. Instead, scenarios provide a way for organizations to consider **how the future might look if certain trends continue or certain conditions are met.**

In the case of climate change, for example, scenarios allow an organisation to explore and develop an understanding of how various combinations of climate-related risks, both transition and physical risks, may affect its businesses, strategies, and financial performance over time.

Source: [TCFD Final Recommendations](#)

GAD's view

Climate scenario analysis is a tool for assessing what could happen to different aspects of the entity (costs, income, policy, asset values, liability, workforce etc) under different future plausible outcomes of climatic conditions and macro- and micro-economic development in response to climate change and transition to a low carbon economy.

The use of scenario analysis to explore the impacts of climate change on these aspects is continuously evolving. What was done 5 years ago likely looks very different to what can be done today. As climate related risks and opportunities begin to be thought about in more detail, the sophistication of analysis will increase along with its ability to provide decision useful outputs.

Scenario analysis is a tool to enhance critical strategic thinking and an initial single analysis is unlikely to capture all climate-related risks at the required level of granularity. Scenario analysis should be an iterative processes where the objectives and scope of each analysis are well defined and tailored to ensure the output of decision useful information is maximised.

Often there will be a trade off, as in all types of scenario analysis, between:

- Incredibly well defined but near impossible to quantify narrative scenarios
- Scenarios that can be quantified, but in doing so need simplifying assumptions which may be unrealistic



Risks and opportunities in scenario analysis

TCFD breaks down climate related risks and opportunities into physical and transition risk (and opportunity), with further breakdowns and examples. Additionally, in the Exposure Draft for Phase 2, HMT has defined other climate-related risks which are specific to government. These are summarised below.

Physical		Transition				Government specific
Acute	Chronic	Policy and legal	Technology	Market	Reputation	
<ul style="list-style-type: none"> River and coastal flooding Surface water flooding Storm events – cyclone etc Storm sea level surge 	<ul style="list-style-type: none"> Change in precipitation Rising mean temperatures Sea level rise 	<ul style="list-style-type: none"> Increasing price of GHG emissions Enhanced emissions reporting requirements Regulation of products and services Exposure to litigation 	<ul style="list-style-type: none"> Substitution with lower emitting products and services Unsuccessful investment in new technologies Costs to transition to lower emission technology 	<ul style="list-style-type: none"> Change in customer behaviour Uncertainty in market systems Increased cost of raw materials 	<ul style="list-style-type: none"> Change in customer preferences Stigmatisation of sector Increased stakeholder concern or negative stakeholder feedback 	<ul style="list-style-type: none"> Policy leadership – failure to address climate risk Value for money – delayed action or hasty decisions leading to increased costs Accountability - unclear responsibility for meeting climate goals Coordination / delivery - inadequate collaboration and knowledge sharing
<ul style="list-style-type: none"> For government entities, policy-related transition risks are generally less relevant than for the private sector, due to the position as a policy setter, rather than policy taker. In addition, unlike the customers of private companies, users of Government services generally lack options for “customer substitution”. However, Government entities are exposed to some of the same transition risks as private entities, such as changing energy use, costs and efficiency (e.g. retrofitting buildings to make them more energy efficient). Government entities could also be exposed to potential litigation risks (e.g. in the event that they prevent overheating in public buildings like schools and hospitals). On the other hand physical risks tend to be much more material for government given their very long term outlook (compared to the private sector), and significant ownership and responsibility for real estate and infrastructure. However, each entity will be exposed to different levels and types of risks and therefore flexibility of approach is required. In particular, ministerial departments (policy setters) will have a different risk exposure to some non-ministerial departments, ALBs and public bodies (policy takers). 						

What are climate scenarios?

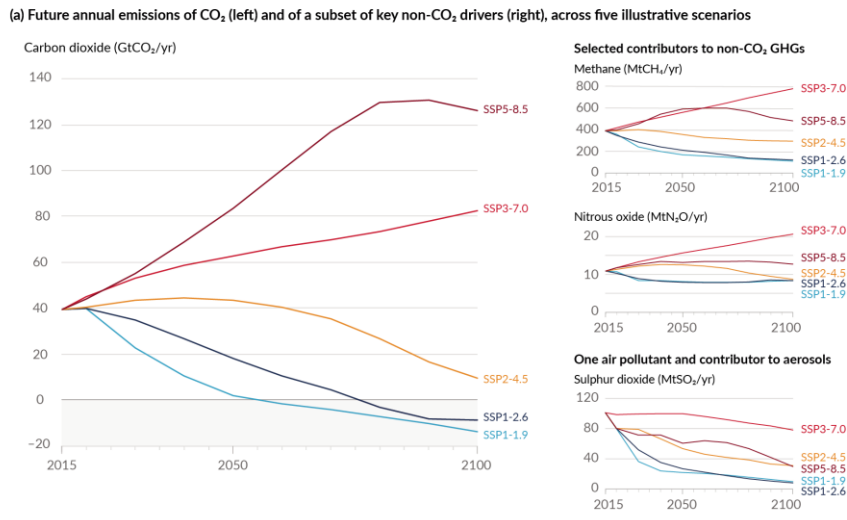
The IPCC is the United Nations body for assessing the science related to climate change. Their purpose is to provide governments with scientific information that they can use to develop climate policies. Thousands of people from all over the world contribute to the work of the IPCC. Experts volunteer their time as IPCC authors to assess thousands of scientific papers published each year to provide a comprehensive summary of what is known about the drivers of climate change, its impact on future risks, and how adaptation and mitigation can reduce those risks.

The Coupled Model Intercomparison Project (CMIP) coordinates the global climate modelling community to undertake a common set of climate scenario simulations which are used as the basis for IPCC climate change assessments. These scenarios are defined in terms of pathways for emissions and socioeconomic factors.

Representative Concentration Pathways (RCPs)

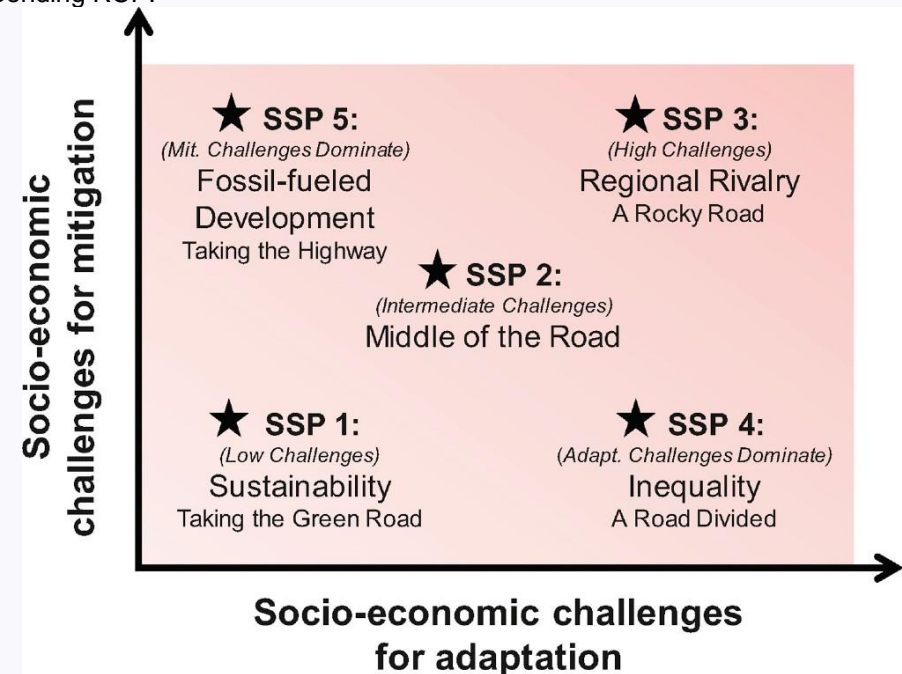
These are different projections of atmospheric concentration of greenhouse gasses up to 2100. The RCPs correspond with different levels of total atmospheric “radiative forcing” (a direct measurement of the greenhouse effect) meaning that they each produce different degrees of future global temperature increase.

Future emissions cause future additional warming, with total warming dominated by past and future CO₂ emissions



Shared Socioeconomic Pathways (SSPs)

These five scenarios outline different ways societal choices may affect greenhouse gas emissions and are based on different possible trajectories of socioeconomic development. These are aligned with different RCPs and named SSPx-y where x refers to the SSP (1-5) and y represents the corresponding RCP.



What are the IPCC climate scenarios?

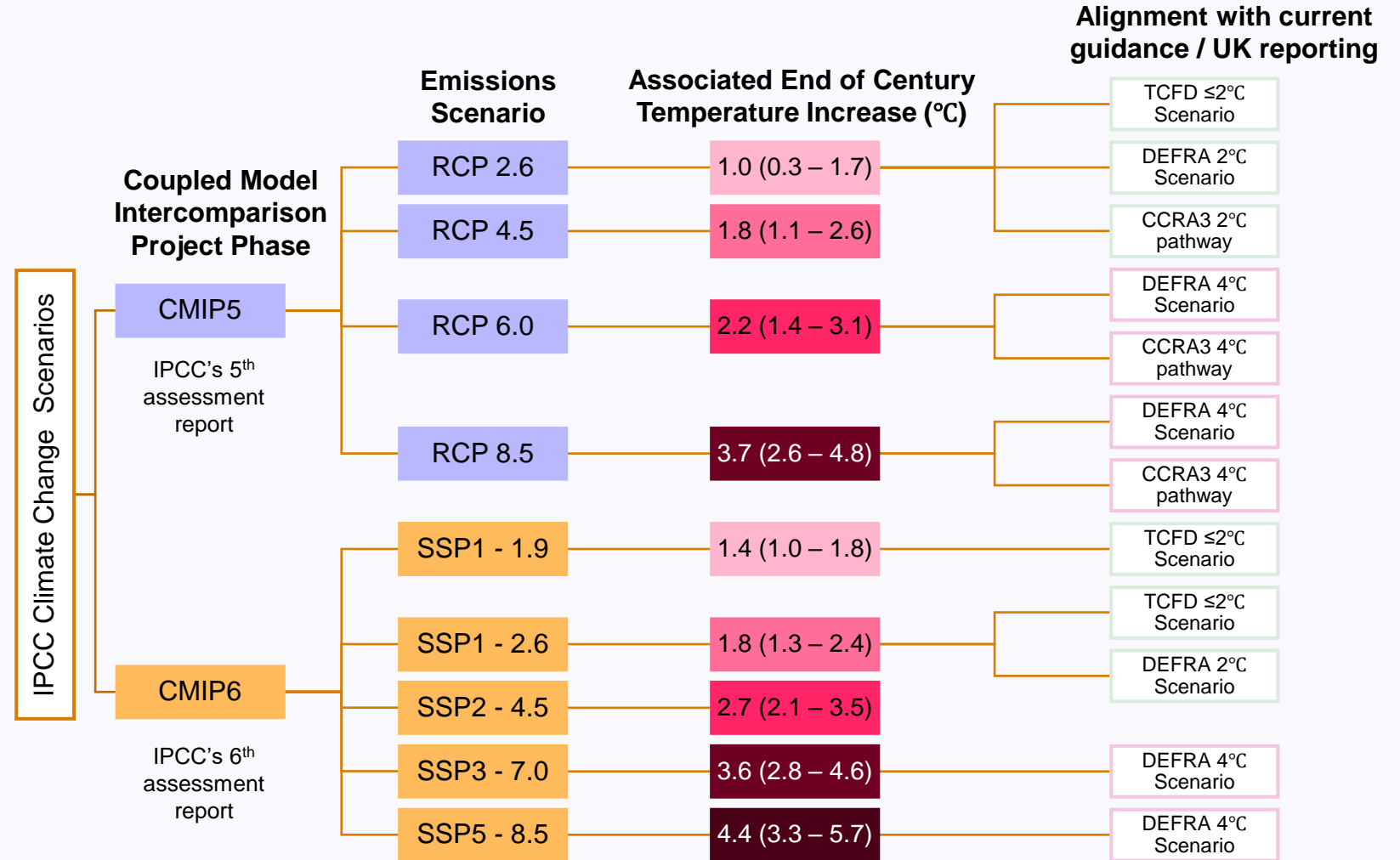
The scenarios reported in the last two IPCC assessments are based on model simulations from the 5th and 6th “coupled model intercomparison project”, CMIP5 and CMIP6 respectively.

CMIP5 models focussed only on concentration pathways and associated temperature rises e.g. RCP 2.6 provides an end of century temperature rise of 1.0°C with a range of 0.3-1.7°C.

CMIP6 introduced the SSPs. For example, SSP1-1.9 is shared socioeconomic pathway 1 combined with RCP1.9 which leads to an expected end of century temperature rise of 1.4°C and a range of 1.0 – 1.8°C.

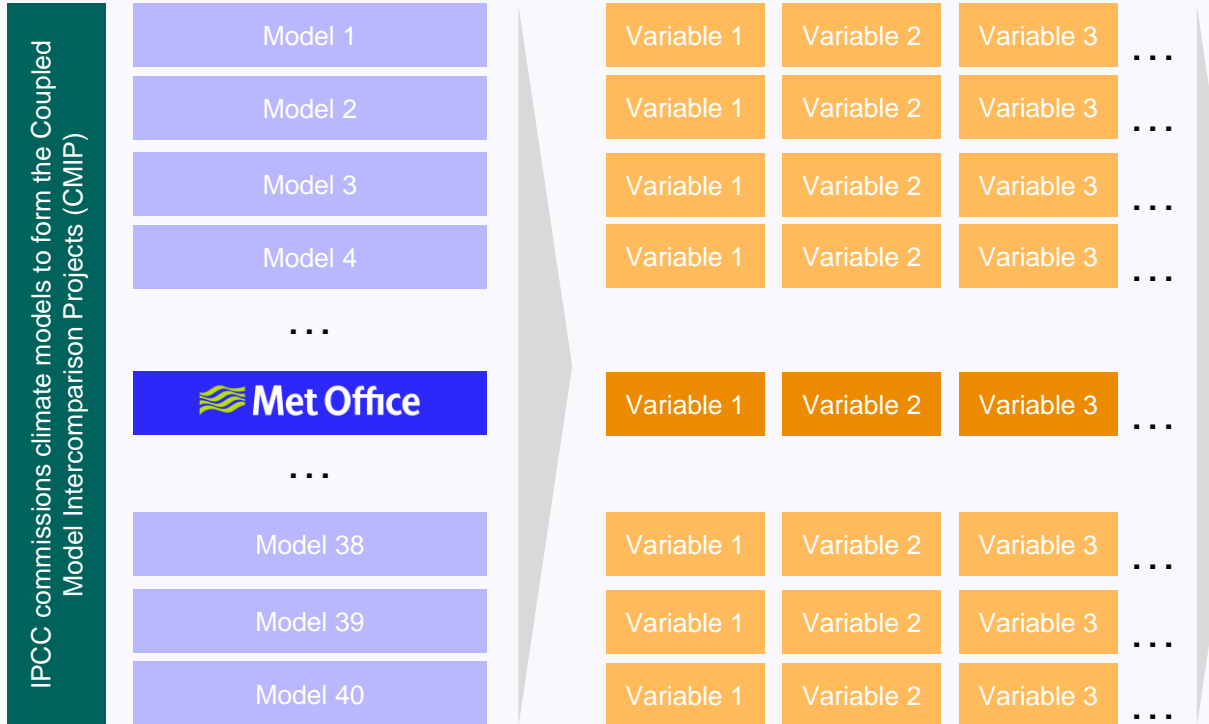
On the right hand side of this chart, we have shown how TCFD guidance, Defra’s Adaptation Reporting Power (ARP) guidance and the Climate Change Risk Assessment 3 (CCRA3) align with the IPCC’s models. You can see that some RCPs/SSP-RCP combinations are referenced more frequently than others.

The Met Office provides the UK Climate Projections (UKCP18) data which is based on regional climate model simulations driven by their global HadGEM3 model (see next page for more details). HadGEM3 simulations were part of CMIP5, whereas the latest IPCC report is based on CMIP6. Instead of looking at different RCP scenarios the data is presented using global warming levels and available for temperature rises of 1.5°C, 2°C, 3°C and 4°C under RCP8.5.



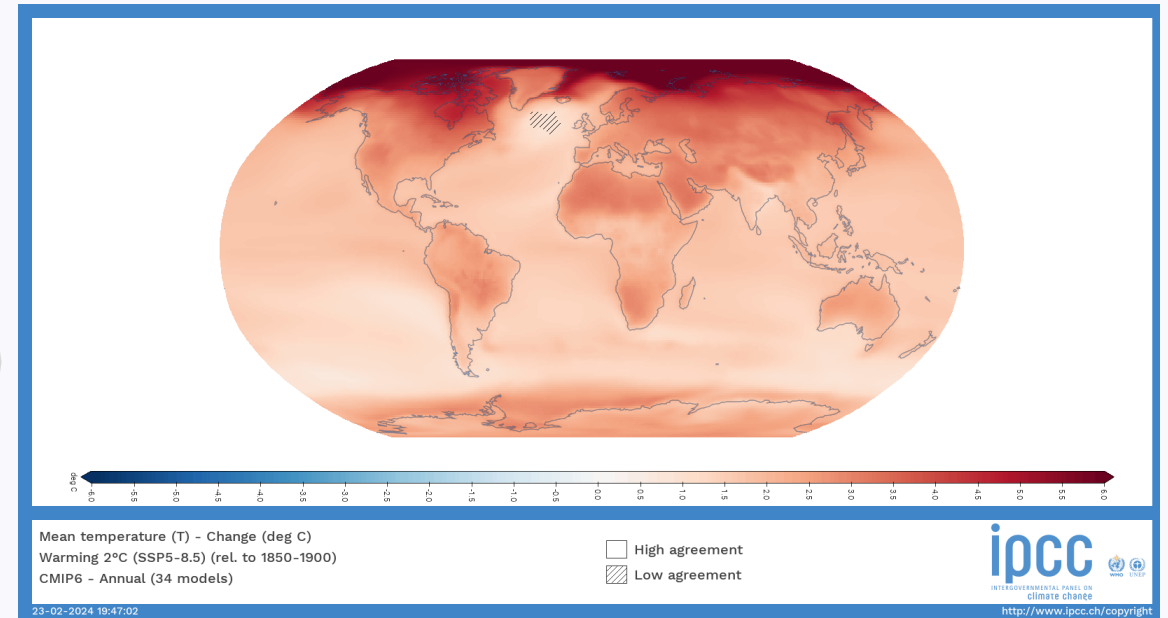
Data points provided that can feed into entities' scenario analysis

The CMIP suite of models provide thousands of climate change related variables that can feed into entities' climate scenario analysis, such as minimum and maximum temperatures, precipitation etc. However, it does not provide transition risk-related variables other than population and GDP.



40 different models make up CMIP6, including the Met Office's HadGEM3 model.

Each model produces thousands of different variables under different climate scenarios. These variables are often adjusted towards observed data and downscaled to give increased granularity.



The variables from the climate models are then used to calculate more useful climate impact metrics (for example number of days where temperature are above 35°C). Each metric is often aggregated across several models to provide an overall assessment which includes model uncertainty.

The Met Office provides their own model's output as part of their UKCP18 dataset as detailed on the previous slide.



Appendix 3

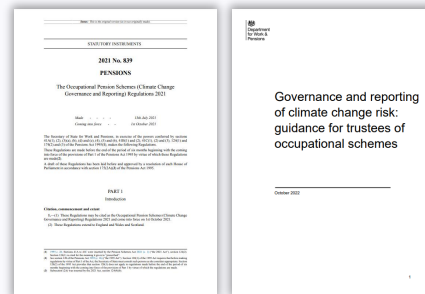
- Summary of comparable scenario analysis regulations and guidance from industry
- Summary of Defra's Adaptation Reporting Power guidance



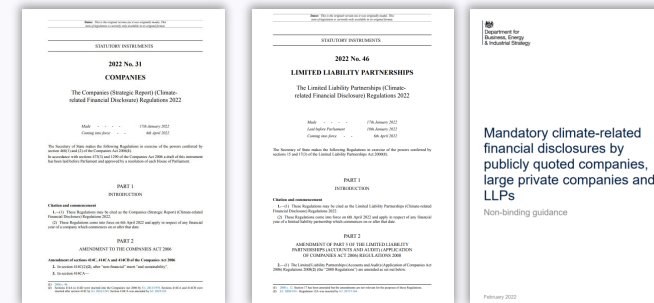
Overview of the TCFD reporting landscape in 2024



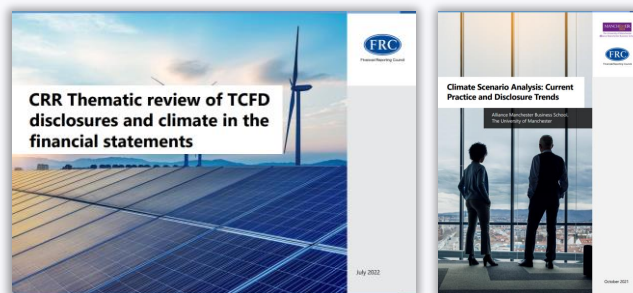
TCFD initially published reporting requirements in 2017. This was followed up with additional guidance on reporting and sector-specific guidance. The TCFD reporting guidance has been incorporated into reporting requirements from many regulators, legislators and policy makers.



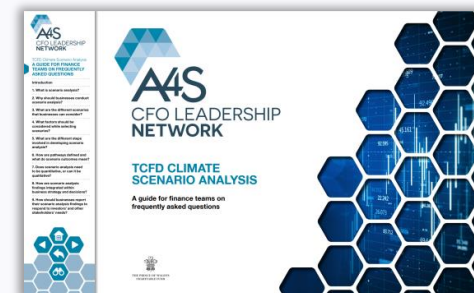
The Department for Work and Pensions (DWP) brought in regulation for private sector pension schemes to complete TCFD reporting in 2021.



The Financial Conduct Authority (FCA) updated their listing rules (in 2020 for premium listed and 2021 for standard listed companies), and Department for Business and Trade (DBT, previously BEIS) amended the Companies Act in 2022 to bring in TCFD aligned reporting requirements for publicly listed companies and LLPs in the UK.



The Financial Reporting Council (FRC) has completed a thematic review of the TCFD reports for 25 premium listed companies and set out what they were doing well and where they were lacking. Additionally, they published a review of current practice and trends in scenario analysis.



Accounting for Sustainability (A4S) has published guidance for finance teams on frequently asked questions on scenario analysis which is useful for preparers of TCFD reports, although targeted towards the private sector.

Summary of guidance by factor

	TCFD	DWP regulations and guidance	DBT regulations and guidance	FRC review of TCFD reports and best practice guidance	A4S scenario analysis guidance	Defra adaptation reporting
Details and sophistication of scenario definition	One should be 2 degrees of warming or lower.	One scenario must have global average temperature increase between 1.5-2 degrees.	One scenario must have global average temperature increase between 1.5-2 degrees.	N/A	N/A	Mid-century 2 degree rise, end-century 2 degree rise, end-century 4 degree rise.
Scenario data provider	N/A	N/A	No specific details, however states that this should be disclosed and justified.	States that scenario choice should be justified.	Public data providers are useful but sometimes limited by their global nature. Choice and justification should be disclosed.	Focus on physical risk - use RCP-SSPs in their adaptation reporting guidance.
Scope of scenario analysis within entities	Important to disclose things that could be material in the future.	All asset types within a pension scheme's investment portfolio are within scope. This point is not hugely relevant for government departments.	Organisations may wish to limit the scope to focus on their main operations before building up to the whole organisation.	Some organisations restricted scenario analysis to a sub-section of their organisation.	Prioritising key business areas and building on the analysis each year can help, although should aim to encompass the whole organisation.	All risks that could affect delivery of functions and objectives.
Timeframes for scenarios	Doesn't define short, medium and long. Challenges organisations to think longer term than traditional planning horizons.	Doesn't define short, medium and long.	Doesn't define short, medium and long.	Most organisation used short (0-1 year), medium (2-4 years) and long (5-10 year) time frames. However, others looked over a significantly longer timeframe, up to the year 2100.	Trade off between allowing time for developments to take place versus the greater uncertainty when dealing with longer terms. Notes it will depend on the nature of the organisation.	Mid-century, end-century.
Frequency of scenario analysis	Suggests updating every 3-4 years.	Updated at least every 3 years.	Updated at least every 3 years.	N/A	N/A	Updated every 5 years.
Number of scenarios	At least 2. The range of scenarios should be sufficiently diverse in order to create challenging "what if" analyses and capture a wide range of assumptions about uncertain futures.	At least 2.	N/A	Suggests that 3 are often chosen but using 4 can mitigate the tendency to see one as a middle ground.	Suggests 2 could be chosen to start with but 3 or 4 can allow for a better and broader assessment of risk.	3 scenarios.
Quantitative or qualitative analysis	Quantification at some level should be a goal in a mature scenario process.	Analysis may be qualitative or quantitative. Start out with qualitative analysis and progress towards developing sophistication to using quantitative analysis.	Analysis should be at least qualitative in nature. However notes that some organisations may find a quantitative approach useful.	N/A	Analysis should start simple, potentially qualitative only. However should aim for quantification over time.	Qualitative or quantitative (anecdotally, most ALBs report qualitatively).
Impact of entity on environment	N/A	N/A	N/A	N/A	N/A	N/A
More details	Pages 37-38	Page 39	Page 40	Pages 41-42	Page 43	Pages 44-45

Taskforce for Climate Related Financial Disclosures (TCFD)

Scenario analysis falls under the strategy pillar of the TCFD recommendations, in particular strategy recommendation (c) (circled in pink to the right) specifically makes reference to scenario analysis.

To comply with the recommendations, organisations must include at least one scenario with under 2°C warming, in line with the 2015 Paris Agreement. Where relevant, organisations should also consider a scenario with higher physical and transition risk.

The TCFD guidance stresses the importance of:

- feeding the results of scenario analysis into other areas of the TCFD recommendations, including the impact on strategy, risk monitoring and management and financial health.
- discussing the scenarios and the time horizons over which the analysis is done.
- Making disclosures comparable among organisations within a sector, industry, or portfolio. The benefits of this include allowing meaningful comparisons and the benchmarking of risks.

The TCFD also publishes specific guidance for those operating in some sectors particularly at risk from the impacts of climate change.

Strategy

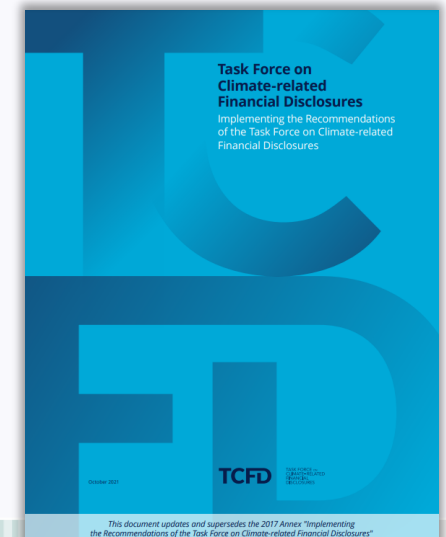
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Recommended Disclosures

a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.



TCFD guidance for non-financial companies

Further [guidance](#), aimed at non-financial companies notes that:

- the number of scenarios considered should be sufficiently diverse to capture the breadth of future uncertainty, in particular the guidance recommends **three or four scenarios** be considered.
- scenarios should be **exploratory** in nature and consider **both physical and transition risks** as well as the interplay between them.
- while quantification should be the goal, companies should not rush there, instead noting it is **important to have a strong narrative in place for each scenario**.
- **time horizons should be carefully chosen**; organisations should challenge their thinking about traditional planning horizons which are often rather short term.
- there should be specific **caution around the use of orderly pathways**, noting that they are not intended to be predictions of realistic outcomes with the guidance recommending that companies consider adding some disorderly transitions into some scenarios.
- companies generally update scenarios **annually to every three or four years**.
- disclosure should include information regarding their scenario analysis, **how it informed company strategy and related financial implications**.
- it is important to disclose things that **could be material in the future**, even if they are not material at the publication date, materiality thresholders should also be disclosed.



Department of Work and Pensions (DWP)

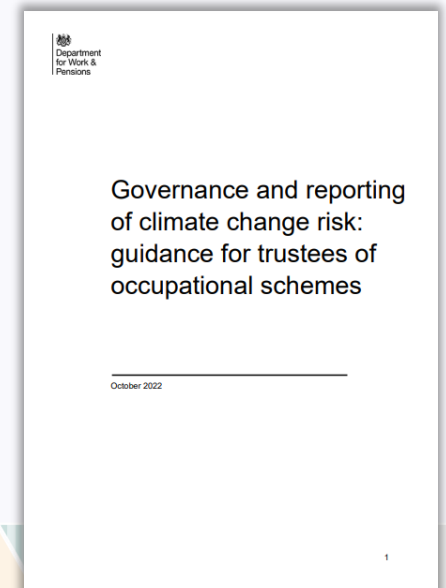
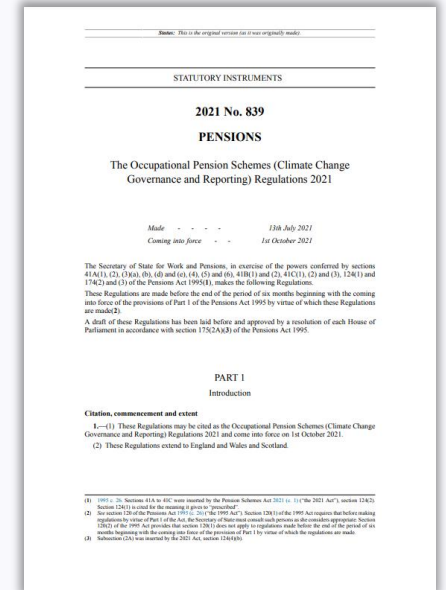
DWP sets out, in 2021 [regulation](#) and [guidance](#), some principles of scenario analysis specifically for pension schemes.

Schedule part 1.6 aligns with the TCFD recommendations in that pension schemes must consider two (or more) scenarios, one of which must have warming of 2°C or lower. However, it goes further to state that this scenario must have global average temperature increase between 1.5°C and 2°C.

The regulations also stipulate reviewing the scenario analysis **annually (after the first year) and updating where the trustees either believe it is appropriate to do so, or where they have not updated it in the two previous years**. Reasons for not updating must be disclosed.

The DWP guidance also:

- encourages pension schemes to ensure **sufficient resources** are being allocated in light of scenario analysis.
- discusses **the value in qualitative versus quantitative analyses** and recommends that initially schemes may find qualitative disclosures more accessible, although notes that over time the aspiration should be to make these quantitative in nature.
- suggests that in-house, **simpler scenario analysis can be more insightful if better understood by those undertaking scenario analysis**, compared to more complex analysis that may be possible if out-sourced to third-parties.
- states that pension schemes may want to assess the impact under their chosen scenarios using the same time horizons used elsewhere in the strategy disclosure, and these time horizons should be specified in the report.
- asks schemes to outline their **reasons for choosing the scenarios they have used**.
- suggests **key assumptions and limitations** of the scenario modelling are disclosed.

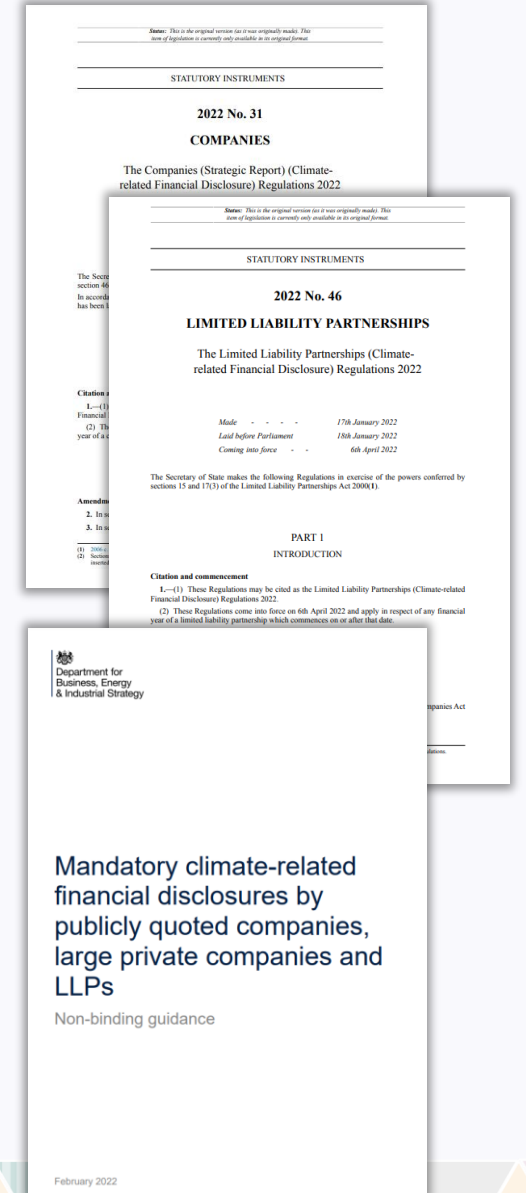


Department of Business and Trade (DBT)

In 2022, the entity of Business and Trade (previously BEIS) published regulations amending the [Companies Act 2006](#) and [LLP Regulations 2008](#). The regulations focused on climate-related financial disclosure and stated that different climate-related scenarios could be used to analyse the resilience of a company's business model and strategy.

Alongside these regulations, non-binding [guidance](#) was published. This guidance:

- states that the scenarios selected should be those **most relevant to the business**, noting that this will depend on the nature of risks and opportunities the business is most exposed to.
- makes reference to the Paris Agreement and the use of a scenario consistent with 1.5°C-2°C warming, this is in line with the TCFD recommendations.
- advises companies to **include the source of any scenarios used and the justification for their scenario choice**.
- suggests that where mitigations are being put in place the disclosures should **allow the reader to understand the extent of the mitigation measures and residual risk**.
- notes the importance of disclosing the **estimates and assumptions used in scenario analysis** and any improvement in these estimations over time.
- sets the expectation that as best practice develops, scenario analysis methodologies will converge
- states that scenario analysis should be **at least qualitative in nature**, however notes that some organisations may find a quantitative approach useful.
- suggests that, as a starting point, organisations may wish to limit the scope of their scenario analysis to focus on their **main operations** before building up to the whole organisation.
- confirms that while it may not be necessary to update the analysis every year, **it should be updated at least every 3 years** or whenever there is a significant change in assumptions.



Financial Reporting Council (FRC)

From the FRCs 2022 [review](#) of 25 premium listed companies, notable points around scenario analysis include:

- while most companies undertook scenario analysis, **only a quarter disclosed quantified outcomes**.
- it was often **unclear how scenario analysis had informed financial planning, the company's strategy or any actions taken as a result**, this is an expectation of the FRC.
- that some organisations had done **sensitivity analysis to show the impact of assumptions** used in scenario analysis, and stated that this could be an interpretation of some International Financial Reporting Standards.
- that a number of the companies restricted scenario analysis to a **sub-section of their organisation**.
- some companies had not explained **why the particular scenarios were chosen, the assumptions used and how the analysis was done**, these are expectations of the FRC.
- the FRC expects explanations of how the scenarios, assumptions, outputs and sensitivities used **correspond to discussions in the financial statements**.
- better practice examples showed **how carbon pricing may impact the businesses strategy**, through incorporating this into scenario analysis.

In 2021 the FRC (in partnership with the University of Manchester) published a [paper](#) looking at scenario analysis specifically. Four specific, best practice observations the paper makes are:

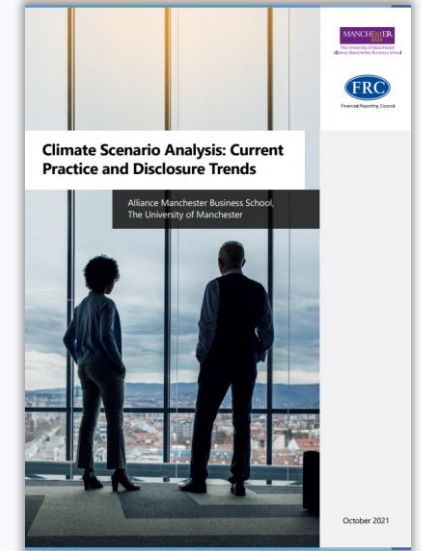
- establishing a **senior, cross-functional climate change working group** helped ensure effective climate governance and successful scenario implementation.
- using the outcomes of scenario analysis to help **shape future iterations**, noting that it will be a learning experience.
- noting the importance of **sector specific guidance, initiatives and best practice**, with these helping organisations translate global scenarios into business-level impacts.
- using climate scenario analysis to inform **strategic business planning**.



Financial Reporting Council

Additionally, the [paper](#) raises the following points:

- as well as approaches discussed in other sources there was also a ‘tick-box’ approach discussed, however this was not encouraged due to the significant resource commitment required (including from external consultants).
- ensuring there is the correct balance of **internal development and external support**.
- **three scenarios were typically chosen** including one Paris-aligned, one where there is limited action to tackle climate change and the third often reflecting current policies. However, it suggests **four scenarios may be advantageous** as it mitigates the tendency to see one of the scenarios as a middle ground.
- on time horizons, most companies used **short (0-1 year), medium (2-4 years) and long (5-10 year) time frames**; however, others looked over a significantly longer timeframe, up to the year 2100.
- the importance of developing a **narrative for each scenario** which is in line with the scientific basis of the scenario.
- **baselines used in scenario analysis are important**, assuming a static baseline prevents the organisation making assumptions about their future agility whereas a dynamic baseline encourages the organisation to think actions they can take to adapt.
- modelling often involved **acquiring external support** due to its technical nature.
- the lack of granularity in data sources and **accessing data related to the supply chain were noted as challenges**, but that these were improving over time.
- the **challenge of gaining engagement with longer-term climate impacts falling outside normal planning cycles** but that this was eased by framing analysis in terms of investment decisions that could be made today.
- that best practice involves disclosing information regarding the governance of climate scenario analysis, the scenarios used including **assumptions and any external sources used, plus alignment with TCFD recommendations**.
- that **often the scenario analysis wasn’t assured**, noting that there was limited guidance against which assurance could be provided.



Accounting for Sustainability

The [guidance](#) Accounting for Sustainability released on climate scenario analysis includes:

- that in order to best help strategic decision-making **scenario analysis should encompass the whole organisation;** however, noting that this can be incredibly complex instead it may be appropriate to **prioritise key business areas** and develop the analysis each year.
- the trade off when choosing time horizons between allowing time for developments to take place versus the greater uncertainty when dealing with longer terms. The guidance also notes that the **most suitable time horizons for analyses will depend on the objectives of such analyses and the nature of the business.**
- discussion on the number of scenarios considered noting that organisations **often chose 2 to start with**, but that 3 or 4 can allow for a broader assessment of risk.
- discussion about the sources of scenarios, noting that **publicly available sources can be very useful but are limited by their often global nature** and that an organisation may therefore wish to develop its own set of scenarios that suit its requirements.
- ensuring that the assumptions and parameters used in scenario analysis are **in line with other financial processes including long-term forecasts.**
- that organisations should **start with simple analysis, potentially only qualitative in nature**, before moving onto the aim of more sophisticated quantitative models.
- a consideration that **scenarios should be used to guide strategy and decision making** which requires continual improvement and development of the scenarios, the analysis done and the action taken as a result.
- details what disclosures should incorporate, which includes the **scenario narrative, time horizons, rationale of scenario choice, sources of the scenarios** as well as **important features of the scenario** (e.g. assumptions, limitations, data, models) and how these link to the business in question. Organisations may also wish to disclose the internal processes, governance, management and flow of information associated with scenario analysis.
- that the results of scenario analysis should be **considered in other areas of the financial statement** as appropriate.
- modelling should be **(internally) assured** to ensure rigour of disclosure.



Defra's Climate Adaptation Reporting Power

- Round 4 of Defra's Adaptation Reporting Power (ARP4) requires organisations to provide a climate change risk assessment which identifies direct and indirect climate risks that could affect delivery of functions and objectives. Risks considered should include: **physical assets, staff and the workplace, supply and demand, finance, business processes, the regulatory and policy context** etc.
- Entities are invited to report according to the Government's strategy for that round of reporting. Arms length bodies included in round 4 include the Environment Agency, Food Standards Agency, Natural England, Network Rail, NHS England etc.
- Reporting cycle is usually 5 years and ARP4 is aligned with the Climate Change Risk Assessment (CCRA) and the National Adaptation Programme (NAP).
- ARP4 guidance requires clear **explanation of timeframes and levels of warming that have been used in scenario analysis**.
- Minimum requirement is for **Present day, Mid century – 2°C rise, end century 2°C rise, end century 4°C rise**. See acceptable proxy scenarios on next slide based on IPCC CMIP5 and CMIP6 emissions scenarios.
- Guidance requires submissions to specify if information used is national or local sub-national. Uncertainty should be explored (e.g. by looking at 10th and 90th percentiles).
- Current advice for climate change adaptation is to consider impacts associated with 4°C temperature rise by 2100 as a way of capturing a worse case scenario. This is equivalent to RCP6.0 or RCP 8.5.
- Organisations are expected to describe current and future likelihood of a risk impacting upon functions (qualitatively or quantitatively), the consequence of the impact including cascading risks and interdependencies, the overall risk and whether it will in future become unacceptable requiring adaptation action.
- Where possible an estimate of financial impact (both direct to organisation to society) and of each risk should be given.
- **Compared to TCFD, ARP requires a more granular assessment of risk and action through an adaptation lens**. The Climate Change Committee (CCC) sees TCFD to be more focussed on financial risks and opportunities related to climate more generally. However, there is significant overlap between ARP and TCFD reporting requirements. Overlaps occur in each of the four TCFD pillars.
- ARP guidance provides a table listing risks according to sector that can support risk identification and prioritisation which may be a useful resources.



Scenarios used in Defra's Climate Adaptation Reporting Power guidance

Table 1: Acceptable climate scenario proxy parameters

Scenario	Range of timeframes	Levels of warming / pathways
1: Present-day (near-term)	Past, present and near future (to 2030)	Historic observed warming levels/trends, existing climate and weather records, experienced extremes (past and present), and near-term projections to 2030.
2: Mid-century (medium-term) – a 2°C rise	By 2050 (range could include 2040-2060)	Projections for the mid-century are broadly similar irrespective of the emissions scenario. Therefore, consider the conditional probability range, specifically the 10th to 90th percentiles for chosen pathway e.g. RCP2.6.
3: End of century (long-term) – a 2°C rise	By 2100 (range could include 2080 - 2100)	A 2°C rise by 2100 or a pathway consistent with this - such as RCP2.6 (as in CCRA3) or SSP1-2.6
4: End of century (long-term) – a 4°C rise	By 2100 (range could include 2080 - 2100)	A 4°C rise by 2100 or a pathway consistent with this such as RCP 6.0 (as used in CCRA3), RCP8.5 (if previously used or with justification) or SSP5-8.5 or SSP3-7.0.

Note: RCP 2.6 and SSP1-1.9 are unlikely to provide sufficiently conservative information for robust adaptation planning, though these pathways are useful to illustrate baseline impacts associated with a rapid decarbonisation and thus illustrate the avoided impacts vs higher emissions scenarios

Resources:

- Met Office's [Climate Data Portal](#) provides organisations the ability to access climate data in a GIS (spatial) format. The portal contains 55 different data layers, as well as guidance and information to analyse a range of climate risks. Spatial analysis can be performed at a global, regional or local level enabling location-specific action plans to be developed. The tool presents complex scientific climate projections in easy-to-use formats, ready to visualise and analyse in GIS and non-spatial applications
- [UK Climate Projections 2018](#), which illustrates the potential changes in climate for the UK until 2100, the [UKCP User Interface](#), and the Met Office UKCP [guided training course](#) offer (next available dates June 2024)
- [BBC Postcode Checker](#) tool, which was developed collaboratively between BBC and Met Office
- UK Climate Resilience Programme [Climate Risk Indicators](#) and guidance on [using the UK Climate Risk Indicators](#)
- Environment Agency's [Climate Impacts Tool](#)
- ONS's [climate change statistics portal](#) including [impacts](#) and [adaptation](#) dashboards





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