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Centre for Research into Accounting and Finance in Context (CRAFiC)

Financial Reporting Standard

Accounting for environmental change

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1. Summary

It is now widely acknowledged that there is a climate crisis (G20 2021, UN PRI 2021).

Accounting initiatives have been made in response to this crisis, including those from the Task Force on Climate-related Financial Disclosures (TCFD) (TCFD 2017) and the International Financial Reporting Standards Foundation (IFRS) linked International Sustainability Standards Board (ISSB 2021), both of which seek to provide data on the scale of this crisis. The EU is taking a slightly broader approach (EFRAG 2021a) in its accounting response. In addition, wider recognition of the need for enhanced sustainability reporting has also emerged indirectly through the UK government's Brydon review's recommendation for a new resilience statements (Brydon 2019).

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This paper will argue that these proposals are useful steps forward but are fundamentally limited in scope, meaning that they fail to deliver the accounting reforms required in response to the environmental crisis. There are three reasons for this.

First, none of the above proposals require properly integrated reporting (Flower 2015, Dumay et al 2016). Integrated reporting would require that the accounting consequences of environmental change would be reflected on the balance sheet of a reporting entity. This is not envisaged by any currently proposed climate accounting standard. That is because none of the currently proposed standards break down the silos between sustainability reporting and financial reporting (Unerman et al, 2018).

The IFRS Foundation's ISSB will instead likely steer the TCFD towards 'front end' rather than 'back end' financial reporting[3]. In addition, the IFRS's implicit endorsement of the Australian Accounting Standards Board (AASB 2019) approach requires no change to general purpose financial statements whereas this paper argues that this is precisely the change that is required. The same is also true of the IFRS's own statement on this issue (Anderson 2019).

First, this unwillingness to integrate climate and financial reporting means that the latter will misrepresent the risk inherent in many public interest entities (PIEs) arising from climate change. Serious investment errors are likely to result as a consequence, whilst essential climate change responses may also be deferred, which is a risk that society cannot afford to take.

Second, these proposals avoid any suggestion that changes be made in those who are considered to be the primary users of what the IFRS calls general purpose financial statements, which definition currently excludes most in society (IFRS 2018, para 1.2) by focusing solely on the needs of shareholders and other suppliers of capital to a company. Nor is any such change likely to result from the UK government review of audit (BEIS 2021). As a result, only a small sub-section of the potential users of accounting data remain the focus of this proposed reporting on climate change (Young 2006), which means that the proposed climate reporting now on offer does not meet public need, by design.

Third, whilst the proposals might create a new emphasis within financial reporting, effectively delivering a form of natural capital reporting (Wackernagel et al 1999), the result is that an artificial asset (carbon emissions as defined by regulation) is promoted as another financialised asset for disclosure purposes (Perry and Nolke 2006). We argue that this form of

[3] The 'front end' of financial reporting is largely narrative based data. The 'back end' comprises the financial statements drawn from the general ledger of the reporting entity.

accounting does not meet user needs, even by the IFRS Foundation's definition of decision usefulness.

This paper presents an alternative model of climate reporting by arguing that accounting for environmental change is not an addition to existing financial reporting or a mere variant to it, but fundamentally changes the focus and purpose of financial statements. This change can be achieved through adoption of a new Financial Reporting Standard on Accounting for Environmental Change, a draft of which with explanatory notes is attached to the paper. The resulting changes to the conceptual framework of accounting are the focus of this explanatory paper.

At its core the proposed Financial Reporting Standard makes a straightforward demand. Rather than require a reporting entity to disclose its emissions and its progress in reducing them, which is the focus of most existing climate change accounting proposals, the draft Financial Reporting Standard requires the reporting entity to estimate the cost of eliminating those emissions in order to align its activities with the goal of achieving a 1.5^0 Celsius global temperature change (IGCC 2021). This cost, plus the cost of any new investment required to achieve this goal if the reporting entity is to continue to be considered a going concern, must be provided on the balance sheet of the reporting entity, with that liability being matched by what is deemed to be a realised reserve that reduces the capacity of the reporting entity to pay dividends until the goal of sustainability is achieved.

This paper notes that these changes are possible, but that delivering them will require changes in the IFRS conceptual framework for accounting (IFRS 2018). These changes primarily relate to a reappraisal as to who the users of accounts are, with a range of stakeholders being suggested in place of the existing focus that is solely upon shareholders and other suppliers of capital, and a reappraisal of what form of capital has priority when it comes to accounting, with environmental capital taking priority over financial capital.

We argue that accounting for these provisions for the cost of adapting to environmental change on an ongoing basis will provide users of financial statements with the data they need to monitor the reporting entity's success in becoming net zero compliant. In the process we turn issues relating to environmental change into hard accounting data capable of being recorded within the audited books and records of any PIE. As a result the Board of any such PIE will have to focus its attention on this issue since it has direct impact on its financial reporting.

2. Introduction

Gillian Tett has suggested that the success of the green transition might be dependent upon auditors (Tett 2021). Her suggestion is that if large corporations are to make the transition to a net zero emissions economy then, like it or not, auditors will have to appraise their success in doing so. The problem, as Tett identifies it, is that the reporting framework for measuring this commitment is still unsettled and fluid, placing significant pressure on auditors to make judgment calls about green issues they have little training for.

That this confusion exists is unsurprising. All current proposals for climate or environmental change reporting assume that the existing structure of IFRS driven financial reporting will remain in place, and that environmental reporting will be additional to, and therefore outside the scope of, the 'back end' financial accounts of a reporting entity in which performance data with regard to profitability, assets and liabilities is provided. This implies that existing decision matrices will remain in place and, as the IFRS notes (IFRS 2018), that reporting is intended for the sole use of shareholders and other providers of capital and only with regard to their singular decision as to whether or not to continue to engage with a reporting entity. When, as a matter of fact, all stakeholders of companies have reasonable concerns with regard to its ability to meet the demands of a net zero economy, not only do the current proposals miss the point that the decision-useful information required with regard to climate change is that data which shows the direct impact of seeking to be net zero compliant upon its profits, assets and liabilities, but it also misses the point that other stakeholders even exist. It is unsurprising that auditors might be confused as a result: they will be asked to audit accounts that will be supposedly true and fair but which actually fail to deliver the information required by their users.

Tett is right to highlight the importance of the reporting framework as a technology for addressing climate change. She is also right to acknowledge its current diffuseness. This is an issue that has dominated academic and professional accounting discussion in recent years. A multiplicity of standards are now offered (see the overview of Adams and Abhayawansa 2021). For example, the competing standards currently include those from the Task Force on Climate-related Financial Disclosures (TCFD 2017) and four other formally recognised standard setters:

- International Integrated Reporting Council (IIRC 2021)
- Sustainability Accounting Standards Board (SASB 2021)
- Climate Disclosure Standards Board (CDSB 2021)
- Global Reporting Initiative (GRI 2021)

There is also the approach of the European Financial Reporting Advisory Group (EFRAG 2021a), which feeds into the European Union's Corporate Sustainability Reporting Directive (EU 2021).

Overarching all of these is the International Financial Reporting Standard Foundation's International Sustainability Standards Board (ISSB) officially launched at COP26 in November 2021.

There has, however, been a recent and rapid consolidation, producing two clearer groupings. The IIRC and SASB merged in June 2021 to form the Value Reporting Foundation (VRF 2021a). The VRF will, in turn, merge with the ISSB in 2022 (VRF 2021b). It has also been announced[4] that the CDSB is to merge with the ISSB, which intends to base its work on that of the TCFD, CDSB, IIRC and SASB. A second grouping involves the GRI, which has become more closely aligned with the EU / EFRAG approach. The result is that what was a confused alphabet soup of acronyms at the start of 2021 has consolidated so that two groups remain:

	Group 1	Group 2
Group Leader	IFRS	EFRAG
Group members	ISSB CDSB IIRC SASB VRF And informally: TCFD	EFRAG GRI
Assumed users of accounting data	Suppliers of capital to the reporting entity	Stakeholders of the reporting entity
Materiality assumption	Single materiality	Double materiality
Location of environmental reporting data	Outside the financial statements	Outside the financial statements and with a focus on the European Taxonomy Regulations (EU 2020)
Integration of data with financial statements	Not integrated Reconciliation not required	Not integrated Reconciliation not required.

[4] In an email from the CEO of the Value Reporting Foundation dated 17 December 2021

The table serves to emphasise the consolidation that has taken place. It also emphasises the areas of consensus where there is limited divergence of opinion about reporting on the impact of environmental change on public interest entities (PIEs).

The differences between the two groups essentially relate to just two issues, the first being the range of stakeholders to whom an obligation to report is assumed to exist, and the second being the concept of materiality used to define the scope of the resulting reporting. Both are significant and are discussed later in this paper. What stands out, however, is that neither of these leading proposals suggests that climate reporting should be integrated into the numerical accounting data to be included within a PIE's consolidated audited financial statements. The implicit assumption is that environmental change is somehow external to the main reporting objectives of the firm, and that responsibilities to avert climate change and achieve net zero targets should not be costed.

We see this as a fundamental weakness of both sets of proposals. In our opinion the challenge to remain a going concern whilst realistically acknowledging the costs of environmental change is the most significant issue facing PIEs at this moment. Consequently, this challenge must be reflected in their audited financial statements. Accordingly, a third proposal is necessary – one which broadly accepts the EFRAG view that there is a responsibility to report to a broad stakeholder group within society and so embraces the concepts of 'double' and 'dynamic-materiality' (EFRAG 2021b). Accounting is, after all, a dynamic process: changes to the accounting framework and reporting standards not only reveal new relationships but provide new incentives. As a result integrated reporting has the capacity not only to make the challenge of climate change visible, but to nudge behaviours to meet that challenge.

In the remainder of this paper we discuss the issues implicit in the draft financial reporting standard (FRS) attached as an appendix. Thereafter, we consider how the proposals implicit in this paper might be progressed.

3. The issues needing to be addressed within existing proposals on accounting for environmental change

If Gillian Tett is right and accountants are to be at the forefront of tackling the impact of environmental change, then three core issues must be addressed.

First, accounting for environmental change should recognise a wider set of stakeholders as users of financial statements. The GRI and EFRAG proposals excepted, most current proposals continue to accept the definition of users put forward by the IFRS Conceptual Framework (IFRS 2018, para 1.2) which privileges shareholders. Accounting standards which begin with this narrow set of users in mind are unlikely to meet society's needs.

Second, accounting for environmental change should involve integrated reporting. Most proposals continue to treat accounting for environmental change as an externality to the financial reporting process: reporting is either confined to the narrative part of the financial statements, or in an alternative report on the issue of environmental change. What they do not do is integrate the financial costs of climate change into the 'back-end' financial data that is the usual focus of attention within audited financial statements. As a consequence, climate change tends to be evicted from the general ledgers of reporting entities and falls outside the range of issues that should be subject to review by an auditor as part of their appraisal of internal controls.

Third, because all forms of accounting produce incentives, there should be an appropriate definition of 'decision usefulness' which reflects the above. Current proposals report what emissions are generated. But decision usefulness should be considered within the context of the resulting potential financial impact upon the reporting entity. Without that, there is a disconnect between financial reporting and the decisions that the users of financial statements will need to make, particularly with regard to the allocation of capital, but also with regard to choices about procurement, employment, and regulation. This means that even within the context of the limited decision criteria suggested by the IFRS conceptual framework (IFRS 2018, para 1.2) the data produced fails to meet user needs. This is evidenced by current user reactions (Landell-Mills 2021a and 2021b).

4. Addressing the issues implicit in existing proposals for accounting for environmental change

The limitations outlined above cannot be addressed without making changes to the currently accepted conceptual framework of accounting. Consequently, we have prepared a draft Financial Reporting Standard for Accounting for Environmental Change, attached as an appendix. We consider this to be an early version of an Exposure Draft (ED) which explores how the proposed disclosures might be included within financial statements.

As the ED notes:

> *Our intention is to show that reporting the impact of climate change should not be left outside the financial statements[5] but rather should be included within the reported financial data that is derived from the collective general ledgers of those combined reporting entities that constitute a public interest entity (PIE).*

[5] The terms financial statements, general purpose financial statements and accounts are used interchangeably within this document and all refer to what the IFRS define as general purpose financial statements within its conceptual framework.

We added the following note within the ED:

> *Our objective is to demonstrate that by integrating data in this way, the decision-making needs of the various users of financial statements can be met. We do in particular suggest that in the context of accounting for environmental change those decision-making criteria include:*

a. *Determining the ability of the reporting entity to continue its activities into the foreseeable future;*
b. *Appraising the ability of the entity to adapt to the threats arising from environmental change;*
c. *Quantifying the cost to the entity of mitigating its impact upon environmental change;*
d. *Delivering consistent, relevant and reliable data on the actions of the entity in managing the processes of adaptation that environmental change imposes upon it;*
e. *Estimating the consequences of these issues upon the future revenue earnings and free cash flow generation capacity of the reporting entity.*

We suggest that these issues are familiar to existing informed users of any set of financial statements. They describe the information required to affectively appraise a reporting entity. We are not in that case suggesting radical new data needs or methods of using that data for decision making purposes; instead, what we are suggesting is that existing accounting frameworks cannot supply this data unless the current conceptual frameworks of accounting are adapted to ensure that effective accounting for environmental change can be delivered.

The discussions that follow are set within the context of these two comments.

5. The underlying assumptions within the draft FRS for Accounting for Environmental Change

Taking the above observations into account, the draft FRS proposes a number of changes to the conceptual framework of accounting before suggesting detailed rules for their application within the context of accounting for environmental change. These fundamental changes are considered before their suggested application is addressed.

a. The capital maintenance concept

As the draft FRS notes:

> *Reporting entities using International Financial Reporting Standards are familiar with the financial capital maintenance concept* ***(IFRS 2018, para 8.3)****. They can continue to*

use that approach to financial reporting when applying this Financial Reporting Standard, but adapt it to consider environmental capital maintenance. This requires that a reporting entity undertakes its activities without having an adverse environmental impact whilst still being able to settle its financial liabilities as they fall due. Only those reporting entities that can meet this criterion can be a going concern for financial reporting purposes.

The draft FRS defines an adverse environmental impact as activity inconsistent with achieving global net zero greenhouse gas emissions by 2050.

The timescale for assessment is redefined for this purpose. A conventional time horizon of at least twelve months for appraising going concern (which period is not, however, specified in the IFRS Conceptual Framework (2018, para3.9)) is replaced with the time requirement that going concern be appraised over the period until 2050, when it is assumed the net-zero objectives must be achieved.

The consequence is that the ability to continue to trade is tested against the dual hypothesis that the entity is both capable of eliminating its adverse environmental impact by 2050 and can command the necessary financial resources to facilitate its transition to trading on this basis. If either criterion fails then the entity is not considered a going concern. If a company can only meet its financial obligations by avoiding its 2050 net zero obligations, then the reporting entity is considered to be environmentally insolvent, which means that it must account for the winding up of its activities before the 2050 net zero emissions deadline. It is the use of this capital maintenance concept that requires much of the additional disclosure included within the draft FRS.

b. The boundaries of the entity and the users of financial statements

Accounting for environmental change requires that the relationship between the reporting entity and those with whom it interacts be reappraised.

The IFRS Conceptual Framework presumes that while undertaking its activities, a reporting entity will raise financial capital and incur liabilities with the consequence that it acquires assets or incurs expense each with the specific intent of generating revenue from which a profit or loss will arise. Each of these activities describes a contractual relationship between willing parties that can be recorded in monetary form within the general ledgers of the PIE. The boundaries of the entity are thus narrowly prescribed: they exist at the point where there is a third-party financial transaction of a contractual nature between an organisation under the control of the PIE and a third party. It follows that the entity need only account for those transactions and claims to which it is a knowing party. Any other consequences of these

transactions are considered an 'externality' that give rise to no apparent claim and so are ignored within this framework.

This perspective is wholly inward looking. A transaction is recorded only if it concerns the entity itself. This peculiarly narrow approach to accounting extends to the relationship between the reporting entity and its stakeholders. These are defined in the IFRS conceptual framework as existing and potential investors, lenders and other creditors (IFRS 2018, para 1.2). All of these groups have a relationship with the PIE that is 'severable'. The definition of decision useful information consequently relates to that required by these third parties to decide whether to contract with the entity, or not (IFRS 2018, para 1.2). When making that decision both they and the decision they take are considered to be independent of the reporting entity. In other words, it is presumed that the PIE will continue to exist irrespective of the decision that they make.

These accounting assumptions are borrowed from the micro economic theory of the firm commonly taught to both undergraduate economists and accountants (Mankiw 2014). However, that assumption is not a description of fact. It is only a reflection of a decision taken when creating a particular model of a part of the economy. In reality, evidence suggests that some firms can have macroeconomic significance. In other words, this assumption, and the accounting that flows from it, may not be appropriate in their cases.

This fact is recognised in the definition of a PIE (EU 2013, Article 2; BEIS 2021). As the EU notes, PIEs can be identified as having significant public relevance because of the nature of their business, their size or the number of their employees (EU 2013, Article 2(d)). By implication these reporting entities are not of the type described by the microeconomic theory of the firm precisely because their significance overflows that of the immediate third parties within whom the entity transacts. In this sense, they are also macroeconomic entities: they not only create externalities, requiring enhanced reporting requirements, but are not independent of their stakeholders or wider society. This is perhaps best understood through the concept of being 'too big to fail' commonly used to describe some entities in the banking sector (Goldstein and Veron, 2011).

If we accept that some firms have macroeconomic effects, then we need to consider their impact on environmental change. As the Greenhouse Gas Protocol (GHG 2004) makes clear, the impact of a reporting entity can be measured in three stages. Scope 1 measures the greenhouse gases produced as a consequence of the activities of the entity itself. Scope 2 measures the greenhouse gas emissions implicit in the purchased energy resources used by the entity. Scope 3 emissions are:

> *"a consequence of the activities of the company, but occur from sources not owned or controlled by the company. Some examples of scope 3 activities are extraction and*

production of purchased materials; transportation of purchased fuels; and use of sold products and services." (GHG 2004, 25).

The TCFD (2017) uses the reporting logic of the GHG Protocol. Since TCFD reporting is now to be embraced within the work of the ISSB it has to be presumed that it will accept the same framework. Therefore, the introverted reporting framework implicit within existing IFRS (and other) financial reporting frameworks is inadequate for the challenge of accounting for environmental change. An extroverted framework for reporting has to be used in its place.

That extroverted framework has to build upon the recognition that a PIE has macroeconomic significance. This means that it creates externalities of consequence for those whom it might not have contractual relationships. This necessarily expands the scope of its reporting to include the interests of those stakeholders. If the implications of environmental change are so significant that countries have declared climate emergencies[6] it follows that the broadest range of potential users should be considered to have an interest in the reporting of the PIE with regard to this issue, and consequently other aspects of its affairs. Building upon the work of Young (2006) and others we have suggested (Leaver and Murphy 2021a, 6) that the stakeholders of a company who comprise the potential users of its financial statements are:

1. Shareholders, if any;
2. Other providers of capital to the entity;
3. Trading partners of the entity;
4. Employees of the entity, whether past, present or future;
5. Regulators of the entity;
6. Tax authorities who engage with the entity;
7. Civil society in all its forms, however they might have interest in the entity.

c. Materiality, double materiality and dynamic materiality

The adoption of an environmental capital maintenance concept coupled with the acceptance that a PIE - as a macroeconomic entity – has an obligation to report to a more diverse range of stakeholders requires a reappraisal of the materiality concept.

EFRAG (2021b, 8) has suggested that:

> *Double materiality requires that both impact materiality and financial materiality perspectives be applied in their own right without ignoring their interactions:*

[6] https://www.parliament.uk/business/news/2019/may/mps-debate-the-environment-and-climate-change/

a) Impact materiality: Identifying sustainability matters that are material in terms of the impacts of the reporting entity's own operations and its value chain (impact materiality), based on:

(i) the severity (scale, scope and remediability) and, when appropriate, likelihood of actual and potential negative impacts on people and the environment;

(ii) the scale, scope and likelihood of actual positive impacts on people and the environment connected with companies' operations and value chains;

(iii) the urgency derived from social or environmental public policy goals and planetary boundaries.

b) Financial materiality: Identifying sustainability matters that are financially material for the reporting entity based on evidence that such matters are reasonably likely to affect its value beyond what is already recognised in financial reporting.

Since the concept remains unfamiliar it is worth noting in depth. They added (ibid):

> *The determination of financially material effects on the reporting entity can rely on non-monetary quantitative, monetary quantitative, or qualitative data, while recognising the dynamic relationship between them. Many impacts on people and the environment may be considered 'pre-financial' in the sense that they may become material for financial reporting purposes over time (so-called 'dynamic materiality'). Financial materiality for sustainability reporting cannot be extrapolated from financial materiality for financial reporting.*

The anticipatory dimension of double materiality, described here as 'dynamic materiality', raises important questions about liabilities and temporality. This 'dynamic' element is critical to our proposal for a provision that is a prominent feature of the draft FRS. The draft FRS does, therefore, adopt and adapt these concepts. With regard to double materiality it notes:

> *The concept of double materiality expands the concept of materiality to include both climate-related impacts on the company (outside-in relations) as well as the impacts of a company on the climate (inside-out relations). As a consequence, the reporting entity is required to consider the impact of its behaviour on the users of its financial statements, making explicit that there exists a relationship with them that extends beyond contractual obligation. Double materiality uses a double reasonableness test. A 'double reasonableness' test sets a high threshold by asking whether a reasonable person might hold the view that disclosure was reasonably required[7].*

[7] Based on https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/396179/gaar-part-abc.pdf page 27

This is the test for disclosure used in the draft FRS.

d. Use of a precautionary principle

Prudence has long been considered to be a fundamental principle of accounting. The IFRS Foundation defines prudence as 'the exercise of caution when making judgements under conditions of uncertainty' (IFRS 2021b). A precautionary principle is used within the ED to guide the making of such judgements. As the ED notes, this is particularly important when appraising the credibility of a reporting entity's plans to become Paris aligned, requiring that it have net effective zero emissions (IIGC 2021). As the ED notes:

> *A precautionary principle is explicitly used in two circumstances in this FRS:*
>
> *a. Offsetting shall not be permitted unless the resources to permit that offset are:*
>   *i. Already under the economic control of the reporting entity;*
>   *ii. Can be proven to deliver offset;*
>
> *b. Technology whose credibility has not yet been proven in use at scale cannot be assumed to contribute to the reporting entity's sustainability plan.*

There is a duality implicit in the adoption of this approach. Objectively a precautionary principle makes it easier to appraise the likelihood that a reporting entity's plans can be fulfilled. The inclusion of this principle is therefore intended to increase the auditability of the data. It also increases the degree of comparability between reporting entities.

Subjectively the inclusion of the precautionary principle will incentivise action to avert the costs of climate change sooner rather than later. The potential rate of return on proving that technologies to tackle the impact of climate change are effective could be very significant as a consequence of the deliberate inclusion of this requirement in the ED.

e. Compounding

IFRS accounting assumes that the discounting of liabilities is normal and required. That said, IFRS accounting is not consistent in its definition of a liability. The Conceptual Framework (IFRS 2018: para 4.26) defines a liability as:

> *A present obligation of the entity to transfer an economic resource as a result of past events.*

In contrast International Accounting Standard 37 on Provisions, Contingent Liabilities and Contingent Assets defines a liability as:

> *A present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.* (IFRS 1998: 10)

Key to both is the term 'present obligation'. This does not appear to be defined by the IFRS Foundation. It is rarely explicit on the use of discounting either, the exception according to its glossary (IFRS 2021b) being a reference made in IFRS 13 on Fair Value Measurement in which it is noted that an income approach is to be used which requires that:

> *Valuation techniques that convert future amounts (e.g. cash flows or income and expenses) to a single current (ie discounted) amount. The fair value measurement is determined on the basis of the value indicated by current market expectations about those future amounts.* (IFRS 2011: Appendix A)

This approach is explicitly rejected by the draft FRS as a basis for recording liabilities arising as a consequence of accounting for environmental change. This is because when taking dynamic materiality into account, it is likely that the cost of deferring action to address environmental change will increase over time at a rate likely to significantly exceed any applicable discount rate that a reporting entity might choose. As a consequence, the draft FRS requires that any liability anticipated to fall due more than one year after the accounting reference date of the reporting entity should be compounded rather than discounted. A compound rate that is the higher of 5% or the weighted average cost of capital of the reporting entity is suggested for this purpose. The explicit intention of this measure is to encourage early action to address the impacts of environmental change by the reporting entity.

f. Distributable reserves

Distributable reserves are not referred to in the IFRS glossary (IFRS 2021b). This is a surprising oversight given that the IFRS Foundation notes that:

> *Sometimes, legal, regulatory or other requirements affect particular components of equity, such as share capital or retained earnings. For example, some such requirements permit an entity to make distributions to holders of equity claims only if the entity has sufficient reserves that those requirements specify as being distributable.* (IFRS 2018: para 4.66)

They also note that:

> *[I]n some jurisdictions, the amounts that can be legally distributed to holders of equity claims against the parent depend on the distributable reserves of the parent.* (IFRS 2018: para 3.17b)

In that case it would seem that the IFRS is aware of the significance of differentiating realised and unrealised reserves, yet is unclear as to the consequences that flow from this. The matter is not referred to in International Accounting Standard 1 that concerns the Presentation of Financial Statements (IFRS 2007).

The draft FRS makes clear that:

> *The objective of the Standard is to ensure that an entity provides relevant information that faithfully represents its environmental impact and the measures it must take to eliminate it. This information gives a basis for users of financial statements to better understand the impact that the environmental crisis might have on the entity's financial position, financial performance and cash flows as well as its long-term financial prospects.*

Given that as far as equity suppliers of capital to a reporting entity are concerned its long term financial prospects are dependent upon its ability to pay dividends, and that ability is inevitably going to be constrained if the reporting entity has an obligation expressed as a liability to finance the adaptation of its business processes as required by environmental change, then the clearest possible expression of that reporting entity's distributable reserves having taken those liabilities into account is fundamental to their understanding of its long-term financial prospects.

For this reason, the draft FRS requires the explicit disclosure of those sums that might be considered to be distributable reserves, calculated at the level of the consolidated entity. It specifically states that the entire potential liabilities arising as a consequence of accounting for environmental change shall be charged against distributable reserves for the purposes of this calculation. The consequence of recognising this provision as what is, in effect, a loss, is that the reserves available for distribution by the company to its shareholders are reduced. This is necessitated by the need to appraise the ability of the reporting entity to be considered a going concern within the constraints of environmental capital maintenance. Unless the reporting entity can disclose alternative sources of capital to finance its environmental transition it must be assumed that its distributable reserves will be used for this purpose and this must necessarily constrain the sums available for payment as dividend or for the buyback of securities. The draft FRS reflects this fact.

We have previously considered the significance of distributable reserve reporting (Leaver and Murphy 2021b) and have suggested methods for estimating the distributable reserves available to group consolidated reporting entities when they have not previously made such declarations (Leaver and Murphy 2021c) and do not repeat those suggestions here.

We are aware that these recommendations will reduce the capacity of many reporting entities to make distributions to their equity shareholders. That is the inevitable consequence of adopting an environmental capital maintenance concept. However, taking the view that all accounts are a social construct (Morgan 1988, Hines 1988) it is our opinion that this environmental need should take priority within accounting. The maintenance of financial capital and the income streams flowing from it is no longer the priority of society. The survival of the human race is the priority. The suggestions that we make are consistent with that fact, and accounting theory on this issue.

6. Putting the assumptions to work: what the draft FRS requires.

Having noted the assumptions implicit in the draft FRS, its accounting requirements are then relatively straightforward to follow.

a. The Sustainability Plan

As is now commonplace (TCFD 2017, GRI 2021) the ED requires that a reporting entity prepare a plan for its transition to sustainability. This is described as its Sustainability Plan. Specific requirements that differentiate this approach from others include more detailed disclosures as to timing, planned use of offsets and the availability of resource and technology to achieve that goal, but otherwise the broad content of this Plan is now familiar, as is the required reporting of data on emissions which is becoming increasingly commonplace.

The difference in the draft FRS comes in the way in which this information is published. In most existing recommendations for accounting for environmental change the publication of this plan is, in itself, considered to represent that accounting. The change in the plan overtime, and most particularly the change in emissions generated, is considered to be the reporting matrix of greatest concern in those frameworks. The assumption implicit in these frameworks is that the reporting of the symptoms of the malaise, and changes in them, is more important then the reporting of measures taken to find a cure. We reject this assumption.

b. The Sustainability Provision and Reserve

As a consequence, the draft FRS requires that the cost of eliminating the production of those greenhouse gases that prevent the reporting entity from being Paris aligned be estimated.

Importantly, those provisions that might give rise to an immediate realised cost within the existing framework of IFRS reporting would still need to be provided before the additional provisions of the draft FRS were considered. These potential provisions have been discussed by both the IFRS (Andersen 2019) and the Australian Accounting Standards Board (AASB 2019) and do not require further consideration here.

The additional costs to which this ED refers, which are compounded if they are to be incurred more than one year after the accounting reference date of the reporting entity, are then treated as a provision within the financial statements of the reporting entity. These costs are described as Sustainability Provision. They are matched by an entry in distributable reserves described as a Sustainability Reserve. For disclosure purposes they are split between those parts falling due in less and more than one year, but with specific requirements relating to anticipated timing as to settlement being required so that the sense of urgency implicit within any plan can be appraised both at a point of time and over time.

As the draft FRS notes:

> *Paragraph 14 of IAS 37 (IFRS 1998) does not apply in the case of this provision. Instead, under the provisions of paragraph 15 of that Standard a past event giving rise to a present obligation is deemed to have taken place with regard to the need to eliminate the consequences of environmental change from the activities of the reporting entity on the basis that it is more likely than not that a present obligation with regard to this matter will exist at the end of the reporting period given the prevailing nature of scientific evidence on this issue.*

The making of a provision is, as a consequence, mandatory. It is possible that a reporting entity might be able to persuade its auditor that no actual cost need be provided. It would nonetheless still have to explain how this situation might arise by publishing a Sustainability Plan and demonstrating that no consequent costs arise. It is important to note in this context that the anticipation of savings in excess of costs is not permitted. In the event that a reporting entity might claim that at some time in the future it might have a negative emission footprint that does not negate the need for a provision for the cost to be incurred until that moment arises.

c. The Reinvestment Provision and Reserve

The draft FRS makes clear that the inclusion of a provision for the cost of eliminating harmful gas emissions from the activities of the company is an insufficient indication of the potential financial impact of environmental change on the reporting entity under the dynamic materiality principle. Since the purpose of the draft FRS is to indicate to the users of the financial statements of a reporting entity the potential total cost of this transition, then those

costs relating to the closing down of harmful processes are an insufficient indication of the total costs to be incurred. If the entity is to continue to be considered a going concern using an environmental capital maintenance concept then it is clear that the reporting entity must also provide indication of the costs of replacing those harmful assets and activities currently in use with substitutes that will enable it to continue in trade. Alternatively, a company may choose to close down those high-emissions producing activities and focus on other activities; or simply exit that space, providing room for newer, more sustainable entrants. It is suggested that these costs and their basis of calculation should be disclosed by the reporting entity within its financial statements and that the costs in question be considered to represent a Reinvestment Provision.

The draft ED suggests that as with the Sustainability Provision, this sum be provided as a liability in the accounts with suitable disclosure as to potential timing being made in similar fashion to the Sustainability Provision. The double entry for this Reinvestment Provision would be to a Reinvestment Reserve, which would, like the Sustainability Reserve, be considered a distributable reserve. When the reinvestment takes place, the reserve is cancelled. The credit balance for the liability that the provision represents would be replaced by either a credit balance for replacement share capital, or for borrowing or for a reduction in cash balances whilst the debt balance in reserves would be replaced with the asset in question.

We do not suggest that this Reinvestment Provision be compounded, but nor is discounting permitted either. The logic is again drawn from the concept of dynamic materiality. In this case when expenditure is incurred both the Reinvestment Provision and Reinvestment Reserve can be reduced in equal and opposite sums, as noted above. Critically, the precautionary principle implicit in the creation of this Provision and Reserve is then reflected in an actual entry in the financial statements of the reporting entity of which the user needed to be aware in advance if they were to appropriately appraise the likely financial position arising as a consequence of accounting for environmental change. Without the making of this Provision and Reserve that indication of the potential future cash flows arising from the activities of the reporting entity would not be available to users of its financial statements and they would, therefore, be unaware of any potential risks arising.

d. Distributable reserves and environmental insolvency

The reporting requirement for distributable reserves noted within the draft FRS follow directly from the above observations and lead to the possibility that after making the required provisions a reporting entity might potentially be considered to be environmentally insolvent. The draft FRS notes that:

> *If a reporting entity is unable to continue its trade without foreseeable adverse environmental impact which it cannot address either due to technical inability or an*

inability to secure the necessary financial capital to meet its obligations as they fall due then it must disclose that fact and declare itself to be environmentally insolvent.

A deficiency of retained reserves at a consolidated level within a reporting entity would be a clear indication of the need to consider this possibility, but it is likely that some entities might face this possibility for the reasons noted and as such a deficiency of reserves, whether distributable or otherwise, is not in itself a sufficient condition to indicate this insolvency. Directors and auditors alike will need to pay particular attention to this issue and will always have an obligation to ensure that sufficient disclosure is made to justify the use of a going concern basis in the preparation of financial statements subject to an environmental capital maintenance concept.

As the draft FRS notes:

When a reporting entity declares itself environmental insolvent it must:

- *Prepare a sustainability statement that explains why it cannot continue to trade without adverse environmental impact whilst indicating how it will minimise that impact during the period in which it continues to intend to trade;*
- *Prepare a sustainability provision that estimates the costs that it will incur in mitigating its environmental impact until the time that it ceases to trade;*
- *Dispense with a reinvestment reserve;*
- *Make provision for its costs of ceasing to trade in accordance with the requirements of IAS 37.*

There is nothing especially novel about this resulting accounting requirement although it will change the focus of the reporting entity's financial statements thereafter and will require that particular consideration be given to continuing compliance with the principles of going concern within a financial capital maintenance concept which will then be the primary concern of the reporting entity.

e. Reporting

The draft FRS makes a suggestion as to the reporting required from an entity adopting our principles outlined above. An appendix explores this issue in greater depth[8].

The draft FRS has been designed to produce decision useful information that will enable the user to make decisions as to:

[8] Please note that at the time of issue of the version of the ED the author is aware that this requires further development.

a) The awareness of the reporting entity as to the risks that it faces from environmental change and how these might change over time;
b) Whether the reporting entity thinks that it can successfully manage the process of adapting to environmental change or should instead be considered to be environmentally insolvent;
c) The potential costs that the reporting entity faces from addressing the issues arising from environmental change, whether with regard to eliminating activities giving rise to harmful emissions or in replacing them with sustainable activity thereafter, quantifying the additional capital that required to address these issues and how they anticipate that these sums might be utilised over time;
d) The impact of the environmental change on the reserves available for distribution by the reporting entity in the foreseeable future;
e) By comparing and contrasting this information over time determining which reporting entities might be the most appropriate users of the capital resource required to tackle environmental change.

Of these issues the last is the most important end establishes the criteria by which this draft FRS should be appraised.

7. Conclusion

The draft FRS to which this paper refers presumes three things. The first is that we face an environmental crisis. The second is that the accounting response to this crisis to date has been inadequate in that it will not stimulate the behavioural response to that crisis that is required to ensure that it is effectively tackled. Third, it is assumed that a more robust accounting response could stimulate that response.

The accounting requirements proposed by the draft FRS are significant in scope. This reflects the fourth assumption implicit within the draft FRS, which is that if accounting is a social construct then the priority of society has now changed. The maintenance of financial capital is no longer its primary objective and the preservation of environmental capital is now its major concern. Since this concern is one shared by all in society this in turn requires a change in the focus of financial reporting to take into consideration the needs of all users of financial statements. That motivates some of the changes proposed within the draft FRS.

Other proposals arise in response to a changed assumption with regard to materiality that underpins the work. A double materiality concept assumes that the entity has to report both the impact of environmental change upon its financial affairs, and the impact of its activities on society at large. When, in addition, dynamic materiality is taken into consideration information requiring disclosure in financial statements ceases to be determined either by events arising during a reporting period or on an accounting reference date. Instead, a

requirement is imposed to consider the consequences in future periods of events that might have already happened or will happen as a consequence of current trading patterns and which will in due course have impact on the reporting entity. Within the concept of environmental capital maintenance, it is argued that these issues have as much impact upon the right of the reporting entity to be considered a going concern as do events arising on or before the accounting reference date.

The draft FRS is open for discussion. The research underpinning it suggests that debate on this issue now needs to be pursued with vigour.

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Draft

of a proposed

Financial Reporting Standard

on

Accounting for Environmental Change

Richard Murphy

Sheffield University Management School
and the
Corporate Accountability Network

March 2022

1. Foreword

1.1 The draft financial reporting standard on sustainable cost accounting included in this paper has been published by the Corporate Accountability Network[9] for four reasons.

1.2 First, this is a response to the continuing environmental crisis. The scale of this crisis has now been fully recognised by the United Nations Conference of the Parties 26 in November 2021 (COP26). At that conference 197 nations agreed[10] to commit to limiting global temperature increases to 1.5 degrees by 2050.

1.3 Second, despite this commitment by those nations the Corporate Accountability Network believes that the reaction of global financial standard setters has been inadequate. In particular, although the launch of the International Sustainability Standards Board (ISSB) by the International Financial Reporting Standards Foundation[11] (IFRS) was announced at COP26, the fact that the ISSB exists as a standard setter apart from the International Accounting Standards Board (IASB) that is also controlled by the IFRS is a matter for concern. The implication of its separate existence is that sustainability reporting will remain outside the mainstream of financial reporting. If this was not the case the standards that this new Board will create could have been included within the work of the IASB[12]. We do not believe that sustainability is an externality as far as financial reporting is concerned. Nor do we think that sustainability standards should be prepared in accordance with a different framework to accounting standards if both relate to the same reporting entity. Our aim is to integrate accounting for environmental change into mainstream financial reporting.

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This draft is primarily the work of Richard Murphy, Professor of Accounting Practice, Sheffield University Management School and director of Corporate Accountability Network. Thanks are due to Prof Adam Leaver, John Christensen, Prof Thomas Riise Johansen, Prof Len Seabrooke and others who attended a seminar at Copenhagen Business School and offered comment on this draft for their help and comments on this draft. Any errors are not theirs.

[10] https://ukcop26.org/cop26-keeps-1-5c-alive-and-finalises-paris-agreement/

[11] https://www.ifrs.org/news-and-events/news/2021/11/ifrs-foundation-announces-issb-consolidation-with-cdsb-vrf-publication-of-prototypes/

[12] https://www.ifrs.org/about-us/how-we-set-ifrs-standards/

1.4 Third, we want to demonstrate that it is possible to develop an accounting standard that could be issued by the IFRS that could address the need to account for sustainability within a financial reporting framework. Our intention is to show that reporting the impact of climate change should not be left outside the financial statements[13] but rather should be included within the reported financial data that is derived from the collective general ledgers of those combined reporting entities that constitute a public interest entity (PIE). This data is generally referred to as accounting information.

1.5 Fourth, our objective is to demonstrate that by integrating data in this way, the decision-making needs of the various users of financial statements can be met. We do in particular suggest that in the context of accounting for environmental change those decision-making criteria include:

1.5.1 Determining the ability of the reporting entity to continue its activities into the foreseeable future;
1.5.2 Appraising the ability of the entity to adapt to the threats arising from environmental change;
1.5.3 Quantifying the cost to the entity of mitigating its impact upon environmental change;
1.5.4 Delivering consistent, relevant and reliable data on the actions of the entity in managing the processes of adaptation that environmental change imposes upon it;
1.5.5 Estimating the consequences of these issues upon the future revenue earnings and free cash flow generation capacity of the reporting entity.

1.6 The resulting draft financial reporting standard that has been developed includes several novel features:

1.6.1 The definition of the user of general-purpose financial statements is extended beyond that within the IFRS conceptual framework so that the needs of all the stakeholders of a PIE are addressed by the financial reporting relating to the impact of environmental change;
1.6.2 The concept of double materiality is necessarily included within the draft Financial Reporting Standard to ensure that the obligation of the reporting entity to consider both the impact of environmental change on its activity and

[13] The terms financial statements, general purpose financial statements and accounts are used interchangeably within this document and all refer to what the IFRS define as general purpose financial statements within its conceptual framework.

the impact of its activity upon environmental change is reflected within that financial reporting;

1.6.3 The concept of dynamic materiality is adopted so that the likely future financial consequence of current or past actions is anticipated within liabilities to be provided and disclosures to be made;

1.6.4 The capital maintenance concept used within IFRS is altered with the consequence that a financial capital maintenance concept is used subject to the requirement that a reporting entity undertakes its activities without having an adverse environmental impact whilst still being able to settle its financial liabilities as they fall due. Only those entities that can meet this objective are considered going concerns for financial reporting purposes.

1.6.5 The nature of both a liability and a provision are extended beyond that noted within IAS 37 to ensure that the long-term impact of environmental change upon the reporting entity is appropriately reflected within its accounts through the creation of a sustainability provision;

1.6.6 The use of discounting is not permitted within the reporting of liabilities relating to environmental change within this draft financial reporting standard;

1.6.7 Compounding of liabilities is required as an alternative to discounting. The use of dynamic materiality requires that the likelihood that the cost of tackling the consequences of environmental change will increase over time if action is deferred be considered when a reporting entity makes provision for the liabilities that it will incur when eliminating greenhouse gas emissions from its business processes.

1.6.8 The use of a precautionary principle when estimating liabilities is mandated;

1.6.9 The reporting of total realised distributable reserves and their method of calculation is required within the overall noted reserves of the reporting entity;

1.6.10 The reporting of those commitments to invest in both tangible and intangible fixed assets that are required in future periods to replace those assets retired from use as the consequence of the reporting entity's sustainability plan Is mandated with that commitment being considered to be a realised reserve unless alternative forms a financing for the noted expenditure can be demonstrated to exist;

1.6.11 Reporting requirements for the matters referred to in the FRS are mandated.

2. Explanatory note

2.1 The environmental crisis both impacts on reporting entities and is impacted by them. This duality is explicitly recognised in this Financial Reporting Standard.

2.2 The impact of the environmental crisis on the reporting entities to which this Financial Reporting Standard might apply arises from the way in which climate change will alter the availability of resources; the nature of the supply chains through which they are procured; the places in which business might be located; and in those places in which markets might be found and labour might be secured. The already predictable consequences of the environmental crisis mean that many of these changes will happen irrespective of any action taken by government, regulators, companies and other market participants.

2.3 The reaction of governments, regulators, other companies and market participants to the now inevitable environmental crisis that will, however, also impact upon any reporting entity to which this financial reporting standard might apply. Governments are declaring climate emergencies and are setting target for the reduction of greenhouse gas emissions. Goals are being set to limit the impact of temperature change upon the environment. Regulators are being established to enforce these standards. Companies, consumers and other market participants are all reacting to the resulting economic stimuli. There is no reporting entity that will not be impacted by the resulting processes of change arising outside their own apparent boundaries.

2.4 The challenge arising from this process of change is to recognise that financial reporting must adapt to reflect the consequences of this externality while simultaneously reflecting two new requirements within the reporting of an entity's own behaviour. The first of these requirements is to deliver an honest appraisal of the contribution that the reporting entity makes to the environmental crisis. The second is to report the consequence of the decisions that the reporting entity might take in response that environmental crisis so that it might mitigate its own impact for the benefit of all in society and simultaneously ensure that it might remain a going concern within the new constraints that now exist within which economic activity must take place. In turn this demands that the reporting entity recognise that anyone in society might be a user of its financial statements, which contrasts with the previous assumption that there was a singular group of financially-oriented and primarily contractually-engaged primary users for the financial reports that it produced.

2.5 This financial reporting standard recognises the externally imposed nature of the environmental crisis that every reporting entity faces whilst recognising its own individual duty to respond to that crisis if it is to continue to be considered a going concern for financial reporting purposes. The tensions that this duality creates underpin the requirements that this Financial Reporting Standard imposes on all reporting entities to which it applies.

3. Content

3.1 A draft Financial Reporting Standard for Accounting for the Environmental Crisis is set out in the following paragraphs and appendices. All the paragraphs have equal authority. Definitions of terms of particular relevance to this standard are provided in Appendix A. Other terms used are as noted in the Glossary for IFRS Standards[14]. The Standard should be read in the context of its Objectives and the Foreword and Explanatory Note, the Preface to IFRS Standards and the Conceptual Framework for Financial Reporting. IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

4. Objectives

4.1 This Financial Reporting Standard establishes principles for the recognition of and reaction to the environmental crisis by a reporting entity and the consequent measurement and presentation of the required responses to that crisis and the resulting required disclosure within the scope of financial statements to which the Standard shall apply. The objective of the Standard is to ensure that an entity provides relevant information that faithfully represents its environmental impact and the measures it must take to eliminate it. This information gives a basis for users of financial statements to better understand the impact that the environmental crisis might have on the entity's financial position, financial performance and cash flows as well as its long-term financial prospects.

5. Scope

5.1 This IFRS applies whenever the activities of an entity reporting using IFRS Foundation standards might have an identifiable environmental impact, however remote that might be.

5.2 The measurement and disclosure requirements of this IFRS apply to all entities within its scope, without limitation.

6. Environmental capital maintenance

[14] https://www.ifrs.org/issued-standards/list-of-standards/Glossary/#standard

6.1 This Financial Reporting Standard requires that a reporting entity operate within the constraints of a capital maintenance concept that reflects the constraints arising from the environmental crisis.

6.2 Reporting entities using International Financial Reporting Standards are familiar with the financial capital maintenance concept (IFRS 2018, para 8.3). They can continue to use that approach to financial reporting when applying this Financial Reporting Standard, but adapt it to consider environmental capital maintenance. This requires that a reporting entity undertakes its activities without having an adverse environmental impact whilst still being able to settle its financial liabilities as they fall due. Only those reporting entities that can meet this criterion can be a going concern for financial reporting purposes.

7. Measurement

7.1 Measurement of emissions of greenhouse gases (GHG) required by this standard shall be undertaken using the standards created by the Greenhouse Gas Protocol (GGP)[15].

7.2 Measurement of the Scope 1, 2 and 3 emissions as defined by the GGP shall be mandatory.

7.3 For each scope category, total GHG emissions reported in metric tons of CO_2 equivalent, excluding biogenic CO_2 emissions and independent of any GHG trades, such as purchases, sales, or transfers of offsets or allowances.

7.4 Scope 1, scope 2, and scope 3 are mutually exclusive for the reporting entity, such that there is no double counting of emissions between the scopes. Their combined total shall in that case represent the reporting entity's total emissions[16].

7.5 Scope 2 emissions to the extent that they are indirect and all Scope 3 emissions shall be measured gross[17] i.e. without account being taken for any indirect emissions included within the emission accounting of any other reporting entity.

7.6 Any offsets that the entity suggests that it makes shall be separately disclosed and described as such within all emission reporting with the basis for offsetting being

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[15] https://ghgprotocol.org/

[16] https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf page 8

[17] https://ghgprotocol.org/standards/scope-3-standard

disclosed; internal and external offsets being disclosed separately and purchased offsets being separately identified[18].

8. The Sustainability Plan

8.1 A reporting entity shall prepare a sustainability plan that shall be updated annually and be considered a part of the reporting entity's general purpose financial statements for each reporting period.

8.2 The sustainability plan shall report with regard to the reporting entity's GHG emissions:

8.2.1 The gross Scope 1, 2 and 3 GHG emissions of the reporting entity during the period to which the plan relates;
8.2.2 Any offset that the reporting entity intends to claim against the gross emissions made, split by type, subject to the matters noted in this Standard;
8.2.3 The cost of such offsets, split by type;
8.2.4 The plan that the reporting entity has to reduce these emissions to the level required by its target date for net-zero emissions, reported in sufficient detail that the credibility of that plan can be appraised;
8.2.5 The stated reduction in emissions anticipated by year until the reporting entity reaches its target date for net zero emissions;
8.2.6 Whether the reporting entity as a whole, or with regard to one of its major product lines or its activity within a geographic segment considers itself to be environmentally insolvent, with reasons being given;
8.2.7 All disclosures shall be by major product line and by geographic segment.

8.3 No offset shall be included within the plan unless the resources to facilitate that arrangement are already under the contractual control of the reporting entity at the end of the reporting period with it being stated that this is expected to remain the case at the time that the offset is planned to arise.

8.4 A precautionary principle shall be applied when preparing the sustainability plan.

8.5 The use of technology that has not been proven or which has not been proven in use at the scale at which the reporting entity and others might wish to avail themselves of it shall not be permitted within the sustainability plan.

[18] Based on https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf page 103

8.6 If there are uncertainties as to the viability of the sustainability plan then those uncertainties shall be disclosed using the principle of double materiality to determine what matters shall be reported in this way.

9. The Sustainability Provision and Reserve

9.1 A reporting entity shall include a Sustainability Provision in its financial statements to reflect the best estimate of the full anticipated cost of delivering its Sustainability Plan at the end of its reporting period.

9.2 The Sustainability Provision reflects the cost of delivering the Sustainability Plan.

9.3 In the absence of indication to the contrary the provisions of IAS 37 shall apply to the estimation and disclosure required regarding the Sustainability Provision. However, paragraph 14 of IAS 37 shall not apply in the case of this provision. Instead, under the provisions of paragraph 15 of that Standard a past event giving rise to a present obligation is deemed to have taken place with regard to the need to eliminate the consequences of environmental change from the activities of the reporting entity on the basis that it is more likely than not that a present obligation with regard to this matter will exist at the end of the reporting period given the prevailing nature of scientific evidence on this issue.

9.4 The Sustainability Provision shall be reconciled with the Sustainability Plan. Sums provided should refer to that part of the Sustainability Plan to which they relate and should be disclosed in total as well as by major product line and by geographic segment. Sufficient detail should be included in the disclosure made to ensure that the credibility of that provision can be appraised.

9.5 The Sustainability Provision shall be reported as a current liability to the extent that costs in connexion with the Sustainability Plan will be incurred within 12 months of the balance sheet date, and as a long term liability with regard to all other parts of the Provision, but with that liability falling due after one year being split for reporting purposes into those parts that shall fall due:

- 9.5.1 Between two and three years;
- 9.5.2 Between four and five years;
- 9.5.3 Between six and seven years;
- 9.5.4 Between eight and ten years;
- 9.5.5 Between eleven and fifteen years;

9.5.6 Between sixteen years and its target date for net-zero emissions;
9.5.7 Thereafter.

9.6 No part of the Sustainability Provision shall be subject to discounting.

9.7 All liabilities shall be compounded if falling due after more than one year using a compound interest rate that is the higher of:

9.7.1 Five per cent per annum;
9.7.2 The weighted average cost of capital of the company, the basis of the calculation of which shall be disclosed.

Compounding is required allow for the likelihood that the cost of settling liabilities arising from the Sustainability Plan will increase over time having taken into consideration non-financial aspects of the environmental crisis.

9.8 The Sustainability Provision shall be matched by a Sustainably Reserve to be included within the shareholders' equity of the reporting entity, which shall be treated as a realised reserve and shall be disclosed with other realised reserves.

9.9 The Sustainability Provision does not provide opportunity to anticipate profits.

10. The Reinvestment Provision and Reserve

10.1 A reporting entity shall include in its financial statements its best estimate at the end of its reporting period of the full anticipated cost of investment required in tangible and intangible fixed assets in future periods to deliver its sustainability plan.

10.2 The sum to be reported is that amount that must, in the best judgment of the directors of the reporting entity, be invested to replace the productive capital of the company that will be retired from use because of measures taken to mitigate the reporting entity's environmental impact so that it might still continue to be considered a going concern for financial reporting purposes.

10.3 The Reinvestment Provision shall be reconciled with the Sustainability Plan. Sums provided should refer to that part of the Sustainability Plan to which they relate and should be disclosed in total as well as by major product line and by geographic segment. Sufficient detail should be included in the disclosure made to ensure that that the credibility of that Reinvestment Provision can be appraised.

10.4 The Reinvestment Provision shall suggest that period when the expenditure to which it refers will be incurred, split into the following categories:

10.4.1 Within one year;
10.4.2 Between two and three years;
10.4.3 Between four and five years;
10.4.4 Between six and seven years;
10.4.5 Between eight and ten years;
10.4.6 Between eleven and fifteen years;
10.4.7 Between sixteen years and its target date for net-zero emissions;
10.4.8 Thereafter.

10.5 Sums to be invested can include those planned on technologies whose credibility has not been proven in use if the directors of the reporting entity believe that those technologies might help it achieve its sustainability plan. The inclusion of that estimated spending in the Reinvestment Provision does not stop the precautionary principle applying to the use of such technologies in forecasting future GHG emissions until they have been proven to be viable technically and financially and at the required scale when anticipating the use that the reporting entity and others might wish to make of them.

10.6 The Reinvestment Provision can include the cost of investment in offsetting GHG emissions but the benefit of that spending cannot be used to reduce the forecast GHG emissions of the reporting entity until such spending has been contracted and the viability of the resulting offset has been demonstrated.

10.7 The Reinvestment Provision shall be matched by a Reinvestment Reserve to be included within the shareholders' equity of the reporting entity, which shall be treated as a realised reserve and shall be disclosed with other realised reserves.

11. Distributable reserves

11.1 The reserves of the reporting entity available for distribution at the close of the financial reporting period shall be considered to be the cumulative realised reserves arising as a consequence of the trading of the group parent company and its subsidiary entities to that date calculated in accordance with the principles of consolidated financial reporting reflected in IFRS10 less:

11.1.1 Cumulative distributions made from those same realised reserves to that date;
11.1.2 The value of the Sustainability Reserve as at that date;

11.1.3 The value of the Reinvestment Reserve as at that date.

12. Environmental insolvency

12.1 If a reporting entity is unable to continue its trade without foreseeable adverse environmental impact which it cannot address either due to technical inability or an inability to secure the necessary financial capital to meet its obligations as they fall due then it must disclose that fact and declare itself to be environmentally insolvent.

12.2 When a reporting entity declares itself to be environmentally insolvent it must:

12.2.1 Prepare a sustainability plan that explains why it cannot continue to trade without adverse environmental impact whilst indicating how it will minimise that impact during the transition period in which it continues to intend to trade;
12.2.2 Prepare a Sustainability Provision that estimates the costs that it will incur in mitigating its environmental impact until the time that it ceases to trade;
12.2.3 Dispense with a Reinvestment Provision and Reserve;
12.2.4 Make provision for its costs of ceasing to trade in accordance with the requirements of IAS 37 and as otherwise provided in this Financial Reporting Standard.

12.3 If a reporting entity does during the period of its environmental insolvency have reason to change its expectation about its future ability to trade without foreseeable adverse environmental impact it shall:

12.3.1 Explain the reason for this in an updated sustainability plan;
12.3.2 Make provision for the costs it will incur to eliminate its adverse environmental impact in a Sustainability Provision to be prepared on the basis previously noted;
12.3.3 Create a Reinvestment Reserve;
12.3.4 Update its disclosure on these issues annually thereafter;
12.3.5 Take credit for any of the costs of closing its activities previously provided under IAS 37 if that is appropriate.

13. Reporting

13.1 The reporting entity shall publish all those matters referred to in this section as part of its general purpose financial statements.

13.2 The reporting entity's Sustainability Plan, disclosing after the first period in which it is published those changes in that Plan that have occurred during the financial reporting period and their likely impact, cross referring that disclosure to its Sustainability Provision and Reinvestment Provision, as appropriate. Any changes in assumptions made as to the entity's double or dynamic materiality or the precautionary principle as applied to its plans shall also be disclosed.

13.3 The reporting entity's Sustainability Provision.

The following shall be disclosed:

13.3.1 The breakdown of material items within that provision at the start and close of the reporting period as reconciled by the following items;
13.3.2 Any increase in the provision made during the course of the year, cross referenced to the Sustainability Plan for explanation as to cause, with separate disclosure required for each material item;
13.3.3 Expenditure incurred charged to the provision during the course of the period, with an explanation as to its purpose;
13.3.4 Any reduction in the provision arising as a result of changed assumptions as to double materiality or the precautionary principle used by the reporting entity, cross referenced to the sustainability plan for explanation;
13.3.5 Changes arising for any other reason, including as a result of interaction with the income statement;
13.3.6 The taxation consequences of expenditure arising if not accounted for elsewhere in the financial statements.

13.4 The reporting entity's Reinvestment Provision.

The following shall be disclosed:

13.4.1 The breakdown of material items within that provision at the start and close of the reporting period as reconciled by the following items;
13.4.2 Any increase in the provision made during the course of the year, cross referenced to the sustainability plan for explanation as to cause, with separate disclosure required for each material item;
13.4.3 Expenditure incurred charged to the provision during the course of the period, with an explanation as to its purpose;

13.4.4 Any reduction in the provision arising as a result of changed assumptions as to double materiality or the precautionary principle used by the reporting entity, cross referenced to the sustainability plan for explanation;

13.4.5 Changes arising for any other reason, with a cross reference to the financial statements where applicable.

13.5 Distributable reserves shall be disclosed, split between:

13.5.1 Cumulative realised group reserves arising from trading activity;

13.5.2 The sustainability reserve;

13.5.3 The reinvestment reserve.

13.6 Reserves not available for distribution shall be disclosed with the reason for them not being available for distribution being noted.

13.7 Any constraints upon the distribution of reserves not arising from other matters disclosed in the financial statements shall be noted.

13.8 The provisions made resulting from environmental insolvency, if applicable, shall be disclosed following the principles noted for the sustainability provision, noted above.

13.9 The interaction of the matters required to be disclosed by this standard with other matters required to be disclosed within the financial statements shall be separately disclosed to ensure that a stakeholder might understand the impact of the disclosures made upon the overall financial position of the reporting entity.

13.10 The reporting entity shall make those additional disclosures required to fulfill its obligations arising from the use of a double materiality principle and the needs of the stakeholders of the reporting entity.

Effective date

This Standard becomes operative for annual financial statements covering periods beginning on or after 1 January 202X. Earlier application is encouraged. If an entity applies this Standard for periods beginning before 1 January 202X, it shall disclose that fact.

Appendix A - Defined terms

This appendix is an integral part of the FRS.

Accounts	Any report defined by the International Financial Reporting Standard as general purpose financial statements.
Adverse environmental impact	The adverse consequences of a reporting entity on the ecosphere including, most notably but not exclusively: a. Its contribution to increasing average temperatures, which is sometimes called global warming; b. Declining biodiversity. In practice this is considered activity inconsistent with achieving global net zero greenhouse gas emissions by 2050[19].
Climate crisis	See environmental crisis
Compounding	The process used to increase the estimated value of a liability to allow for the likelihood that the cost of settling it will increase over time having taken into consideration non-financial aspects of the environmental crisis.
Compound interest rate	The higher of: • Fiver per cent per annum; • The weighted average cost of capital of the company, the basis of the calculation of which shall be disclosed.
Direct emissions	Direct emissions are emissions from sources that are owned or controlled by the reporting company[20]. To be compared to indirect emissions.
Discounting	The measurement of the current worth of future cash flows that assumes money received in the future has less value than money received today because of the loss of interest that might have been earned on its reinvestment in the intervening period. This commonly used methodology for estimating the value of a liability depending on the timing of its settlement is not considered appropriate for use within this FRS because any impact that the loss of interest might have is more than offset

[19] https://www.iigcc.org/our-work/paris-aligned-investment-initiative/

[20] https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf

	by the cost of delaying action to tackle the environmental impact of a reporting entity.
Distributable reserves	The realised retained reserves of the company less any sums required to be retained as sustainability and reinvestment reserves so that the company might operate without prejudice to the interests of any of its creditors.
Double materiality	The concept of materiality suggests that "information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity."[21] What is material is determined by the reporting entity. Materiality can be appraised by a single reasonableness test[22] i.e. a matter is material if there is a substantial likelihood that a reasonable person would consider it important. The concept of double materiality expands the concept of materiality to include both climate-related impacts on the company as well as the impacts of a company on the climate. As a consequence, the reporting entity is required to consider the impact of its behaviour on the users of its financial statements, making explicit that there exists a relationship with them that extends beyond contractual obligation. Double materiality uses a double reasonableness test. A 'double reasonableness' test sets a high threshold by asking whether a reasonable person might hold the view that disclosure was a reasonably required[23]. The consequence of using the concept of double materiality is that the reporting entity cannot presume that it is preparing financial statements solely for the benefit of those considered the primary users of financial statements. It does instead have obligations to all users of financial statements.

[21] IAS 1.7

[22] https://www.sec.gov/interps/account/sab99.htm

[23] Based on https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/396179/gaar-part-abc.pdf page 27

Dynamic materiality	As EFRAG notes, *'the determination of financially material effects on the reporting entity can rely on non-monetary quantitative, monetary quantitative, or qualitative data, while recognising the dynamic relationship between them. Many impacts on people and the environment may be considered 'pre-financial' in the sense that they may become material for financial reporting purposes over time (so-called 'dynamic materiality'). Financial materiality for sustainability reporting cannot be extrapolated from financial materiality for financial reporting.'*[24] Dynamic materiality recognises the disconnect between financial and non-financial aspects of materiality and requires that anticipation be made of financial consequences of non-financial impacts on the reporting entity.
Environmental capital	The natural resources of the world that are required to maintain human and other life on earth. The concept is distinct from natural capital, which might be described as the world's stocks of natural assets which include geology, soil, air, water and all living things. Environmental capital respects the relationships between all parts of the biosphere that are essential to support life.
Environmental capital maintenance	The definitions of capital maintenance provided in paragraphs 8.1 to 8.10 of the IFRS Conceptual Framework[25] are not used in this standard. An environmental maintenance capital concept is used instead. Environmental capital maintenance requires that a reporting entity be a going concern into the foreseeable future without having adverse environmental impact as a result of its activities whilst being able to settle its financial liabilities as they fall due.
Environmental crisis	The adverse consequences of human activity on the ecosphere including, most notably but not exclusively: a. Increasing average temperatures, which is sometimes called global warming; b. Declining biodiversity.

24
https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210308-report-efrag-sustainability-reporting-standard-setting_en.pdf

25 https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework.html/content/dam/ifrs/publications/html-standards/english/2021/issued/cf/

	It also describes those human activities that create these adverse consequences.
Environmental impact	The contribution that the reporting entity might make to the environmental crisis.
Environmental insolvency	The state where the reporting entity is unable to continue its trade without foreseeable adverse environmental impact which it cannot address either due to technical inability or an inability to secure the necessary financial capital to meet its obligations as they fall due.
Financial statements	Any report defined by the International Financial Reporting Standard as general purpose financial statements.
Going concern	A going concern is a reporting entity that has the intention to continue to trade and can command the resources to do so without imposing adverse environmental impact.
Gross emissions	Gross emissions include Scope 1 direct emissions and Scope 2 emissions arising from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company as well as all indirect Scope 3 emissions (not included in scope 2) that occur in the value chain of the reporting entity, including both upstream and downstream emissions without allowance being made for offset because any other entity might also have the ability to influence some or all of that indirect emission as a consequence of the activities that it undertakes[26].
Indirect emissions	Indirect emissions are emissions that are a consequence of the activities of the reporting company, but occur at sources owned or controlled by another company or person[27].
Liabilities	A liability is defined in the IFRS Conceptual framework as "A present obligation of the entity to transfer an economic resource as a result of past events."[28] IFRS 37 defines it slightly differently, as "A present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic

[26] Based on https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf page 28

[27] https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf page 27

[28] IFRS Conceptual framework paragraph 4.26.

	benefits."[29] These definitions are replaced in this FRS in which liabilities are defined as the obligations of the entity that have or might arise as a consequence of past decisions and events as a result of which it is anticipated that a transfer of economic resources will arise.
Materiality	Also called single materiality. See double materiality.
Net-zero emissions	Requires a reporting entity to achieve a reduction in total emissions consistent with pathways that limit warming to 1.5°C with no or limited overshoot having allowed for those offsets that can be shown by the reporting entity to be available to it from within its own resources at the time that their use is forecast and subject to a precautionary principle applying[30].
Offset	An action or activity (such as the planting of trees or carbon sequestration) that compensates for the emission of carbon dioxide or other greenhouse gases to the atmosphere[31].
Precautionary principle	A precautionary principle is explicitly used in two circumstances in this FRS. A precautionary principle might be equated with the concept of prudence. The refers to the exercise of caution when making judgements under conditions of uncertainty. The precautionary principle extends this general concept in these two ways: a. Offsetting shall not be permitted unless the resources to permit that offset are i. Already under the economic control of the reporting entity; ii. Can be proven to deliver offset; b. Technology whose credibility has not yet been proven in use at scale cannot be assumed to contribute to the reporting entity's sustainability plan.
Primary users of financial statements	Defined by the IFRS Conceptual Framework (para 1.2) as being existing and potential investors, lenders and other creditors. The term is only relevant within the concept of a financial standard using single materiality. As such it is not of relevance

[29] IFRS 37 paragraph 10

[30] Based on https://sciencebasedtargets.org/resources/files/foundations-for-net-zero-full-paper.pdf

[31] https://www.merriam-webster.com/dictionary/carbon%20offset

	within the context of this standard where double materiality is used and all users of financial statements are considered to have equal standing.
Provision	A liability of uncertain timing or amount.
Reserves	Those elements of capital not contributed by the subscribers for the share capital or the company arising as a consequence of: a. Cumulative surpluses or losses arising as a result of trading activity; b. Revaluations; or provisions relating to fair value or other equivalent adjustments; c. Mergers and acquisitions; d. The sustainability reserve; e. The reinvestment reserve; f. Other matters of similar type, however described.
Realised reserves	That part of the reserves of the company, or the group of which it is a parent entity if that is its situation: a. arising as a result of cumulative trading activity that might have resulted in contractual cash flow consequences, less: b. the sustainability reserve, and c. the reinvestment reserve, less d. accumulated distributions for the benefit of the shareholders of the company whether by way of dividend in cash or by specie and by way of share buy-back, cancellation or other realisation.
Reinvestment provision	That sum that must, in the best judgment of the directors of the reporting entity, be invested to replace the productive capital of the company retired from use because of measures taken to mitigate the reporting entity's environmental impact so that it might be considered to remain a going concern for financial reporting purposes.
Reinvestment reserve	The value of the reinvestment provision when reflected in the shareholders' equity of the company that is treated as a realised reserve for the purposes of estimating reserves available for distribution by the reporting entity.
Relevant accounts	The relevant accounts for the purposes of determining the reserves, realised reserves and distributable reserves of a company shall be its individual financial statements unless it is a parent company in which case that sum shall be determined with regard to the financial statements of the group of which it

	is the patent entity prepared on a basis consistent with that of any larger group of companies of which it might be a part.
Scopes	Scope 1, 2 and 3 emissions as defined by the Greenhouse Gas Protocols.
Stakeholders	See users of financial statements
Single materiality	See double materiality
Sustainability	Trading without adverse environmental impact arising.
Sustainable capital	The environmental capital that a reporting entity requires to undertake its economic activities and which it has responsibility for maintaining by eliminating its environmental impact.
Sustainability plan	The plan that a reporting entity must prepare to report how it will eliminate its environmental impact.
Sustainability provision	The best estimate of the liability to be incurred to eliminate the environmental impact of the reporting entity.
Sustainability reserve	The value of the sustainability provision when reflected in the shareholders' equity of the company that is treated as a realised reserve for the purposes of estimating reserves available for distribution by the reporting entity.
Target date for net zero emissions	The earliest of: a. The date set by the company, or; b. The date required by the jurisdiction in which the reporting entity's parent entity is located, or; c. The date set by any jurisdiction to which the entity makes more than 10% of its third party sales, ignoring those to parties acting as agents or distributors.
Total emissions	The total of Scope 1, 2 and 3 emissions that the reporting entity generates of CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6, if they are emitted in the value chain.
Transition period	The duration of the period that the reporting entity considers to be required for it to mitigate its emissions and adapt its business process to achieve its net-zero emissions target.
Users of financial statements	The following are considered to be the users of financial statements of a reporting entity: a. The shareholders of the reporting entity; b. Other suppliers of capital to the reporting entity; c. Trading partners of the reporting entity; d. Past, present and future employees of the reporting entity; e. Regulatory authorities with actual or potential responsibility for the reporting entity;

	f. Any tax authority with which the reporting entity might engage; g. Civil society in all its forms including (but without being exclusive): i. Local authorities ii. Journalists iii. Academics iv. Other researchers v. Non-governmental organisations and civil society organisations vi. Individuals

Appendix B – An example

This appendix is for explanatory purposes and is not an integral part of the draft FRS. The example is deliberately simplified, and partly for that reason only refers to a Sustainability Provision and Reserve and ignores accounting for a Reinvestment Provision and Reserve. The example is also illustrative: other interpretations of the accounting required by the draft FRS are possible. It is intended that further examples be published in due course.

a. Timescale

In this example it is assumed that a company has decided to eliminate its adverse impacts on the environment within five years.

b. Trading locations

In this example it is assumed that the company only trades in one jurisdiction.

c. Costs

It is assumed that on the basis of careful estimation that the cost of eliminating adverse environmental impacts from the reporting entity's business processes, customer chain and supply chain will amount to £60 million. Of this sum £10 million will be spent during the first two years of its transition period to invest in new technology to attach to equipment that it is believed will significantly reduce its carbon output if it is proved to work. The remaining £50 million will be spent in equal instalments to manage the process of carbon elimination. All costs are estimated at current prices and will have to be compounded where appropriate for disclosure purposes. The estimate is prepared in accordance with the precautionary principle, in other words it is assumed for the purposes of estimation that the new technology will not work as yet. No offsetting is presumed to take place outside the business.

d. Initial accounting

The accounting for this situation in the first year in which SCA is adopted is straightforward. A Sustainability Provision for the entire estimated cost of £60 million as compounded is made, or £66 million in all. The £10 million of expenditure on equipment is presumed to be a part of the Sustainability Provision rather than the Reinvestment Provision because it will be attached to existing equipment rather than replacing it.

The Sustainability Provision is not created by a charge in the income statement. It is instead a charge to the Sustainability Reserve. Movements on the Sustainability Provision will feed into the balance sheet through movements in the sustainability reserve and so through that into the statement of comprehensive income and then through the statement of changes in equity. A separate note to the accounts will be required to explain movements arising on the Sustainability Provision during a period.

Such is the significance of the likely Sustainability Reserve that it will be required to be shown separately on the face of the balance sheet as a separate reserve within shareholder's equity. This would also be true of a Reinvestment Reserve.

To match this disclosure within reserves (which will necessarily be a debit) the Sustainability Provision must also disclosed as a liability on the balance sheet, as would also be the case for a Reinvestment Provision if separately identified. £15 million will, in this case, be due in less than one year, with £45 million being due after more than one year. The compounding of this provision will have the following consequences, assuming that a 5% interest rate is used for this purpose:

Compounding

Year of spend	Basic interest rate	Compound rate	Estimated cost - current prices £'m	Provision required - £'m
1	5%	0.0%	15	15
2	5%	5.0%	15	16
3	5%	10.3%	10	11
4	5%	15.8%	10	12
5	5%	21.6%	10	12
			60	66

The total Sustainability Provision required is £66 billion.

Ignoring all other transactions, those noted with regard to the sustainability provision would be reflected as follows in the first year:

Accounting for Environmental Change

Sustainability provision reporting

Year 1

Sustainability reserve	**Year 1**
	£'million
Opening balance brought forward	0
Reduction in the year due to successful innovation	(66)
Spend in the year:	0
Balance carried forward	(66)
Split:	
Due in under one year	(15)
Due in more than one year	(51)

Statement of comprehensive income / (loss)	
	£'million
Change in the value of sustainability provision	(66)
Total comprehensive income / (loss) arising attributable to the owners	(66)

Statement of changes in equity	Sustainability reserve £'million
Change in the value of sustainability reserve	(66)
Total comprehensive income / (loss) arising attributable to the owners	(66)

Balance sheet	
Current liabilities	£'million
Sustainability provision	(15)
Non-current liabilities	
Sustainability provision	(51)
Net liabilities	(66)
Equity	£'million
Sustainability reserve	(66)

Narrative support for the entries would, of course, be required.

e. Second year accounting

The year two accounting might look like this, based on the assumptions made and assuming costs are raising as forecast at 5%:

Accounting for Environmental Change

Sustainability provision reporting

Year 2

Sustainability reserve	**Year 2**	**Year 1**
	£'million	£'million
Opening balance brought forward	(66)	0
Reduction in the year due to successful innovation	0	(66)
Spend in the year:	15	0
Balance carried forward	(51)	(66)
Split:		
Due in under one year	(16)	(15)
Due in more than one year	(35)	(51)

Statement of comprehensive income / (loss)		
	£'million	£'million
Change in the value of sustainability provision	0	(66)
Total comprehensive income / (loss) arising attributable to the owners	0	(66)

Statement of changes in equity	Sustainability reserve £'million	Sustainability reserve £'million
Change in the value of sustainability reserve	0	(66)
Total comprehensive income / (loss) arising attributable to the owners	0	(66)

Balance sheet		
Current liabilities	£'million	£'million
Sustainability provision	(16)	(15)
Non-current liabilities		
Sustainability provision	(35)	(51)
Net liabilities	(51)	(66)
Equity	£'million	£'million
Sustainability reserve	(51)	(66)

There is no movement in the statement of comprehensive income or loss in the year as the provision made has simply been expended. This would, of course, require explanation in a note with narrative support. The movement on the Sustainability Provision becomes, in effect, an additional element to the reporting of comprehensive income.

f. Third year accounting

It is presumed that in the third year of the project the spend on investment in new technology was shown to work. As previously planned, £16 million was spent in the year as a result of costs having risen as expected but as a consequence the success of the investment made the required spend in years 4, 5 and 6 is reduced from £35 million of compounded estimated cost in total to £18 million in total, spread evenly, having taken compounding into account. A saving of £17 million has arisen as a result of the successful investment programme. The accounting in year 3 would look like this:

Accounting for Environmental Change

Sustainability provision reporting

Year 3

Sustainability reserve	**Year 3**	**Year 2**	**Year 1**
	£'million	£'million	£'million
Opening balance brought forward	(51)	(66)	0
Reduction in the year due to successful innovation	17	0	(66)
Spend in the year:	16	15	0
Balance carried forward	(18)	(51)	(66)
Split:			
Due in under one year	(6)	(16)	(15)
Due in more than one year	(12)	(35)	(51)

Statement of comprehensive income / (loss)			
	£'million	£'million	£'million
Change in the value of sustainability provision	17	0	(66)
Total comprehensive income / (loss) arising attributable to the owners	17	0	(66)

Statement of changes in equity	Sustainability reserve £'million	Sustainability reserve £'million	Sustainability reserve £'million
Change in the value of sustainability reserve	17	0	(66)
Total comprehensive income / (loss) arising attributable to the owners	17	0	(66)

Balance sheet			
Current liabilities	£'million	£'million	£'million
Sustainability provision	(6)	(16)	(15)
Non-current liabilities			
Sustainability provision	(12)	(35)	(51)
Net liabilities	(18)	(51)	(66)
Equity	£'million	£'million	£'million
Sustainability reserve	(18)	(51)	(66)

If the restated plan now rolled out as planned the next three years would see reporting in the style of that of year 2. If variations were required the impact would be reported in the style of year three of this example.

g. Tax

It should be noted that whilst this spend does not pass through the income statement it would, almost certainly, create tax deductible expenditure. The value of that tax relief would in that case have to be noted as a reconciling item in the tax note to the accounts when explaining the effective rate of tax charge. Specific narrative disclosure with regard to this issue would be required in that note to the financial statements.

h. Distributable reserves

The sustainability reserve would form part of the distributable reserves of a company. It would as a result reduce the availability of reserves for dividend payment whilst it existed.

i. Impact of accounting for environmental change on other accounting issues

It is likely that accounting for environmental change will have impact on a range of other accounting issues including:

- The anticipated lives of tangible fixed assets;
- The anticipated residual values of tangible assets;
- The valuation and amortisation of intangible assets;
- The estimated provisions required for decommissioning costs, and their timing;
- The valuation of investment in subsidiary companies;
- Estimated liabilities for costs arising in the event of carbon insolvency;
- Contingent liabilities arising from failing to address carbon use;
- The implication for the value of financial instruments.

A reporting entity will need to consider all these issues as a consequence of the adoption of accounting for environmental change but they are not a part of it.