Consultation Paper
May 2022
Comments due: October 17, 2022

Natural Resources

IPSASB International Public Sector Accounting Standards Board®

This document was developed and approved by the International Public Sector Accounting Standards Board® (IPSASB®).

The objective of the IPSASB is to serve the public interest by setting high-quality public sector accounting standards and by facilitating the adoption and implementation of these, thereby enhancing the quality and consistency of practice throughout the world and strengthening the transparency and accountability of public sector finances.

In meeting this objective, the IPSASB sets IPSAS™ and Recommended Practice Guidelines (RPGs) for use by public sector entities, including national, regional, and local governments, and related governmental agencies.

IPSAS relate to the general purpose financial statements (financial statements) and are authoritative. RPGs are pronouncements that provide guidance on good practice in preparing general purpose financial reports (GPFRs) that are not financial statements. Unlike IPSAS RPGs do not establish requirements. Currently all pronouncements relating to GPFRs that are not financial statements are RPGs. RPGs do not provide guidance on the level of assurance (if any) to which information should be subjected.

The structures and processes that support the operations of the IPSASB are facilitated by the International Federation of Accountants® (IFAC®).

REQUEST FOR COMMENTS

This Consultation Paper, *Natural Resources*, was developed and approved by the International Public Sector Accounting Standards Board® (IPSASB®).

The proposals in this Consultation Paper may be modified in light of comments received before being issued in final form. **Comments are requested by October 17, 2022.**

Respondents are asked to submit their comments electronically through the IPSASB website, using the "Submit a Comment" link. Please submit comments in both a PDF and Word file. Also, please note that first-time users must register to use this feature. All comments will be considered a matter of public record and will ultimately be posted on the website. This publication may be downloaded from the IPSASB website: www.ipsasb.org. The approved text is published in the English language.

Guide for Respondents

The IPSASB welcomes comments on all of the matters discussed in this Consultation Paper, including all Preliminary Views and Specific Matters for Comment. Comments are most helpful if they indicate the specific paragraph or group of paragraphs to which they relate and contain a clear rationale.

The Preliminary Views and Specific Matters for Comment in this Consultation Paper are provided below. Paragraph numbers identify the location of the Preliminary View or Specific Matter for Comment in the text.

Preliminary View 1—Chapter 1

The IPSASB's preliminary view is that a natural resource can be generally described as an item which:

(a) Is a resource as described in the IPSASB's Conceptual Framework;

(b) Is naturally occurring; and

(c) Is in its natural state.

Do you agree with the IPSASB's Preliminary View, particularly whether the requirement to be in its natural state should be used to scope what is considered a natural resource?

If not, please provide your reasons.

Specific Matter for Comment 1—Chapter 1

The IPSASB's preliminary description of natural resources delineates between natural resources and other resources based on whether the item is in its natural state.

Do you foresee any challenges in practice in differentiating between natural resources and other resources subject to human intervention? If so, please provide details of your concerns. How would you envisage overcoming these challenges?

Specific Matter for Comment 2—Chapter 1

The IPSASB noted that the natural resources project and sustainability reporting in the public sector are connected in that this project focuses on the accounting for natural resources while sustainability reporting may include consideration of how natural resources can be used in a sustainable manner.

In your view, do you see any other connections between these two projects?

Preliminary View 2—Chapter 2

The IPSASB's preliminary view is that a natural resource should only be recognized in GPFS if it meets the definition of an asset as defined in the IPSASB's Conceptual Framework and can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Preliminary View 3—Chapter 3

The IPSASB's preliminary view is that guidance on exploration and evaluation expenditures, as well as development costs, should be provided based on the guidance from IFRS 6, *Exploration for and Evaluation of Mineral Resources*, and IAS 38, *Intangible Assets*.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Preliminary View 4—Chapter 3

The IPSASB's Preliminary View is that IPSAS 12, IPSAS 17, and IPSAS 31 should be supplemented as appropriate with guidance on the accounting for costs of stripping activities based on IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Preliminary View 5—Chapter 3

The IPSASB's preliminary view is that, before consideration of existence uncertainty, an unextracted subsoil resource can meet the definition of an asset because.

Do you agree with the IPSASB's Preliminary View?

Please provide the reasons supporting your view.

Preliminary View 6—Chapter 3

The IPSASB's preliminary view is that existence uncertainty can prevent the recognition of unextracted subsoil resources.

Do you agree with the IPSASB's preliminary view?

Please provide the reasons supporting your view.

Preliminary View 7—Chapter 3

The IPSASB's preliminary view is that the selection of a measurement basis for subsoil resources that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs may not be feasible due to the high level of measurement uncertainty. Based on this view, the recognition of subsoil resources as assets in the GPFS will be challenging.

Do you agree with the IPSASB's Preliminary View?

If not, please provide the reasons supporting your view.

Preliminary View 8—Chapter 4

Based on the discussions in paragraphs 4.11-4.31, the IPSASB's preliminary views are:

(a) It would be difficult to recognize water in seas, rivers, streams, lakes, or certain groundwater aquifers as an asset in the GPFS because it is unlikely that they will meet the definition of an asset, or it is unlikely that such water could be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs;

(b) Water impounded in reservoirs, canals, and certain groundwater aquifers can meet the definition of an asset if the water is controlled by an entity;

(c) Where water impounded in reservoirs and canals meets the definition of an asset, it may be possible to recognize the water in GPFS if the water can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs; and

(d) In situations where the financial capacity or operational capacity of a water resource cannot be reliably measured using currently available technologies and capabilities, the resource cannot be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

Specific Matter for Comment 3—Chapter 5

Living organisms that are subject to human intervention are not living resources within the scope of this CP. The accounting treatment of those living organisms, and activities relating to them and to living resources, is likely to fall within the scope of existing IPSAS.

In your view, is there sufficient guidance in IPSAS 12, IPSAS 17, or IPSAS 27 on how to determine which IPSAS to apply for these items necessary?

If not, please explain the reasons for your view.

Preliminary View 9—Chapter 5

Based on the discussions in paragraphs 5.18-5.41, the IPSASB's preliminary views are:

(a) It is possible for a living resource held for financial capacity to meet the definition of an asset, be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs, and thus meet the criteria to be recognized as an asset in GPFS;

(b) If a living resource with operational capacity meets the definition of an asset, an entity will need to exercise judgment to determine if it is feasible to measure the living resource in a way which achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs, and so meet the criteria to be recognized as an asset in the GPFS; and

(c) In situations where the financial capacity or operational capacity of a living resource cannot be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs using currently available technologies and capabilities, the living resource cannot be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Preliminary View 10—Chapter 6

Based on the discussion in paragraphs 6.7-6.15, the IPSASB's preliminary view is that certain information conventionally disclosed in GPFS should be presented in relation to natural resources.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Preliminary View 11—Chapter 6

Based on the discussion in paragraphs 6.16-6.20, the IPSASB's preliminary view is that certain information conventionally found in broader GPFRs should be presented in relation to recognized or unrecognized natural resources that are relevant to an entity's long-term financial sustainability, financial statement discussion and analysis, and service performance reporting.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Specific Matter for Comment 4—Chapter 6

The proposals in paragraphs 6.16-6.20 (Preliminary View 11) are largely based on the IPSASB's RPGs. While these proposals are expected to be helpful to users of the broader GPFRs, the information necessary to prepare these reports may be more challenging to obtain compared to the information required for traditional GPFS disclosures. As noted in paragraph 6.17, the application of the RPGs is currently optional.

In your view, should the provision of the natural resources-related information proposed in Preliminary View 11 be mandatory? Such a requirement would only be specifically applicable to information related to natural resources.

Please provide the reasoning behind your view.

NATURAL RESOURCES

CONTENT

Page

Chapter 1: Project Background and Scope

1.1. The term "natural resources" is generally understood to comprise items that exist without any actions of humankind, such as sunlight, air, water, land, minerals, vegetation, and animals.

1.2. Natural resources may be classified in different ways. A natural resource may exist either as a separate item such as fresh water, wind (air), or a living organism, or it may exist in an alternative form obtained by processing resources such as metal ores, rare-earth elements, or petroleum. Every human-made product is composed of natural resources (at its fundamental level).

1.3. Although the IPSASB's literature includes some financial reporting guidance that is potentially relevant for natural resources that have been subject to some form of human activity (such as IPSAS 12, *Inventories*, IPSAS 17, *Property, Plant and Equipment*, IPSAS 27, *Agriculture*), there is no explicit guidance on natural resources in their original state. In view of the significance of natural resources in many jurisdictions, growing public concerns for sustainable management of the natural environment, and the lack of accounting guidance on the recognition, measurement, and presentation of natural resources, the IPSASB responded to stakeholder requests by adding the Natural Resources project to its work program at the end of 2018. Appendix A: Reasons for Undertaking the Project and Project Aims sets out the IPSASB's reasons for undertaking the project in more detail. This Consultation Paper (CP), which is issued to solicit constituents' views on the high-level concepts and principles under consideration, is the output from the first stage of the project.

Developing a General Description of Natural Resources Used in the CP

1.4. To examine the topic of natural resources from a financial reporting perspective, the IPSASB has developed a more formal description of natural resources than the general understanding set out above, drawing on definitions of natural resources in more general, non-technical sources such as the plain English definition as well as definitions from economic texts. It also draws on international statistical standards such as the Government Finance Statistics Manual 2014 (GFSM 2014) and System of National Accounts 2008 (2008 SNA), as well as existing guidance developed by other international and national standards setters. The details on these various definitions can be found in Appendix B: Development of the General Description of Natural Resources.

1.5. Based on the key aspects that are common among the definitions in Appendix B, for financial reporting purposes, a natural resource must have the following attributes:

(a) Is a resource as described in the IPSASB's Conceptual Framework[1];

(b) Is naturally occurring; and

(c) Is in its natural state.

1.6. If a natural resource is not capable of generating economic benefits and/or have service potential for the reporting entity, it is outside the scope of this project. For example, a natural phenomenon such as seismic activity is unlikely to be a resource as defined in the Conceptual Framework. Contamination or pollution incidents are not within the scope of this project and would need to be considered under IPSAS 19, *Provisions, Contingent Liabilities, and Contingent Assets*, IPSAS 21,

[1] The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities (Conceptual Framework), paragraph 5.7, states that a resource is an item with service potential or the ability to generate economic benefits.

Impairment of Non-Cash-Generating Assets, or IPSAS 26, *Impairment of Cash-Generating Assets*.

1.7. Naturally occurring means that the resource came into existence without the actions of humankind. Subsoil resources, water, and living resources all fall within this category, and the accounting issues associated with them are considered in chapters 3, 4, and 5, respectively.

1.8. To be in its natural state, a natural resource must not have been subjected to human intervention, such as cultivation or mineral extraction, which modifies the quantity and/or quality of a natural resource. Activities to preserve or conserve natural resources may or may not be considered human intervention that modifies the quantity and/or quality of a resource depending on the specific nature of the activities.[2]

1.9. Specific examples of actions that are considered human intervention vary for each of the natural resources within the scope of the CP and are discussed in detail in chapters 3-5. This delineation is important because if the IPSASB decides to issue any new guidance on natural resources, the financial reporting guidance for a naturally occurring item that is no longer in its natural state may be provided in another IPSASB pronouncement.[3]

Preliminary View 1—Chapter 1

The IPSASB's preliminary view is that a natural resource can be generally described as an item which:

(a) Is a resource as described in the IPSASB's Conceptual Framework;

(b) Is naturally occurring; and

(c) Is in its natural state.

Do you agree with the IPSASB's Preliminary View, particularly whether the requirement to be in its natural state should be used to scope what is considered a natural resource?

If not, please provide your reasons.

Specific Matter for Comment 1—Chapter 1

The IPSASB's preliminary description of natural resources delineates between natural resources and other resources based on whether the item is in its natural state (paragraph 1.8).

Do you foresee any challenges in practice in differentiating between natural resources and other resources subject to human intervention? If so, please provide details of your concerns. How would you envisage overcoming these challenges?

Project Scope

1.10. Figure 1 illustrates the scope of this project by showing the delineation between items in General Purpose Financial Statements (GPFS) which meet the generation description of natural resources in paragraph 1.5 and other resources which are subject to human intervention.

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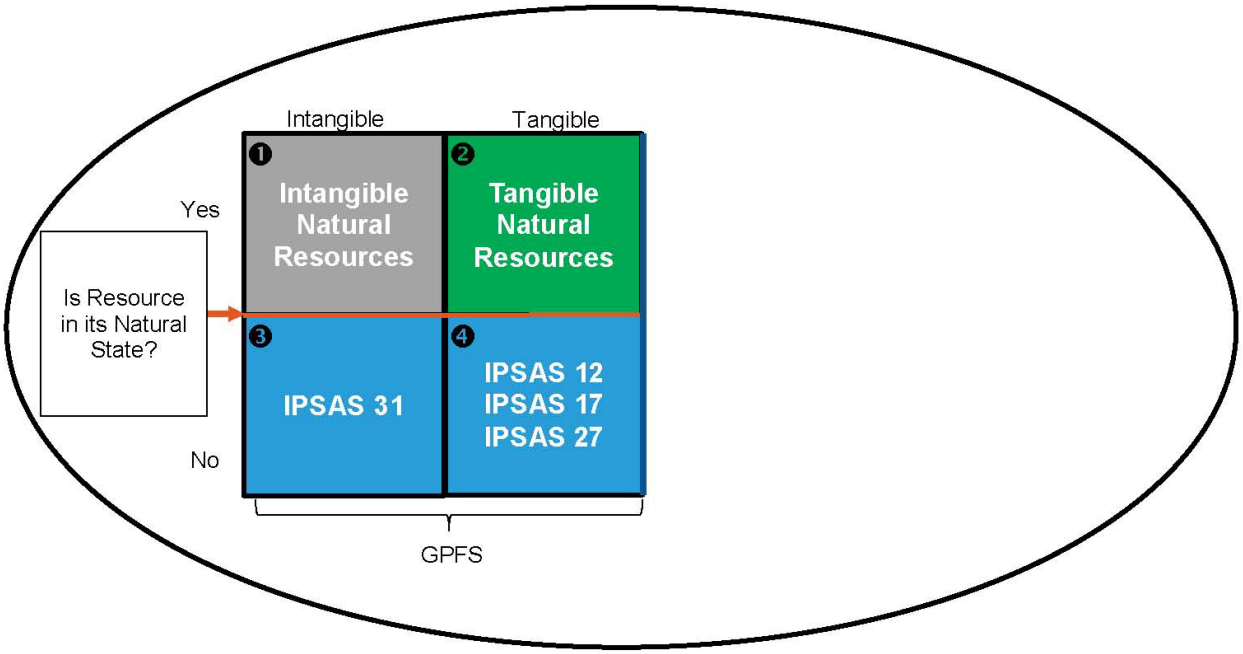
[2] Preservation or conservation activities are discussed in more detail in paragraph 5.5 of the CP.

[3] Please note that although the approved Natural Resources Project Brief made reference to the issuance of "one or more" new IPSAS, at this stage of the project, a final decision has not yet been made as to whether the guidance on natural resources would be housed in a new standalone IPSAS, as updates to other IPSAS, or through a combination of a new standalone IPSAS with amendments to other IPSAS.

Figure 1: Delineation Between Natural Resources and Other Resources Subject to Human Intervention[4]

- The oval represents all naturally occurring phenomena, including those which may not meet the definition of a resource (see paragraph 5.7 of the Conceptual Framework). The box inside the oval represents phenomena which are resources for financial reporting purposes.
- Resources which are naturally occurring and in their natural state are above the orange line in the diagram. These resources can be further divided into intangible natural resources (box ❶) and tangible natural resources (box ❷). The IPSASB may consider guidance relating to the access of such intangible natural resources as part of its limited scope update of IPSAS 31, *Intangible Assets*.
- As noted in paragraph 1.3, the IPSASB's literature provides guidance on resources which have been subject to some form of human intervention. Intangible resources which are not in their natural state are likely within the scope of IPSAS 31, *Intangible Assets* (box ❸), while tangible resources which are not in their natural state are likely to be within the scope of IPSAS 12, IPSAS 17, and/or IPSAS 27 (box ❹).



[4] For a detailed step-by-step build-up of the diagram, please refer to the supplemental information at https://www.ipsasb.org/publications/consultation-paper-natural-resources

1.11. This first phase of the IPSASB's work on natural resources focuses on the financial reporting of tangible, naturally occurring resources, including subsoil resources, water, and living resources, which are in their natural state.

1.12. Other resources such as atmospheric air or the electromagnetic spectrum may generally be considered to be natural resources. The issues previously raised by constituents mostly related to the right to access these resources, but access to, and the use of, atmospheric air and the electromagnetic spectrum does not relate to a tangible item. The accounting for the right to access these resources may fall within the scope of IPSAS 31. Further guidance on intangible assets may be considered by the IPSASB at a later date.[5]

1.13. While the exercise of sovereign powers can facilitate transactions that can result in the recognition of an asset, such an asset could arise from the transaction itself rather than from the sovereign power. This issue is further explained in Appendix C: Accounting for a Government's Sovereign Power to Issue Licenses.

1.14. The accounting for land in its natural state is also excluded from this first phase of the IPSASB's work on natural resources, as the Board concluded that there is already sufficient guidance regarding land in existing IPSAS.

1.15. There is increasing debate globally about natural resource depletion and overconsumption in the context of the broader debate about sustainability. Sustainability reporting as part of broader GPFRs is an area of active debate following the establishment of the new International Sustainability Standards Board (ISSB). The IPSASB has already provided some guidance that is relevant in this field:

- Recommended Practice Guidelines (RPG) provide relevant nonauthoritative guidance on reporting on the long-term financial sustainability of public sector entities, financial statement discussion and analysis, and service performance reporting[6]; and
- Staff Questions and Answers (which the IPSASB will continue to build on) provide links to other guidance sources and regular updates on emerging international experience.

1.16. Furthermore, the IPSASB has responded to growing demands from all levels of stakeholders by issuing a Consultation Paper that considers approaches to developing public sector specific sustainability reporting guidance. The Consultation Paper *Advancing Public Sector Sustainability Reporting* (see: https://www.ipsasb.org/publications/consultation-paper-advancing-public-sector-sustainability-reporting) was released in conjunction with this CP to allow respondents to reflect on the connectivity between accounting for natural resources and reporting on their sustainable use against the United Nations Sustainable Development Goals (SDGs).[7]

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5 The IPSASB has proposed in its Mid-Period Work Program Consultation to initiate a limited-scope project to update IPSAS 31, and this update may address intangible natural resources. The time frame for the project will be determined at a future date if the project receives sufficient support from constituents.

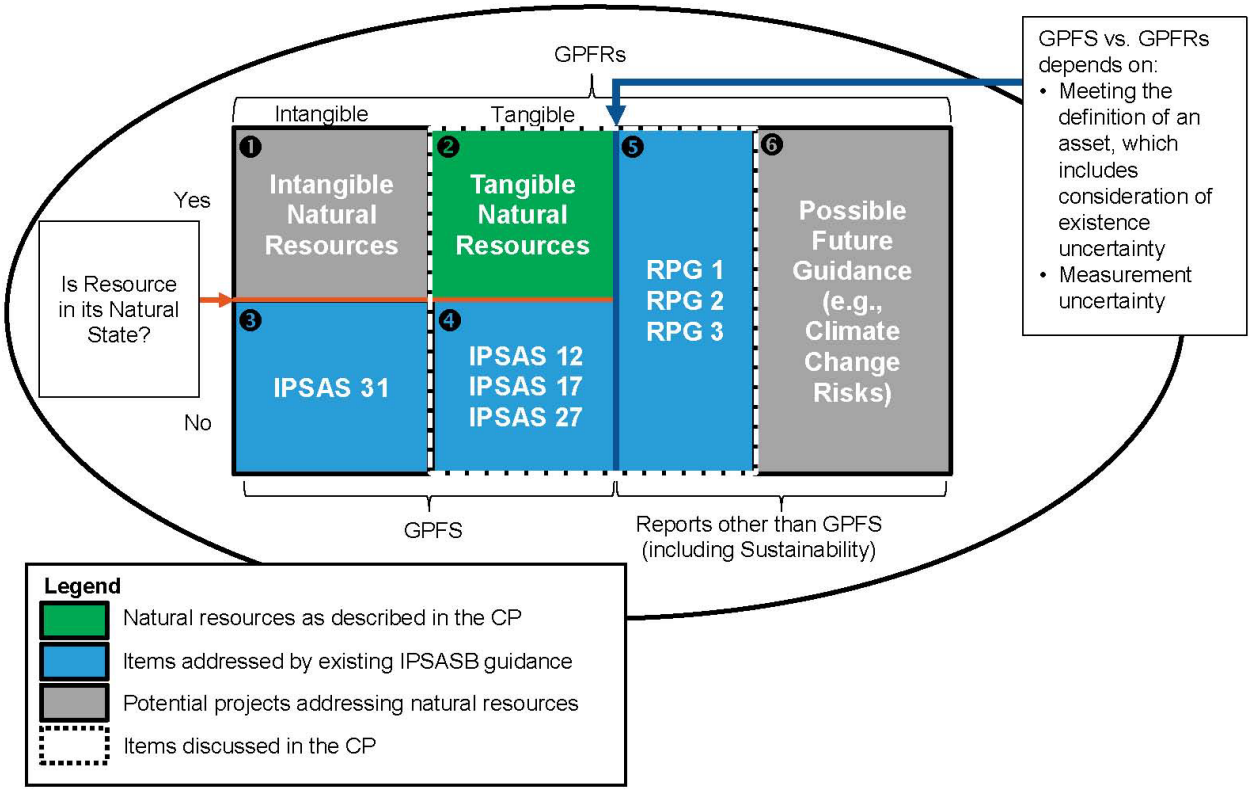
6 RPG 1, *Reporting on Long-Term Sustainability of an Entity's Finances*; RPG 2, *Financial Statement Discussion and Analysis*; RPG 3, *Reporting Service Performance Information.*

7 See goals 6, 7, 12, 14, and 15 in the UN's SDGs at: https://sdgs.un.org/goals. While goal 7 does not explicitly relate to the use of natural resources, the generation of affordable, reliable, sustainable, and modern energy will often involve natural resources in some way.

1.17. Figure 2 below illustrates the possible applicability of wider reporting on natural resources in GPFRs through the use of the RPGs and potential future guidance on sustainability reporting, and builds on the delineation of the scope of this project as show in Figure 1.

Figure 2: Visual Representation of the Scope of the Natural Resources CP[4]

- The items which are discussed in this CP are housed within the white dashed box in the middle of the diagram:
  - i. The delineation between items in GPFS and GPFRs is depicted by the vertical blue line below. The recognition of assets in GPFS is discussed in chapter 2 of the CP.
  - ii. The main focus of the CP is tangible natural resources (box ❷ below) and whether they can be recognized as assets in the GPFS.
  - iii. While resources which are within scope of IPSAS 12, IPSAS 17, and IPSAS 27 (box ❹ below) do not meet the description of natural resources, these items are briefly discussed in chapters 3-5 in the context of the delineation between subsoil resource, water, and living resources which are and are not in their natural state.
  - iv. In addition, while the RPGs do not specifically relate to recognized tangible natural resources, they could be applicable to certain recognized and unrecognized natural resources (box ❺ below). For the purposes of this diagram, RPGs are shown to mainly apply to items in the broader GPFRs. The application of RPGs 1-3 is discussed in chapter 6 of the CP. Possible future guidance is represented by box ❻.



Specific Matter for Comment 2—Chapter 1

The IPSASB noted that the natural resources project and sustainability reporting in the public sector are connected in that this project focuses on the accounting for natural resources while the project on sustainability reporting may include consideration of how natural resources can be used in a sustainable manner.

In your view, do you see any other connections between these two projects?

Structure of the Remaining Sections of this Consultation Paper

1.18. Chapter 2 considers the IPSASB's Conceptual Framework principles for recognizing items falling within the scope of this CP in GPFS. It covers the following topics in detail:

(a) The asset recognition criteria from the Conceptual Framework;

(b) The definition of an asset;

(c) Application of the definition of an asset to natural resources;

(d) Existence uncertainty and asset recognition;

(e) Whether a resource can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs;

(f) Measurement uncertainty;

(g) General measurement principles; and

(h) Application of the general measurement principles to natural resources.

1.19. Chapters 3-5 of this CP address how these general principles can be applied to subsoil resources, water, and living resources. These chapters discuss:

(a) When subsoil resources, water, and living resources are in their natural state;

(b) The accounting for activities related to the resources within the scope of this CP;

(c) The application of the asset recognition criteria, including the consideration of existence uncertainty;

(d) If applicable, the application of general measurement principles, including measurement uncertainty; and

(e) Whether there should be some form of disclosure for natural resource items not recognized.

1.20. Finally, chapter 6 of this CP address the potential presentation of natural resources in both GPFS and broader GPFRs.

Chapter 2: Should a Natural Resource be Recognized?

General Recognition Principles in the Conceptual Framework

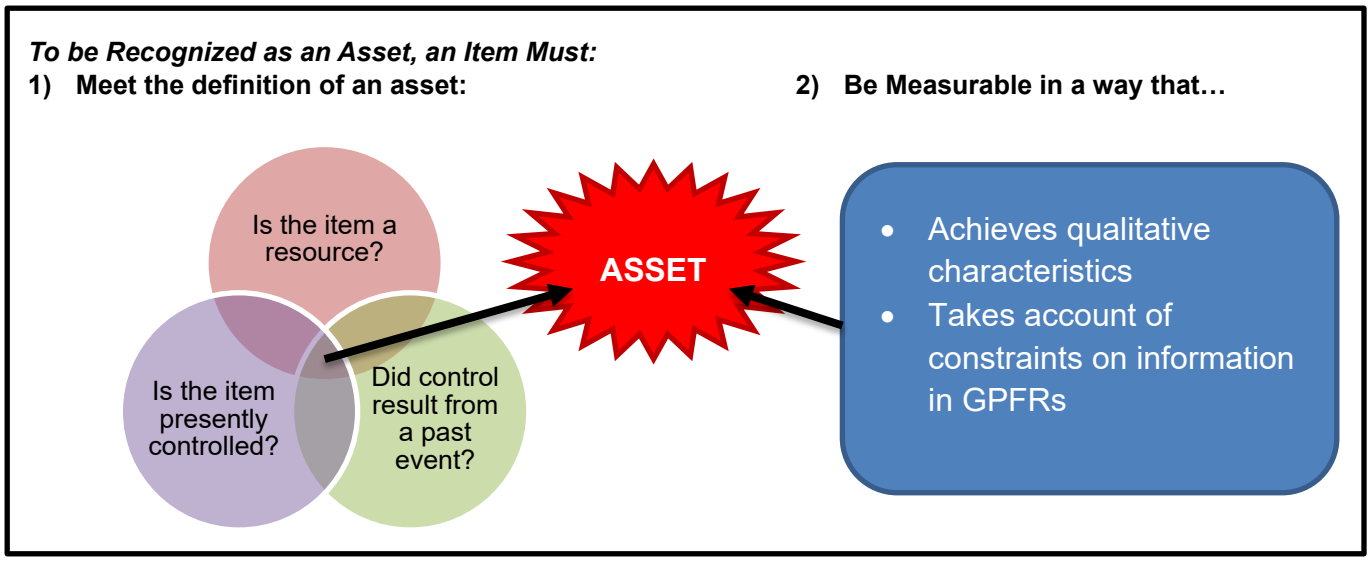
2.1. The core accounting question in this CP is whether a natural resource as described in chapter 1 can be recognized as an asset in GPFS prepared under IPSAS. The IPSASB's Conceptual Framework provides the principles to be used in developing IPSAS, including principles on asset recognition and measurement.

2.2. For an entity to recognize a natural resource in GPFS, the natural resource must meet the recognition criteria in paragraph 6.2 of the Conceptual Framework, which states:

"The recognition criteria [the criteria that must be satisfied in order for an element to be recognized in the financial statements] are that:

- An item satisfies the definition of an element; and
- Can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs."

Asset Recognition Criteria



The Definition of an Asset

2.3. The first recognition criterion is that an item must meet the definition of an element to be recognized. In the context of this CP, the focus is on whether a natural resource can meet the definition of an asset. Paragraph 5.6 of the Conceptual Framework defines an asset as a **resource** presently **controlled** by the entity as the result of a **past event**.[8]

A Resource

2.4. Paragraph 5.7 of the Conceptual Framework defines a resource as "an item with service potential or the ability to generate economic benefits." The Conceptual Framework further explains that the

[8] The IPSASB has proposed in paragraph 5.6 of Exposure Draft 81 to update the definition of an asset to, "a resource presently controlled by the entity as a result of past events." This proposed definition of an asset does not change the issues and principles discussed in this CP

physical form is not a necessary condition of a resource, and that the service potential or ability to generate economic benefits can arise directly from the resource itself or from the rights to use the resource. Service potential is the capacity to provide services that contribute to achieving the entity's objectives without necessarily generating net cash inflows. Economic benefits can include the generation of cash inflows (e.g., from the sale of an asset for cash or other resources) or reductions in cash outflows (e.g., in the form of cost savings or synergies).[9]

Presently Controlled by the Entity

2.5. For a resource to be recognized as an asset in the financial statements, it must be controlled by the entity. The Conceptual Framework notes that control of a resource entails the ability to use the resource (or direct other parties on its use) so as to derive the benefit of the service potential or economic benefits embodied in the resource.[10]

2.6. To determine if an entity has control over a resource, paragraph 5.12 of the Conceptual Framework provides a list of indicators that should be considered:

(a) Legal ownership;

(b) Access to the resource, or ability to deny or restrict access to the resource;

(c) The means to ensure that the resource is used to achieve its objectives; and

(d) The existence of an enforceable right to service potential or the ability to generate economic benefits arising from a resource.

While these indicators are not conclusive determinants of whether control exists, identification and analysis of them can inform that decision.

2.7. For a natural resource, the factors such as legal ownership or access to resources are often directly impacted by laws and regulations that are specific to the natural resource. For example, many jurisdictions have legislation that sets out how an entity can obtain control over a subsoil resource. Other legislation may also restrict an entity's ability to realize a natural resource's service potential or economic benefits. Control over subsoil resources, water, and living resources is considered in chapters 3-5 of this CP.

2.8. Control is not the same concept as human intervention (discussed in paragraphs 1.8-1.9), and separate assessments of control and human intervention needs to be performed. It is possible to have the ability to use the resource (or direct other parties on its use) to derive the benefit of the service potential or economic benefits embodied in the natural resource without changing its quantity or quality.

2.9. For example, an entity may erect a barrier to restrict others' access to the animals in a reservation, and the access restriction could be an indicator of control. If the barrier fences off an area that is significantly larger than the region where the animals would naturally roam, the barrier is unlikely to modify the animals' natural biological transformation, and therefore, unlikely to be considered human intervention. Management activities, such as counting and tracking of animals

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[9] The IPSASB has proposed in paragraph 5.6A of Exposure Draft 81 to update the description of a resource to, "a right to either service potential or the capability to generate economic benefits, or a right to both." This proposed rights-based description of resources in the context of an asset does not change the issues and principles discussed in this CP.

[10] Conceptual Framework, paragraph 5.11.

under an entity's control, are also not considered human intervention, as these activities do not change the animals' natural biological transformation.

2.10. Conversely, there could be situations where an entity has changed a natural resource's quantity or quality without gaining control. An example of such a situation in the context of living resources is discussed in more detail in paragraph 5.16.

2.11. There could also be situations where control and human intervention overlap. For example, an entity could erect a barrier to restrict others from accessing the animals and also to restrict the animals' natural movements. Such a barrier could be considered both human intervention and an indicator of control.

Past Event

2.12. The definition of an asset also requires that an entity presently controls the resource as the result of a past event. Entities can gain control of a resource through a variety of means, including by purchasing them in an exchange transaction, obtaining control through a non-exchange transaction, or by the exercise of sovereign powers.[11] Other examples of past events could include obtaining control via treaty or inheritance.

Application of the Definition of an Asset to Natural Resources

2.13. The general description of natural resources includes the requirement that it is a resource as described in the IPSASB's Conceptual Framework. The key considerations of whether a natural resource meets the definition of an asset are, therefore, whether the reporting entity presently controls the resource and whether control arose as the result of a past event.

2.14. If an entity can demonstrate that control presently exists as the result of a past event, the entity concludes that the natural resource meets the definition of an asset and continues with the analysis of whether the item can be recognized.

2.15. However, if the natural resource is not presently controlled, or if the past event giving rise to control has not yet occurred, the natural resource would not meet the definition of an asset and the item should not be recognized in the GPFSs.

Existence Uncertainty and Asset Recognition

2.16. The Conceptual Framework identifies two sources of uncertainty that are relevant in the recognition of an element: uncertainty over the existence of an element and measurement uncertainty.

2.17. Existence uncertainty is the uncertainty over whether a resource presently exists, uncertainty whether an entity controls the resource, and uncertainty whether there is a past event which resulted in control.

2.18. When finalizing chapter 6 of the Conceptual Framework, the IPSASB decided that a standardized probability threshold should *not* be adopted for recognition purposes. Rather, the IPSASB concluded that a more appropriate approach[12] to determine whether there is existence uncertainty is for an entity to consider all available evidence, facts, and circumstances at the

[11] Conceptual Framework, paragraph 5.13.

[12] Conceptual Framework, paragraphs BC6.3-BC6.7.

reporting date to make a neutral judgment about whether an item satisfies all the essential characteristics of an element. [13]

2.19. Taken together, the concepts from paragraphs 2.17 and 2.18 mean that to recognize an item as an asset, an entity should consider all relevant facts and circumstances and apply judgment to determine:

(a) Whether there is uncertainty that the item is a resource which presently exists;

(b) Whether there is uncertainty regarding the entity's control of the resource; and

(c) Whether there is uncertainty regarding the existence of a past event which resulted in control.

2.20. If an entity concludes that there is sufficient uncertainty about whether any of the above characteristics are met, the item does not meet the definition of an asset and should not be recognized in the entity's GPFS.

2.21. If an entity concludes that there is no uncertainty over the existence of an asset, the entity then considers the second recognition criterion—that is, whether the item can be measured in a way that achieves the qualitative characteristics and take accounts of constraints on information in the GPFRs.

Can be Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFRs

2.22. The measurement of a monetary value attached to a natural resource needs to achieve the qualitative characteristics of information, as set out in chapter 3 of the Conceptual Framework: relevance, faithful representation, understandability, timeliness, comparability, and verifiability. The constraints on information in the GPFRs should also be considered: materiality, cost-benefit considerations, and achieving an appropriate balance between the qualitative characteristics.[14]

2.23. The qualitative characteristics of information which are expected to be most relevant to natural resources and their possible applicability are summarized below. The information is drawn from the Conceptual Framework and the IPSASB's proposals in Exposure Draft 76, *Conceptual Framework Update: Chapter 7, Measurement of Assets and Liabilities in Financial Statements* (ED 76). A detailed consideration of relevant characteristics for each of the in-scope natural resources can be found in chapters 3-5.

Relevance

2.24. Information is relevant if it is capable of making a difference in achieving the objectives of financial reporting through the information's confirmatory and/or predictive value. Confirmatory value refers to the ability to confirm or change past expectations, while predictive value refers to the ability to provide information on an entity's anticipated future service delivery activities,

[13] Conceptual Framework paragraphs 6.5 and BC6.2.

[14] Conceptual Framework, paragraphs 3.6-3.42.

objectives and costs, and the amount and sources of the resources that are intended to be allocated to providing these future services.[15]

2.25. In the context of a natural resource, a measurement basis is relevant if it can fairly reflect the resource's contribution to the entity's cost of services, operational capacity, and financial capacity.[16]

Faithful Representation

2.26. Information that faithfully represents an economic or other phenomenon depicts the substance of the underlying transaction, other event, activity, or circumstance in a complete and neutral manner, free from material error.[17]

2.27. The measurement basis of a natural resource will need to be faithfully representative of the quantity and quality of the resource.

Verifiability

2.28. For a measurement basis to be verifiable, different knowledgeable and independent observers should be able to reach a general consensus (although not complete agreement) that the measurement is a faithful representation of the quantity and quality of the resource or that an appropriate measurement method has been applied without material error or bias.[18]

2.29. For some natural resources, it may be difficult to have a measurement basis that is verifiable. There may be situations where a standardized measurement technique does not exist and independent, qualified parties with the same set of data could arrive at very different estimates. In these cases, it may not be possible to recognize the natural resource as a verifiable measurement basis does not exist.

Constraints on Information

2.30. To be useful, the measurement of a natural resource will need to balance the qualitative characteristics in a way that results in the most useful information. For example, it is possible for a natural resource to be measured using historical cost, which would faithfully represent the cost of acquisition and be understandable and verifiable. However, in some situations, a historical cost measure would be unable to convey information that is relevant to the entity's costs of services, operational capacity, or financial capacity (see paragraph 2.39 for more details).

2.31. An entity should also consider whether the measurement of a natural resource will lead to material information. Information is material if its omission or misstatement could have an impact on the discharge of accountability by the entity or the decision that users make based on the entity's GPFRs.[19]

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[15] Conceptual Framework, paragraph 3.6-3.8. Furthermore, paragraph 2.1 of the Conceptual Framework notes that, "The objectives of financial reporting by public sector entities are to provide information about the entity that is useful to users of GPFRs for accountability purposes and for decision-making purposes."

[16] ED 76, paragraph 7.3.

[17] Conceptual Framework, paragraph 3.10.

[18] Conceptual Framework, paragraph 3.26.

[19] Conceptual Framework, paragraph 3.32. The IPSASB has proposed in Exposure Draft 81 to revise paragraph 3.2 as follows: "Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the discharge of

2.32. Finally, an entity will need to consider the cost of obtaining the information necessary to select an appropriate measurement basis. Application of the cost-benefit constraint involves assessing whether the benefits of reporting information are likely to justify the cost incurred to provide and use the information.[20] For natural resources, the selection of a measurement basis will be constrained by the costs of obtaining the information necessary to measure the resource.

Measurement Uncertainty

2.33. Measurement uncertainty is the uncertainty over the *amount* of service potential or economic benefits represented by the element. The Conceptual Framework states that such uncertainty is usually reflected in the measurement of the element. For an asset, once it has been determined that an item can be measured in a way that achieves the qualitative characteristics and takes into account constraints on information, an entity should also assess whether a measurement basis can be used to appropriately reflect the uncertainty inherent within the information available at the reporting date.

2.34. An item is not recognized if the level of measurement uncertainty in a single point estimate is large enough to call into question the measure's ability to achieve the qualitative characteristics and take account of constraints on information in the GPFRs becomes questionable.[21] In such situations, the IPSASB is considering disclosures (see chapter 6) such as:

(a) The difficulties in obtaining a reliable measurement that prevented recognition; and

(b) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives.

General Measurement Principles

2.35. Once an entity has concluded that an item meets the definition of an asset and can be measured in a way that achieves the qualitative characteristics of information in GPFRs, an entity should select appropriate bases for initial and subsequent measurement in accordance with the principles set out in chapter 7 of the Conceptual Framework.

2.36. The objective of measurement is to select a measurement basis that most fairly reflects the costs of services, operational capacity, and financial capacity of the entity in a manner that is useful in holding the entity to account, and for decision-making purposes. The selection of a measurement basis also includes an evaluation of the extent to which the information provided achieves the qualitative characteristics while taking into account the constraints on information in financial reports.[22]

2.37. In terms of the selection of a measurement basis for a natural resource, this CP draws upon ED 76, *Conceptual Framework Update: Chapter 7, Measurement of Assets and Liabilities in the*

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accountability by the entity, or the decisions that users make on the basis of the entity's GPFRs prepared for that reporting period." This proposed revision does not change the issues and principles discussed in this CP.

[20] Conceptual Framework, paragraph 3.39.

[21] Conceptual Framework paragraphs 6.6 and 6.8.

[22] Conceptual Framework paragraphs 7.2-7.4. Note that the IPSASB has proposed updates to chapter 7 of the Conceptual Framework, but the section on the objective of measurement has remained largely unchanged. See paragraphs 7.2-7.4 of ED 76 at: https://www.ifac.org/system/files/publications/files/ED-76-Chapter-7.pdf.

Financial Statements, as the IPSASB has proposed to replace chapter 7 of the Conceptual Framework with the concepts in ED 76.

2.38. As proposed in ED 76, the following measurement bases can be used to reflect the costs of services, operational capacity, or financial capacity of an asset:[23]

(a) Historical cost – Historical cost for an asset is the consideration given to acquire or develop an asset, which is the cash or cash equivalents, or the value of other consideration given, at the time of its acquisition or development;

(b) Fair value – Fair value for assets is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date; and

(c) Current operational value – Current operational value is the value of an asset used to achieve the entity's service delivery objectives at the measurement date.

Application of the General Measurement Principles to Natural Resources

2.39. As noted in paragraph 2.12, an entity can obtain control over natural resources through acquisition in an exchange transaction or through non-exchange transactions such as the exercise of sovereign powers, treaty, or inheritance. In situations where a natural resource was acquired through a non-exchange transaction, the historical transaction price would not provide relevant information. In situations where a natural resource was acquired through an exchange transaction, a historical cost measure may adequately reflect the operational or financial capacity of the asset at the time of the acquisition. However, historical cost information will generally not facilitate the assessment of future costs of providing services which involve the use of the asset, as prices are likely to have changed since its acquisition.

2.40. For natural resources with operational capacity, a current operational value is typically the most appropriate measurement basis, because it reflects the current use of the asset, assumes that the asset will be used for service delivery rather than being sold, and reflects the economic position of the entity using the asset.

2.41. The financial capacity of a natural resource reflects the asset's ability to generate economic benefits and the amount that would be received on sale or monetization of the natural resource. Such information is provided by fair value. Therefore, where an entity plans to sell or monetize a natural resource, fair value is generally the most appropriate measurement basis.

2.42. The selection of measurement bases and techniques will vary significantly based on the specific facts and circumstances surrounding each natural resource. For example, subsoil resources are typically held for sale, so a fair value measurement basis may best reflect their financial capacity. For water and living resources which may be used for a variety of service delivery objectives, a current operational value may be more appropriate. As a result, for natural resources where the IPSASB preliminarily concludes that recognition as an asset is possible, chapters 3-5 of the CP will consider what measurement bases are the most appropriate and whether it is feasible for an entity to obtain the information necessary to estimate these measurement bases using the measurement techniques available.

[23] ED 76, paragraphs 7.25, 7.36, and 7.48. The final principles and the concept of current operational value are subject to change depending on the outcome of the Measurement project.

Overall Approach to the Recognition and Measurement of Natural Resources

2.43. After considering the recognition and measurement principles together, the IPSASB developed the following preliminary view on the recognition of natural resources:

Preliminary View 2—Chapter 2

The IPSASB's preliminary view is that a natural resource should only be recognized in GPFS if it meets the definition of an asset as defined in the IPSASB's Conceptual Framework and can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Chapter 3: Subsoil Resources

Description of Subsoil Resources

3.1. The term "subsoil resources" broadly refers to all non-living natural items which occur within the earth, both in dry land and the seabed. Subsoil resources include metalliferous ore, such as mineral and metal deposits, and fossil fuels, such as petroleum, coal, and natural gas.

3.2. For informational purposes, a summary of the guidance from existing international, national, and international statistical standards on subsoil resources and related activities is included in Appendix D: Existing International, National, and Statistical Guidance on Subsoil Resources and Related Activities. Additional information on international statistical standards guidance can also be found in Appendix G: International Statistical Standards Guidance.

Accounting for Activities Related to Subsoil Resources

3.3. During the initial outreach stage of the Natural Resources project, IPSASB staff noted confusion among constituents in distinguishing between the underlying subsoil resources, the costs incurred for activities relating to subsoil resources that can give rise to an asset or expense, and other related assets such as exploration and extraction licenses. Therefore, before the analysis of whether subsoil resources can be recognized or measured, it is important to discuss the accounting of these related items.

Costs of Licenses

3.4. The direct costs of a license granting an entity the right to explore or extract subsoil resources are generally recognized by the license holder as an asset under IPSAS 31. From the perspective of the entity granting the license, the arrangement is typically accounted for as a revenue arrangement under IPSAS 9, *Revenue from Exchange Transactions*.[24] A government's sovereign power to issue licenses is not, in and of itself, an asset. This issue is discussed in detail in Appendix C: Accounting for a Government's Sovereign Power to Issue Licenses.

Exploration, Evaluation and Development Activities

3.5. An entity will typically need to conduct exploration and evaluation activities to determine if a site should be developed. There is currently no specific guidance on exploration and evaluation activities in IPSAS. However, IFRS 6, *Exploration for and Evaluation of Mineral Resources*, provides entities with an accounting policy choice to expense exploration and evaluation expenditures or capitalize them as an exploration and evaluation asset.

3.6. IFRS 6 also states that the IASB's *Conceptual Framework for Financial Reporting* and IAS 38, *Intangible Assets*, provide guidance on the recognition of assets arising from development activities.[25] It should be noted that IPSAS 31 is drawn primarily from IAS 38, so the guidance on development costs is already in current IPSAS.

3.7. In recent outreach by the IASB, private sector constituents generally agreed that IFRS 6 resulted in information that was useful to both preparers and users of IFRS financial statements. Based on

[24] The IPSASB currently has a project to replace IPSAS 9, *Revenue from Exchange Transactions*, with the proposed guidance in ED 70, *Revenue with Performance Obligations*.

[25] IFRS 6, paragraph 10.

their outreach, the IASB tentatively decided to explore developing improvements to the disclosure objectives and requirements in IFRS 6, while largely retaining the recognition and measurement requirements.[26] The IPSASB noted that guidance which is aligned with IFRS 6 should also result in useful information for preparers and users in the public sector.[27]

3.8. Based on the above, the IPSASB reached the following preliminary view:

Preliminary View 3—Chapter 3

The IPSASB's preliminary view is that guidance on exploration and evaluation expenditures and development costs should be provided based on the guidance from IFRS 6, *Exploration for and Evaluation of Mineral Resources*, and IAS 38, *Intangible Assets*.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Costs of Extraction

3.9. During the development and production phases of a mine, an entity may need to remove surface materials to improve access to underground mineral reserves. In some cases. the removed materials are further processed to extract mineral ore. In the private sector, such costs are accounted for under IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*, as either inventory or a long-term stripping activity asset based on the ratio of ore to waste.

3.10. The stripping activity asset is classified as a tangible or intangible asset depending on the classification of the overall mineral interest asset. The costs of extracting subsoil resources are considered to be part of the costs incurred in brining the subsoil resources to its present location. Similarly, the costs to process and refine subsoil resources are considered part of the costs in bringint the items to their present condition and are classified as inventory.

3.11. IPSAS 12, IPSAS 17, and IPSAS 31 currently do not provide guidance on the treatment of stripping activity costs. The IPSASB noted that there is no public sector-specific reason to depart from the private sector with respect to accounting for these activities and formulated the following preliminary view:

Preliminary View 4—Chapter 3

The IPSASB's Preliminarily View is that IPSAS 12, IPSAS 17, and IPSAS 31 should be supplemented, as appropriate with guidance on the accounting for costs of stripping activities based on IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Application of the Asset Recognition Criteria to Subsoil Resources

3.12. Applying the general principles set out in chapter 2 of the CP, to be recognized as an asset under IPSAS, a subsoil resource must:

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[26] https://www.ifrs.org/content/dam/ifrs/project/extractive-activities/inbrief-extractiveactivities-jan2022.pdf

[27] Maintaining alignment is Theme B of the IPSASB's Strategy and Work Plan 2019-2023.

(a) Satisfy the definition of an asset; **and**

(b) Be measurable in a way that achieves qualitative characteristics and takes account of constraints on information in the GPFRs.

3.13. Subsoil resources can generate economic benefits through sale or have service potential to perform a variety of activities. Unless there is existence uncertainty, subsoil resources can generally meet the definition of a resource.

3.14. The key considerations regarding the recognition and measurement of subsoil resources are:

(a) Can an entity demonstrate control over a subsoil resource prior to their extraction?

(b) Is there a past event that gave rise to the entity's control over the subsoil resource?

(c) Are there any concerns with existence uncertainty that may prevent a subsoil resource from meeting the definition of an asset?

(d) Can an entity appropriately measure a subsoil resource in a way which balances the qualitative characteristics while taking materiality and cost-benefit considerations into account?

3.15. The following analysis considers each of these questions to arrive at a Preliminary View regarding the recognition of subsoil resources as assets under IPSAS.

Consideration of control

3.16. The general concept of control is discussed in paragraph 2.5 and the indicators of control from the Conceptual Framework are summarized in paragraph 2.6. Most of the indicators of control are directly impacted by the legal environment in a jurisdiction; for example, ownership and the existence of enforceable rights are usually established in a jurisdiction's laws and regulations. A jurisdiction's licensing framework, may also grant access or deter unauthorized access to a resource.

3.17. In many jurisdictions, the ownership and management of subsoil resources are governed by surface and subsurface rights. Surface rights relate to the use of the surface area of the land while subsurface rights, sometimes known as mineral rights, relate to the exploration, development and/or extraction of subsoil resources. To gain a preliminary understanding of the various legal frameworks around the world, the IPSASB staff issued an informal survey to get feedback from IPSASB Members and Technical Advisors regarding these factors in their respective jurisdictions. Based on the responses from the survey, the jurisdictions were classified into the following categories:

(a) **Category A: Subsoil Resources are Owned by the Government, and the Government has Access Rights** – For jurisdictions in this category, it appears the government (at either the federal or state/provincial level) has ownership of unextracted subsoil resources. The laws and regulations in these jurisdictions also provide the government with the means to gain access to the subsoil resources. (e.g., through expropriation of land).

(b) **Category B: Subsoil Resources are Owned by the Government, but Access is Determined by the Holders of Surface Rights** – For jurisdictions in this category, the laws and regulations confer control of unextracted subsoil resources to the government. However, individuals or private enterprises holding surface rights can prevent the government from accessing the subsoil resources within their land.

(c) **Category C: Subsoil Resources are Controlled by Holders of Surface Rights** – For this category, the laws and regulations specify that subsoil resources are controlled by the holders of surface rights. Some jurisdictions in this category also allow surface right holders to separate subsurface rights and sell them to third-parties.

(d) **Category D: Subsoil Resources are Managed by the Government in the Capacity of a Custodian but Ownership Resides with the Jurisdiction's Citizens** – For jurisdictions in this category, the laws and regulations specify that subsoil resources are managed by the government, but only in the capacity of a custodian for current and future generations.

3.18. Based on the above, it appears that it would be possible for some public sector entities operating within a legal framework that is aligned with Category A to demonstrate that they have control over subsoil resources. For these jurisdictions, the laws and regulations confer legal ownership, access, and enforceable rights to the service potential or economic benefits from subsoil resources to the governments.

3.19. For other jurisdictions such as those in Category B, the assessment of control is less clear, as a government may have ownership of the subsoil resources, but land ownership rights held by other entities can prevent the government from exercising its control. In these jurisdictions, it would be difficult to argue that a government has control over the subsoil resources within the land owned by individuals and other entities until the government has negotiated access rights with the landowners. In these jurisdictions, subsoil resources within state-owned lands would still be controlled by the government.

3.20. For Category C, the subsoil resources within lands that are owned by individuals and private enterprises would not be controlled by the government. However, the subsoil resources within state-owned lands would still be controlled by the government.

3.21. For Category D, governments that are only acting as a custodian of subsoil resources for its citizens will find it difficult to argue that the subsoil resources are their asset.

3.22. It is worth highlighting that the legal interpretation of a jurisdiction's surface and subsurface rights, as well as how its legal framework is applied in practice, will need to be carefully analyzed before concluding on whether the government controls the subsoil resources. For example, one respondent to the survey stated that the jurisdiction's constitution and land-related legislation asserted that the government was acting as a custodian. However, in practice, the constitution and legislation have been interpreted to mean that the government has legal ownership of subsoil resources in the jurisdiction.

3.23. The relationship between the above categories and the control indicators are summarized in the following table. The indicator on means to achieve objectives is excluded as it largely depends on the specific facts and circumstances for each public sector entity. For example, a government entity would typically have the economic resources to develop and utilize its subsoil resources.

	Category A	Category B	Category C	Category D
Ownership	✓	✓	×	×
Access	✓	Depends*	×	×
Enforceable Rights	✓	Depends*	×	×

*In these jurisdictions, the existence of access rights and enforceable rights to service potential or economic benefits will depend on the results of negotiations with the holders of surface rights.

Consideration of whether there has been a past event giving rise to control

3.24. Building on the discussion in chapter 2 and the discussion of control in paragraphs 3.16-3.23 above, the exercise of sovereign powers[28] to establish the laws and regulations conferring control of subsoil resources to a public sector entity could result in a past event which results in control over the resources.

3.25. In some cases, the existence of a past event is relatively straightforward. For example, a government could enact legislation to specify that ownership of land also confers ownership of any subsoil resources within the land and enact legislation allowing the expropriation of land from its citizens in exchange for market consideration. Any subsequent expropriation, which effectively compels citizens to sell their property to the government, would be considered the past event which results in obtaining control over both the land and subsoil resources within the land.

3.26. In other cases, deciding on the past event might be more difficult. For example:

> A government concludes from a geological study that there is indication of mineral deposits within its jurisdiction. In response, the government amends its constitution to specify that:
>
> (a) All mineral resources, regardless of their location within the country, are owned by the state;
>
> (b) Landowners have the rights to the surface area of the land but no rights to the underground resources; and
>
> (c) In cases where mineral deposits are located within lands owned by individuals or private enterprises, the state has the right to expropriate land for nominal value and have full control over the development, extraction, processing, and utilization of the mineral resources.
>
> In this example, the government would fall within Category A (paragraph 3.17) since the government has ownership of the subsoil resources and the ability to expropriate any land in its jurisdiction for nominal value—i.e., the government has a substantive right to gain access over these resources at any time. Therefore, the government concludes that

[28] While the exercise of a sovereign power can factor into the determination of control over subsoil resources, the sovereign power itself is not an asset. This issue is analyzed in Appendix A of this [draft] Consultation Paper.

the amendment of the constitution was the past event which conferred control of the subsoil resources to the state.[29]

3.27. Based on the discussion in paragraphs 3.12-3.26, the IPSASB formulated the following preliminary view on whether subsoil resources can meet the definition of an asset *before considering existence uncertainty*:

Preliminary View 5—Chapter 3

The IPSASB's preliminary view is that, before consideration of existence uncertainty, an unextracted subsoil resource can meet the definition of an asset.

Do you agree with the IPSASB's Preliminary View?

Please provide the reasons supporting your view.

Consideration of existence uncertainty

3.28. As noted in paragraphs 2.16-2.21, the Conceptual Framework does not have a standardized probability threshold for recognition purposes and the assessment of whether an element exists should take into account all available evidence. For subsoil resources, the issue of existence uncertainty is particularly important because most subsoil resources in their natural state cannot be observed by conventional means. While geological studies and other techniques could be used to gain some information on whether subsoil resources exist and estimate the resources' quantities, there is still a level of uncertainty associated with these studies and techniques.

3.29. Existence uncertainty impacts the recognition of subsoil resources as assets in a number of ways. Until a subsoil resource has been extracted, there is uncertainty over the quantity (if any) of subsoil resources in a given location. Uncertainty over the quantities of a resource not only impact existence uncertainty but also measurement uncertainty (see paragraph 3.34).

3.30. Even once the presence of a subsoil resource has been indicated, there could be uncertainty over factors such as the overall grade of the deposits and whether an entity can feasibly access and extract the subsoil resources. These factors impact existence uncertainty because it would be difficult to conclude that subsoil resources which cannot be feasibly accessed or extracted meet the definition of a resource in the Conceptual Framework.

Preliminary View 6—Chapter 3

The IPSASB's preliminary view is that existence uncertainty can prevent the recognition of unextracted subsoil resource.

Do you agree with the IPSASB's Preliminary View?

Please provide the reasons supporting your view.

Consideration of measurement uncertainty

3.31. In addition to satisfying the definition of an asset, an item must also be reliably measurable to be recognized in the financial statements. Applying the principles set out in paragraphs 2.22-2.32, a

[29] In practice, most jurisdictions are likely to already have established laws and regulations over land ownership and subsoil resources.

monetary value must be attached to the subsoil resource which achieves the qualitative characteristics while considering the constraints on information.

3.32. The qualitative characteristics most applicable to the measurement of subsoil resources are relevance, faithful representation, and verifiability.

3.33. Subsoil resources such as mineral ore or fossil fuels are typically removed from their natural state for the purpose of being sold. Therefore, a current value measurement basis such as fair value may be the most relevant for these resources. This is because fair value is defined as "the price that could be received to sell an asset in an orderly transaction between market participants at measurement date,"[30] and would most readily reflect the ability of the asset to generate economic benefits through sale.

3.34. However, to isolate the current value of subsoil resources, the value of the product being sold would need to be adjusted to approximate the economic benefit embodied in the resources. Determination of this estimated value may involve:

(a) Estimating the quantities of subsoil resources that can be ultimately extracted (see also paragraph 3.28), taking into account whether it is physically feasible to extract the resources;

(b) The estimated price at which extracted resources can be sold, which is affected by macroeconomic factors such as the estimated market price of the resource, as well as entity-specific factors such as the estimated timing of when resources are extracted, as well as the grade of the extracted resources; and

(c) Removing the margin, extraction costs, processing costs, and if applicable, restoration costs from the estimated selling price.

3.35. The above factors, particularly the quantities of unextracted subsoil resources, are all subject to a high degree of uncertainty. The need to estimate the quantities of a resource is not a common issue when dealing with the measurement of an asset or liability. In a typical scenario where a valuation is required for financial reporting purposes—for example, valuation of financial instruments or estimation of a pension liability—the number of the units of account for the particular asset or liability being measured (e.g., the number of shares or the number of employees in a pension plan) is known, and the measurement uncertainty arises from the value of each unit of account.

3.36. In the private sector, while the underlying subsoil resources are not recognized, a number of internationally accepted approaches are available to estimate the quantities of unextracted resources. These estimation approaches are used primarily for investment and resource allocation decision-making purposes. They also impact financial reporting as an input into the amortization of capitalized costs of exploration, evaluation, development and production activities (see paragraphs 3.5-3.7) and other subsoil resources-related capital assets.

3.37. The details of these estimation approaches are summarized in Appendix C: Existing International, National, and Statistical Guidance on Subsoil Resources. In summary, while there are robust estimation approaches which produce information that is appropriate for management decision-making purposes, the geologist and engineering community have indicated that the same set of

[30] ED 76, paragraph 7.36.

data can result in materially different estimates based on interpretation by different specialists. In addition, resource and reserve estimates from geological models can change materially due to different assumptions and interpretations of data. As a result, the accounting standard setters, regulators, preparers, and auditors in the private sector have reached a consensus that such geological estimates cannot be used to support recognition of subsoil resources in the financial statements because it may be difficult for an entity to select a measurement basis which is verifiable.

Overall conclusion regarding recognition of subsoil resources

3.38. The IPSASB recognizes that geological reports are useful for purposes such as performance reporting and price setting for the sale of extraction rights. However, because of the above-noted difficulties with faithful representation and verifiability, even when an entity can demonstrate that a subsoil resource exists and that it has control over this resource, it might be extremely difficult to recognize these subsoil resources as assets in IPSAS financial statements due to the lack of an appropriate measurement basis. However, it might be possible to disclose information on such assets, including providing estimates in GPFRs.

Preliminary View 7—Chapter 3

The IPSASB's preliminary view is that the selection of a measurement basis for subsoil resources that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs may not be feasible due to the high level of measurement uncertainty. Based on this view, the recognition of subsoil resources as assets in the GPFS will be challenging.

Do you agree with the IPSASB's Preliminary View?

If not, please provide the reasons supporting your view.

Comparison of the above view with other accounting frameworks

3.39. The view that it would be difficult to recognize subsoil resources is consistent with the IASB's Discussion Paper which also concluded that unextracted minerals, oil, and gas (and other non-regenerative natural resources) should not be recognized in the financial statements, as historical cost generally does not provide relevant information, while entity-prepared current values are not viewed as representationally faithful due to the subjectivity and degree of estimation involved.[31]

3.40. Similarly, in South Africa, Standard of Generally Recognized Accounting Practice 110, *Living and Non-Living Resources* (GRAP 110), concluded that unextracted minerals, oil, gas, and other non-regenerative resources should not be recognized. The South African Accounting Standards Board concluded that an entity was unlikely to conclude that it controlled subsoil resources, and more importantly for this discussion, that an entity was unlikely to be able to reliably measure the quantity and value of these resources due to the uncertainty from geological estimates.[32]

3.41. In the United States of America, the Federal Accounting Standards Advisory Board's (FASAB) Statement of Federal Financial Accounting Standards 38: *Accounting for Federal Oil and Gas Resources* (SFFAS 38), and Technical Bulletin 2011-1: *Accounting for Federal Natural*

[31] IASB Discussion Paper DP/2010/1, *Extractive Activities*, paragraph 4.83.

[32] GRAP 110.BC15-BC16.

Resources Other than Oil and Gas (Technical Bulletin 2011-1), requires federal government entities in the United States to disclose the present value of estimated royalties from proved oil and gas reserves and certain non-renewable resources in supplemental schedules which are outside the GPFS. In their basis for conclusions, the FASAB explained that these amounts are not recognized in the financial statements due to the inability to reliably measure these reserves and resources.[33] The FASAB originally considered amending the SFFAS 38 and Technical Bulletin 2011-1 to require recognition or disclosure within the financial statements, but as at March 2022, the board has not yet revisited the statement or technical bulletin.

Disclosures

3.42. Even if not recognized as an asset in the financial statements because of existence and measurement uncertainty, the presentation of information regarding subsoil resources via disclosure could be useful for users of the GPFRs. Such disclosures may include the estimates of the physical quantities of resources, and, if a subsoil resource is likely to be exploited, financial estimates as an input into projections of future inflows and outflows.

3.43. The detailed consideration of presentation by disclosure within the GPFRs is explored in chapter 6 of this CP.

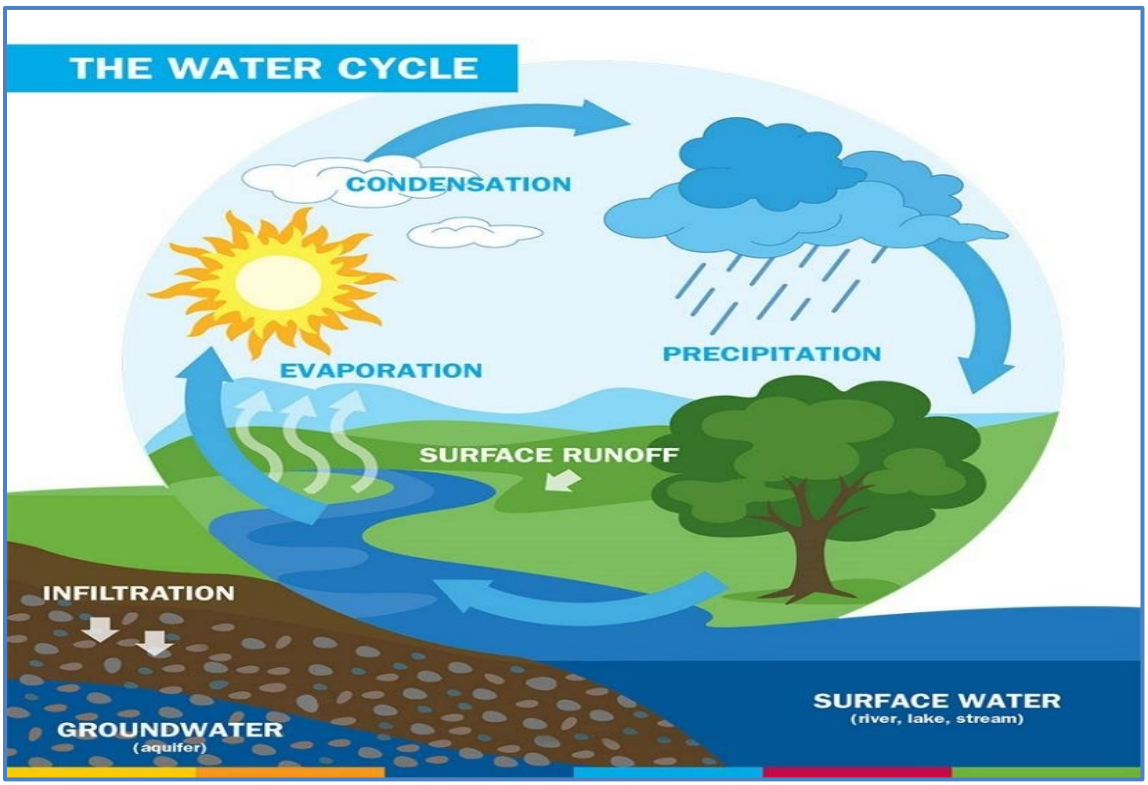
[33] SFFAS 38, paragraphs A36 and A38.

Chapter 4: Water

Description of Water

4.1. This chapter explores the potential accounting for water resources in their natural state. Water in its natural state comprises surface water in seas, rivers, streams, lakes, groundwater aquifers and water impounded[34] in reservoirs and canals.

4.2. Water in its natural state forms part of a natural water cycle which flows in a continuous loop within the earth and atmosphere. Water evaporates, condenses to form clouds, and precipitates back to earth—e.g., as rain and snow. Precipitation accumulates in seas, rivers, streams, and lakes, and infiltrates the ground. The diagram below illustrates the natural water cycle.[35]



4.3. As noted in paragraph 1.8, human intervention refers to human actions which modify the quantity and/or quality of a natural resource. In the context of this chapter, water is no longer in its natural state when human intervention stops or interferes with the natural water cycle or changes or modifies the quantity or quality of water from its natural condition.

4.4. The specific actions that constitute “human intervention” depends on the facts and circumstances specific to the water resources. Impounded water, and water in artificial lakes or flowing in

[34] The term “impounded” is commonly used in the water management industry to refer to holding or confining water in a reservoir or similar structure.

[35] Source: https://www.teachengineering.org.

straightened, divert or strengthened riverbanks is still in its natural state because the related human actions have neither stopped nor changed the water's natural cycle.

4.5. Water may be processed when it:

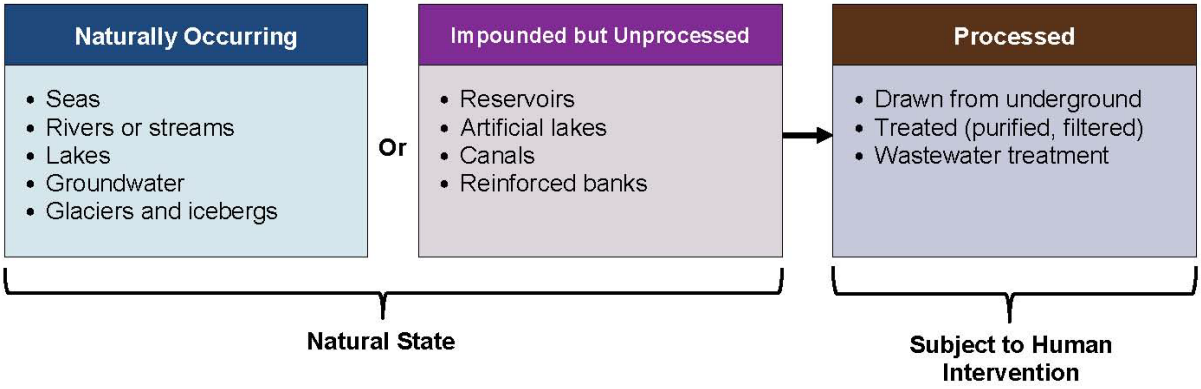
(a) Is drawn from groundwater sources and put in enclosed tanks controlled by an entity;

(b) Is chemically processed for use in activities such as manufacturing; or

(c) Drawn from a natural source into a purification process to be filtered and treated and then transported to communities as fresh drinking water via a network of pipes.

4.6. Water resources that have been processed are not in the scope of this CP. An entity that processes the water is likely to store it in controlled areas such as in pipelines and in other human-made structures such as closed reservoirs and tanks.[36] An entity considers whether the principles in IPSAS 12 could be applied to account for these processed resources as materials or work in progress to be consumed in the production process or as finished goods (products) to be sold.

4.7. The progression of water from its natural state to processed water is broadly summarized in the following diagram:[37]



4.8. For informational purposes, a summary of the guidance from existing international, national, and international statistical standards on water and related activities is included in Appendix E: Existing International, National, and Statistical Guidance on Water and Related Activities. Additional information on international statistical standards guidance can also be found in Appendix G: International Statistical Standards Guidance.

Accounting for Activities Related to Water

4.9. During the initial outreach stage of the Natural Resources project, the IPSASB staff noted confusion among constituents in distinguishing between the underlying water resources and the costs of activities related to water such as the cost of improving the quality of water through

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[36] Paragraph 9 of IPSAS 12, *Inventories*, defines inventory as assets (a) in the form of materials or supplies to be consumed in the production process; (b) in the form of materials or supplies to be consumed or distributed in the rendering of services; (c) held for sale or distribution in the ordinary course of operations; or (d) in the process of production for sale or distribution. Paragraph 11 of IPSAS 12 elaborates that inventory encompasses goods purchased and held for resale, finished goods produced, or work-in-progress being produced, by the entity.

[37] The diagram following paragraph 4.7 is only meant to reflect a general understanding of how water is processed.

treatment of water. Therefore, before the analysis of whether water resources in its natural state can be recognized or measured, it is important to discuss the accounting of these related items.

4.10. Costs of activities relating to water in its natural state are not in the scope of this CP because they are distinct from the underlying water resources and are separately accounted for using existing IPSAS. For example:

(a) From time to time an entity may, as part of its mandate or service delivery objective, undertake activities to ensure that the quality of the water in rivers and dams is maintained. Costs incurred to treat water in its natural state will likely be expensed as the entity may not control the water (see paragraphs 4.15-4.18 for consideration of control);

(b) Costs incurred to extract and treat water in the purification process may be recognized as inventory because the treatment costs are costs of conversion or costs incurred in bringing the inventories to their present location and condition[38];

(c) Costs of human-made structures such as dams, canals, reservoirs, pipes, and treatment plants that hold and transport the water are accounted for as property, plant, and equipment within the scope of IPSAS 17[39]; and

(d) The entity that acquires and holds the right or license to extract the water accounts for the license as an intangible asset in IPSAS 31. The entity that issues the license to other public or private sector entities to extract water from their jurisdiction recognizes the sale of the water licenses as revenue under IPSAS 9, *Revenue from Exchange Transactions*.[40]

Application of the Asset Recognition Criteria to Water in its Natural State

4.11. The core accounting question in this chapter is whether water in its natural state can be recognized as an asset in GPFS prepared under IPSAS. For water in its natural state to be recognized as an asset, it must:

(a) Satisfy the definition of an asset; and

(b) Be measurable in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs.

4.12. Water in its natural state can generally generate economic benefits in a variety of ways. For example, most water in seas, rivers, streams, lakes, and groundwater aquifers can be treated and sold as drinking water. In addition, water generally has service potential. For example, water in rivers, streams and lakes can be used for agricultural purposes, or water impounded in reservoirs can be used in the production and supply of hydroelectricity power. Water in its natural state also has more indirect forms of service potential, as it sustains life and provides habitation to aquatic organisms such as fish, dolphins and whales, and plants such as kelp and algae. Therefore, if

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[38] Paragraph 18 of IPSAS 12, *Inventories* states that the cost of inventories comprise all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition.

[39] The IPSASB has issued Exposure Draft 78, *Property, Plant, and Equipment* which the final pronouncement will replace IPSAS 17, *Property, Plant, and Equipment*. See the following website for more details: https://www.ipsasb.org/publications/exposure-draft-ed-78-property-plant-and-equipment.

[40] The IPSASB has issued Exposure Draft 70, *Revenue with Performance Obligations*, which proposes to supersede IPSAS 9 with recognition and measurement requirements for revenue transactions with performance obligations. See the following website for more details: https://www.ipsasb.org/publications/exposure-draft-70-revenue-performance-obligations

existence uncertainty were to be considered separately, water in its natural state can generally meet the definition of a resource.

4.13. The key considerations regarding the recognition and measurement of water in its natural state are:

(a) Can an entity demonstrate control over water in its natural state?

(b) Is there a past event that gave rise to the entity's control over water in its natural state?

(c) Are there any concerns with existence uncertainty that may prevent water in its natural state from meeting the definition of an asset?

(d) Can an entity appropriately measure water in its natural state in a way which balances the qualitative characteristics while taking materiality and cost-benefit considerations into account?

4.14. The following analysis considers each of these questions to arrive at a Preliminary View regarding the recognition of water in its natural state as assets under IPSAS.

Consideration of control

4.15. As discussed in paragraphs 2.5-2.6 an entity can obtain control over an asset through various means. While the indicators are not conclusive determinants of whether control exists, identifying and analyzing them can help inform that decision.

4.16. An entity is unlikely to demonstrate control over water in seas, rivers, streams, lakes, and groundwater aquifers because:

(a) It is unlikely that water in seas, streams, and lakes can be feasibly monitored and managed because the water levels increase or decrease as a result of natural causes such as evaporation, rainfall, infiltration into the water table, ocean currents, or other movements due to gravitational or tidal forces. The free-flowing nature of water in seas, streams, and lakes is also an indicator that it is unlikely that the access to such water by others can be restricted; and

(b) Groundwater is underground and therefore is not readily observable or directly accessible. The inability to observe underground water and the lack of direct access prior to extraction would lead to issues around control and other considerations of whether an item can be recognized as an asset similar to those discussed in relation to subsoil resources.

4.17. An entity may control water impounded in reservoirs and canals when it:

(a) Actively manages the volumes of water in reservoirs and canals to ensure that the resource is used to achieve the entity's objectives.

Reservoirs and canals may be built with full knowledge of their capacity or the specific quantities of water they hold. An entity could actively manage volumes of water in reservoirs by controlling inflows and outflows to ensure the security of water supplies for consumption and power generation. For example, a dam can be opened or closed to control water flow for generating electricity. Management may also change the volume of water in canals by opening and closing gates to arrive at the volume of water suitable for ships to pass through the canal; and

(b) Has the ability to restrict the access to the water in reservoirs and canals.

Access to reservoirs and canals may be restricted physically or through legislation or other legal mechanisms which grants legal access to an entity while prohibiting access by other parties.

4.18. Based on the above, it appears that unless there has been human intervention, it may be difficult for entities to demonstrate that they control water in seas, rivers, streams, lakes, and groundwater aquifers. However, an entity may demonstrate that they control water in reservoirs and canals if volumes are actively managed and if access is restricted.

Consideration of whether there has been a past event giving rise to control

4.19. For an item to meet the definition of an asset, there must also have been a past event which conferred control of the item to the entity. As noted in paragraph 4.16, it is unlikely that an entity can demonstrate control over water in seas, rivers, streams, lakes, and groundwater aquifers. Therefore, there is no need to consider if a past event conferring control exists for these types of water resources.

4.20. For water in reservoirs and canals, a past event may occur through:

(a) Legislation, government policy or similar which allows an entity to erect human-made structures to impound water in reservoirs and canals and then actively manage the volumes in dams and canals;

(b) A non-exchange transaction or where a reservoir or canal is received at no or nominal consideration, for example through a donation; or

(c) Natural occurrence, such as increases in water reserves impounded in reservoirs and canals due to rainfall.

Consideration of existence uncertainty

4.21. The issue of existence uncertainty is particularly important for water in seas, rivers, streams, lakes, and groundwater aquifers because most water resources from these sources change as a result of natural causes and can move freely. In most cases, groundwater cannot be easily observed and/or accessed. In line with the discussion in paragraphs 3.28 on subsoil resources, the inability to directly manage or access free-flowing or underground water introduces uncertainties which call into question whether the water exists or whether it can be feasibly accessed as a resource. In such cases, these factors indicate that it is unlikely that free-flowing or groundwater can meet the criteria to be recognized as an asset in the GPFS.

4.22. In some jurisdictions, government entities are currently working on ways to locate and measure the volume of groundwater. A body of groundwater can meet the definition of an asset if an entity can demonstrate that the water is a resource which exists and is controlled as a result of one or more past events. However, given quantification methodologies and techniques are still emerging, the selection of a reasonable measurement basis to support the recognition of underground groundwater as an asset may not yet be feasible. Despite not being recognized, if an entity can demonstrate that it controls groundwater which meets the definition of an asset, the disclosure proposals in paragraph 6.14 should be considered.

4.23. There may be less existence uncertainty in relation to water in reservoirs and canals, especially in instances where volumes of water are actively managed to ensure that the resource is available to achieve the entity's objectives, such as consumption or power generation.

Overall conclusion on whether water in its natural state meets the definition of an asset

4.24. Based on the discussion in paragraphs 4.11-4.23, it is unlikely that water in seas, rivers, streams, lakes and groundwater aquifers could meet the definition of an asset, but it is possible for water in reservoirs and canals to meet the definition of an asset if the volumes are actively managed and if access is restricted.

Consideration of measurement uncertainty

4.25. In addition to satisfying the definition of an asset, an item must also be reliably measurable to be recognized in the financial statements. Applying the principles set out in paragraphs 2.22-2.32, a monetary value must be attached to the water in its natural state which achieves the qualitative characteristics while considering the constraints on information.

4.26. The measurability of water in seas, rivers, streams, lakes, and groundwater aquifers need not be considered as these items are unlikely to meet the recognition criteria as noted in paragraph 4.21.

4.27. Where an entity holds water in reservoirs or canals that meets the definition of an asset, the entity will need to consider if there is an appropriate measurement basis that achieves the qualitative characteristics while considering the constraints on information. If water is held for sale, it may be possible to measure the financial capacity of the water based on its expected selling price. Where the water is not held for sale, the entity will need to determine if there is an appropriate method of measuring the water's operational capacity and this could be difficult or not feasible. For example, if an entity holds water in a reservoir for power generation, can the value of the water be separated from the use of the power generating plant?

Measurement

4.28. Once an entity has concluded that a water resource meets the definition of an asset, can be reliably measured, and therefore, can be recognized as an asset in the GPFS, the entity will need to select an appropriate measurement basis.

4.29. For water resources that are primarily held for sale, fair value may be the most appropriate measurement basis, as it reflects the price that could be received to sell an asset in an orderly transaction between market participants. If water is directly traded on an open market, the market price would be most indicative of the resource's fair value.

4.30. A current operational value may be more appropriate for measuring the operational capacity of a water resource. The selection of an appropriate measurement basis to arrive at a current operational value depend on the specific use of the water resource, the scientific knowledge and capabilities currently available to measure such an operational value and may involve significant management judgment and subjectivity. If an entity determines that it is not feasible to select a current operational value that is relevant, representatively faithful, and verifiable, the entity is likely to conclude that the water resource is not measurable and therefore should not be recognized as an asset.

Conclusion on the Recognition of Water in its Natural State as an Asset

4.31. The IPSASB concludes, based on the above discussion, that it may be possible for certain types of water in their natural state to be resources controlled as the result of a past event or past events and be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in GPFRs. It may be possible for water that has financial capacity to be measured, but the measurement of water which has operational capacity may be more difficult or not feasible. An entity will need to analyze the specific facts and circumstance for each water resource that is being considered for recognition.

Preliminary View 8—Chapter 4

Based on the discussions in paragraphs 4.11-4.31, the IPSASB's preliminary views are:

(a) It would be difficult to recognize water in seas, rivers, streams, lakes, or certain groundwater aquifers as an asset in the GPFS because it is unlikely that they will meet the definition of an asset, or it is unlikely that such water could be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs;

(b) Water impounded in reservoirs, canals, and certain groundwater aquifers can meet the definition of an asset if the water is controlled by an entity;

(c) Where water impounded in reservoirs and canals meets the definition of an asset, it may be possible to recognize the water in GPFS if the water can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs; and

(d) In situations where the financial capacity or operational capacity of a water resource cannot be reliably measured using currently available technologies and capabilities, the resource cannot be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

Disclosures

4.32. Where water resources are recognized as assets, users of GPFS will require relevant information to be disclosed.

4.33. For water resources not recognized as assets in the GPFS, the presentation of certain information regarding water in its natural state via disclosure could be useful for users of the GPFRs. Such disclosures may include non-financial disclosures of qualitative information, such as the volumes and quality, of water in reservoirs and canals that are actively managed if these resources are relevant to the service objectives of reporting entity.

4.34. The detailed consideration of presentation by disclosure within the GPFRs is explored in chapter 6 of this CP.

Chapter 5: Living Resources

Description of Living Resources

5.1. A living resource is described as a living organism (e.g., an animal or plant) which is naturally occurring and in its natural state.

5.2. Unlike subsoil resources or water, living resources undergo biological transformation on their own. IPSAS 27 defines 'biological transformation' as, "the processes of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset."[41]

5.3. As noted in paragraph 1.8, human intervention refers to human actions which modify the quantity and/or quality of a natural resource. Therefore, in the context of living resources, human intervention refers to modifying the resource's natural biological transformation. Such intervention encompasses not only harvesting a living resource, but also modifying the living resource's natural biological transformation prior to its harvest.[42]

5.4. The specific actions that constitute "human intervention" depend on the facts and circumstances specific to the living resource. For example, a virgin forest could be considered a resource because the trees can be harvested, processed, and sold to generate economic benefits or used in activities for their service potential. Prior to harvest, the trees are in their natural state if:

(a) The management of the forest is limited to actions such as counting the number of trees, measuring their natural growth, or erecting fencing around the forest; and

(b) The biological transformation of the trees has not been affected by human activity such as fertilization, pruning, or treatment for diseases.

5.5. Some conservation or preservation activities may be considered human intervention if they result in changing the quality and/or quantity of a living organism. An entity should consider the specific nature of such activities before concluding whether the living organisms are a living resource. For example, the active breeding and rearing of an endangered species is considered human intervention, because these activities are expected to increase the population of the species at a higher rate compared to their natural biological transformation. In contrast, some conservation or preservation activities may simply prevent the modification of an organism's natural biological transformation. For example, some government programs may involve providing monetary or other incentives to individuals, so they do not interfere with the natural biological transformation of specific species. Such a program is not human intervention.

5.6. For informational purposes, a summary of the guidance from existing international, national, and statistical standards on living resources and related activities is included in Appendix F: Existing International, National, and Statistical Guidance on Living Resources and Related Activities. Additional information on international statistical standards guidance can also be found in Appendix G: International Statistical Standards Guidance.

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41 IPSAS 27, paragraph 9.

42 Paragraph 9 of IPSAS 27 defines harvest as, "the detachment of produce from a biological asset or the cessation of a biological asset's life processes." In IPSAS 27, the term applies to both plants and animals.

Relationship Between Living Resources and Related Activities

5.7. During the initial outreach stage of the Natural Resources project, the IPSASB staff noted confusion among constituents in distinguishing between the underlying living resources, the costs of activities related to living resources, and living organisms which are no longer living resources because their biological transformation had been subjected to human intervention. Therefore, before the analysis of whether living resources can be recognized or measured, it is important to discuss the accounting of these related items.

Relationship Between Living Resources, IPSAS 27, Agriculture, and Other Existing IPSAS

5.8. IPSAS 27 applies to the following when they relate to agricultural activity: biological assets, except for bearer plants[43], and agricultural produce at the point of harvest. Biological assets are defined in IPSAS 27 as a living animal or plant.[44]

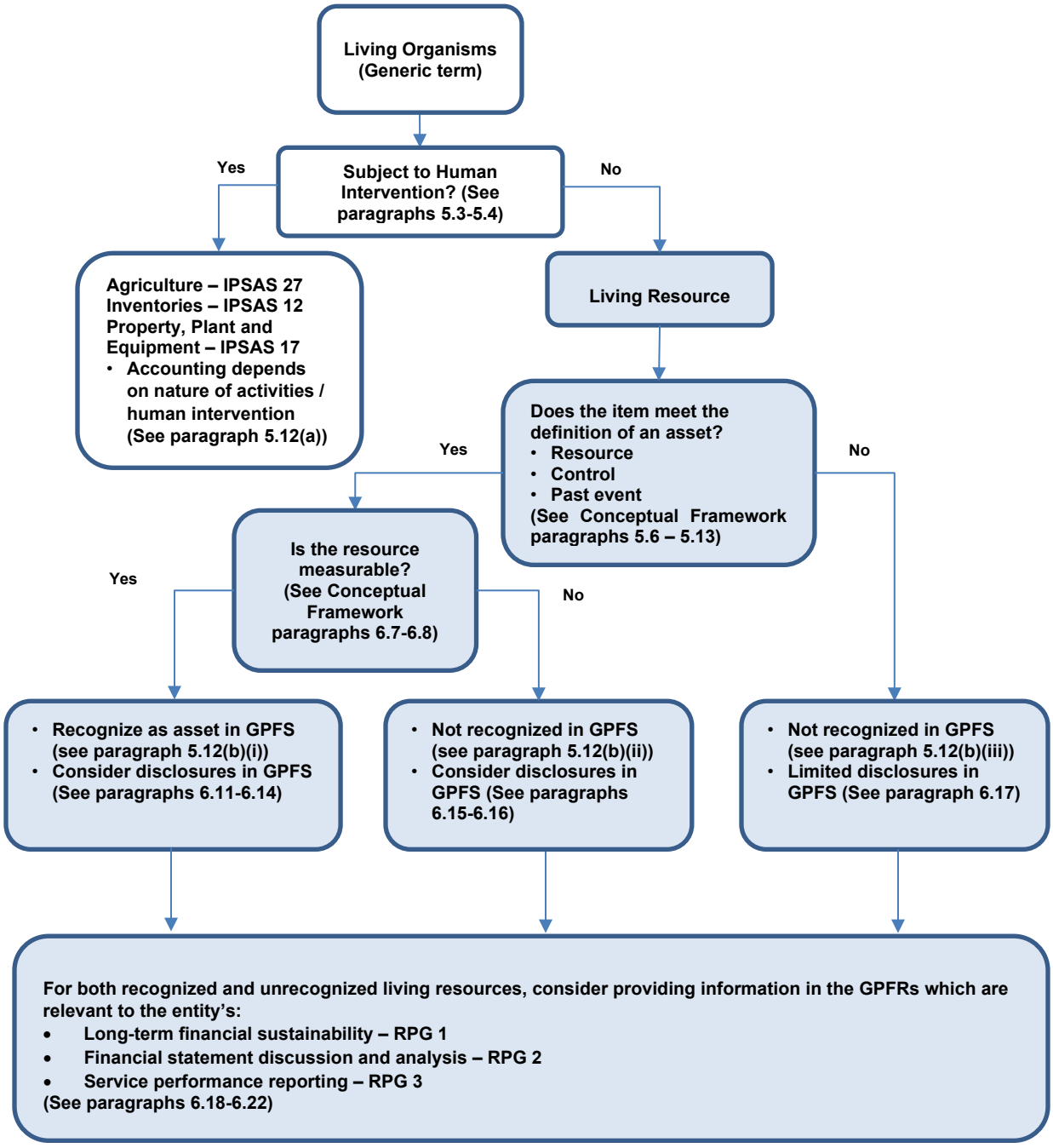
5.9. Agricultural activity is defined in IPSAS 27 as "the management by an entity of the biological transformation and harvest of biological assets for: sale; distribution at no charge or for nominal charge; or conversion into agricultural produce or into additional biological assets for sale or for distribution at no charge or for a nominal charge."[45] Based on this definition, agricultural activity would be considered a form of human intervention, as described in paragraph 5.2.

5.10. Based on these definitions, the relationship between living resources as described in paragraph 5.1 and other IPSAS is visually depicted in the following flowchart. The logic of the flowchart is based on the recognition criteria from paragraph 6.2 of the Conceptual Framework:

[43] Paragraph 9 of IPSAS 27 defines bearer plants as "a living plant that: is used in the production and supply of agricultural produce; is expected to bear produce for more than one period; and has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales."

[44] IPSAS 27, paragraphs 2 and 9.

[45] IPSAS 27, paragraph 9.



5.11. The above flow chart summarizes the following:

(a) A living organism subject to human intervention is not a living resource. The accounting of these living organisms will depend on the nature of human intervention:

(i) If the organism is subject to an agricultural activity, the entity applies the guidance in IPSAS 27;

(ii) After a biological asset or agricultural produce has been harvested, paragraph 5 of IPSAS 27 states that the item is considered inventory within the scope of IPSAS 12.

Other living organisms which meet the definition of inventory would also fall within the scope of IPSAS 12;

(iii) Items meeting the definition of bearer plants are excluded from the scope of IPSAS 27 and are accounted for as property, plant, and equipment within the scope of IPSAS 17;[46] and

(iv) Paragraph 4 of IPSAS 27 also states that biological assets held for the provision or supply of services, such as research, education, transportation, entertainment, recreation, or custom control, are accounted for as inventories or property, plant, and equipment in accordance with IPSAS 12, IPSAS 17, or other applicable IPSAS. For example, animals held in zoos are accounted for as either inventory under IPSAS 12 or plant, property, and equipment under IPSAS 17 based on the specific facts and circumstances.

(b) When a living organism is not subject to human intervention, the item is a living resource. When this occurs:

(i) If the living resource meets the definition of an asset and can be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs, it is recognized as an asset in the GPFS;

(ii) If the living resource meets the definition of an asset but is not measurable, the living resource cannot be recognized as an asset in the GPFS; or

(iii) If the living resource does not meet the definition of an asset, it cannot be recognized in the GPFS.

Conservation or Preservation Activities

5.12. IPSAS currently does not have explicit guidance on the accounting for conservation or preservation activities. In one national accounting standard developed using the principles in the IPSASB's Conceptual Framework, the costs incurred for the conservation or preservation of living organisms may be accounted for as inventory, property, plant, and equipment, or intangible assets depending on the specific facts and circumstances regarding the activities performed, and whether certain capitalization criteria have been met.[47]

5.13. Applying the above approach to IPSAS, the cost of conservation or preservation activities could be accounted for using existing guidance in IPSAS 12, IPSAS 17, or IPSAS 31, depending on the nature of the specific activities performed and whether the capitalization criteria in these standards have been met. If the capitalization criteria in these standards are not met, the costs are expensed.

Other Management Activities

5.14. Other activities that relate to living resources could result in the construction of a separate asset. For example, an entity may build a fence or other type of structure to house living resources. If these costs qualify for asset recognition under IPSAS 17, these structures are accounted for as separate property, plant, and equipment.

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[46] IPSAS 27, paragraph 3(b).

[47] GRAP 110, paragraphs 3 and 6, and GRAP 27, paragraph 4.

5.15. The costs of other recurring activities such as employee remuneration for security, administration, and maintenance related to living resources are not likely to meet the asset recognition criteria in IPSAS 12, IPSAS 17, or IPSAS 31. These costs are expensed as they are incurred.

Accounting for Activities Related to Unrecognized Living Organisms

5.16. An entity may incur expenditures for activities relating to living organisms that are not recognized in the GPFS. For example, an entity can promote the growth of certain animals in the wild by providing the animals with food that would otherwise not be present in their natural environment. However, the entity does not control these animals due to the lack of legal ownership or an inability to control or use the animals to derive service potential or economic benefits.

5.17. In these situations, an entity considers the nature of the activities and accounts for the expenditure as an asset if the recognition criteria in IPSAS 17 or IPSAS 31 are met, or if the nature of the expenditure is consistent with the cost of inventories as described in IPSAS 12. The recognition of such expenditures as an asset is unaffected by whether the underlying living organism was recognized as an asset.

Specific Matter for Comment 3—Chapter 5

Living organisms that are subject to human intervention are not living resources within the scope of this CP. The accounting treatment of those living organisms and of activities relating to them and to living resources is likely to fall within the scope of existing IPSAS.

In your view, is the guidance in IPSAS 12, IPSAS 17, or IPSAS 27 on how to determine which IPSAS to apply for these sufficient?

If not, please explain the reasons for your view.

Application of the Asset Recognition Criteria to Living Resources

5.18. For a living resource to be recognized as an asset under IPSAS, the item must:

(a) Satisfy the definition of an asset; and

(b) Be measurable in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs.

5.19. Living resources can generate economic benefits through sale or have service potential. For example, certain bacteria can act as bioremediation agents which can decontaminate soil and groundwater. Other living resources such as uncultivated forests have service potential through their contribution to biodiversity, which could lead to benefits such as maintaining air, water, and soil quality, controlling the population of pests, etc. Living resources can therefore be considered resources.

5.20. The key considerations regarding the recognition and measurement of living resources are:

(a) Can an entity demonstrate control over a living resource?

(b) Is there a past event that gave rise to the entity’s control over a living resource?

(c) Are there any concerns with existence uncertainty that may prevent a living resource from meeting the definition of an asset?

(d) Can an entity appropriately measure a living resource in a way which balances the qualitative characteristics while taking materiality and cost-benefit considerations into account?

5.21. The following analysis considers each of these questions to arrive at a Preliminary View regarding the recognition of living resources as assets under IPSAS.

Consideration of control

5.22. The general concept of control is discussed in paragraph 2.5 and the indicators of control in paragraph 2.6. While these indicators are not conclusive determinants of whether control exists, identification and analysis of them can inform that decision. Whether the indicators exist will largely depend on the specific facts and circumstance relating to the living resource, as well as the laws and regulations of the jurisdiction in which the entity and/or living resource is located.

5.23. An entity's ability to direct the use or disposal of a living resource in a manner it sees fit demonstrates the existence of legal ownership and enforceable rights. In the simplest of cases, the unfettered ability to sell a living resource for cash or other resources would be a strong indicator of control over the living resource. Similarly, the ability to harvest a living resource for one's own use would also be a strong indicator of controlling the resource prior to harvest.

5.24. An entity's ability to access the living resource or to prevent others from access is also an indicator of control. For example, an entity could physically deny access to a living resource by erecting fences and other physical barriers. Alternatively, there may be laws and regulations with enforceable penalties which act as a deterrent to others who may wish to access the resource.

5.25. The indicator regarding the means to ensure that a resource is used to achieve an entity's objectives will depend on the specific facts and circumstances of the public sector entity.

5.26. Motile organisms such as fish and most animals can move about freely, so it could be more difficult for an entity to demonstrate control over these organisms unless there are means to limit their movement. In contrast, it would be easier to demonstrate control over non-motile organisms.

Consideration of whether there has been a past event giving rise to control

5.27. For an item to meet the definition of an asset, there must have been a past event which confers control of the item to the reporting entity. For living resources, a past event can occur through:

(a) Legislation, government policy or similar means where the entity is granted control over living resources to meet its service delivery objectives;

(b) Acquisition where the asset is acquired through purchase;

(c) A non-exchange transaction or where an asset is received at no or nominal consideration, for example through a donation; or

(d) When an entity controls a living resource that can reproduce naturally, the entity would typically obtain control of any offspring as they are born.

Consideration of existence uncertainty

5.28. Because many living resources are readily observable, the issue of existence uncertainty is not as prevalent for living resources as for subsoil resources. However, since living resources are by definition in their natural state, there could be situations where existence uncertainty is still applicable. For example, an entity may control an uncultivated forest where truffles have

historically been found. Truffles grow entirely underground and there is no set pattern of where or if they will develop. Therefore, it may be difficult, if not impossible, to conclude that a certain number of truffles exist in the forest before they have been found.

5.29. Existence uncertainty also includes the consideration of uncertainty over whether the essential characteristics of an asset are met. There could also be instances where it is unclear if an entity truly controls a living resource. For example, an entity could have legal ownership and enforceable rights over certain animals within their property. As noted in paragraph 5.26, most animals are free to move about, and it is possible that they may wander out of the property or even into another legal jurisdiction. In these situations, it would be difficult to conclude that the entity truly controls the animals.

5.30. As noted in paragraph 2.17, when there is uncertainty regarding the existence of a living resource, all available evidence, facts and circumstances will need to be considered, and an entity will need to apply judgment in the determination of whether an item can be considered an asset.

Overall conclusion on whether living resources meet the definition of an asset

5.31. Based on the above discussion, a living resource could be a resource which is presently controlled by an entity as the result of a past event and so meet the definition of an asset.

Consideration of measurement uncertainty

5.32. To recognize a living resource in the financial statements, it is necessary to attach a monetary value to the item. An entity must be able to find an appropriate measurement basis and will need to consider whether measurement uncertainty exists.

5.33. The quantification of some living resources may be straight forward. Many living resources such as trees and other vegetation are readily observable or accessible. In these situations, information may be available to measure the living resource with a relatively high degree of certainty. However, as noted in paragraph 5.29, it may be difficult to count animals which can roam freely. Unless there is some tracking mechanism, an entity may have difficulties in determining the quantities of a living resource.

5.34. Many living resources can be harvested, processed, then sold as products in an active market (e.g., the trees from an uncultivated forest can be harvested then processed and sold as lumber). For these living resources, it would be relatively straightforward to select a measurement basis which can faithfully represent the resource’s underlying value and is verifiable.

5.35. For other living resources which are not intended to be sold, the determination of an appropriate measurement basis could be difficult. For example, an entity may determine that a natural forest is simultaneously serving multiple purposes, including the reduction of carbon dioxide in the atmosphere and maintenance of biodiversity. In such situations, the entity will need to determine if there is an appropriate method of measuring the value from carbon dioxide absorption and biodiversity, which will be challenging and may not be feasible based on the technologies which are currently available.

5.36. Based on the above, while the measurement of living resources which have financial capacity appears to be possible, the measurement of living resources which have operational capacity may be more difficult or not feasible. As a result, rather than coming to a categorical conclusion on whether all living resources are measurable, an entity will need to analyze the specific facts and circumstance for each living resource that is being considered for recognition.

Conclusion on the Recognition of a Living Resource as an Asset

5.37. Based on the discussion in paragraphs 5.18-0, the IPSASB preliminarily concludes that it may be possible for certain living resources to be recognized as an asset.

Measurement

5.38. Once an entity has concluded that a living resource meets the definition of an asset, can be reliably measured, and therefore, can be recognized as an asset in the GPFS, the entity will need to select an appropriate measurement basis. As the specific details on the selection of an appropriate measurement basis will depend on the nature of the specific living resource, the information available, and the objectives of the entity controlling the living resource, the following discussion is limited to the high-level factors and suggested approaches that should be considered when selecting a measurement basis.

5.39. As noted in paragraph 2.36, a measurement basis should reflect the cost of services, operational capacity, or financial capacity of an entity, and the selection of the basis should reflect the entity's objectives for holding the asset.

5.40. For living resources that are primarily held for sale, fair value may be the most appropriate measurement basis, as it reflects the price that could be received to sell an asset in an orderly transaction between market participants. If a living resource is directly traded on an open market, the market price would be most indicative of the resource's fair value. For other living resources, there may not be a direct market for the living resource itself, but the living resource could be harvested then processed into an item that is then traded in an open market. In such cases, the quoted market price for the processed item could be adjusted for the cost of harvest and processing to arrive at a proxy for a fair value measure of the living resource.

5.41. In situations where a living resource is not held for sale but for its service potential, a measurement basis that reflects its operational capacity, such as current operational value, may be more appropriate. The selection of an appropriate measurement basis to arrive at a current operational value will depend on the specific use of the living resource, the scientific knowledge and capabilities currently available to measure such an operational value, and may involve significant management judgment and subjectivity. If an entity determines that it is not feasible to select a current operational value that is relevant, representatively faithful, and verifiable, the entity is likely to conclude that the living resource is not measurable and therefore cannot be recognized as an asset.

Preliminary View 9—Chapter 5

Based on the discussions in paragraphs 5.18-5.41, the IPSASB's preliminary views are:

(a) It is possible for a living resource held for financial capacity to meet the definition of an asset, be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in GPFRs, and thus meet the criteria to be recognized as an asset in GPFS;

(b) If a living resource with operational capacity meets the definition of an asset, an entity will need to exercise judgment to determine if it is feasible to measure the living resource in a way which achieves the qualitative characteristics and takes account of the constraints on information in GPFRs and so meet the criteria to be recognized as an asset in GPFS; and

(c) In situations where the financial capacity or operational capacity of a living resource cannot be measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs using currently available technologies and capabilities, the living resource cannot be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Disclosures

5.42. Where living resources are recognized as assets, users of GPFS will require relevant information to be disclosed.

5.43. For living resources not recognized as assets in GPFS, the presentation via disclosure of certain information regarding living resources could be useful for users of the GPFRs. Such disclosures may include non-financial disclosures of the physical data for living resources that are controlled and exist with reasonable certainty if these resources are relevant to the service objectives of the reporting entity. For living resources which are not controlled, neither recognition nor presentation is required.

5.44. The detailed consideration of presentation by disclosure is discussed in chapter 6 of this CP.

Chapter 6: Presentation

Summary of the Principles on Presentation in General Purpose Financial Reports in the Conceptual Framework

6.1. Presentation is the selection, location, and organization of information that is reported in the GPFRs.[48]

Information Selection

6.2. Information selection refers to choosing information for display or disclosure in the GPFRs that is useful to users of GPFRs for accountability and decision-making purposes. Information selected for display communicates key messages in a GPFR while information selected for disclosure makes displayed information more useful by providing detail that will help users to understand the displayed information. The Conceptual Framework also explicitly states that disclosure is not a substitute for display.[49]

6.3. As an example, the information selected for display in a complete set of GPFS includes the current and comparative statement of financial position, statement of financial performance, statement of changes in net assets/equity, cash flow statement, and when an entity's approved budget is publicly available, a comparison of budget and actual amounts as a separate additional financial statement or as a budget column in the financial statements. The information selected for disclosure in the GPFS includes the notes, which comprise a summary of significant accounting policies and other explanatory notes.

6.4. Decisions about what information needs to be displayed or disclosed involve information prioritization and summarization and should consider the following:

(a) The objectives of financial reporting;

(b) Qualitative characteristics and constraints on information included in GPFRs; and

(c) The relevant economic or other phenomena about which information may be necessary.

Information Location

6.5. Information location refers to deciding which report or which component of a report should be used to display or disclose the information. The Conceptual Frameworks focuses on decisions about allocating information between the GPFS and other GPFRs. Such decisions should consider the nature of the information, any jurisdiction-specific requirements, and any linkages between the information.[50]

Information Organization

6.6. Information organization addresses the arrangement, grouping, and ordering of information, and includes decisions on how information is arranged within a GPFR as well as the overall structure

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[48] Conceptual Framework, paragraph 8.4.

[49] Conceptual Framework, paragraph 8.15.

[50] Conceptual Framework, paragraph 8.38.

of GPFR. Such decisions need to take into account the relationships between information and whether information is for display or disclosure.[51]

Application to Natural Resources

6.7. In this CP, the focus on presentation will be on information selection. While the following discussion includes references to where information is conventionally presented in the GPFS or GPFRs, the IPSASB has not yet reached a preliminary view on information location and organization—formal decisions will be taken int the next phase of the project following feedback from stakeholders.

Proposed Disclosure of Information Conventionally Found in the GPFS

6.8. Based on the preliminary views in chapters 3-5, certain natural resources may meet the criteria to be recognized as assets in the GPFS. Paragraph 8.23 of the Conceptual Framework explains how note disclosures relate to items recognized in the GPFS and states that the information disclosed in the notes to the financial statements:

- "Is necessary to a user's understanding of the financial statements;
- Provides information that presents the financial statements in the context of the entity and its operating environment; and
- Generally, will have a clear and demonstrable relationship to the information displayed on the face of the financial statement(s) to which it pertains."

6.9. In addition, paragraph 8.24 of the Conceptual Framework states that the notes may also include:

- "Entity-related factors that could influence judgments about reported information (for example, information about related parties and controlled entities or interests in other entities);
- The basis for what is displayed (for example, information on accounting policies and measurement, including measurement methods and measurement uncertainties where applicable);
- Disaggregation of amounts displayed on the face of the statements (for example, a breakdown of property, plant, and equipment into different classes);
- Items that do not meet the definition of an element of the recognition criteria, but are important to an understanding of the entity's finances and ability to deliver services—for example, information about events and conditions, that might affect future cash flows or service potential, including their nature, possible effects on cash flows or service potential, probabilities of occurrence, and sensitivities to changes in conditions, and
- Information that may explain underlying trends affecting displayed totals."

6.10. Based on the items listed in paragraphs 6.8 and 6.9, the IPSASB proposes that the objective of disclosures on natural resources is to require an entity to disclose information that enables users of its financial statements to evaluate:

[51] Conceptual Framework, paragraphs 8.45 and 8.47.

(a) The effects of natural resource assets on its financial position, financial performance, and cash flows;[52] and

(b) The nature of, and risks and opportunities associated with, natural resource assets.

6.11. To meet the first objective, disclosures regarding the effects of recognized natural resource assets on the financial statements should include, but are not limited to:

(a) The measurement basis used for determining the gross carrying amount, including, if applicable, the valuation date, method used to determine the asset's carrying amount, and significant judgments and assumptions applied in measuring the recognized natural resource;

(b) A reconciliation of the carrying amount at the beginning and end of the period showing increases and decreases resulting from revaluations, purchases, acquisition through non-exchange transactions, sale, biological transformation, distributions through non-exchange transactions, and, if applicable, depletion and impairment;

(c) If not already disclosed as part of an entity's revenue or accounting policy disclosures, information regarding the sale of subsoil resources, water, living resources, or the sale of the right to exploit or access these resources (i.e., consideration received and quantities of resources given up), as well as the significant accounting policies relating to these transactions; and

(d) If not already disclosed as part of an entity's disclosures on activities related to natural resources (see paragraph 6.13), information regarding the nature and costs of activities related to natural resources.

6.12. To meet the second objective, disclosures on the nature of, and risks and opportunities associated with, recognized natural resource assets should include, but are not limited to:

(a) Narrative description (e.g., nature or type, location, etc.) of the natural resources that are recognized as assets by the entity;

(b) Information on the physical quantities of natural resources noted in (a) above and the methodology used to estimate these quantities.; and

(c) The existence and amounts of restrictions on title, legal or similar limits on the use of natural resource assets due to environmental or other regulatory requirements, and natural resources pledged as securities for liabilities.

6.13. If the accounting for an activity related to natural resources falls within the scope of an existing IPSAS, additional disclosures may also be required by that IPSAS. In addition, for recognized natural resource assets and any capitalized costs of related activities, an entity should consider the applicability of the disclosure requirements in IPSAS 26, *Impairment of Cash-Generating Assets*, or IPSAS 21, *Impairment of Non-Cash-Generating Assets*.

6.14. Furthermore, consistent with the discussion of unrecognized items in paragraph 8.24 of the Conceptual Framework, if the existence of an item is certain, but it is not recognized because of a

[52] The disclosures on the effects of natural resource assets on an entity's GPFS should consider both the economic benefits and service potential embodied in the assets.

high level of measurement uncertainty, note disclosure of the following would also be helpful to users:

(a) The difficulties in obtaining a reliable measurement that prevented recognition;

(b) The significance of the unrecognized natural resource(s) in relation to delivery of the entity's objectives, including other relevant information about the type, quantities, qualities of the natural resource; and

(c) Information regarding the nature and costs of any activities related to unrecognized natural resources.

6.15. Where an entity acts as a custodian of a natural resource, the entity shall explain the nature of its custodial responsibility, including the legislation or similar means that establishes the custodial responsibility over the resource.

Proposed Presentation of Information Conventionally Found in the Broader GPFRs

6.16. As noted in paragraphs 3.42, 4.33, and 5.43, regardless of whether a natural resource is recognized in the GPFS, the disclosure of certain non-financial information could be useful for users of the broader GPFRs.

6.17. The IPSASB's existing RPGs, which provide guidance on good practice in the preparation of broader GPFRs outside GPFS, may be relevant to natural resources. Currently, the application of the RPGs is optional, but entities which have decided to apply the RPGs are required to follow the guidance in their entirety. The reconsideration of whether the general application of the RPGs should be mandatory is not within the scope of this CP. However, the IPSASB would welcome constituents' views on whether the application of the RPGs should be mandatory in the context of natural resources. See Specific Matters for Comment 3 at the end of this chapter.

6.18. When an entity is potentially able to recognize future cash flows through exploitation or selling the right to exploit a natural resource, these resources may have an impact on the long-term sustainability of the entity's finances. In these situations, RPG 1, *Reporting on the Long-term Sustainability of an Entity's Finances*, will be relevant. Application of RPG 1 will usually involve reporting the projections of future inflows and outflows from the natural resources-related programs, a discussion of the long-term service, revenue and debt dimensions of the program, and a discussion of the principles, assumptions, and methodology underlying the projections.

6.19. Many of the natural resources-related programs and services noted in paragraph 6.18 will have an impact on an entity's GPFS. To assist users in understanding the entity's financial position, financial performance and cash flows, an entity may explain the significant items, transactions and events presented in the GPFS using RPG 2, *Financial Statement Discussion and Analysis*. Entities applying RPG 2 are also required to provide a description of the entity's principal risks and uncertainties. If applicable, the risks and uncertainties over natural resources, which include, but are not limited to, existence uncertainty, and risks and uncertainties in the entity's ability to benefit from natural resources, should also be discussed.

6.20. Many public sector entities provide services associated with natural resources (e.g., the sale of rights to explore and extract subsoil resources to third parties or the conservation of certain living resources). RPG 3, *Reporting Service Performance Information*, provides guidance on reporting on services that an entity provides, an entity's service performance objectives, and the extent of its achievement of these objectives. In contrast to the information that could be disclosed regarding natural resources-related activities in the GPFS, the discussion of natural resources in

the context of RPG 3 could focus more on operational aspects such as the objectives and performance indicators of resource exploitation, conservation, or preservation programs. This information can be provided in the context of RPG 3 regardless of whether the underlying natural resource is recognized in the GPFS.

Comparison to IFRS and Private Sector Practices

6.21. While there is little guidance on the presentation of information regarding water and living resources in IFRS, many jurisdictions require the presentation of information relating to subsoil resources in the broader GPFRs. For example, while the specific requirements of each jurisdiction or industry can vary broadly, the regulatory filings of publicly traded mining entities in the private sector typically require the disclosure of the estimated physical quantities of reserves and resources, as prepared by a qualified person, as well as the technical feasibility and economic viability of an extraction project.[53] Such information is consistent with the proposed disclosures in paragraphs 6.11, 6.12, and 6.13.

Preliminary View 10—Chapter 6

Based on the discussion in paragraphs 6.7-6.15 , the IPSASB's Preliminary View is that certain information conventionally disclosed in GPFS should be presented in relation to natural resources.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

[53] Based on the requirements from National Instrument 52-102 for publicly traded Canadian mining companies.

Preliminary View 11—Chapter 6

Based on the discussion in paragraphs 6.16-6.20, the IPSASB's Preliminary View is that certain information conventionally found in the broader GPFRs should be presented in relation to recognized or unrecognized natural resources that are relevant to an entity's long-term financial sustainability, financial statement discussion and analysis, and service performance reporting.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Specific Matter for Comment 4—Chapter 6

The proposals in paragraphs 6.16-6.20 (Preliminary View 11) are largely based on the IPSASB's RPGs. While these proposals are expected to be helpful to users of the broader GPFRs, the information needed to prepare these reports may be more challenging to obtain compared to the information required for traditional GPFS disclosures. As noted in paragraph 6.17, the application of the RPGs is currently optional.

In your view, should the provision of the natural resources-related information proposed in Preliminary View 11 be mandatory? Such a requirement would only be specifically applicable to information related to natural resources.

Please provide the reasoning behind your view.

Appendix A: Reasons for Undertaking the Project and Project Aims

A.1. In 2018, the IPSASB issued its Strategy Consultation and requested comments on the proposed Strategy and Work Plan. Based on the responses from constituents and initial research, the IPSASB added the natural resources project to its 2019-2023 Work Plan.

A.2. The project meets the criteria for project prioritization as set out in the 2019-2023 Work Plan:

(a) Prevalence – Based on preliminary research, the IPSASB noted that natural resources accounted for a significant proportion of economic resources in many jurisdictions.[54] Therefore, the reporting of natural resources could lead to information regarding the financial position of a public sector entity which is more faithfully representative of the underlying economic reality, particularly in jurisdictions with resource-based and resource-rich economies.

(b) Consequences – In response to the strategy consultation, respondents were concerned that there was a gap in the IPSASB's accounting guidance on the recognition, measurement, and presentation[55] of natural resources. As a result, governments often lack information on the monetary value of natural resources until after they are exploited (i.e., extracted, harvested, or utilized). Governments also grant rights to access such resources to third parties who then profit from their exploitation. As a result, this may be perceived as an incentive to sell natural resources without regard to financial and environmental sustainability[56] or intergenerational fairness, because the resulting revenue are recognized with little or no offsetting expenses. Therefore, from a public interest perspective, the recognition—or, if recognition in the GPFS is not possible, more general reporting—of natural resources is an important issue, as information about these resources should inform policy decisions.

(c) Urgency – In light of the growing concern for climate change, many governments and public sector entities are prioritizing sustainable management of the natural environment in the development of their policies. While this project does not directly address environmental sustainability or climate change, the development of an accounting standard for the recognition, measurement, and/or presentation of some natural resources will provide better information that can be used to inform public financial management decisions and policy making.

(d) Feasibility – When the IPSASB added the project to the 2019-2023 Work Plan, the IPSASB determined that there would be sufficient staff capacity to develop technically sound accounting guidance on the recognition, measurement, and/or presentation of natural resources within a reasonable time period.

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[54] The IMF October 2018 Fiscal Monitor highlighted that for the 31 countries included in the report, natural resource economic assets were equal to 38% of Gross Domestic Product.

[55] The term "presentation" broadly relates to both the display and/or disclosure of information. See paragraphs 8.15-8.24 of the IPSASB's Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities.

[56] In the context of this paragraph, sustainability refers to balancing between environmental protection and economic development. This is a different concept from fiscal sustainability as described in RPG 1, *Reporting on Long-term Sustainability of an Entity's Finances*.

Project Aims

A.3. Consistent with the overall objectives of financial reporting by public sector entities, the objective of the development of IPSAS guidance relating to natural resources is to provide information that is useful to users of the entity's GPFRs for accountability purposes and for decision-making purposes.

A.4. The aim of the project is to develop IPSAS guidance relating to the accounting—i.e., the recognition, measurement, and presentation—of natural resources by public sector entities.

A.5. As this project is a financial reporting project, any resulting IPSAS guidance will be developed in accordance with the Conceptual Framework.

A.6. During the IPSASB's preliminary outreach, some constituents advocated for the CP to include the discussion of broader public financial management (PFM) issues such as maintaining long-term sustainability of natural resources and preservation of intergenerational equity for citizens.

A.7. The IPSASB acknowledges that its overall objective is to strengthen PFM through increasing the adoption of accrual-basis IPSAS, and that issues such as maintaining long-term sustainability are important. However, these issues are addressed by the IPSASB outside the natural resources project, and this CP will not provide guidance on these broader issues.[57] The focus of this CP is to propose preliminary views on the accounting of natural resources. Application of these preliminary views and the guidance included in future IPSAS related to these topics are likely to provide useful information for improving PFM.

[57] For more information on the IPSASB's initiatives on sustainability reporting, please see: https://www.ipsasb.org/focus-areas/sustainability-reporting

Appendix B: Development of the General Description of Natural Resources

B.1. As noted in paragraph 1.4, the IPSASB developed the general description of natural resources by drawing upon the definitions of natural resources from a variety of sources. The following appendix summarizes the definitions which were considered by the IPSASB.

Plain English Definition

B.2. The current plain English definition on Wikipedia combines the definitions from the Oxford and Student dictionaries with those from investorwords.com and yourdictionary.com. Wikipedia notes that natural resources are resources, or items with service potential or the ability to generate economic benefits, that exist without actions of humankind and includes all valued characteristics such as magnetic, gravitational, electrical properties and forces, etc. On earth, natural resources include sunlight, atmosphere, water, land, including all minerals along with all vegetation, crops and animal life that naturally subsists upon or within the identified characteristics and substances.[58]

Definition from Economic Literature

B.3. One economic text describes natural resources as follows:[59]

> "Natural resources, such as forests and commercially exploitable fisheries, and environmental attributes such as air quality, are valuable assets in that they yield flow of services to the people. Public policies and the actions of individuals and firms can lead to changes in these service flows, thereby creating benefits and costs."

Definitions from International Statistical Standards

B.4. The statistical standards guidance in GFSM 2014 and 2008 SNA currently define natural resources as follows:

(a) Paragraph 7.90 of GFSM 2014 notes that natural resources comprise land, mineral and energy resources, and other naturally occurring assets; and

(b) Paragraphs 13.44-13.51 of 2008 SNA states that natural resources consist of naturally occurring resources such as land, water resources, uncultivated forests and deposits of minerals that have an economic value.

South African GRAP

B.5. The Standard of Generally Recognized Accounting Practice 110, *Living and Non-Living Resources* (GRAP 110) does not define natural resources, but the standard defines living and non-living resources as follows:[60]

> "Living resources are those resources that undergo biological transformation…" and
>
> "Non-living resources are those resources, other than living resources, that occur naturally and have not been extracted."

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58 https://en.wikipedia.org/wiki/Natural_resource; retrieved September 2020.

59 Freeman III, A. M., Herriges, J. A., & Kling, C. L. (2014). The Measurement environmental and resources value: theory and methods (3rd ed.). Oxon: Taylor & Francis, page 2.

60 The definitions of living and non-living resources are found in paragraph 8 of GRAP 110.

B.6. Paragraph 10 of GRAP 110 further explains that after a non-living resource has been extracted, the resource no longer meets the definition of a non-living resource, The paragraph states that:

> "At the point of extraction, non-living resources such as water, minerals, oils and gas and other non-regenerative resources, no longer occur in their natural state and do not meet the definition of a non-living resource."

FASAB Definition

B.7. The Federal Accounting Standards Advisory Board's (FASAB) Technical Bulletin 2011-1 does not define natural resources generally, but Federal Natural Resources are defined as follows:[61]

> "Federal natural resources are resources that occur in nature (including non-renewable and renewable natural resources) and meet all of the following criteria: (a) the federal government may exercise sovereign rights over the resources with respect to exploration and exploitation; (b) the federal government has the authority to derive revenues from the resources for its use; and, (c) the resources are contained on federal lands or the federal government substantially manages and/or controls the resources."

[61] FASAB Handbook, Version 20 (06/21). FASAB Technical Bulletin 2011-1, Appendix C.

Appendix C: Accounting for a Government's Sovereign Power to Issue Licenses

Background

C.1. In the Conceptual Framework, the IPSASB had previously decided that a government's sovereign power, in and of itself, did not meet the criteria to be recognized as an asset. The IPSASB's decision was driven by the conclusion that there was no past event to support the recognition of an asset. In their basis for conclusions, the IPSASB further explained that a government's inherent powers do not give rise to assets until these powers are exercised and the rights exist to receive service potential or economic benefits.[62] While this CP will not re-open the IPSASB's previous decision, it would be helpful to apply the IPSASB's thinking specifically to a government's sovereign power to issue licenses in the context of natural resources.

C.2. In practice, these natural resources-related licenses could include items such as mineral exploration or extraction rights, logging permits, fishing or hunting licenses, or rights to extract water. The following discussion uses a license to explore for subsoil resources.

C.3. It is important to note that this example is meant to only cover the narrow issue of the recognition of government sovereign powers and does not address the potential recognition of the underlying subsoil resources, which is discussed in chapter 3 of this CP. Chapter 3 also includes a discussion of the costs of related activities, which is also not covered in this example. Finally, this example does not go into detail on the recognition of revenue when licenses are sold, as the IPSASB currently has a separate project on revenue.[63]

Example

C.4. A government entity plans to exercise its sovereign powers to establish a legal framework to issue exploration licenses to unrelated entities. Prior to the establishment of this framework, there is no legal mechanism for the government entity to issue exploration licenses.

C.5. The following timeline illustrates the typical events leading up to the sale of exploration licenses and provides commentary regarding the recognition of an asset at each step in the timeline. As noted above, the principles in the Conceptual Framework would prevent recognition of an asset for the sovereign power on its own.

C.6. However, as illustrated below, once the entity has exercised its sovereign power by setting up a framework to issue licenses, this legal framework facilitates the sale of licenses, which in turn results in the recognition of an asset.

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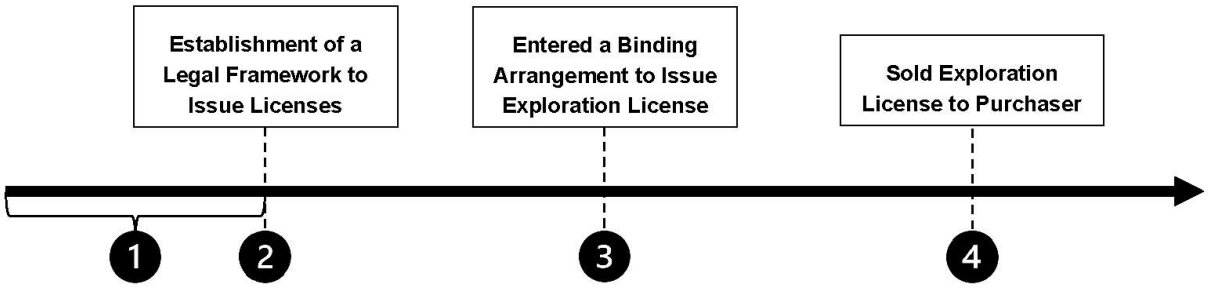
[62] IPSASB's Conceptual Framework, paragraph BC5.18.

[63] More details on the revenue project can be found at http://www.ipsasb.org/consultations-projects/revenue.

Timeline



(1) Prior to an establishment of the legal framework, there is no legal mechanism for the government entity to issue exploration licenses—i.e., it would not be possible for an exploration license to exist within the laws of the jurisdiction. Therefore, during this period, it would not be possible to recognize any asset, as there is no resource controlled by the entity as the result of a past event.

(2) Upon establishment of a legal framework to issue licenses, it will be possible for an exploration license to legally exist within the jurisdiction. At this stage in the timeline, the government entity may start negotiating with other entities to sell exploration licenses. However, at this point, as no past event has occurred, there is still no asset to be recognized. Furthermore, the government entity will have no information on how to measure any asset, such as how many, if any, licenses will be sold, when licenses would be sold, how much licenses will be sold for, or whether licenses will be sold for a fixed or variable amount. As a result, even upon the establishment of a legal framework to issue licenses, as no past event has occurred and no information exists to measure any potential asset, the government entity would not be able to recognize any asset.

(3) At this point, a government's sovereign power in itself still cannot be recognized as an asset. However, the exercise of the sovereign power through the establishment of the legal framework has made it possible for the government to sell licenses. Once the government has entered into a binding arrangement to sell a license to a purchaser, the government entity needs to consider if there is any impact from a revenue accounting perspective. It should be clarified that any such accounting impact would be driven by the binding arrangement and would **not** represent the recognition of the government's sovereign power.

(4) Upon the issuance of a license, the government entity will typically recognize an asset for the consideration (e.g., cash received or accounts receivable) from the licensee. While the issuance of the license and subsequent recognition of the cash or account receivable asset are made possible by the exercise of the sovereign power, the recognized asset itself does **not** embody the sovereign power. Rather, the asset represents either the cash received or the account receivable, or the unconditional right to receive cash.

Appendix D: Existing International, National, and Statistical Guidance on Subsoil Resources and Related Activities

D.1. The following table summarizes the guidance from existing international, national, and statistical accounting guidance on subsoil resources. The topics have been arranged to correspond with the sections in Chapter 3: Subsoil Resources.

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
Description of Subsoil Resources	• Not explicitly defined. However, IFRS 6 states that mineral resources include minerals, oil, natural gas, and similar non-regenerative resources.	• SA GRAP: No specific definition or description of subsoil resources. However, subsoil resources are included in "non-living resources", which are defined as "those resources, other than living resources, that occur naturally and have not been extracted." • FASAB: No specific definition or description of subsoil resources. However, "Federal Natural Resources", "Federal Oil and Gas Resources", and Non-renewable Natural Resources" are defined with reference to specific resources such as oil, natural gas, and coal.	• 2008 SNA: Mineral and energy resources consist of mineral and energy reserves located on or below the earth's surface that are economically exploitable, given current technology and relative prices. For example, known reserves of coal, oil, gas or other fuels and metallic ores, and non-metallic minerals.
Accounting for Activities Related to Subsoil Resources	• Licenses conferring the right to extract subsoil resources are accounted for as intangible assets under IAS 38, *Intangible Assets*. • Exploration and evaluation (E&E) costs are accounted for under IFRS 6, *Exploration for and Evaluation of Mineral Resources*, which allows an entity to determine an accounting policy specifying which E&E expenditures are to be recognized as an asset.	• SA GRAP: No specific guidance on stripping or exploration and evaluation activities. However, GRAP 12, *Inventories*, and GRAP 31, *Intangible Assets*, are based on IPSAS 12 and IPSAS 31, which are applicable to licenses, as well as extraction and development activities. • FASAB: SFFAS 38 notes that the federal government only performs prospecting activities. No explicit guidance on other activities related to subsoil resources is provided.	• 2008 SNA: Permits to use natural resources are treated as property rights. See Appendix F for details. • 2008 SNA: Fixed assets: Mineral exploration and evaluation should be valued either on the basis of the amounts paid under contracts awarded to other institutional units for the purpose or on the basis of the costs incurred for exploration undertaken on own account. These costs should include a return to the fixed capital used

[64] The International Statistical Standards column of this table only reflects the guidance from 2008 SNA. International Statistical Standards comprise 2008 SNA, GFSM 2014, which is derived from 2008 SNA, and the SEEA Central Framework, which provides guidance on items outside of economic assets and is not directly comparable with IFRS and national accounting standards. See Appendix F for further details.

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
	• IFRS 6 also notes that development costs are accounted for under IAS 38 and the IASB's Conceptual Framework. • Extraction costs are accounted for as inventory under IAS 2, *Inventories*. • IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*, addresses the recognition and measurement of costs incurred to remove surface materials during the development and production phases of a mine. These costs are accounted for as either a long-term stripping activity asset or inventory depending on the ratio of ore to waste produced by the removal activities. The stripping activity asset is classified as a tangible or intangible asset depending on the classification of the overall mineral interest asset.		in the exploration activity. That part of exploration undertaken in the past that has not yet been fully written off should be revalued at the prices and costs of the current period.
Application of Asset Definition to Subsoil Resources	• The IASB concluded that unextracted minerals, oil, and gas (and other non-regenerative natural resources) should not be recognized in the financial statements. • The IASB noted that the only asset recognized is for the legal rights to gain access to minerals or oil and gas deposits and any related betterment of this legal rights asset. The underlying minerals or oil and gas deposits are only recognized as	• SA GRAP: Non-living resources, which include subsoil resources, are not recognized in the financial statements. • FASAB: Federal oil and gas resources and natural resources other than oil and gas are not recognized in the accrual-basis financial statements.	• 2008 SNA: Natural resources only qualify as economic assets if ownership rights have been established and are effectively enforced; and economic benefits are provided to their owners. This means natural occurring resources are not economic assets if: o It is not feasible to establish ownership rights over them (for example, air or oceans); or o They do not actually belong to any institutional unit (for example, no

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
	tangible assets once they have been extracted.[65]		institutional unit is able to enforce ownership rights because they remain so remote or inaccessible); or ○ It is not possible to extract and sell because of lack of technology, scientific knowledge, or economic infrastructure (for example, deposits of minerals that are not commercially exploitable in the foreseeable future).
Existence Uncertainty	• Discussed along with measurement uncertainty (in the estimation of quantity and value) in the IASB's Discussion Paper. See below.	• SA GRAP: The basis for conclusions in GRAP 110 notes that non-living resources are not recognized as it is unlikely that an entity can benefit from a resource whose existence is uncertain. • FASAB: SFFAS 38 states that oil and gas and other natural resources are not recognized due to the inability to reliably measure the quantity and value of these reserves and resources.	• 2008 SNA: The concept of existence uncertainty is not addressed in the 2008 SNA in the same manner as the accounting frameworks. 2008 SNA states that subsoil assets are defined as those *proven* subsoil resources of coal, oil and natural gas, of metallic minerals or of non-metallic minerals that are economically exploitable, given current technology and relative prices.
Measurement and Potential Disclosures	• The IASB noted that for subsoil resources, historical cost generally did not provide relevant information and entity-prepared current values were not viewed as representationally faithful due to the subjectivity and degree of estimation involved.[66] • A number of internationally accepted estimation approaches exist to estimate the quantities of unextracted resources based on geological	• SA GRAP: The BC of GRAP 110 states that an entity is unlikely to be able to reliably measure non-living resources due to measurement uncertainty. Certain information such as the custodial responsibility over non-living resources, description of the nature and types of non-living resources for which an entity is responsible, any associated liabilities and/or contingent liabilities, and the amount of compensation received from third parties in	• 2008 SNA: Subsoil mineral and energy resources in the balance sheet are measured by determining the present value of the expected net returns resulting from the commercial exploitation of those resources. • 2008 SNA: No explicit guidance on disclosures of mineral and energy resources is provided.

[65] IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 3.27.

[66] IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 4.83.

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
	studies and models, including the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Resources as developed by the Australasian Joint Ore Reserves Committee (JORC Code), and models developed by the Society of Petroleum Engineers Classification System (SPE), World Petroleum Congresses (WPC), and the American Association of Petroleum Geologists (AAPG). • These approaches involve using geological and other data, including the results of drilling tests, to construct a model to estimate the quantity and quality of resources in an area. • However, reserves and resources are not measured in the financial statements, as subsoil resources are not recognized as assets in the financial statements. • Disclosure of information regarding the estimated quantities of reserves and resources are often provided in supplemental information in accordance with regulatory requirements applicable to publicly traded companies in extractive industries.	exchange for non-living resources are required to be disclosed in the financial statements. • FASAB: Reserves are not measured in the financial statements, as they are not recognized as assets. However, a schedule of estimated royalties and other revenue from federal natural resources is required to be presented as Required Supplementary Information outside the financial statements.	

Appendix E: Existing International, National, and Statistical Guidance on Water and Related Activities

E.1. The following table summarizes the guidance from existing international, national, and statistical accounting guidance on water in its natural state. The topics have been arranged to correspond with the sections in Chapter 4: Water in its Natural State.

Topic	IFRS	National Accounting Standards[67]	International Statistical Standards[64]
Description of Water in its Natural State	• Not explicitly defined or described.	• SA GRAP: Water is included in the definition of "non-living resources", which are defined as "those resources, other than living resources, that occur naturally and have not been extracted." • FASAB: Not defined or described.	• 2008 SNA: Water resources consist of surface and groundwater resources used for extraction to the extent that their scarcity leads to the enforcement of ownership or use rights, market valuation and some measure of economic control. For example, rivers, lakes artificial reservoirs, and other surface catchments in addition to aquifers, and other groundwater resources.
Accounting for Activities Related to Water in its Natural State	• Licenses conferring the right to extract water resources are accounted for as intangible assets under IAS 38, *Intangible Assets*. • The sale of the water licenses is recognized as revenue in terms of IFRS 15, *Revenue from Contracts with Customers*. • Extraction costs are accounted for as inventory under IAS 2, *Inventories*. • Human-made structures are accounted for as property, plant, and equipment under IAS 16, *Property, Plant and Equipment.*	• SA GRAP: GRAP 12, *Inventories*, and GRAP 31, *Intangible Assets*, are based on IPSAS 12 and IPSAS 31, which are applicable to the accounting for extraction costs and licenses, respectively. The sale of the water licenses is recognized as revenue in terms of GRAP 9, *Revenue from Exchange Transactions*. • FASAB: SFFAS 38. No explicit guidance on activities related to water in its natural state is provided.	• 2008 SNA: Permits to use natural resources are treated as property rights. See Appendix F for further information. • 2008 SNA: No explicit guidance on other activities related to water in its natural state is provided.

[67] The Australian Water Accounting Standards were not considered because the Standards only provide guidance on identifying, recognizing, quantifying, reporting, assuring and publishing information about water and the scope of the Standards includes water in the terrestrial phase of the water cycle and does not include water in the marine or atmospheric phases of the water cycle. For example, sea water put in storages is considered sea water in the terrestrial phase within the scope of the Standards, while sea water in the ocean is considered water in the marine phase which is outside the scope of the Standards.

Topic	IFRS	National Accounting Standards[67]	International Statistical Standards[64]
Application of Asset Definition to Water in its Natural State	• No explicit guidance for unextracted water.	• SA GRAP: Non-living resources, which include water, are not recognized in the financial statements. • FASAB: Natural resources are not recognized in the accrual-basis financial statements.	• 2008 SNA: Natural resources only qualify as economic assets if ownership rights have been established and are effectively enforced; and economic benefits are provided to their owners. This means natural occurring resources are not economic assets if: o It is not feasible to establish ownership rights over them (for example, air or oceans); or o They do not actually belong to any institutional unit (for example, no institutional unit is able to enforce ownership rights because they remain so remote or inaccessible); or o It is not possible to extract and sell because of lack of technology, scientific knowledge, or economic infrastructure (for example, deposits of minerals that are not commercially exploitable in the foreseeable future).

Existence Uncertainty	• No explicit guidance for unextracted water.	• SA GRAP: The basis for conclusions in GRAP 110 notes that non-living resources are not recognized as it is unlikely that an entity can benefit from a resource whose existence is uncertain. • FASAB: SFFAS 38 states that oil and gas and other natural resources are not recognized due to the inability to reliably measure the quantity and value of these reserves and resources.	• 2008 SNA: No explicit guidance for unextracted water.
Measurement and Potential Disclosures of Water in its Natural State	• No explicit guidance on measurement and disclosure of unextracted water.	• SA GRAP: Non-living resources are not measured in the financial statements as they are not recognized as assets. Certain information such as the custodial responsibility over non-living resources, description of the nature and types of non-living resources for which an entity is responsible, any associated liabilities and/or contingent liabilities, and the amount of compensation received from third parties in exchange for non-living resources are required to be disclosed in the financial statements. • FASAB: A schedule of estimated royalties and other revenue from federal natural resources is required to be presented as Required Supplementary Information outside the financial statements. However, no explicit guidance on water exists.	• 2008 SNA: Water resources in the balance sheet are measured by determining the present value of the expected net returns resulting from the commercial exploitation of those resources. In case the net returns are not possible to measure, estimates based on access fees may be used. • 2008 SNA: In case it is not possible to separate the value of surface water from the associated land, the whole should be allocated to the category representing the greater part of the total value. • 2008 SNA: No explicit guidance on disclosure of water in its natural state is provided.

Appendix F: Existing International, National, and Statistical Guidance on Living Resources and Related Activities

F.1. The following table summarizes the guidance from existing international, national, and statistical accounting guidance on subsoil resources. The topics have been arranged to correspond with the sections in Chapter 5: Living Resources.

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
Description of Living Resources	• Not defined or described.	• SA GRAP: Living resources are those resources that undergo biological transformation. The definition of living resources under GRAP appears to be broader and encompasses living organisms that have been subjected to human intervention and are within the scope of agriculture and plant, property, and equipment. • FASAB: Not defined or described.	• 2008 SNA: Non-cultivated biological resources consist of animals, birds, fish and plants that yield both once-only and repeat products over which ownership rights are enforced but for which natural growth or regeneration is not under the direct control, responsibility and management of institutional units. For example, virgin forests and fisheries within the territory of the country that are currently, or are likely soon to be, exploitable for economic purposes.
Accounting for Activities Related to Living Resources	• Agricultural activities are within the scope of IAS 41, *Agriculture*, which is the basis of IPSAS 27. • Accounting for bearer plants and biological assets used in activities other than agricultural activities are within the scope of IAS 2, *Inventories*, and IAS 16, *Property, Plant, and Equipment*, which are the bases of IPSAS 12 and IPSAS 17.	• SA GRAP: Similar to IFRS. • FASAB: No explicit guidance on activities related to living resources is provided.	• 2008 SNA: Permits to use natural resources. See Appendix F for further information. • 2008 SNA: No explicit guidance on other activities related to living resources is provided.

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
Application of Asset Definition to Living Resources	• No explicit guidance on living resources.	• SA GRAP: Living resources are recognized as an asset if, and only if: it is probable that future economic benefits or service potential associated with the asset will flow to the entity; and the cost or fair value of the asset can be measured reliably.	• 2008 SNA: Natural resources only qualify as economic assets if ownership rights have been established and are effectively enforced; and economic benefits are provided to their owners. This means natural occurring resources are not economic assets if: o It is not feasible to establish ownership rights over them (for example, air or oceans); or o They do not actually belong to any institutional unit (for example, no institutional unit is able to enforce ownership rights because they remain so remote or inaccessible); or o It is not possible to extract and sell because of lack of technology, scientific knowledge, or economic infrastructure (for example, deposits of minerals that are not commercially exploitable in the foreseeable future).
Existence Uncertainty	• No explicit guidance for living resources.	• SA GRAP: Only living resources which meet the definition of an asset, which includes consideration of existence uncertainty, and can be reliably measured, are recognized. • FASAB: SFFAS 38 states that oil and gas and other natural resources are not recognized due to the inability to reliably measure these reserves and resources.	• 2008 SNA: No explicit guidance for living resources.

Topic	IFRS	National Accounting Standards	International Statistical Standards[64]
Measurement	• No explicit guidance.	• SA GRAP: See above regarding measurement. • FASAB: See above regarding measurement.	• 2008 SNA: Non-cultivated biological resources in the balance sheet are measured by determining the present value of the expected net returns resulting from the commercial exploitation of those resources.
Disclosures	• No explicit guidance	• SA GRAP 110 requires the disclosure of the following information regarding living resources: the measurement bases used, depreciation method and useful lives, period-over-period reconciliation of the carrying amounts, information on living resources that are borrowed from or on loan to other entities, restrictions and commitments, information regarding revalued amounts, key judgments made, and assumptions applied, and compensation received on disposal of a living resource. • FASAB: A schedule of estimated royalties and other revenue from federal natural resources is required to be presented as Required Supplementary Information outside the financial statements. However, no explicit guidance on living resources exists.	• 2008 SNA: No explicit guidance on disclosure of living resources is provided.

Appendix G: International Statistical Standards Guidance

Introduction

G.1. Informed by the Conceptual Framework and the GFS Policy Paper, the IPSASB reviewed the appropriate guidance related Natural Resources in the System of National Accounts 2008[68] (2008 SNA), the System of Environmental-Economic Accounting 2012–SEEA Central Framework[69] (SEEA Central Framework), and the Government Finance Statistics Manual 2014[70] (GFSM 2014). As currently all international statistical standards are under revision, this appendix will focus on the 2008 SNA guidance and its linkage to the SEEA guidance relevant for this Consultation Paper in order to better make the link to the main issues under discussion to revise the 2008 SNA presented also in this Appendix. The GFSM 2014 guidance is addressed at the end of this appendix on an exception basis compared to the 2008 SNA.

G.2. The IPSASB considered the 2008 SNA, the SEEA Central Framework, and the GFSM 2014 related to each item of natural resource within the scope of this Consultation Paper. Excerpts from the 2008 SNA and SEEA Central Framework with the main guidance considered in the development of the CP is included below.

Identification and Objectives of the International Statistics Standards

G.3. The 2008 SNA is the statistical framework that provides comprehensive, consistent and flexible set of macroeconomic accounts to measure economic activity and designed for economic analysis, decision-making, and policymaking. It has been produced and released under the auspices of the United Nations, the European Commission, the Organization for Economic Co-Operation and Development, the International Monetary Fund and the World Bank.

G.4. The SEEA Central Framework is the first international statistical standard for environmental-economic accounting designed for understanding the interactions between the environment and the economy for policymaking, analysis and research. It has been produced and released under the auspices of the United Nations, the European Commission, the Food and Agriculture Organization of the United Nations, the Organization for Economic Co-Operation and Development, the International Monetary Fund and the World Bank Group.

G.5. The GFSM 2014 describes a specialized macroeconomic statistical framework designed to support fiscal analysis. It has been issued by the International Monetary Fund.

2008 SNA Guidance

General Description of Natural Resources

G.6. According to the 2008 SNA 10.14–10.15, natural resources are one type of non-produced assets together with (i) contracts, leases and licenses, and (ii) purchased goodwill and marketing assets.

G.7. Natural resources consist of naturally occurring resources such as land, water resources, uncultivated forests and deposits of minerals that have an economic value.

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68 https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf

69 https://seea.un.org/sites/seea.un.org/files/seea_cf_final_en.pdf

70 https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf

G.8. According to 2008 SNA 10.166–10.169, natural resources only qualify as economic assets if:

(a) Ownership rights have been established and are effectively enforced; and

(b) Economic benefits are provided to their owners.

G.9. This means that naturally occurring resources are not economic assets if:

(a) It is not feasible to establish ownership rights over them (for example, air or oceans); or

(b) They do not actually belong to any institutional unit (for example, no institutional unit is able to enforce ownership rights because they remain so remote or inaccessible); or

(c) It is not possible to extract and sell because of lack of technology, scientific knowledge, or economic infrastructure (for example, deposits of minerals that are not commercially exploitable in the foreseeable future).

G.10. The 2008 SNA distinguishes several types of natural resources:

(a) Land;

(b) Mineral and energy resources;

(c) Non-cultivated biological resources;

(d) Water resources; and

(e) Other natural resources (radio spectra and other).

G.11. The paragraphs below describe the 2008 SNA guidance on natural resource types that are related to items of natural resources described in this Consultation Paper.

Mineral and Energy Resources

G.12. According to 2008 SNA 10.179, mineral and energy resources consist of mineral and energy reserves located on or below the earth's surface that are economically exploitable, given current technology and relative prices. For example, known reserves of coal, oil, gas or other fuels and metallic ores, and non-metallic minerals.

G.13. In the capital account, the 2008 SNA records the acquisitions and disposals of deposits of mineral and energy resources in which the ownership of such assets passes from one institutional unit to another.

G.14. The discovery of new exploitable deposits is recorded in the other changes in the volume of assets account. New exploitable deposits can be discovered as a result of systematic scientific explorations, or surveys, or by chance. They can also be included when deposits for which exploitation was previously uneconomic becomes economic because of technological progress or relative price changes. [71]

G.15. Additionally, the depletion of the mineral and energy resource as a result of extraction for the purpose of production is recorded in the other changes in the volume of assets account.[72]

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[71] 2008 SNA 12.18

[72] 2008 SNA 10.179

G.16. The 2008 SNA measures the subsoil mineral and energy resources in the balance sheet by determining the present value of the expected net returns resulting from the commercial exploitation of those resources.[73]

G.17. In the specific case where the entity extracting the resource is different from the owner of the resource and there is no wholly satisfactory way in which to show the value of the asset split between the legal owner and the extractor, the whole resource is shown on the balance sheet of the legal owner and the payments by the extractor to the owner show as rent.[74] For example, in some countries the state is the owner of the resources and permits corporations to extract the oil resources.

Non-cultivated Biological Resources

G.18. According to 2008 SNA.10.182, non-cultivated biological resources consist of animals, birds, fish and plants that yield both once-only and repeat products over which ownership rights are enforced but for which natural growth or regeneration is not under the direct control, responsibility and management of institutional units. For example, virgin forests and fisheries within the territory of the country that are currently, or are likely soon to be, exploitable for economic purposes.

G.19. In the capital account, the 2008 SNA records the acquisitions and disposals of non-cultivated biological resources in which the ownership of such assets passes from one institutional unit to another.[75]

G.20. The natural growth of non-cultivated biological resources is recorded in the other changes in the volume of assets account because they are not under the direct control, responsibility and management of an institutional unit.[76] Additionally, the depletion of the non-cultivated biological resource as a result of harvesting, forest clearance, or other use beyond sustainable levels of extraction is recorded in the other changes in the volume of assets account.[77]

G.21. The 2008 SNA measures the non-cultivated biological resources in the balance sheet by determining the present value of the expected net returns resulting from the commercial exploitation of those resources.[78]

Water resources

G.22. According to 2008 SNA 10.184, water resources consist of surface and groundwater resources used for extraction to the extent that their scarcity leads to the enforcement of ownership or use rights, market valuation and some measure of economic control. For example, rivers, lakes artificial reservoirs and other surface catchments in addition to aquifers and other groundwater resources.[79]

G.23. In case it is not possible to separate the value of surface water from the associated land, the whole should be allocated to the category representing the greater part of the total value.

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[73] 2008 SNA 10.49

[74] 2008 SNA 10.50

[75] 2008 SNA 10.182

[76] 2008 SNA 12.19

[77] 2008 SNA 12.27

[78] 2008 SNA 13.51

[79] 2008 SNA A3.84

G.24. In the capital account, the 2008 SNA records the acquisitions and disposals of water resources in which the ownership of such assets passes from one institutional unit to another.[80]

G.25. The discovery of water resources is recorded in the other changes in the volume of assets account.[81] Additionally, the depletion of the water resource caused by economic activity (physical removal and use of the assets) is recorded in the other changes in the volume of assets account.

G.26. The 2008 SNA measures the water resources in the balance sheet by determining the present value of the expected net returns resulting from the commercial exploitation of those resources.[82] In case the net returns is not possible to measure, estimates based on access fees may be used.[83]

Permits to Use Natural Resources

G.27. According to paragraph 10.191 of 2008 SNA, permits to use natural resources are third-party property rights relating to natural resources. An example is where a person holds fishing quota and is able, both legally and practically, to sell this to another person.

SEEA Central Framework

General description of environmental assets and natural resources

G.28. According to SEEA Central Framework 2.17, environmental assets are the naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity. The SEEA Central Framework considers environmental assets from two perspectives:

(a) Individual components of the environment that provide materials and space to all economic activities (for example, mineral and energy resources, timber resources, water resources and land); and

(b) The interactions between individual environmental assets within ecosystems, and on the broad set of material and non-material benefits that accrue to the economy and other human activity from flows of ecosystem services.[84]

General description of asset accounts

G.29. The intent of asset accounts is to record the opening and closing stock of environmental assets and the different types of changes in the stock over an accounting period.[85]

G.30. The basic form of an asset account compiled for individual types of environmental assets is as follows:

[80] 2008 SNA.10.184

[81] 2008 SNA 12.19

[82] 2008 SNA 13.51

[83] 2008 SNA A3.84

[84] SEEA Central Framework 2.21

[85] SEEA Central Framework 2.49

Opening stock of environmental assets
Additions to stock
Growth in stock
Discoveries of new stock
Upward reappraisals
Reclassifications
Total additions of stock
Reductions of stock
Extractions
Normal loss of stock
Catastrophic losses
Downward reappraisals
Reclassifications
Total reductions in stock
Revaluation of the stock[a]
Closing stock of environmental assets

[a] Only applicable for asset accounts in monetary terms.

General description of the sequence of economic accounts

G.31. The sequence of economic accounts in the SEEA follows the broad structure of the sequence of accounts in the 2008 SNA to record transactions such as payments of rent for the extraction of natural resources, payments of environmental taxes, and payments of environmental subsidies and grants from government units to other economic units to support environmental protection activity.

G.32. The basic SEEA sequence of economic accounts is as follows:

Production account (elaborated in supply and use tables)	
Main entries	Output, intermediate consumption, consumption of fixed capital, depletion
Balancing items/aggregates	Gross value added, gross domestic product, depletion-adjusted net value added, depletion-adjusted net domestic product
Distribution and use of income accounts	
Main entries	Compensation of employees, taxes, subsidies, interest, rent, final consumption expenditure, consumption of fixed capital, depletion
Balancing items/aggregates	Depletion-adjusted net operating surplus, depletion-adjusted net national income, depletion-adjusted net saving
Capital account	
Main entries	Acquisitions and disposals of produced and non-produced assets
Balancing item/aggregate	Net lending/borrowing
Financial account	
Main entries	Transactions in financial assets and liabilities
Balancing item/aggregate	Net lending/borrowing

G.33. The sequence of accounts can be complemented by balance sheets that record the values of all assets and liabilities at the beginning and end of an accounting period. The balancing item for a balance sheet is net worth, representing the total value of all assets less the value of all liabilities.86

G.34. The SEEA Central Framework records the flows and stocks in both physical and monetary terms.

G.35. Physical flows are reflected in the movement and use of materials, water and energy corresponding to natural inputs, products and residuals.[87] Monetary flows are recorded in a manner completely consistent with the SNA definition of economic flows[88] with two types being distinguished: transactions and other flows.

G.36. In physical terms, stocks refer to the total quantity of assets at a given point in time[89]. The measurement of stocks in monetary terms focuses on the value of individual environmental assets and changes in those values over time.[90]

Measurement in monetary terms

G.37. The values reflected in the accounts are, in principle, the current transaction values or market prices for the associated goods, services, labor or assets that are exchanged.[91] Strictly speaking, market prices for transactions are defined as amounts of money that willing buyers pay to acquire something from willing sellers. The exchanges should be made between independent parties on the basis of commercial considerations only, sometimes called “at arm’s length”.[92]

G.38. In the Central Framework, consistent with the 2008 SNA, the scope of valuation is limited to the benefits that accrue to economic owners. An economic owner is the institutional unit entitled to claim the benefits associated with the use of an asset in the course of an economic activity by virtue of accepting the associated risks. [93]

G.39. The benefits underlying the definition of economic assets are economic benefits. Economic benefits reflect a gain or positive utility arising from economic production, consumption or accumulation. For environmental assets, economic benefits are recorded in the accounts in the form of operating surplus from the sale of natural resources and cultivated biological resources, in the form of rent earned on permitting the use or extraction of an environmental asset, or in the form of net receipts (i.e., excluding transaction costs) when an environmental asset (e.g., land) is sold. [94]

Classification of environmental assets in the SEEA Central Framework

G.40. The SEEA Central Framework classifies the environmental assets as follows:[95]

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86 SEEA Central Framework 2.69

87 SEEA Central Framework 2.88

88 SEEA Central Framework 2.96

89 SEEA Central Framework 2.99

90 SEEA Central Framework 2.104

91 SEEA Central Framework 2.143

92 SEEA Central Framework 2.144

93 SEEA Central Framework 5.32

94 SEEA Central Framework 5.33

95 SEEA Central Framework 5.15

1	**Mineral and energy resources**
1.1	Oil resources
1.2	Natural gas resources
1.3	Coal and peat resources
1.4	Non-metallic mineral resources (excluding coal and peat resources)
1.5	Metallic mineral resources
2	**Land**
3	**Soil resources**
4	**Timber resources**
4.1	Cultivated timber resources
4.2	Natural timber resources
5	**Aquatic resources**
5.1	Cultivated aquatic resources
5.2	Natural aquatic resources
6	**Other biological resources** (excluding timber resources and aquatic resources)
7	**Water resources**
7.1	Surface water
7.2	Groundwater
7.3	Soil water

G.41. Natural resources are a subset of environmental assets. Natural resources include all natural biological resources (including timber and aquatic resources), mineral and energy resources, soil resources and water resources. All cultivated biological resources and land are excluded from scope.[96]

G.42. Biological resources include timber and aquatic resources and a range of other animal and plant resources such as livestock, orchards, crops and wild animals. Like most environmental assets, they provide physical inputs to economic activity. However, for biological resources, a distinction is made between whether the resources are cultivated or natural, based on the extent to which there is active management over the growth of the resource.[97]

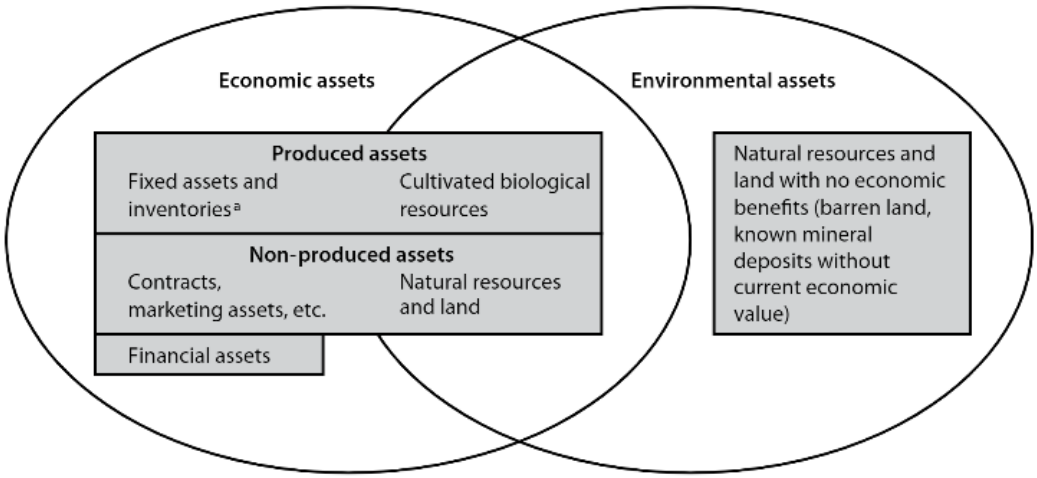
Relationship between environmental and economic assets

G.43. Many environmental assets are also economic assets. In particular, natural resources and land are considered non-produced assets, and cultivated biological resources may be either fixed assets or inventories, depending on their role in production. The figure below displays the relationship between the classes of environmental assets and the high-level asset classes within the SNA. All environmental assets that are classed as cultivated must be recorded as either fixed assets or inventories.[98]

[96] SEEA Central Framework 5.18

[97] SEEA Central Framework 5.24

[98] SEEA Central Framework 5.38



[a] Other than cultivated biological resources.

GFSM 2014

G.44. In broader terms, GFSM 2014 is consistent with 2008 SNA in terms of accounting for natural resources. The only relevant difference between both statistical standards is related to classification.

G.45. GFSM 2014 classifies natural resources as follows:

(a) Land;

(b) Mineral and energy resources;

(c) Other naturally occurring assets;

(i) Noncultivated biological resources

(ii) Water resources

(iii) Other natural resources

a. Radio spectrum

b. Natural resources not elsewhere classified

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