

Meeting: International Public Sector Accounting
Standards Board

Meeting Location: New York, USA

Meeting Date: March 21–25, 2022

Agenda Item 4

For:

☒ Approval

☐ Discussion

☐ Information

NATURAL RESOURCES

Project summary	The objective of the Natural Resources project is to research and address issues relating to the potential recognition and measurement of natural resources.	
Task Force Members	<ul style="list-style-type: none"> • Lindy Bodewig, IPSASB Member (Task Force Chair) • Neema Kiure-Mssusa, IPSASB Member • Renée Pichard, IPSASB Member • Patricia Siqueira Varela, IPSASB Member • Marc Wermuth, Technical Advisor • Hironobu Takahashi, EY Japan 	
Meeting objectives	Topic	Agenda Item
Project management	Natural Resources: Project Roadmap	4.1.1
	Instructions up to Previous Meeting	4.1.2
	Decisions up to Previous Meeting	4.1.3
Decisions required at this meeting	Revision to Chapter 5 of the [Draft] Natural Resources Consultation Paper	4.2.1
	Other Revisions to the [Draft] Natural Resources Consultation Paper	4.2.2
	Approval of the [Draft] Natural Resources Consultation Paper	4.2.3
Other supporting items	[Draft] Natural Resources Consultation Paper	4.3.1

**NATURAL RESOURCES:
PROJECT ROADMAP**

Meeting	Completed Actions or Discussions / Planned Actions or Discussions:
March 2020	1. Approval of Natural Resources project brief
September 2020	1. Phase 1: Development of comprehensive Consultation Paper (CP) covering Subsoil Resources, Living Resources, and Water – Discuss Issues, Develop CP
December 2020	1. Phase 1: Development of comprehensive Consultation Paper (CP) covering Subsoil Resources, Living Resources, and Water – Discuss Issues, Develop CP
March 2021	1. Phase 1: Development of comprehensive Consultation Paper (CP) covering Subsoil Resources, Living Resources, and Water – Discuss Issues, Develop CP
June 2021	1. Phase 1: Development of comprehensive Consultation Paper (CP) covering Subsoil Resources, Living Resources, and Water – Discuss Issues, Develop CP
September 2021	1. Phase 1: Development of comprehensive Consultation Paper (CP) covering Subsoil Resources, Living Resources, and Water – Discuss Issues, Develop CP
December 2021	1. Phase 1: Development of comprehensive Consultation Paper (CP) covering Subsoil Resources, Living Resources, and Water – Discuss Issues, Develop CP
March 2022	1. Approval of Phase 1 CP
September 2022	1. CP comment period (four months ending September 30, 2022)
June 2023	1. Phase 2: Development of Exposure Draft (ED) covering one topic from the comprehensive CP
September 2023	1. Approval of Phase 2 ED
March 2024	1. ED comment period (four months ending January 2024)
September 2024	1. Review of responses to Phase 2 ED
December 2024	1. Approval of Phase 2 Final Standard: Subsoil Resources

INSTRUCTIONS UP TO PREVIOUS MEETING

Meeting	Instruction	Actioned
February 2022	1. Refine Figures 1 and 2 and the accompanying text for clarity and consistency and, where necessary, add cross-references to the related discussions in the CP.	1. Revisions have been incorporated into the draft CP. See Agenda Item 4.3.1 .
February 2022	2. Clarify that the flowchart in chapter 5 and the accompanying text was structured to follow the recognition principles in the IPSASB Conceptual Framework.	2. Revisions have been incorporated into the draft CP. See Agenda Item 4.3.1 .
February 2022	3. Work with Board members and the Task Force to clarify the principles relating to human intervention and control. Ensure that the principles are applied consistently to water and living resources.	3. Revisions have been incorporated into the draft CP. See Agenda Item 4.3.1 .

DECISIONS UP TO PREVIOUS MEETING

Meeting	Decision	BC Reference
December 2021	1. In the general description of natural resources, retain the requirement for a natural resource to be in its natural state and the related concept of human intervention.	1. CP has been updated to reflect this decision.
September 2021	1. Agreed with the proposed clarifications of the analysis of asset recognition and uncertainties over subsoil resources, as well as the changes to the appendices.	1. CP has been updated to reflect this decision.
July 2021	1. Subject to the instructions noted above, agree in principle with the revisions to chapters 1 and 2 of the CP, as well as the proposed structure and content for chapters 3-6.	1. CP has been updated to reflect this decision.
June 2021	1. Preliminary approval for the general description of natural resources, subject to minor wording amendments noted in instructions.	2. Chapter 1 of the CP has been updated to reflect this decision.
June 2021	2. Subject to the instructions noted above, agree that the analysis of the recognition, measurement, and disclosure of natural resources should follow a stepped approach which considers: whether the item meets the description of natural resources; whether the item can be recognized and measured as an asset; and whether information regarding the item should be provided within the broader GPFRs.	3. Chapter 2 of the CP has been updated to reflect this decision.
March 2021	1. Discuss exploration and evaluation expenditures, as well as development and production costs in the CP.	1. Discussion has been added to chapter 2 of the CP.
March 2021	2. Include a preliminary view proposing to provide guidance on cost of related activities subject to any specific IASB plans to revisit its current guidance in IFRS 6 and IFRIC 20.	2. Added to chapter 2 of the CP.
March 2021	3. Unextracted subsoil resources can be a resource as described in the Conceptual Framework.	3. Incorporated into chapter 2 of the CP.
December 2020	1. Subject to the instructions from December 2020, the IPSASB agreed that the example timeline reflected the IPSASB's decision on sovereign powers from September 2020 and should be incorporated into the draft CP.	1. The example timeline has been included in Appendix C of the draft CP.
September 2020	1. The IPSASB decided that a government's sovereign power, in and of itself, does not meet the criteria for recognition as an asset.	1. Analysis has been included in Appendix C of the draft CP.

Agenda Item 4.1.3

Meeting	Decision	BC Reference
September 2020	2. The IPSASB approved the distribution of the subsoil resources legal framework survey to IPSASB members, technical advisors, and other individuals as identified by staff.	2. The findings from the survey have been incorporated into Chapter 2 of the draft CP.
September 2020	3. Subject to instructions provided at the meeting, no major changes were proposed for the overall structure of the draft CP.	3. BC to be included in draft ED.
March 2020	1. Approved Natural Resources – Project Brief and Outline, subject to editorial and drafting changes as noted in instructions to staff. Initial focus should be on scoping, and a broad description can be developed later in the project.	1. BC to be included in draft ED.

Revisions to Chapter 5 of the [Draft] Natural Resources Consultation Paper

Question

1. Does the IPSASB agree with the proposed revisions to the chapter on Living Resources in the [draft] Natural Resources Consultation Paper (CP)?

Recommendation

2. Staff recommends the revisions below be made to the [draft] Natural Resources CP.

Background

3. At the February 2022 IPSASB check-in meeting, the IPSASB instructed staff to work offline with a Board member and the Natural Resources Task Force to clarify the principles relating to human intervention and control, and to ensure that the principles are applied consistently to water and living resources.
4. Staff discussed the concerns over human intervention and control with the Board member and discussed the proposed resolution of these concerns with the Task Force.
5. The following paper summarizes the staff's discussions with the Board member, as well as the proposed revisions to the [draft] CP to address the issues discussed.

Analysis

6. Based on the discussion with the Board member, staff noted the following regarding human intervention and control in the context of living resources:
 - (a) The general principles of human intervention and control are discussed in chapters 1 and 2 of the CP. Chapters 4 and 5 of the CP discusses the application of these principles in the specific context of water and living resources, noting that the determination of whether a resource is subject to human intervention and whether a resource is controlled is a matter of judgment. The Board member did not suggest any changes to these sections of the CP;
 - (b) The discussion in paragraphs 5.31-5.34 and the accompanying Venn diagram repeats much of the same information on human intervention in paragraphs 5.3-5.5 and control in paragraphs 5.25-5.30. Therefore, it was noted that this section on the interaction of control and human intervention is not necessary. In addition, as this section was only presented for living resources, it might lead to the misconception that the human interaction principles for living resources is different from those for subsoil resources and water; and
 - (c) It was also noted that the application of human intervention and control throughout chapter on water follows a principled approach while the rebuttable presumption for control of motile organisms in paragraph 5.30 appears to be more "rules-based".
7. To address the above, the Board member and staff proposed, and the Task Force agreed, on the following revisions:
 - (a) Delete the section on the interaction of control and human intervention and for living resources (paragraphs 5.31-5.34 and the accompanying Venn diagram), as it repeats information presented elsewhere in the CP and might cause confusion for readers;

- (b) Remove the rebuttable presumption on control over motile organisms in paragraph 5.30 and reword the paragraph as follows:

“In general, the control considerations will differ for non-motile organisms such as plants and fungi, when compared to motile organisms such as fish and most animals. This is because motile organisms have the ability for self-locomotion and can roam 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, non-motile organisms are incapable of locomotion, so it would be easier to demonstrate control over such organisms.”

Decision Required

8. Does the IPSASB agree with the staff's recommendation?

Other Revisions to the [Draft] Natural Resources Consultation Paper

Question

1. Does the IPSASB agree with how staff addressed the instructions on the Natural Resources project from the February 2022 IPSASB check-in meeting?

Recommendation

2. Staff recommends the revisions below be included in the [draft] Natural Resources Consultation Paper (CP).

Background

3. At the February 2022 IPSASB check-in meeting, the IPSASB provided staff with a number of instructions, as summarized in Agenda Item [4.1.2](#). Staff revised the [draft] CP, which can be found in Agenda Item [4.3.1](#), to address these instructions.
4. In addition, the CP was amended to refer to the IPSASB's Sustainability Reporting Consultation Paper.
5. The following paper summarizes the revisions to the [draft] CP.

Analysis

Revisions to Address Instructions from February 2022

6. The Task Force and staff revised the [draft] CP to reflect the instructions from the February 2022 IPSASB check-in meeting. As the instructions all related to refinements and clarification of previously agreed-upon principles, none of the revisions resulted in substantive changes to the IPSASB's preliminary views. The version of the [draft] CP in Agenda Item 4.3.1 highlights these revisions in tracked changes.

Revisions to Reflect Linkages with Sustainability Reporting

7. In addition to the above changes, paragraph 1.15 of the [draft] CP was amended to refer to the IPSASB's Sustainability Reporting Consultation Paper. Given the connectivity between Sustainability Reporting and Natural Resources, staff explained that the two consultation papers will be released at the same time.

Decision Required

8. Does the IPSASB agree with the staff's recommendation?

Approval of the [Draft] Natural Resources Consultation Paper

Question

1. Does the IPSASB:
 - (a) Agree with the IPSASB Program and Technical Director's assertion that due process has been followed effectively in developing the [draft] Natural Resources Consultation Paper (CP);
 - (b) Vote to approve the Natural Resources CP; and
 - (c) Agree with the proposed comment period of four months?

Recommendation

2. The Task Force and staff recommend the IPSASB to:
 - (a) Vote to approve the Natural Resources CP; and
 - (b) Agree with the comment period of four months.

Background

3. This Agenda Item deals with the due process for approval of the Natural Resources CP and proposed comment period of four months.

Analysis

Due Process

4. The IPSASB reviewed various sections of the [draft] Natural Resources CP throughout 2020 and 2021, culminating with a page-by-page review of the full CP at the December 2021 IPSASB meeting and another overall review at the February 2022 check-in. These reviews included discussion of various issues, some of which resulted in a number of instructions for the Natural Resources Task Force and staff. The discussions also resulted in the decisions summarized in [Agenda Item 4.1.3](#).
5. Staff also consulted with the IPSASB Consultative Advisory Group (CAG) on a number of issues throughout 2019-2021.
6. The Natural Resources Task Force and staff held regular meetings throughout 2019-2022 to address the instructions from the IPSASB and to consider the advice from the CAG. The discussions at these meetings resulted in the version of the CP in [Agenda Item 4.3.1](#).

Comment Period

7. Staff recommends a comment period of four months, which is typical for a consultation paper.

Decision Required

8. Does the IPSASB agree with the Task Force and staff's recommendation?

[Draft] Natural Resources Consultation Paper

1. Staff has included the revised [draft] Natural Resources Consultation Paper below for the IPSASB's review. Revisions from the version presented at the February 2022 IPSASB check-in meeting are highlighted in tracked changes.

Consultation Paper
[April] 2022

Comments due: [Month Day, 2022]

Natural Resources

IPSASB

International Public
Sector Accounting
Standards Board®

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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.

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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 [Month Day, 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 IPSAS’s Conceptual Framework;
- (b) Is naturally occurring; and
- (c) Is in its natural state.

Do you agree with the IPSASB’s proposed general description of natural resources, 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. To be in its natural state, a natural resource must not have been subjected to human intervention, which modifies the quantity and/or quality of the resource.

Do you foresee any challenges in ~~the~~ applying the general description of natural resources, particular in the application of the delineation between natural resources and items subject to human intervention? If so, please provide details of your concerns. In addition, what type of guidance (e.g., a more thorough discussion of principles or providing detailed examples) do you think would be helpful in overcoming these challenges?

Preliminary View 2—Chapter 2

For items which meet the general description of natural resources, the IPSASB's preliminary view is that the recognition of the natural resource should be considered using the following steps:

- (a) A natural resource should be recognized in the GPFS if it meets the definition of an asset as defined in the IPSASB's Conceptual Framework and is capable of being measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs; ~~Existence uncertainty, which consists of uncertainty over whether a natural resource is a resource as defined in the Conceptual Framework, uncertainty over whether the resource is controlled, and uncertainty over whether control resulted from a past event, may prevent a natural resource from meeting the definition of an asset;~~
- (b) If the natural resource meets the definition of an asset, but cannot be measured reliably, the natural resource should be presented in the GPFS via disclosure; and
- (c) If the natural resource does not meet the definition of an asset, ~~which includes situations where the definition is not met due to existence uncertainty,~~ no recognition nor presentation of the item is required.

Existence uncertainty, which consists of uncertainty over whether a natural resource is a resource as defined in the Conceptual Framework, uncertainty over whether the resource is controlled, and uncertainty over whether control resulted from a past event, may prevent a natural resource from meeting the definition of an asset.:

Do you agree with the IPSASB's proposed approach to the recognition of natural resources?

If not, please provide your reasons.

Preliminary View 3—Chapter 3

The IPSASB's preliminary view is to provide guidance on exploration and evaluation expenditures, as well as development costs, 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 proposed adoption of this guidance?

If not, please provide your reasons.

Preliminary View 4—Chapter 3

The IPSASB preliminarily proposes to supplement IPSAS 12, *Inventories*, (and potentially IPSAS 17, *Property, Plant, and Equipment*, and IPSAS 31, *Intangible Assets*), 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 proposed adoption of the guidance from IFRIC 20?

If not, please provide your reasons.

Preliminary View 5—Chapter 3

The IPSASB's preliminary view is that, before consideration of existence uncertainty, unextracted subsoil resource can meet the definition of an asset because: (1) it is a resource as defined in the Conceptual

Framework; (2) it is possible in certain scenarios for an entity to demonstrate that it has control over the resource; and (3) it is possible for there to be a past event which gave rise to control.

~~In your view~~ Do you agree with the IPSASB's proposed view that, setting aside the issue of existence uncertainty, ~~is it~~ is possible for an unextracted subsoil resource to meet the definition of an asset?

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 resource as: (1) there are uncertainties over whether subsoil resources exist in a given location (i.e., the quantities could be zero); and (2) due to uncertainties over an entity's ability to feasibly access or extract subsoil resources, there could be uncertainties over whether an unextracted item qualifies as a resource under the Conceptual Framework.

Do you agree with the above preliminary view?

Please provide the reasons supporting your view.

Preliminary View 7—Chapter 3

The IPSASB's preliminary view is that the development of a ~~relevant, faithfully representative, and verifiable~~ 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 ~~involves a~~ high level of measurement uncertainty. Based on this view, subsoil resources are too uncertain to be recognized as assets in the GPFS.

Do you agree with the IPSASB's preliminary view that measurement of subsoil resources ~~are~~ is too uncertain for the resources to be recognized as assets?

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 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 ~~reliably~~ measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs;
- (b) Water impounded in reservoirs and canals can meet the definition of an asset if the water is controlled by an entity. Control can be achieved if the volumes of water are actively managed and access to the water by other parties is restricted;
- (c) For water impounded in reservoirs and canals which meet the definition of an asset, it is possible to recognize the water as an asset in the 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. An entity will typically be able to measure the financial capacity of water but will need to exercise judgement to determine if it is feasible to measure the operational capacity of water; 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 2—Chapter 5

In this consultation paper, the discussion on the accounting for ~~items~~ other resources which are subject to human intervention (such as inventory, plant, property, and equipment, and agriculture) is limited because these items are no longer in their natural state and therefore are not considered natural resources. As noted in paragraph 5.12AG1(a), these items are likely to fall within the scope of the existing IPSAS on inventory, property, plant, and equipment, or agriculture.

In your view, ~~would-is~~ additional guidance in IPSAS 12, IPSAS 17, or IPSAS 27 on how to determine which IPSAS to apply for these items necessary? ~~which are already within the scope of existing IPSAS be helpful? If so, what should be the focus of this additional guidance (e.g., elaborating on how to determine which IPSAS to apply or providing more application guidance or examples on the accounting for specific items such as livestock or harvested agricultural produce inventory)?~~

Preliminary View 9—Chapter 5

Based on the discussions in paragraphs 5.20-5.46, the IPSASB's preliminary views are:

- (a) For a living resource with financial capacity, it is possible for the living resource to meet the definition of an asset and be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. For such a living resource, it is possible to meet the criteria to be recognized as an asset in the GPFS;
- (b) For a living resource with operational capacity, if the living resource 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. If so, such a living resource could 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 reliably 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 6.7-6.17, the IPSASB's preliminary view is that the following natural resources-related information should be presented. The following information is conventionally disclosed in the GPFS, but formal decisions on information location and organization have not been made at this stage of the project:

To Provide Information on the Effects of Recognized Natural Resource Assets on an Entity's Financial Position, Financial Performance, and Cash Flows:

- (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 due to changes such as increases or 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 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;
- (d) Information regarding the nature and costs of activities related to natural resources. 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; and
- (e) For recognized natural resource assets and any capitalized costs of related activities, an entity should also consider the applicability of the disclosure requirements in IPSAS 26, *Impairment of Cash-Generating Assets*, or IPSAS 21, *Impairment of Non-Cash-Generating Assets*.

To Provide Information on the Nature of, and Risks and Opportunities Associated with, Recognized Natural Resource Assets:

- (f) Narrative description (e.g., nature or type, location, etc.) of the natural resources that are recognized as assets by the entity;
- (g) Information on the physical quantities of natural resources noted in (a) above and the methodology used to estimate these quantities; and
- (h) The existence and amounts of restrictions on title, legal or similar limits on the use of the natural resource assets due to environmental or other regulatory requirements, and natural resources pledged as securities for liabilities.

The information above can be aggregated and disclosed for each class of natural resource recognized in the financial statements.

To Provide Information on Unrecognized Natural Resources:

- (i) If the existence of an item is certain, but it is not recognized because of a high level of measurement uncertainty, note disclosure of the following would also be helpful to users:
 - (i) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (ii) The significance of the unrecognized natural resource(s) in relation to delivery of the entity's objectives;
- (j) Information regarding the nature and costs of activities related to unrecognized natural resources; and
- (k) 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.

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 6.18-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented for 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. The following information is conventionally presented in the broader GPFRs, but formal decisions on information location and organization have not been made at this stage of the project:

- (a) When natural resources have an impact on an entity's future cash flows, long-term sustainability information on these natural resources prepared in accordance with RPG 1, *Reporting on the Long-Term Sustainability of an Entity's Finances*;
- (b) When natural resources impact an entity's GPFS, a financial statement discussion and analysis prepared in accordance with. RPG 2, *Financial Statement Discussion and Analysis*, to explain the significant items, transactions, and events related to natural resources; and
- (c) When an entity provides services relating to natural resources (e.g., conservation or preservation activities), performance information prepared in accordance with RPG 3, *Reporting Service Performance Information*.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Specific Matter for Comment 3—Chapter 6

The natural resources-related information proposed to be provided in the broader GPFRs in 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 6.19, 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

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Chapter 1: Project Background and Scope

- 1.1. In general usage, the term “natural resources” can cover a wide range of items. They are generally understood to be resources that exist without any actions of humankind, such as sunlight, air, water, land, all minerals, along with all vegetation, and animal life. They can exist as part of our natural heritage or be protected in nature reserves.
- 1.2. Natural resources may be classified in different ways. A natural resource may exist as a separate item such as fresh water, wind (air), as well as any living organism such as a fish, or it may exist in an alternative form that is processed to obtain the resource such as metal ores, rare-earth elements, petroleum, and most forms of energy. Every humanmade produce 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 27, *Agriculture*, and IPSAS 12, *Inventories*, 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. To develop this general description, this CP draws from 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 from 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 Framework¹;
 - (b) Is naturally occurring; and
 - (c) Is in its natural state.
- 1.6. The first attribute of natural resources is that they must be a resource as described in the Conceptual Framework—that is, they are capable of generating economic benefits and/or have

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.

service potential for the reporting entity. Items not falling within this category are outside the scope of this project. For example, natural phenomenon such as seismic activity is unlikely to be a resource as defined in the Conceptual Framework. In addition, 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, *Impairment of Non-Cash-Generating Assets*, or IPSAS 26, *Impairment of Cash-Generating Assets*.

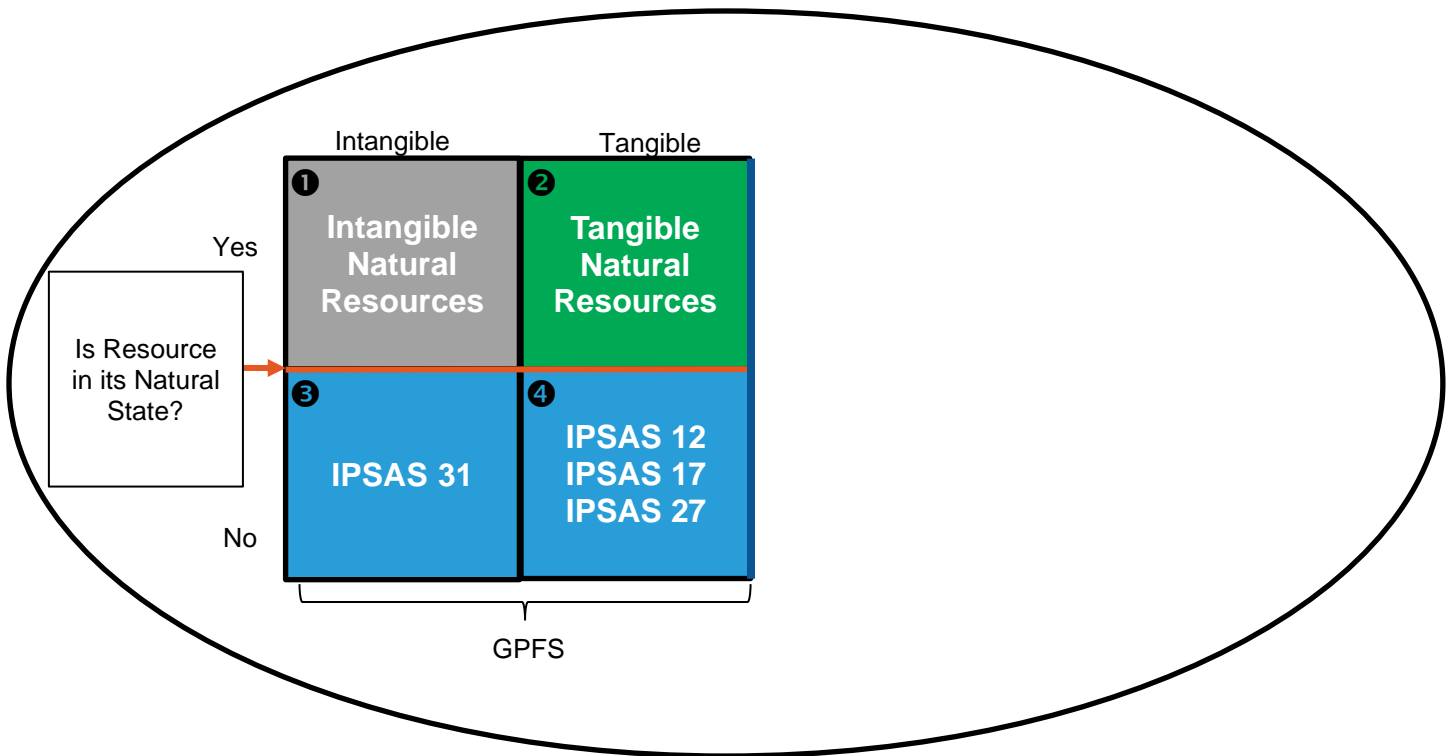
- 1.7. Naturally occurring means that the resource came into existence without the actions of humankind. Subsoil resources, water, and living resources all fall within this category, and the accounting issues associated with them are considered respectively in Chapters 3, 4, and 5.
- 1.8. To be in its natural state, a natural resource must not have been subjected to human intervention, such as mineral extraction and cultivation, which modify the quantity and/or quality of a natural resource. Activities to preserve or conserve natural resources are ~~generally not could be~~ considered human interventions that modify 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 will be provided in another IPSASB pronouncement.³

² Preservation or conservation activities are discussed in more detail in paragraphs 5.5~~5.12-5.15~~ of the CP.

³ It should be noted that although the approved Natural Resources Project Brief made reference to the issuance of a “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 Intervention⁴

- The following figure illustrates the delineation between items in the General Purpose Financial Statements (GPFS) which meet the general description of natural resources from paragraph 1.5 and other resources which are subject to human intervention.
- The outer oval represents all naturally occurring phenomena, including ones which may not meet the definition of a resource from paragraph 5.7 of the Conceptual Framework. The box inside the oval represents phenomena which are potentially 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).
- Box ❶ in the diagram below represents intangible natural resources, such as the electromagnetic spectrum. 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*.
- The focus of this CP is tangible natural resources, which are represented by the green box ❷ below.
- 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 (box ❸), while tangible resources which are not in their natural state are likely to be within the scope of IPSAS 12, *Inventories*, IPSAS 17, *Property, Plant, and Equipment*, and/or IPSAS 27, *Agriculture* (box ❹). The accounting for land also falls within the scope of IPSAS 17.



⁴ For a detailed step-by-step build-up of the diagram, please refer to the supplemental information at [\[insert weblink\]](#).

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 proposed general description of natural resources, 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. To be in its natural state, a natural resource must not have been subjected to human intervention, which modifies the quantity and/or quality of the resource.

Do you foresee any challenges in ~~the~~ applying the general description of natural resources, particular in the application of the delineation between natural resources and items subject to human intervention? If so, please provide details of your concerns. In addition, what type of guidance (e.g., a more thorough discussion of ~~the~~ principles or ~~providing~~ detailed examples of human intervention) do you think would be helpful in overcoming these challenges?

Project Scope

- 1.10. As noted in Figure 1, this first phase of the IPSASB's work on natural resources focuses on the financial reporting for tangible, naturally occurring resources, including subsoil resources, water, and living resources, which are in natural state.
- 1.11. Other resources such as air or the electromagnetic spectrum may generally be considered as natural resources. However, the issues previously raised by constituents relate to the right to access these resources. 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](#).
- 1.12. Unlike subsoil resources, water, and living resources, the access and use of air and the electromagnetic spectrum therefore does not relate to a tangible item. As a result, and as noted in Figure 1, the accounting for the right to access these resources may be more in line with the scope of IPSAS 31, *Intangible Assets*. Further guidance on intangible assets will be considered by the IPSASB at a later date.⁵
- 1.13. 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 IPSAS.

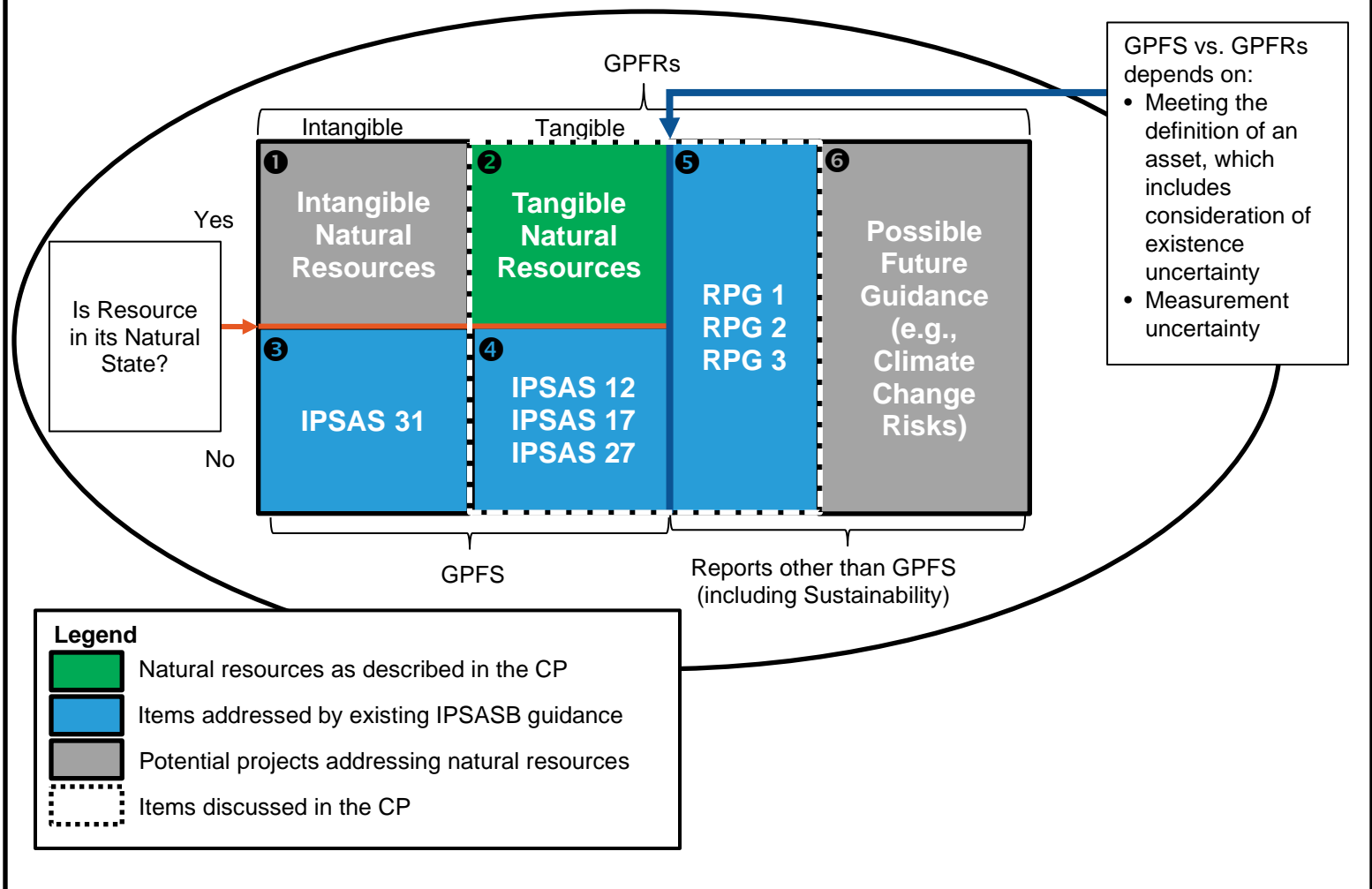
⁵ The IPSASB has proposed in its Mid-Period Work Program Consultation to initiate a limited-scope project to update IPSAS 31, and this update may touch on intangible natural resources. The time frame for the project will be determined at a future date if the project receives sufficient support from constituents.

- 1.14. 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 general purpose financial reports (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 space:
- Recommended Practice Guidelines (RPG) exist in the Handbook of International Public Sector Accounting Pronouncements and provide relevant nonauthoritative guidance on reporting on the long-term financial sustainability of public sector entities and service performance reporting; 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.
- 1.15. [Beyond the guidance the IPSASB has developed, the urgency surrounding sustainability reporting in the public sector, evidenced by the growing demands from all levels of stakeholders, has led the IPSASB to develop a Consultation Paper that considers approaches to, and growing support for, developing public sector sustainability standards. Given the connectivity between the projects, the Sustainability Reporting Consultation Paper \[\\[LINK\\]\]\(#\) has been released in conjunction with this Natural Resource document.](#)
- 1.16. The following discussion depicts the build-up of the project's scope, which is visually summarized in Figure 26 below:

Figure 2: Visual Representation of the Scope of the Natural Resources CP⁴

- Building on Figure 1, in addition to the items within the GPFS, some natural resources may not meet the criteria to be recognized as assets but could be relevant to the broader GPFRs:
 - i. The IPSASB's existing Recommended Practice Guidelines (RPG) may be applicable to both recognized and unrecognized natural resources which are relevant to an entity's long-term financial sustainability, financial statement discussion and analysis, and service performance reporting. These items are represented in box 5 below.
 - ii. In addition to the existing RPGs, the IPSASB may consider providing additional guidance in the future on broader GPFRs which relate to natural resources, such as potential reporting on sustainability and reporting on issues such as climate change risks. These items are represented in box 6 below.
- The items which are discussed in the CP are housed within the white dashed box in the middle of the diagram:
 - i. The delineation between items in the GPFS and GPFRs are depicted by the vertical blue line below. The recognition of assets in the GPFS is discussed in Chapter 2 of the CP.
 - ii. As noted in Figure 1, the main focus of the CP is tangible natural resources (box 2 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 4 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 5 below). Although the RPGs can be relevant for both recognized and unrecognized natural resources, 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.



Structure of the Remaining Sections of this Consultation Paper

- 1.17. For items falling within the IPSASB's description of natural resources, chapter 2 of this CP considers the IPSASB's Conceptual Framework principles for recognizing items in general purpose financial statements (GPFS). Chapter 2 covers the following topics in detail:
 - (a) The asset recognition criteria from the Conceptual Framework;
 - (b) The definition of an asset;
 - (c) Existence uncertainty;
 - (d) Whether a resource is capable of being measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs;
 - (e) Measurement uncertainty; and
 - (f) General measurement principles.
- 1.18. Chapters 3-5 of this CP address how these general principles can be applied to the natural resources which are within the scope of this CP, that is, subsoil resources, water, and living resources. These chapters discuss:
 - (a) Consideration of 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) Consideration of whether there should be some form of disclosure for natural resource items not recognized.
- 1.19. 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

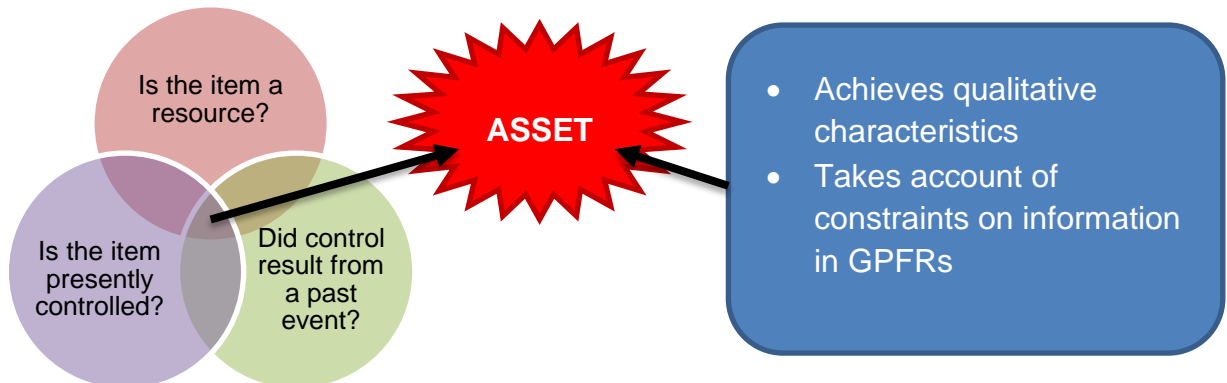
- 2.1. The core accounting question in this CP is whether a natural resource which meets the description in chapter 1 can be recognized as an asset in the GPFS prepared under IPSAS. The IPSASB's Conceptual Framework provides the principles to be used in developing IPSAS, including principles on asset recognition and measurement. Therefore, before applying the principles to specific issues on subsoil resources, water, and living resources, it is important to discuss these general principles.
- 2.2. For an entity to recognize a natural resource as an asset in the financial statements, the natural resource must meet the recognition criteria in 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."

Recognition Criteria

To be Recognized as an Asset, an Item Must:

1) Meet the definition of an asset:

2) Be Measurable in a way that...



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 whether a natural resource can meet the definition of an asset, which is set out in paragraph 5.6 of the Conceptual Framework. That is, to be recognized as an asset, the natural resource must be a **resource** presently **controlled** by the entity as the result of a **past event**.

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 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).

Presently Controlled by the Entity

- 2.5. For a resource to be recognized as an asset by an entity 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.⁶
- 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. The detailed consideration of control over subsoil resources, water, and living resources are explored in chapters 3-5 of this CP.

Past Event

- 2.8. 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.⁷ Other examples of past events could include obtaining control via treaty or inheritance.
- 2.9. Natural resources are resources which have not yet been subjected to human intervention, which is a separate and distinct concept from obtaining control over a resource. It is possible for an entity to gain control of a natural resource through methods that do not involve changing the quantity and/or quality of the resource. The analysis in chapters 3-5 considers the resource-specific issues regarding past events.

⁶ Conceptual Framework, paragraph 5.11.

⁷ Conceptual Framework, paragraph 5.13.

Application of the Definition of an Asset to Natural Resources

- 2.10. Since the general description of natural resources already addresses if the item 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 is whether the reporting entity presently controls the resource and whether control arose as the result of a past event.
- 2.11. 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.
- 2.12. 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 or disclosed in the GPFSs.

Existence Uncertainty and Asset Recognition

- 2.13. 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.
- 2.14. Uncertainty over the *existence* of an element is addressed by considering all available evidence, facts, and circumstances at reporting date to make a neutral judgement about whether an item satisfies all the essential characteristics of an element.⁸
- 2.15. 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 an assessment of all available evidence in determining whether an element exists and takes account of uncertainty about the flows of service potential or the ability to generate economic benefits is a more appropriate approach.⁹
- 2.16. Taken together, the concepts from paragraphs 2.14 and 2.15 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.
- 2.17. If an entity concludes that there is sufficient uncertainty to call into question if 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.
- 2.18. 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 is capable of being measured in a way that achieves the qualitative characteristics and take accounts of constraints on information in the GPFRs.
- 2.19. In the remainder of this CP, the term “existence uncertainty” is used to describe uncertainty over whether an asset exists—that is, uncertainty over whether a resource presently exists, uncertainty

⁸ Conceptual Framework paragraphs 6.5 and BC6.2.

⁹ Conceptual Framework, paragraphs BC6.3-BC6.7.

whether an entity controls the resource, and uncertainty whether there is a past event which resulted in control.

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

- 2.20. The second recognition criterion is that for an item to be recognized as an element, it is necessary to be able to attach a monetary value to that item. The measurement of this monetary value needs to achieve the qualitative characteristics of information, as set out in chapter 3 of the Conceptual Framework, which are **relevance**, **faithful representation**, **understandability**, **timeliness**, **comparability**, and **verifiability**. The basis of measurement should also consider the constraints on information in the GPFRs, which include materiality, cost-benefit considerations, and achieving an appropriate balance between the qualitative characteristics.¹⁰
- 2.21. The following discussion summarizes the qualitative characteristics of information which are expected to have the most impact on natural resources and briefly explains how these characteristics may be applicable. The information is drawn from the Conceptual Framework and Exposure Draft 76, *Conceptual Framework Update: Chapter 7, Measurement of Assets and Liabilities in Financial Statements* (ED 76).

Relevance

- 2.22. 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, objectives and costs, and the amount and sources of the resources that are intended to be allocated to providing these future services.¹¹
- 2.23. 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.¹²
- 2.24. As what is considered relevant for each type of in-scope resource differs significantly, the detailed consideration of measurement for subsoil resources, water, and living resources is addressed in detail in chapters 3-5.

Faithful Representation

- 2.25. Faithful representation refers to being representative of the economic and other phenomenon in a complete and neutral manner that is free from material error. Information that faithfully represents an economic or other phenomenon depicts the substance of the underlying transaction, other event, activity, or circumstance.¹³

¹⁰ Conceptual Framework, paragraphs 3.6-3.42.

¹¹ 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."

¹² ED 76, paragraph 7.3.

¹³ Conceptual Framework, paragraph 3.10.

- 2.26. For the measurement basis of a natural resource to faithfully representative of the underlying economic and other phenomenon, the basis will need to reflect the quantity of the resource, as well as the quality of the resource.

Verifiability

- 2.27. For a measurement basis to be verifiable, different knowledgeable and independent observers could reach general consensus (although not complete agreement) that the measurement represents the economic and other phenomena that it purports to represent without material error or bias or that an appropriate measurement method has been applied without material error or bias.¹⁴
- 2.28. 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 vastly 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

- 2.29. 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.)
- 2.30. An entity should also consider if the measurement of a natural resource will lead to material information. Information is material if its omission or misstatement could influence the discharge of accountability by the entity or the decision that users make based on the entity's GPFRs.¹⁵
- 2.31. Finally, an entity will need to consider the cost of obtaining the information necessary to develop 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.¹⁶ 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

- 2.32. Regarding measurement uncertainty (i.e., the uncertainty over the *amount* of service potential or economic benefits represented by the element), the Conceptual Framework states that such uncertainty is 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 technique-basis can be used to appropriately reflect the uncertainty inherent within the information available at reporting date.

¹⁴ Conceptual Framework, paragraph 3.26.

¹⁵ Conceptual Framework, paragraph 3.32.

¹⁶ Conceptual Framework, paragraph 3.39.

- 2.33. Even if there is no existence uncertainty, an item is not recognized if the level of measurement uncertainty in a single point estimate is so large that the ~~relevance and faithful representativeness of the measure's ability to achieve the qualitative characteristics and take account of constraints on information in the GPFRs~~ becomes questionable.¹⁷ In such situations, the IPSASB is considering disclosures 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.
- 2.34. If an entity concludes that the level of measurement uncertainty is sufficiently low so that the recognition and measurement of the natural resource does not become questionable, the item should be measured in accordance with the measurement principles in chapter 7 of the Conceptual Framework. [Reference to Conceptual Framework to be replaced with ED 76, *Conceptual Framework Update: Chapter 7, Measurement of Assets and Liabilities in Financial Statements*, as well as the guidance in ED 77, *Measurement*, depending on the timing of finalization.]

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, the final step in the recognition and measurement of an asset is to select appropriate bases of measurement for initial and subsequent measurement.
- 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.¹⁸
- 2.37. In terms of the selection of measurement basis for a natural resource, this CP will draw upon ED 76, *Conceptual Framework Update: Chapter 7, Measurement of Assets and Liabilities in the 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:¹⁹
- (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

¹⁷ Conceptual Framework paragraphs 6.6 and 6.8.

¹⁸ 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>.

¹⁹ ED 76, paragraphs 7.25, 7.36, and 7.48. The final principles are subject to change depending on the outcome of the Measurement project.

- (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 2.8, 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 information that is relevant to the asset's costs of services, operational capacity, or financial capacity. 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.~~amount of resources consumed in the provision of services.~~ 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 ~~the its acquisition of the asset.~~
- 2.40. For natural resources with operational capacity, a current operational value is typically the most appropriate measurement basis. This is because a current operational value 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.

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

For items which meet the general description of natural resources, the IPSASB's preliminary view is that the recognition of the natural resource should be considered using the following steps:

- (a) A natural resource should be recognized in the GPFS if it meets the definition of an asset as defined in the IPSASB's Conceptual Framework and is capable of being measured in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs; ~~Existence uncertainty, which consists of uncertainty over whether a natural resource is a resource as defined in the Conceptual Framework, uncertainty over whether the resource is controlled, and uncertainty over whether control resulted from a past event, may prevent a natural resource from meeting the definition of an asset;~~
- (b) If the natural resource meets the definition of an asset, but cannot be measured reliably, the natural resource should be presented in the GPFS via disclosure; and
- (c) If the natural resource does not meet the definition of an asset, ~~which includes situations where the definition is not met due to existence uncertainty,~~ no recognition nor presentation of the item is required.

Existence uncertainty, which consists of uncertainty over whether a natural resource is a resource as defined in the Conceptual Framework, uncertainty over whether the resource is controlled, and uncertainty over whether control resulted from a past event, may prevent a natural resource from meeting the definition of an asset.:

Do you agree with the IPSASB's proposed approach to the recognition of natural resources?

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, the 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*.²⁰ It should be noted that 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, but there is specific guidance on this topic in IFRS 6, *Exploration for and Evaluation of Mineral Resources*.
- 3.6. Under IFRS 6, entities have an accounting policy choice to capitalize or expense exploration and evaluation expenditures as an exploration and evaluation asset.
- 3.7. 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.²¹ It should be noted that IPSAS 31 is drawn primarily from IAS 38, so the guidance on development costs is already in current IPSAS.

²⁰ 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*.

²¹ IFRS 6, paragraph 10.

- 3.8. In recent outreach performed by the IASB, constituents in the private sector generally agreed that IFRS 6 resulted in information that was useful to both preparers and users of IFRS financial statements. Based on 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.²² 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. In addition, maintaining alignment with IFRS is one of the key themes of the IPSASB's strategic objective, so alignment with the above guidance would be consistent with the IPSASB's previous strategic decisions.
- 3.9. Based on the above, the IPSASB reached the following preliminary view:

Preliminary View 3—Chapter 3

The IPSASB's preliminary view is to provide guidance on exploration and evaluation expenditures, as well as development costs, 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 adoption of this guidance?

If not, please provide your reasons.

Costs of Extraction

- 3.10. The costs of extracting subsoil resources are considered part of the costs incurred in bringing the subsoil resources to its present location. Similarly, the costs to process and refine subsoil resources into inventory are considered part of the costs in bringing the items to their present condition. As a result, extraction and processing costs are recognized as the cost of inventory under IPSAS 12, *Inventories*.
- 3.11. 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. Because the removal of materials results in both improved access to reserves and inventory, there is support to account for the costs of removal activities as either plant, property, and equipment, and/or inventory.
- 3.12. 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. The stripping activity asset is classified as a tangible or intangible asset depending on the classification of the overall mineral interest asset.
- 3.13. As noted in paragraph 3.10, IPSAS 12 already has guidance on the cost of the extraction and processing of subsoil resources. However, IPSAS 12, IPSAS 17, *Property, Plant, and Equipment*, and IPSAS 31 currently do not have guidance on the treatment of stripping activity costs, and the IPSASB noted that there is no public sector-specific reason to depart from the private sector with respect to accounting for these activities. As a result, the IPSASB formulated the following preliminary view:

²² <https://www.ifrs.org/content/dam/ifrs/project/extractive-activities/inbrief-extractiveactivities-jan2022.pdf>

Preliminary View 4—Chapter 3

The IPSASB preliminarily proposes to supplement IPSAS 12, *Inventories*, (and potentially IPSAS 17, *Property, Plant, and Equipment*, and IPSAS 31, *Intangible Assets*), 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 proposed adoption of the guidance from IFRIC 20?

If not, please provide your reasons.

Application of the Asset Recognition Criteria to Subsoil Resources

- 3.14. Applying the general principles set out in chapter 2 of the CP, for a subsoil resource to be recognized as an asset under IPSAS, the item must:
- (a) Satisfy the definition of an asset (i.e., a resource that is presently controlled by the entity as the result of a past event); **and**
 - (b) Be measurable in a way that achieves qualitative characteristics and takes account of constraints on information in the GPFRs.
- 3.15. As noted in paragraphs 2.13-2.18, the Conceptual Framework requires the consideration of any issues with existence uncertainty that could impact the assessment of whether the definition of an asset has been met. The analysis below will first consider if a subsoil resource can be a resource that is controlled by an entity as the result of a past event, then whether existence uncertainty impacts if a subsoil resource can meet the definition of an asset, then finally whether a subsoil resource can be reliably measured. This approach is consistent with the discussion in Chapter 6: Recognition in the Financial Statements in the Conceptual Framework and will better isolate the reason(s) why a subsoil resource can or cannot be recognized as an asset.
- 3.16. Subsoil resources generally can generate economic benefits through sale or have service potential to perform a variety of activities. Therefore, if existence uncertainty were to be considered separately, subsoil resources can generally meet the definition of a resource.
- 3.17. Keeping the above process in mind, the key considerations regarding the recognition and measurement of subsoil resources are as follows:
- (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?
- 3.18. The following analysis considers each of these questions to arrive at a PV regarding the recognition of subsoil resources as assets under IPSAS.

Consideration of control

- 3.19. 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. While consideration of the above factors is more extensive than a strict legalistic analysis, most of the indicators are directly impacted by

the legal environment in a jurisdiction. For example, ownership and the existence of enforceable rights are directly impacted a jurisdiction's laws and regulations. Certain laws and regulations, such as a jurisdiction's licensing framework, may also grant access or deter unauthorized access to a resource.

- 3.20. 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 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 Impacted 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.
- 3.21. 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.
- 3.22. 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.

- 3.23. 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.
- 3.24. 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.
- 3.25. 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, in one response to the survey, it was noted that the jurisdiction's constitution and land-related legislation assert that the government is 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.
- 3.26. 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 is largely dependent 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

- 3.27. For an item to meet the definition of an asset, there must have been a past event which conferred control of the item to the reporting entity. Paragraph 5.13 of the Conceptual Framework states:
- “Entities can obtain assets by purchasing them in an exchange transaction or developing them. Assets may also arise through non-exchange transactions, including through the exercising of sovereign powers... An asset arises when the power is exercised, and the rights exist to receive resources.”
- 3.28. Applying the above principle and the discussion of control from paragraphs 3.19-3.26 to subsoil resources, in jurisdictions where the laws and regulations confer control of subsoil resources to a public sector entity, the exercise of sovereign powers²³ to establish the laws and regulations could result in a past event which results in control over the resources.
- 3.29. 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

²³ 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.

subsoil resources within the land. The government also enacts legislation allowing the expropriation of land from its citizens in exchange for market consideration then subsequently carries out an expropriation. In this case, the 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.

3.30. In other cases, the existence of a past event is less clear. For example:

In Country A, the 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 Country A, are owned by the state;
- (b) Landowners have the rights to the surface area of the land but no rights to the underground resources;
- (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 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 the amendment of the constitution was the past event which conferred control of the subsoil resources in Country A to the state. In practice, such an extreme example would be rare, as it would usually be difficult for a government to enact legislation which lets it unilaterally seize land for little to no consideration. Furthermore, most jurisdictions are likely to already have established laws and regulations over land ownership and subsoil resources.

3.31. Based on the discussion in paragraphs 3.14-3.30, 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, unextracted subsoil resource can meet the definition of an asset because: (1) it is a resource as defined in the Conceptual Framework; (2) it is possible in certain scenarios for an entity to demonstrate that it has control over the resource; and (3) it is possible for there to be a past event which gave rise to control.

~~In your view~~ Do you agree with the IPSASB's proposed view that, setting aside the issue of existence uncertainty, ~~is it~~ is possible for an unextracted subsoil resource to meet the definition of an asset?

Please provide the reasons supporting your view.

Consideration of existence uncertainty

3.32. As noted in paragraphs 2.13-2.19, 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 are often underground and cannot be observed by conventional means.

- 3.33. 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 of subsoil resources in a given location. Uncertainty over the quantities of a resource can impact both measurement uncertainty (see paragraph 3.39) and existence uncertainty because until some level of exploration and testing has been done, there is uncertainty over whether there are any subsoil resources in the area. (i.e., the quantities of a subsoil resource could be zero.)
- 3.34. 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.
- 3.35. 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. This uncertainty becomes more evident when considering whether subsoil resources are capable of being measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs.

Preliminary View 6—Chapter 3

The IPSASB's preliminary view is that existence uncertainty can prevent the recognition of unextracted subsoil resource as: (1) there are uncertainties over whether subsoil resources exist in a given location (i.e., the quantities could be zero); and (2) due to uncertainties over an entity's ability to feasibly access or extract subsoil resources, there could be uncertainties over whether an unextracted item qualifies as a resource under the Conceptual Framework.

Do you agree with the above preliminary view?

Please provide the reasons supporting your view.

~~Capable of Being Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFRs~~ Consideration of measurement uncertainty

- 3.36. 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 2.20-2.31, for a subsoil resource to be recognized as an asset in the financial statements, it is necessary to attach a monetary value to the subsoil resource which achieves the qualitative characteristics while considering the constraints on information.
- 3.37. For the measurement of subsoil resources, the qualitative characteristics which are the most applicable are relevance, faithful representation, and verifiability.
- 3.38. 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,”²⁴ and would most readily reflect the asset’s ability to generate economic benefits through sale.

- 3.39. However, ~~to isolate the for such a~~ current value ~~to faithfully represent the economics~~ of subsoil resources, the value of the product being sold should 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, taking into account whether it is physically feasible to extract the resources;
 - (b) The estimated price at which extracted resources can be sold or utilized, which is impacted by macroeconomic factors such as the estimated market price of the resource, as well as entity-specific factors such the estimated timing of when resources are extracted, as well as the grade of the extracted resources; and
 - (c) Removing the margin. The estimated costs of extraction costs, processing costs, and if applicable depending on the legal requirement in the jurisdiction, restoration costs from the estimated selling price.
- 3.40. The above factors, particularly the quantities of unextracted subsoil resources, are all subjected 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.
- 3.41. In the private sector, while the underlying subsoil resources are not recognized, a number of internationally accepted estimation approaches are used to estimate the quantities of unextracted resources. These estimation approaches are used primarily for investment and resource allocation decision-making purposes and also impact financial reporting as an input into the amortization of capitalized costs of exploration, evaluation, development and production activities (see paragraphs 3.5-3.8) and other subsoil resources-related capital assets.
- 3.42. 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 data can result in materially different estimates based on interpretation by different specialists. 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.
- 3.43. Applying this line of thinking to the measurement of unextracted subsoil resources, it may be difficult for an entity to develop an estimate of resources that can faithfully represent the quantities that may exist.

²⁴ ED 76, paragraph 7.36.

- 3.44. Furthermore, as resource and reserve estimates from geological models can materially change due to different assumptions and interpretations of data, it may also be difficult for an entity to develop a measurement basis which is verifiable.
- 3.45. 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.

Comparison of the above view with other accounting frameworks

- 3.46. 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.²⁵
- 3.47. 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 resource cannot be recognized. The South African Accounting Standards Board concluded that an entity is unlikely to conclude that it controls subsoil resources, and more importantly for this discussion, that an entity is unlikely to be able to reliably measure the quantity and value of these resources due to the uncertainty from geological estimates.²⁶
- 3.48. 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 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.²⁷ 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 ~~May 2021~~ March 2022 ~~(to be updated when finalizing the CP)~~, the board has not yet revisited the statement or technical bulletin.

Overall conclusion regarding recognition of subsoil resources

- 3.49. Consistent with the private sector, the IPSASB noted that it would be difficult to conclude that both existence uncertainty and measurement uncertainty are sufficiently low to recognize subsoil resources as assets in the GPFS.

²⁵ IASB Discussion Paper DP/2010/1, *Extractive Activities*, paragraph 4.83.

²⁶ GRAP 110.BC15-BC16.

²⁷ SFFAS 38, paragraphs A36 and A38.

Measurement and Potential Disclosures

- 3.50. As noted in paragraph 3.49, the IPSASB highlighted that it would be very challenging to recognize subsoil resources due to the high levels of existence and measurement uncertainty. Therefore, there is no need to consider measurement of the subsoil resource within the financial statements.
- 3.51. Despite not being recognized as an asset in the financial statements, 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 prepared using RPG 1, *Reporting on the Long-Term Sustainability of an Entity's Finances*. The detailed consideration of presentation by disclosure within the GPFRs is explored in chapter 6 of this CP.

Preliminary View 7—Chapter 3

The IPSASB's preliminary view is that the development of a ~~relevant, faithfully representative, and verifiable~~ 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 involves a high level of measurement uncertainty. Based on this view, subsoil resources are too uncertain to be recognized as assets in the GPFS.

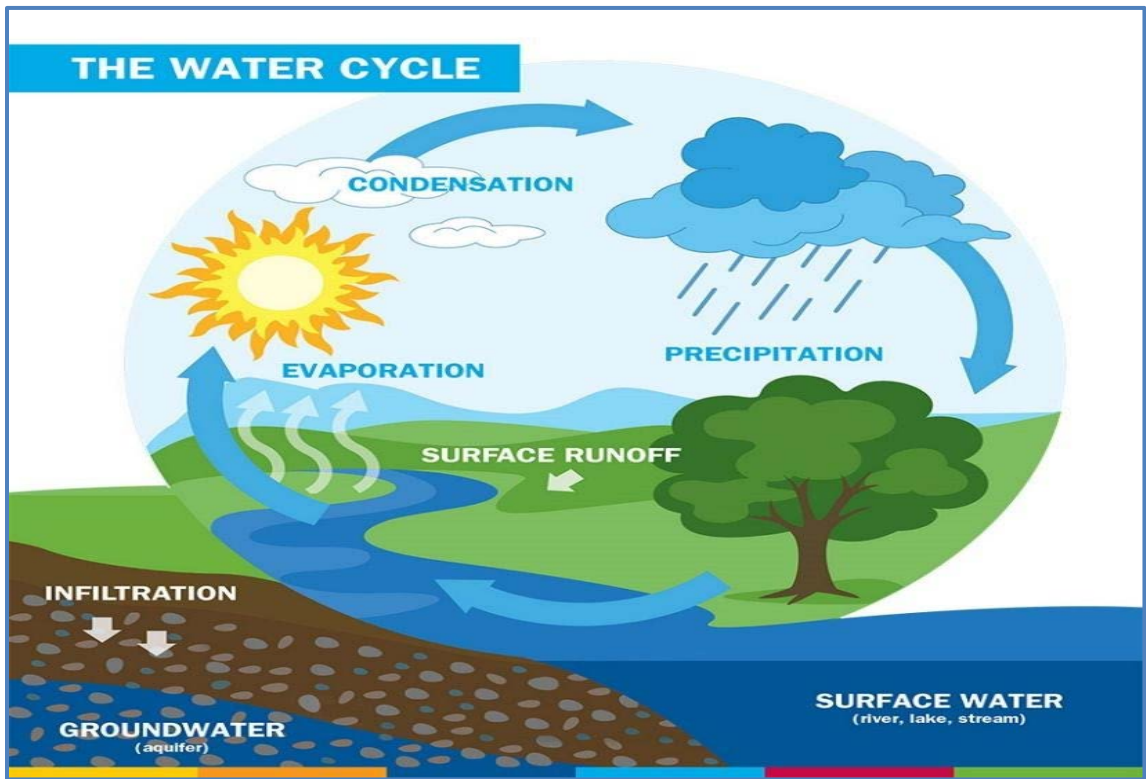
Do you agree with the IPSASB's preliminary view that the measurement of subsoil resources ~~is are~~ too uncertain for the resources to be recognized as assets?

If not, please provide the reasons supporting your view.

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 comprise of surface water in seas, rivers, streams, lakes, groundwater aquifers and water impounded²⁸ 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., rain and snow. Precipitation accumulates in seas, rivers, streams, lakes, and infiltrates into the ground. The diagram below illustrates the natural water cycle.²⁹



- 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. When human-made structures are used to impound water in reservoirs and canals, to erect artificial lakes, or to straighten, divert or reinforce riverbanks, the water in reservoirs and canals, water in the artificial lakes and water in the straightened riverbanks

²⁸ The term “impounded” is commonly used in the water management industry to refer to holding or confining water in a reservoir or similar structure.

²⁹ Source: <https://www.teachengineering.org>.

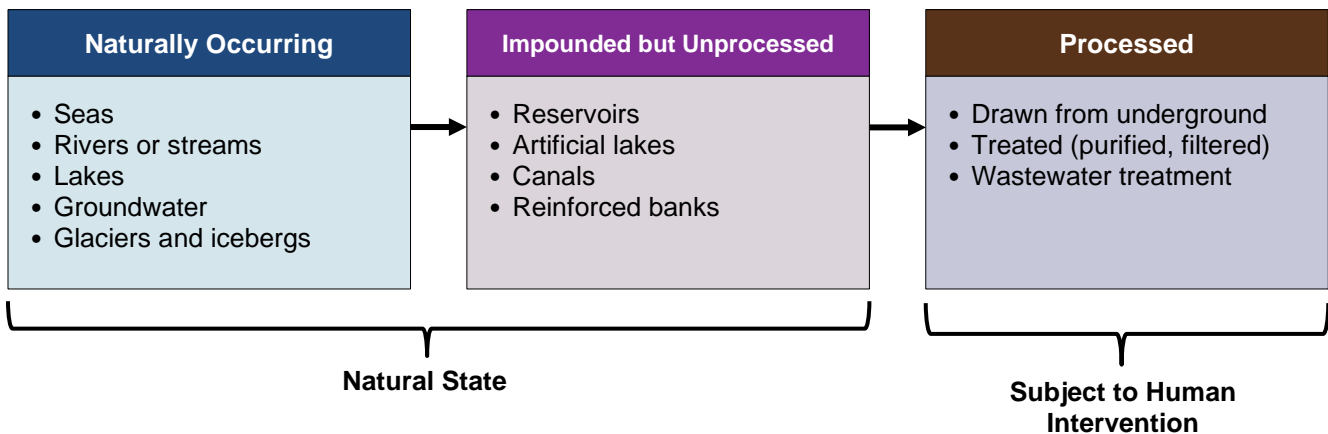
is still in its natural state because the human action neither stops nor changes the water's natural cycle.

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

4.6. Water resources that have been processed are no longer in the scope of this chapter. Instead, an entity considers whether the principles in IPSAS 12, *Inventories* could be applied to account for these processed resources. This is because the processed water may meet the definition of inventory, as these resources are materials or work in progress to be consumed in the production process or finished goods (products) to be sold. In addition, the entity that processes the water is likely to store it in controlled areas such as in pipelines and in other humanmade structures such as closed reservoirs and tanks.³⁰

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



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 treatment of

³⁰ 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.

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 their natural state are not in the scope of this chapter 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 its natural state in rivers and dams is maintained or treated. Costs incurred to treat water in its natural state will likely be expensed as the entity may not control the water in its natural state (see paragraphs 4.16-4.19 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.³¹ ;
 - (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, *Property, Plant, and Equipment*³²; 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, *Intangible Assets*. 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 in terms of IPSAS 9, *Revenue from Exchange Transactions*.³³

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 the GPFS prepared under IPSAS. For water in its natural state to be recognized as an asset, it must:
- (a) Satisfy the definition of an element, in this case an asset; **and**
 - (b) Be measurable in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFs.
- 4.12. As noted in paragraphs 2.13-2.18, the Conceptual Framework requires the consideration of whether existence uncertainty impacts an item's ability to meet the definition of an asset. Similar to the chapter on subsoil resources, the analysis below will:
- (a) First, consider if an entity can control water in its natural state as the result of a past event,

³¹ 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.

³² 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>.

³³ 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>

- (b) Secondly, consider whether existence uncertainty impacts if water in its natural state can meet the definition of an asset, then
- (c) Finally, consider whether water in its natural state can be reliably measured.

This three-stepped approach will better isolate the reason(s) why water in its natural state can or cannot be recognized as an asset.

- 4.13. Water in its natural state can generally generate economic benefits in a variety of ways. For ~~example, because 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 and canals 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 fish, marine mammals such as dolphins and whales, and plants such as kelp and algae. Therefore, if existence uncertainty were to be considered separately, water in its natural state can generally meet the definition of a resource.
- 4.14. Keeping the above points in mind, the key considerations regarding the recognition and measurement of water in its natural state are as follows:
 - (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?
- 4.15. The following analysis considers each of these questions to arrive at a PV regarding the recognition of water in its natural state as assets under IPSAS.

Consideration of control

- 4.16. As discussed in paragraphs 2.5-2.6 an entity obtains control over an asset through:
 - (a) Legal ownership;
 - (b) Access to the resource, or the ability to deny or restrict others to access the resource;
 - (c) The means to ensure that the resource is used to achieve its objectives; or
 - (d) The existence of enforceable right to service potential or the ability to generate economic benefits arising from the resource.

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

- 4.17. 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 similar issues on control and other considerations of whether an item can be recognized as an asset as subsoil resources. ~~This Control and recognition of groundwater~~ is further discussed in paragraph 4.23-4.24.

4.18. 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 the capacity of volumes or specific quantities of water it holds. 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 or cross 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 through physical access or through legislation or other legal mechanisms which grants legal access to an entity while prohibiting access by other parties.

4.19. 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

4.20. 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 note in paragraph 4.17, 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.

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

- (a) Legislation, government policy or similar which allows an entity to erect humanmade structures to impound water in reservoirs and canals and then actively manage the volumes in dams and canals;
- (b) Non-exchange transaction or where a reservoir or canal is received at no or for a 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

4.22. As noted in paragraphs 2.13-2.19, in the context of asset recognition, the consideration of existence uncertainty involves assessing potential uncertainties over: 1) whether an item is a resource that presently exists; 2) whether an entity controls the resource; and 3) whether a past event conferring control exists.

4.23. 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 also~~ cannot be easily observed and/or accessed. In line with the discussion in paragraphs 3.32-3.35 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, ~~and/or whether it can be reliably measured.~~ In such cases, All of 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.

4.23-4.24. In some jurisdictions, government entities are currently working on ways to locate and measure the volume of groundwater. In theory, 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, based on the currently available quantification methodologies and techniques, the development of a reasonable measurement basis to support the recognition of underground groundwater as an asset is not yet 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 6.15 should be considered.

4.24-4.25. Conversely, the issue of existence uncertainty is somewhat minimal for 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

4.25-4.26. Based on the discussion in paragraphs 4.11-4.25, it is unlikely that water in seas, rivers, streams, lakes and groundwater aquifers could meet the definition of an asset. However, based on the above discussion, 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.

~~*Capable of Being Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFs*~~
Consideration of measurement uncertainty

4.26-4.27. 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 2.20-2.31, for water in its natural state to be recognized as an asset in the financial statements, it is necessary to attach a monetary value to the water in its natural state which achieves the qualitative characteristics while considering the constraints on information.

4.27-4.28. 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 4.23.

4.28-4.29. Some entities may hold water in reservoirs and canals, which meets the definition of an asset, for sale. In these situations, it may be possible to measure the financial capacity of the water based on its expected selling price.

4.29-4.30. In other situations where water is not intended to be sold, the determination of an appropriate measurement basis could be difficult or not feasible. For example, if an entity holds water in a reservoir for power generation, the entity will need to determine if there is an appropriate method of measuring the water's standalone operational capacity separately from the value of using the water together with the power generation plant. It may be difficult to establish that the water in these situations is a standalone asset with its own operational capacity since any measure of the water's value will be intertwined with its use in the power generation plant.

4.30-4.31. Based on the above, while the measurement of water which has financial capacity appears to be possible, the measurement of water which has operational capacity may be more difficult or not feasible. As a result, rather than coming to a categorical conclusion on whether all water is measurable, an entity will need to analyze the specific facts and circumstance for each water resource that is being considered for recognition.

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

4.31-4.32. Based on the discussion in paragraphs 4.11-4.31, the IPSASB preliminarily concludes that it may be possible for certain types of water in their natural state to be a resource controlled as the result of a past event and be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. ~~it is possible that certain types of water in their natural state can be recognized as assets, as noted in the following preliminary view.~~

Measurement

4.32-4.33. 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. The following discussion considers the application of the general measurement principles, summarized in paragraphs 2.35-2.42, to water. As the specific details on the selection of an appropriate measurement basis will depend on the nature of the specific water resource and the information available, the following discussion is limited to the high-level factors and suggested approaches that should be considered when selecting a measurement basis.

4.33-4.34. 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.

4.34-4.35. 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.

4.35-4.36. For measuring the operational capacity of a water resource, a current operational value may be more appropriate. Unlike fair value, the development of a current operational value will vary significantly depending on the specific use of the water resource, as well as the scientific knowledge and capabilities currently available to measure such an operational value.

4.36-4.37. In general, the development of a current operational value may involve significant management judgment and subjectivity. As noted in paragraph 4.30, if an entity determines that it is not feasible to develop 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 cannot be recognized as an asset.

Preliminary View 8—Chapter 4

Based on the discussions in paragraphs 4.11-4.40, the IPSASB's preliminary views are:

- (a) It would be difficult to recognize water in seas, rivers, streams, lakes, or groundwater aquifers as an asset in the GPFS because it is unlikely that they will meet the definition of an ~~asset~~asset, or it is unlikely that such water could be ~~reliably~~ measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs;
- (b) Water impounded in reservoirs and canals can meet the definition of an asset if the water is controlled by an entity. Control can be achieved if the volumes of water are actively managed and access to the water by other parties is restricted;
- (c) For water impounded in reservoirs and canals which meet the definition of an asset, it is possible to recognize the water as an asset in the 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. An entity will typically be able to measure the financial capacity of water but will need to exercise judgement to determine if it is feasible to measure the operational capacity of water; 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

4.37-4.38. Based on the above preliminary conclusion that some water resources can meet the criteria to be recognized as assets, the presentation of certain information such as the basis of what is displayed, or disaggregation of amounts could be useful for users of the GPFS.

4.38-4.39. 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.

4.39-4.40. 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, *Agriculture*, defines ‘biological transformation’ as, “the processes of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset.”³⁴
- 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—i.e., modifying the resource’s natural growth, decay and/or development. Such intervention encompasses not only harvesting a living resource, but also modifying the living resource’s natural biological transformation prior to its harvest.³⁵
- 5.4. The specific actions that constitute “human intervention” depends on the facts and circumstances specific to the living resource. For example, a virgin forest could be considered a resource as the trees ~~can be could generate economic benefits or service potential~~ harvested, processed, and sold to generate economic benefits. 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 interfered 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 from its natural biological transformation. An entity should consider the specific nature of such conservation or preservation activities before concluding if the underlying 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 which 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 intervene with the natural biological transformation of specific species. Such a program is not human intervention, and the organism subjected to such activities could be considered living resources. For these items, an entity should consider the discussion in paragraphs 5.20-5.49.
- 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](#).

³⁴ IPSAS 27, paragraph 9.

³⁵ 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.

Accounting for Activities Related to Living Resources

- 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 as their biological transformation have 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.

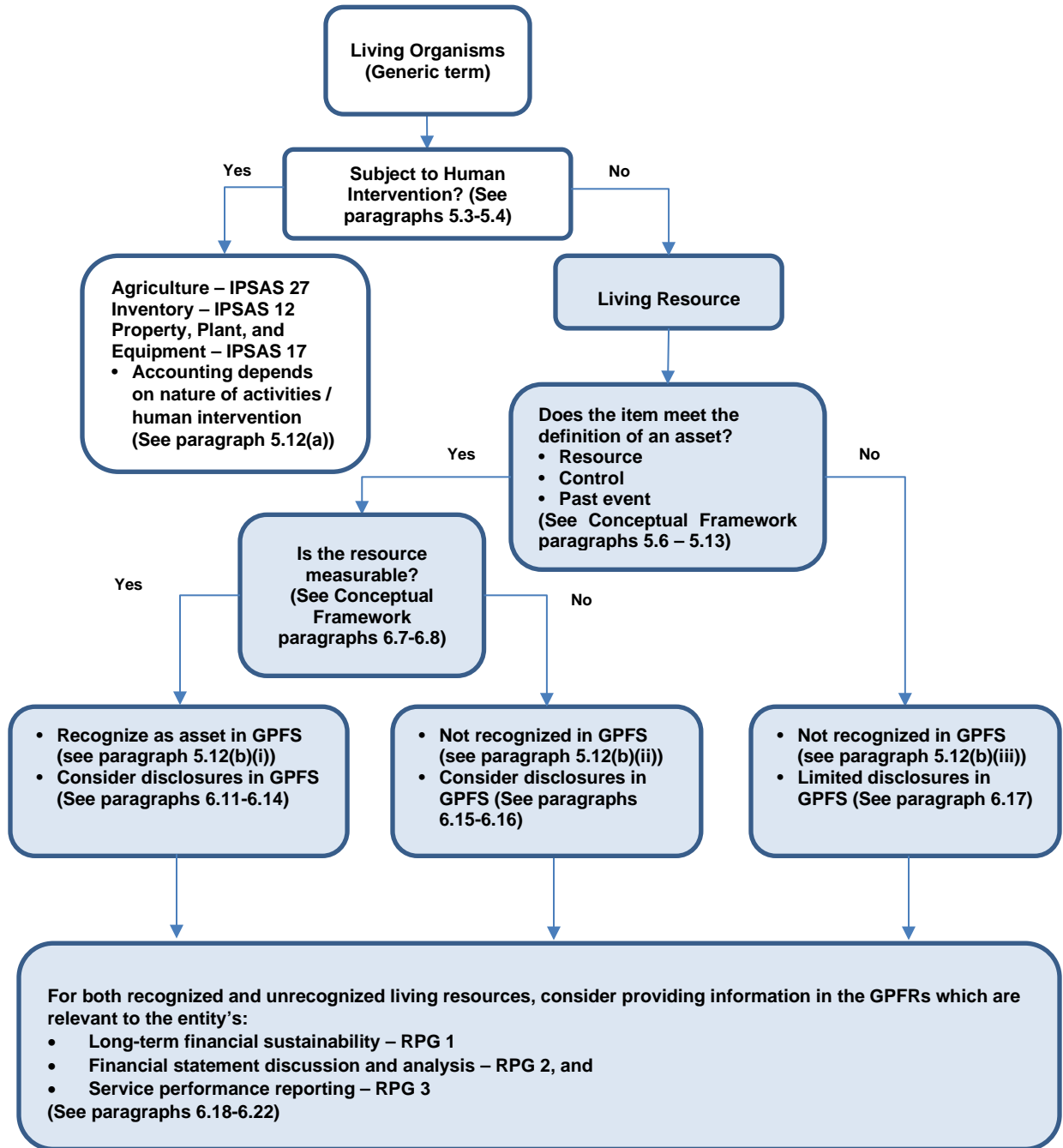
Relationship Between Living Resources and IPSAS 27, Agriculture and Other Existing IPSAS

- 5.8. IPSAS 27, *Agriculture*, applies to the following when they relate to agricultural activity: biological assets, except for bearer plants (see paragraph 5.10), and agricultural produce at the point of harvest. Biological assets are defined in IPSAS 27 as a living animal or plant.³⁶
- 5.9. An 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.”³⁷ Based on this definition, an agricultural activity would be considered a form of human intervention, as described in paragraph 5.2.
- 5.10. 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.”
- 5.11. Based on these definitions and the description of living resources in paragraph 5.1, the relationship between living resources 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:](#)

³⁶ IPSAS 27, paragraphs 2 and 9.

³⁷ IPSAS 27, paragraph 9.

NATURAL RESOURCES



5.12. The above flow chart summarizes the following:

- (a) A living organism subject to human intervention is not ~~a natural resource, and therefore 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, *Inventories*. 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, *Property, Plant, and Equipment*,³⁸ 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. In addition to recognition in the GPFS, an entity needs to consider the note disclosures in paragraphs 6.11-6.14 and providing information on the living resource in the broader GPFRs, as discussed in paragraphs 6.18-6.22 of this CP;
 - (ii) If the living resource meets the definition of an asset but is not measurable in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs, the living resource cannot be recognized as an asset in the GPFS. However, an entity should still consider the disclosures in paragraphs 6.15-6.16 of this CP. As discussed in paragraphs 6.18-6.22 of this CP, an entity should also consider the provision of information on living resources in the broader GPFRs, if they are relevant to the entity's long-term financial sustainability, financial statement discussion and analysis, or service performance reporting; or
 - (iii) If the living resource does not meet the definition of an asset, it cannot be recognized in the GPFS. Despite the lack of recognition in the GPFS, an entity should still consider the limited note disclosure in paragraph 6.17 of this CP. In addition, the provision of information in the broader GPFRs, as discussed in paragraphs 6.18-6.22 of this CP, could still be relevant to the unrecognized living resource.

³⁸ IPSAS 27, paragraph 3(b).

Specific Matter for Comment 2—Chapter 5

In this consultation paper, the discussion on the accounting for other resources which are subject to human intervention (such as inventory, plant, property, and equipment, and agriculture) is limited because these items are no longer in their natural state and therefore are not considered natural resources. As noted in paragraph 5.12(a), these items are likely to fall within the scope of the existing IPSAS on inventory, property, plant, and equipment, or agriculture.

In your view, would-is additional guidance in IPSAS 12, IPSAS 17, or IPSAS 27 on how to determine which IPSAS to apply for these items necessary? which are already within the scope of existing IPSAS be helpful? If so, what should be the focus of this additional guidance (e.g., elaborating on how to determine which IPSAS to apply or providing more application guidance or examples on the accounting for specific items such as livestock or harvested agricultural produce inventory)?

Conservation or Preservation Activities

- 5.13. IPSAS currently does not have explicit guidance on the accounting for conservation or preservation activities. In one national accounting standard that was developed with consideration of IPSAS, conservation and preservation activities are accounted for based on the nature of the activity and the entity's reasons for preserving a resource.
- 5.14. Under this national accounting framework, the costs incurred for the conservation or preservation of biological assets living organisms may be accounted for as inventory, property, plant, and equipment, or intangible asset depending on the specific facts and circumstances regarding the activities performed and whether certain capitalization criteria have been met.³⁹
- 5.15. 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 expenditure is accounted for as an expense in the statement of financial performance.

Other Management Activities

- 5.16. 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 a separate plant, property, and equipment.
- 5.17. 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 in the statement of financial performance as they are incurred.

Accounting for Activities Related to Unrecognized Living Organisms

- 5.18. 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 use the animals to derive service potential or economic benefits.

³⁹ GRAP 110, paragraphs 3 and 6, and GRAP 27, paragraph 4.

- 5.19. In these situations, an entity considers the nature of the activities and accounts for the expenditure as an asset if the recognition criteria in paragraph 14 of IPSAS 17 or paragraph 28 of IPSAS 31 are met, or if the nature of the expenditure is consistent with the cost of inventories as described in paragraph 18 of IPSAS 12. The recognition of such expenditures as an asset is unaffected by whether the underlying living organism was recognized as an asset.

Application of the Asset Recognition Criteria to Living Resources

- 5.20. For a living resource to be recognized as an asset under IPSAS, the item must:
- (a) Satisfy the definition of an element, in this case an asset; and
 - (b) Be measurable in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs.
- 5.21. Like the chapter on subsoil resources, the analysis below will first consider if a living resource can be a resource that is controlled as the result of a past event, then whether existence uncertainty impacts if a living resource can meet the definition of an asset, then finally whether a living resource can be reliably measured.
- 5.22. Living resources generally 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.
- 5.23. As living resources can generally be considered resources, the key considerations regarding the recognition and measurement of living resources are as follows:
- (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?
- 5.24. The following analysis considers each of these questions to arrive at a PV regarding the recognition of living resources as assets under IPSAS.

Consideration of control

- 5.25. The general concept of control is discussed in paragraph 2.5 and the indicators of control from the Conceptual Framework are as follows:
- (a) Legal ownership;
 - (b) Access to the resource, or the ability to deny or restrict others to access the resource;
 - (c) The means to ensure that the resource is used to achieve its objectives; or
 - (d) The existence of enforceable right to service potential or the ability to generate economic benefits arising from the resource.

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

- 5.26. Whether the above indicators exist will largely depend on the specific facts and circumstances 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.
- 5.27. 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.
- 5.28. 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 setting up fences and other physical barriers. Alternatively, there may be laws and regulations with enforceable penalties which act as a deterrent for others who may wish to access the resource.
- 5.29. Finally, the indicator regarding the means to ensure that a resource is used to achieve an entity's objectives will be dependent on the specific facts and circumstances of the public sector entity.
- 5.30. In general, the control considerations will differ for non-motile organisms such as plants and fungi, when compared to motile organisms such as fish and most animals. This is because motile organisms have the ability for self-locomotion and can roam about freely, which so it could be more difficult for an entity to demonstrate control over these organisms leads to a rebuttable presumption that they cannot be controlled unless an entity has there are means of to limiting their movement. In contrast, non-motile organisms are incapable of locomotion, so it would be easier to demonstrate control over such organisms.

Interaction of Control and Human Intervention for Living Resources

- ~~5.31. Control is not the same concept as human intervention, and the assessment of control and human intervention needs to be done independently. 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 living resource without changing its quantity or quality.~~
- ~~5.32. 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 range 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 under an entity's control are also not considered human intervention, as these activities do not change the animals' natural biological transformation.~~
- ~~5.33. Conversely, there could be situations where an entity has intervened in the animals' natural biological transformation without gaining control. The example of unrecognized living organisms as noted in paragraph 5.18 is one such situation.~~
- ~~5.34. 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 to also restrict the animal's natural movements. Such a barrier could be considered both human intervention and an indicator of control.~~

~~5.35. The above relationship between control and human intervention is visually depicted in the diagram below:~~

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

~~5.36-5.31.~~ 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. The existence of a past event of living resources is relatively straightforward. 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 to manage and preserve the asset for the benefit of present and future generations;
- (b) Acquisition where the asset is acquired through purchase;
- (c) Non-exchange transaction or where an asset is received at no or for a nominal consideration, for example through a donation; or
- (d) When an entity controls a living resource that has the ability to reproduce naturally, the entity would typically obtain control of any offspring as they are born.

Consideration of existence uncertainty

~~5.37-5.32.~~ 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.

~~5.38-5.33.~~ 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 5.30, most animals are free to roam 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.

~~5.39-5.34.~~ As noted in paragraph 2.14, 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

~~5.40-5.35.~~ Based on the above discussion, in many situations where existence uncertainty is not applicable, a living resource could be a resource which is presently controlled by an entity as the result of a past event. As a result, it is possible for a living resource to meet the definition of an asset.

Consideration of ~~measurement uncertainty~~~~whether Living Resources are Measurable~~

~~5.41-5.36.~~ The second recognition criterion is that the asset should be measured in a way that achieves the qualitative characteristics, which includes consideration of whether the item can be reliably measured and takes account of constraints on information in GPFRs. In other words, to recognize a living resource in the financial statements, it is necessary to attach a monetary value to the item. This implies that the entity must be able to find an appropriate measurement basis.

~~5.42-5.37.~~ Unlike subsoil resources, the quantification of some living resources may be more straight forward. Many living resources such as trees and other vegetation are non-motile and readily observable or accessible. In these situations, it will be more likely that there is information available to quantify the living resource with a relatively high degree of certainty. However, as noted in paragraph 5.33, it may be difficult to count animals which can roam freely. Unless there is some tracking mechanism, an entity may have difficulties to determine the quantities of a living resource.

~~5.43-5.38.~~ 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 develop a measurement basis which can faithfully represent the resource's underlying value and is verifiable.

~~5.44-5.39.~~ 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. Such a measurement basis will be challenging and may not be feasible based on the technologies which are currently available.

~~5.45-5.40.~~ 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

~~5.46-5.41.~~ Based on the discussion in paragraphs 5.20-5.40, the IPSASB preliminarily concludes that it may be possible for certain living resources to be a resource controlled as the result of a past event and be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs.

Measurement

~~5.47-5.42.~~ 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. The following discussion considers the application of the general measurement principles, summarized in paragraphs 2.35-2.42, to living resource. 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.

~~5.48-5.43.~~ 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.

~~5.49-5.44.~~ 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.

~~5.50-5.45.~~ In other situations, a living resource can serve a variety of service objectives, including letting the living resource continue with its natural biological transformation so it can absorb carbon dioxide from the atmosphere, maintain biodiversity, or for other strategic purposes. For these situations, a measurement basis that reflects the operational capacity of the living resource, such as current operational value, may be more appropriate. Unlike fair value, the development of a current operational value will vary significantly depending on the specific use of the living resource, as well as the scientific knowledge and capabilities currently available to measure such an operational value. In general, the development of a current operational value may involve significant ~~management~~ judgment and subjectivity.

~~5.51-5.46.~~ As noted in paragraph 5.39, if an entity determines that it is not feasible to develop a current operational value that is relevant, representatively faithful, and verifiable, the entity is likely to conclude that the living resource cannot be recognized as an asset.

Preliminary View 9—Chapter 5

Based on the discussions in paragraphs 5.20-5.46, the IPSASB's preliminary views are:

- (a) For a living resource with financial capacity, it is possible for the living resource to meet the definition of an asset and be measurable in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. For such a living resource, it is possible to meet the criteria to be recognized as an asset in the GPFS;
- (b) For a living resource with operational capacity, if the living resource 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. If so, such a living resource could 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 ~~reliably~~ 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

5.52-5.47. Based on the above preliminary conclusion that some living resources can meet the criteria to be recognized as assets, the presentation of certain information such as the basis of what is displayed, or disaggregation of amounts could be useful for users of the GPFS.

5.53-5.48. For other living resources, despite not being recognized as an asset in the financial statements, the presentation of certain information regarding living resources via disclosure 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, no recognition nor presentation is required.

5.54-5.49. The detailed consideration of presentation 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.⁴⁰

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.⁴¹
- 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 of 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.⁴²

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 of GPFR. Such decisions need to take into account the relationships between information and whether information is for display or disclosure.⁴³

⁴⁰ Conceptual Framework, paragraph 8.4.

⁴¹ Conceptual Framework, paragraph 8.15.

⁴² Conceptual Framework, paragraph 8.38.

⁴³ Conceptual Framework, paragraphs 8.45 and 8.47.

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, once the IPSASB receives feedback on what natural resources information should be presented, formal decisions on information location and organization will be made in the next phase of the project.

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 objectives of disclosures on natural resources is to require an entity to disclose information that enables user of its financial statements to evaluate:
- (a) The effects of natural resource assets on its financial position, financial performance, and cash flows;⁴⁴ and
 - (b) The nature of, and risks and opportunities associated with, natural resource assets.

⁴⁴ 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.

- 6.11. To meet the first objective, disclosures regarding the effects of recognized natural resource assets on the financial statements should include, but is 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 due to changes such as increases or 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 6.14), 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 is 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. The information in paragraphs 6.10-6.12 can be aggregated and disclosed for each class of natural resource recognized in the financial statements.
- 6.14. 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 also consider the applicability of the disclosure requirements in IPSAS 26, *Impairment of Cash-Generating Assets*, or IPSAS 21, *Impairment of Non-Cash-Generating Assets*.
- 6.15. 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 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; and

- (b) The significance of the unrecognized natural resource(s) in relation to delivery of the entity's objectives.
- 6.16. Similar to paragraph 6.11(d), the disclosure of information regarding the nature and costs of activities related to natural resources would be helpful to users.
- 6.17. Finally, 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

- 6.18. As noted in paragraphs 3.51, 4.39, and 5.48, 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.
- 6.19. The IPSASB's existing Recommended Practice Guidelines (RPG), which provide guidance on good practice in the preparation of broader GPFRs outside the 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 32](#) at the end of this chapter for details.
- 6.20. 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 resource-related programs, a narrative discussion of the long-term service, revenue and debt dimensions of the program, and a narrative discussion of the principles, assumptions, and methodology underlying the projections.
- 6.21. Many of the natural resources related programs and services noted in paragraph 6.20 will have an impact on an entity's GPFS. To assist users in understanding the entity's financial position, financial performance and cash flows, the entity may prepare a financial statement discussion and analysis to explain the significant items, transactions and events presented in the GPFS. RPG 2, *Financial Statement Discussion and Analysis*, provides guidance for the preparation and presentation of the 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, uncertainties over the existence of natural resources, and risks and uncertainties in the entity's ability to benefit from natural resources, should also be discussed.
- 6.22. Many public sector entities provide services relating to natural resources (e.g., the sale of rights to explore and extract subsoil resources to third parties or the conservation of certain living resources). Performance information on these services will assist users of GPFRs in assessing the entity's service efficiency and effectiveness. RPG 3, *Reporting Service Performance Information*, provides guidance on the reporting of service performance information, which includes information 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. Furthermore, such 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

- 6.23. 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 reserves and resources, as prepared by a qualified person, as well as the technical feasibility and economic viability of an extraction project.⁴⁵ Such information is consistent with the proposed disclosures in paragraphs **Error! Reference source not found.** and 6.14.

Preliminary View 10—Chapter 6

Based on the discussion in paragraphs 6.7-6.17, the IPSASB's preliminary view is that the following natural resources-related information should be presented. The following information is conventionally disclosed in the GPFS, but formal decisions on information location and organization have not been made at this stage of the project:

To Provide Information on the Effects of Recognized Natural Resource Assets on an Entity's Financial Position, Financial Performance, and Cash Flows:

- (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 due to changes such as increases or 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 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;
- (d) Information regarding the nature and costs of activities related to natural resources. 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; and
- (e) For recognized natural resource assets and any capitalized costs of related activities, an entity should also consider the applicability of the disclosure requirements in IPSAS 26, *Impairment of Cash-Generating Assets*, or IPSAS 21, *Impairment of Non-Cash-Generating Assets*.

To Provide Information on the Nature of, and Risks and Opportunities Associated with, Recognized Natural

⁴⁵ Based on the requirements from National Instrument 52-102 for publicly traded Canadian mining companies.

Resource Assets:

- (f) Narrative description (e.g., nature or type, location, etc.) of the natural resources that are recognized as assets by the entity;
- (g) Information on the physical quantities of natural resources noted in (a) above and the methodology used to estimate these quantities; and
- (h) The existence and amounts of restrictions on title, legal or similar limits on the use of the natural resource assets due to environmental or other regulatory requirements, and natural resources pledged as securities for liabilities.

The information above can be aggregated and disclosed for each class of natural resource recognized in the financial statements.

To Provide Information on Unrecognized Natural Resources:

- (i) If the existence of an item is certain, but it is not recognized because of a high level of measurement uncertainty, note disclosure of the following would also be helpful to users:
 - (i) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (ii) The significance of the unrecognized natural resource(s) in relation to delivery of the entity's objectives;
- (j) Information regarding the nature and costs of activities related to unrecognized natural resources; and
- (k) 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.

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 6.18-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented for 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. The following information is conventionally presented in the broader GPFRs, but formal decisions on information location and organization have not been made at this stage of the project:

- (a) When natural resources have an impact on an entity's future cash flows, long-term sustainability information on these natural resources prepared in accordance with RPG 1, *Reporting on the Long-Term Sustainability of an Entity's Finances*;
- (b) When natural resources impact an entity's GPFS, a financial statement discussion and analysis prepared in accordance with. RPG 2, *Financial Statement Discussion and Analysis*, to explain the significant items, transactions, and events related to natural resources; and
- (c) When an entity provides services relating to natural resources (e.g., conservation or preservation activities), performance information prepared in accordance with RPG 3, *Reporting Service Performance Information*.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Specific Matter for Comment 3—Chapter 6

The natural resources-related information proposed to be provided in the broader GPFRs in 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 6.19, 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 account for a significant proportion of economic resources in many jurisdictions.⁴⁶ 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 is a gap in the IPSASB's accounting guidance on the recognition, measurement, and presentation⁴⁷ 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, and as a result may be perceived as being incentivized to sell natural resources without regard to financial, environmental, sustainability⁴⁸ 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.

⁴⁶ 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.

⁴⁷ 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.

⁴⁸ 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-based 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.⁴⁹ 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.

⁴⁹ 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.⁵⁰

Definition from Economic Literature

- B.3. One economic text describes natural resources as follows:⁵¹
- “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 of 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:⁵²
- “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.”
- 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:

⁵⁰ https://en.wikipedia.org/wiki/Natural_resource; retrieved September 2020.

⁵¹ 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.

⁵² The definitions of living and non-living resources are found in paragraph 8 of GRAP 110.

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“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:⁵³

“Federal natural resources are resources that occur in nature (including nonrenewable 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.”

⁵³ FASAB Technical Bulletin 2011-1, Appendix C.

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

Background

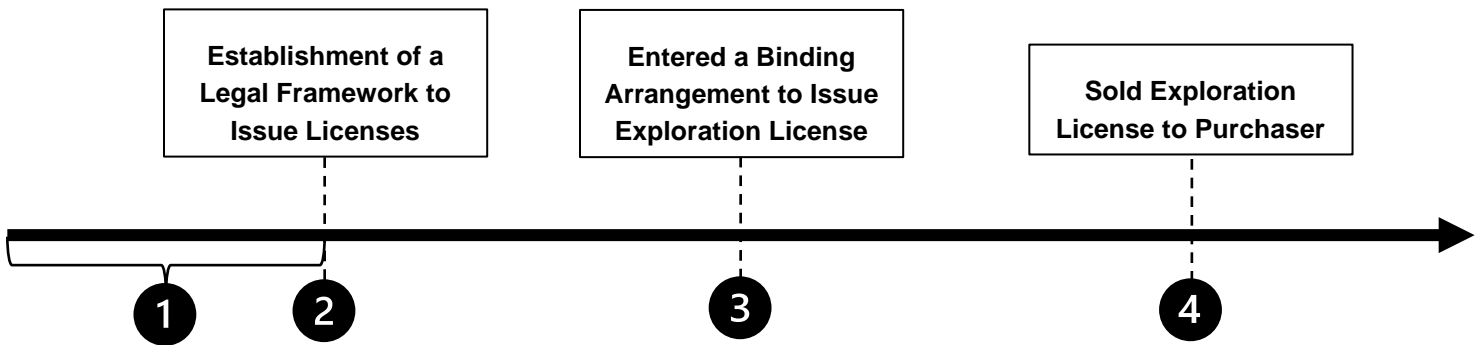
- C.1. In the Conceptual Framework, the IPSASB had previously decided that a government's sovereign power, in and of itself, did not meet the criteria to be recognized as an asset. The IPSASB's decision was driven by the conclusion that there was no past event to support the recognition of an asset. 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.⁵⁴ 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 resource-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.⁵⁵

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.

⁵⁴ IPSASB Conceptual Framework, paragraph BC5.18.

⁵⁵ 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 continues to be 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 does **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, it should be noted that 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 ⁵⁶
Description of Subsoil Resources	<ul style="list-style-type: none"> Not explicitly defined. However, IFRS 6 states that mineral resources include minerals, oil, natural gas, and similar non-regenerative resources. 	<ul style="list-style-type: none"> 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 Nonrenewable Natural Resources” are defined with reference to specific resources such as oil, natural gas, and coal. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Licenses conferring the right to extract subsoil resources are accounted for as intangible assets under IAS 38, <i>Intangible Assets</i>. Exploration and evaluation (E&E) costs are accounted for under IFRS 6, <i>Exploration for and Evaluation of Mineral Resources</i>, which allows an entity to determine an accounting policy specifying which 	<ul style="list-style-type: none"> SA GRAP: No specific guidance on stripping or exploration and evaluation activities. However, GRAP 12, <i>Inventories</i>, and GRAP 31, <i>Intangible Assets</i>, 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 	<ul style="list-style-type: none"> 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

⁵⁶ The International Statistical Standards column of this table only reflects the guidance from 2008 SNA. International Statistical Standards comprise of 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.

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Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁶
	<p>E&E expenditures are to be recognized as an asset.</p> <ul style="list-style-type: none"> • 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, <i>Inventories</i>. • IFRIC 20, <i>Stripping Costs in the Production Phase of a Surface Mine</i>, 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 ratio of ore to waste produced by the removal activities. It should be noted that the stripping activity asset is classified as a tangible or intangible asset depending on the classification of the overall mineral interest asset. 	<p>prospecting activities. No explicit guidance on other activities related to subsoil resources is provided.</p>	<p>undertaken on own account. These costs should include a return to the fixed capital used 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.</p>
Application of Asset Definition to Subsoil Resources	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ It is not feasible to establish ownership rights over them (for example, air or oceans); or

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Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁶
	tangible assets once they have been extracted. ⁵⁷		<ul style="list-style-type: none"> ○ 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 ○ 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	<ul style="list-style-type: none"> • Discussed along with measurement uncertainty (in the estimation of quantity and value) in the IASB's Discussion Paper. See below. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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 <i>proven</i> 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	<ul style="list-style-type: none"> • The IASB noted that for subsoil resources, historical cost generally does not provide relevant information and entity-prepared current values are not viewed as representationally 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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.

⁵⁷ IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 3.27.

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Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁶
	<p>faithful due to the subjectivity and degree of estimation involved.⁵⁸</p> <ul style="list-style-type: none"> A number of internationally accepted estimation approaches exist to estimate the quantities of unextracted resources based on geological 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 	<p>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.</p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 2008 SNA: No explicit guidance on disclosures of mineral and energy resources is provided.

⁵⁸ IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 4.83.

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Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁶
	accordance with regulatory requirements applicable to publicly traded companies in extractive industries.		

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 ⁵⁹	International Statistical Standards ⁵⁶
Description of Water in its Natural State	<ul style="list-style-type: none"> Not explicitly defined or described. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Licenses conferring the right to extract water resources are accounted for as intangible assets under IAS 38, <i>Intangible Assets</i>. The sale of the water licenses is recognized as revenue in terms of IFRS 15, <i>Revenue from Contracts with Customers</i>. Extraction costs are accounted for as inventory under IAS 2, <i>Inventories</i>. Humanmade structures are accounted for as property, plant, and equipment under IAS 16, <i>Property, Plant and Equipment</i>. 	<ul style="list-style-type: none"> SA GRAP: GRAP 12, <i>Inventories</i>, and GRAP 31, <i>Intangible Assets</i>, 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, <i>Revenue from Exchange Transactions</i>. FASAB: SFFAS 38. No explicit guidance on activities related to water in its natural state is provided. 	<ul style="list-style-type: none"> 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.

⁵⁹ 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 sea water in the terrestrial phase and in scope and sea water in the ocean is considered water in the marine outside the scope of the Standard.

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Topic	IFRS	National Accounting Standards ⁵⁹	International Statistical Standards ⁵⁶
Application of Asset Definition to Water in its Natural State	<ul style="list-style-type: none"> No explicit guidance for unextracted water. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> It is not feasible to establish ownership rights over them (for example, air or oceans); or 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 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	<ul style="list-style-type: none"> No explicit guidance for unextracted water. 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 2008 SNA: No explicit guidance for unextracted water.

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Topic	IFRS	National Accounting Standards ⁵⁹	International Statistical Standards ⁵⁶
		value of these reserves and resources.	
Measurement and Potential Disclosures of Water in its Natural State	<ul style="list-style-type: none"> No explicit guidance on measurement and disclosure of unextracted water. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 ⁵⁶
Description of Living Resources	<ul style="list-style-type: none"> Not defined or described. 	<ul style="list-style-type: none"> SA GRAP: Living resources are those resources that undergo biological transformation. It should be noted that 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Agricultural activities are within the scope of IAS 41, <i>Agriculture</i>, 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, <i>Inventories</i>, and IAS 16, <i>Property, Plant, and Equipment</i>, which are the bases of IPSAS 12 and IPSAS 17. 	<ul style="list-style-type: none"> SA GRAP: Similar to IFRS. FASAB: No explicit guidance on activities related to living resources is provided. 	<ul style="list-style-type: none"> 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.

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Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁶
Application of Asset Definition to Living Resources	<ul style="list-style-type: none"> No explicit guidance on living resources. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> It is not feasible to establish ownership rights over them (for example, air or oceans); or 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 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	<ul style="list-style-type: none"> No explicit guidance for living resources. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 2008 SNA: No explicit guidance for living resources.

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Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁶
Measurement	<ul style="list-style-type: none"> No explicit guidance. 	<ul style="list-style-type: none"> SA GRAP: See above regarding measurement. FASAB: See above regarding measurement. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> No explicit guidance 	<ul style="list-style-type: none"> 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 judgements 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. 	<ul style="list-style-type: none"> 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 2008⁶⁰ (2008 SNA), the System of Environmental-Economic Accounting 2012–SEEA Central Framework⁶¹ (SEEA Central Framework), and the Government Finance Statistics Manual 2014⁶² (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-taking, 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. 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.

⁶⁰ <https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf>

⁶¹ https://seea.un.org/sites/seea.un.org/files/seea_cf_final_en.pdf

⁶² <https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf>

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- G.8. Natural resources consist of naturally occurring resources such as land, water resources, uncultivated forests and deposits of minerals that have an economic value.
- G.9. 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.10. 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.11. 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.12. 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.13. 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.14. The 2008 SNA records in the capital account 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.15. The discovery of new exploitable deposits, whether as a result of systematic scientific explorations, or surveys, or by chance, or because of technological progress or relative price changes become economic to extract are recorded in the other changes in the volume of assets account.⁶³
- G.16. Additionally, the depletion of the mineral and energy resource as a result of extraction for purpose of production is recorded in the other changes in the volume of assets account.⁶⁴

⁶³ 2008 SNA.12.18

⁶⁴ 2008 SNA.10.179

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- G.17. 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.⁶⁵
- G.18. 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.⁶⁶ 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.19. 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.20. The 2008 SNA records in the capital account the acquisitions and disposals of non-cultivated biological resources in which the ownership of such assets passes from one institutional unit to another.⁶⁷
- G.21. 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.⁶⁸ 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.⁶⁹
- G.22. 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.⁷⁰

Water resources

- G.23. 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.⁷¹
- G.24. 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.

⁶⁵ 2008 SNA 10.49

⁶⁶ 2008 SNA 10.50

⁶⁷ 2008 SNA.10.182

⁶⁸ 2008 SNA.12.19

⁶⁹ 2008 SNA.12.27

⁷⁰ 2008 SNA.13.51

⁷¹ 2008 SNA.A3.84

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- G.25. The 2008 SNA records in the capital account the acquisitions and disposals of water resources in which the ownership of such assets passes from one institutional unit to another.⁷²
- G.26. The discovery of water resources is recorded in the other changes in the volume of assets account.⁷³ Additionally, the depletion of the water resource caused by economic activity (physical removal and using up of the assets) is recorded in the other changes in the volume of assets account.
- G.27. 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.⁷⁴ In case the net returns is not possible to measure, estimates based on access fees may be used.⁷⁵

Permits to Use Natural Resources

- G.28. 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.29. 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.⁷⁶

General description of asset accounts

- G.30. 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.⁷⁷
- G.31. The basic form of an asset account compiled for individual types of environmental assets is as follows:

⁷² 2008 SNA.10.184

⁷³ 2008 SNA.12.19

⁷⁴ 2008 SNA.13.51

⁷⁵ 2008 SNA.A3.84

⁷⁶ SEEA Central Framework.2.21

⁷⁷ SEEA Central Framework.2.49

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Opening stock of environmental assets
Additions to stock
Growth in stock
Discoveries of new stock
Upward reappraisals
Reclassifications
<i>Total additions of stock</i>
Reductions of stock
Extractions
Normal loss of stock
Catastrophic losses
Downward reappraisals
Reclassifications
<i>Total reductions in stock</i>
Revaluation of the stock*
Closing stock of environmental assets

* Only applicable for asset accounts in monetary terms.

General description of sequence of economic accounts

G.32. 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.33. 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.34. 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.⁷⁸

G.35. The SEEA Central Framework records the flows and stocks in both physical and monetary terms.

G.36. Physical flows are reflected in the movement and use of materials, water and energy corresponding to natural inputs, products and residuals.⁷⁹ Monetary flows are recorded in a manner completely

⁷⁸ SEEA Central Framework.2.69

⁷⁹ SEEA Central Framework.2.88

consistent with the SNA definition of economic flows⁸⁰ with two types being distinguished: transactions and other flows.

- G.37. The stocks of physical terms stocks refer to the total quantity of assets at a given point in time⁸¹. The measurement of stocks in monetary terms focuses on the value of individual environmental assets and changes in those values over time.⁸²

Measurement in monetary terms

- G.38. 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.⁸³ 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”.⁸⁴
- G.39. 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.⁸⁵
- G.40. 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.⁸⁶

Classification of environmental assets in the SEEA Central Framework

- G.41. The SEEA Central Framework classifies the environmental assets as follows:⁸⁷

⁸⁰ SEEA Central Framework.2.96

⁸¹ SEEA Central Framework.2.99

⁸² SEEA Central Framework.2.104

⁸³ SEEA Central Framework.2.143

⁸⁴ SEEA Central Framework.2.144

⁸⁵ SEEA Central Framework.5.32

⁸⁶ SEEA Central Framework.5.33

⁸⁷ SEEA Central Framework.5.15

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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.42. 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.⁸⁸
- G.43. 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.⁸⁹

Relationship between environmental and economic assets

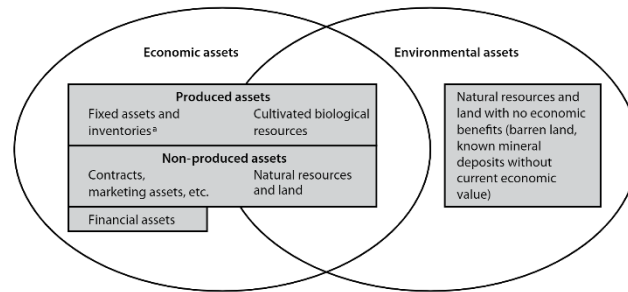
- G.44. Many environmental assets are also economic assets. In particular, natural resources and land are considered non-produced assets, and cultivated biological resources may be either fixed assets or inventories, depending on their role in production. The figure below displays the relationship between 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.⁹⁰

⁸⁸ SEEA Central Framework.5.18

⁸⁹ SEEA Central Framework.5.24

⁹⁰ SEEA Central Framework.5.38

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^a Other than cultivated biological resources.

GFSM 2014

G.45. 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.46. 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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