

Meeting: International Public Sector Accounting Standards Board

Meeting Location: Virtual Meeting

Meeting Date: September 13–17 and 21, 2021

Agenda Item 5

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) • Adrienne Cheasty, IPSASB Member • Neema Kiure-Mssusa, IPSASB Member • Bernhard Schatz, IPSASB Member • Patricia Siqueira Varela, IPSASB Member • Hironobu Takahashi, EY Japan • Marc Wermuth, IPSASB Member 	
Meeting objectives	Topic	Agenda Item
Project management	Natural Resources: Project Roadmap	5.1.1
	Instructions up to Previous Meeting	5.1.2
	Decisions up to Previous Meeting	5.1.3
Decisions required at this meeting	Chapter 6: Presentation	5.2.1
	Revisions to Chapter 5: Living Resources	5.2.2
	Revisions to Chapter 4: Water	5.2.3
	Other Significant Revisions to the [Draft] Natural Resources Consultation Paper	5.2.4
Other supporting items	[Draft] Natural Resources Consultation Paper	5.3.1

**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	2. 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 July 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
July 2021	1. Revise all references to presentation and disclosure to be consistent with the chapter on presentation in the IPSASB's Conceptual Framework.	1. Done throughout the revised CP. See Agenda Item 5.3.1 .
July 2021	2. Revise the introduction to clarify the consequences from the lack of reporting on natural resources and to provide an explicit link to sustainability reporting.	2. Revised chapter 1 of the CP. See Agenda Item 5.3.1 .
July 2021	3. Remove the discussion on the potential formulation of a formal definition for natural resources.	3. Revised chapter 1 of the CP. See Agenda Item 5.3.1 .
July 2021	4. In the explanatory text following the general description: <ul style="list-style-type: none"> o Remove the reference to extraction or harvest; o Clarify what is meant by human intervention; and o Clarify that human intervention and control are not necessarily interdependent. 	4. Revised chapter 1 of the CP. See Agenda Item 5.3.1 . The clarification of control and human intervention has been incorporated into chapter 5, as the issue is most relevant to living resources.
July 2021	5. Work with the Natural Resources Task Force to reflect the above changes in Preliminary View 1.	5. Revised chapter 1 of the CP. See Agenda Item 5.3.1 .
July 2021	6. In the discussion of the recognition criteria, ensure that the references to the financial statements and the broader General Purpose Financial Reports (GPIFRs) are consistent with the Conceptual Framework. Also ensure that the distinction is applied consistently in the CP.	6. Revised throughout the CP to use consistent wording as the Conceptual Framework. See Agenda Item 5.3.1 .
July 2021	7. Revise the discussion of past event to include events other than transactions, such as the exercise of sovereign rights.	7. Revised chapter 2 of the CP. See Agenda Item 5.3.1 .
July 2021	8. For Preliminary View 2, work with the Natural Resources Task Force to provide more clarity on the definition of an asset, existence uncertainty, and measurement uncertainty. Also ensure that the views on presentation are consistent with the Conceptual Framework.	8. Preliminary View 2 has been revised. See Agenda Item 5.3.1 .

Agenda Item 5.1.2

Meeting	Instruction	Actioned
June 2021	1. Clarify the boundary in terms of when an item is in its natural state, when an item becomes something other than a natural resource, and when the item falls within the scope of an existing IPSAS. The boundaries should take into account practicality and link back to the objectives of financial reporting (to provide information to users for accountability and decision-making purposes.)	1. Reflected in chapters 4 and 5 of the CP. See Agenda Items 5.2.2 and 5.2.3 .
June 2021	2. Revisit Living Resources at the September meeting, including conservation activities.	2. Revised chapter 5 of the CP. See Agenda Item 5.2.2 .
June 2021	3. Consider using a table to tie the above stepped approach to the issue of boundaries in the general description and show the consequences of each decision point.	3. Revised chapters 4 and 5 of the CP. See Agenda Items 5.2.2 and 5.2.3 .
June 2021	4. Clarify the description of water in its natural state by using a plain language description aligned to the general description of natural resources and: <ul style="list-style-type: none"> ○ Revisit whether specific examples of water such as lakes, water in dams, aquifers and groundwater are water in its natural state. ○ Replace the word “Remains” with “Is” in the second attribute of the description of water to align with the change in the general description of natural resources. 	4. Revised chapter 4 of the CP. See Agenda Items 5.2.3 and 5.3.1 .

Agenda Item 5.1.2

Meeting	Instruction	Actioned
June 2021	5. Provide additional guidance on human intervention in the context of water. For example, human intervention could involve extraction (e.g., water pumped up from a spring) or impounding (e.g., water captured and collected in a dam).	5. Revised chapter 4 of the CP. See Agenda Items 5.2.3 and 5.3.1 .
June 2021	6. Consider control of water in its natural state, when it is impounded, and when extracted. Once water is impounded or extracted, consider whether existing IPSAS 12, <i>Inventories</i> adequately addresses the recognition, measurement, and disclosure of impounded or extracted water.	6. Revised chapter 4 of the CP. See Agenda Items 5.2.3 and 5.3.1 .
June 2021	7. Revise paragraph 4.12 of the CP and indicate other uses of water such as agriculture and hydroelectric power generation.	7. Reflected in chapters 4 of the CP. See Agenda Item 5.3.1 .
June 2021	8. Add PV on whether / how water in its natural state should be reported.	8. Revised chapter 4 of the CP. See Agenda Items 5.2.3 and 5.3.1 .
June 2021	9. When developing guidance on disclosure on water, consider the reasons (why and how) information on water would be useful. Add PV on these considerations.	9. Revised chapter 4 of the CP. See Agenda Items 5.2.3 and 5.3.1 .

DECISIONS UP TO PREVIOUS MEETING

Meeting	Decision	BC Reference
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. See Agenda Item 5.3.1
June 2021	1. Preliminary approval for the general description of natural resources, subject to minor wording amendments noted in instructions.	2. CP has been updated to reflect this decision. See Agenda Item 1.2.1.
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. CP has been updated to reflect this decision. See Agenda Item 1.2.1.
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 SMCs within 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 A 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 A of the draft CP.
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.

Agenda Item 5.1.3

Meeting	Decision	BC Reference
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.

Chapter 6: Presentation

Question

1. Does the IPSASB agree with the proposed text, including the natural resources-related information proposed to be presented, in Chapter 6 of the draft Natural Resources Consultation Paper (CP)?

Recommendation

2. The Natural Resources Task Force (Task Force) recommends including the following in the draft CP:
 - (a) The text of Chapter 6, which included in [Agenda Item 5.3.1](#); and
 - (b) Preliminary View 10, which is included in [Agenda Item 5.3.1](#) and reproduced below.

Background

3. Staff drafted Chapter 6: Presentation based on the concepts in Chapter 8: Presentation in General Purpose Financial Reports of *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* (Conceptual Framework). The Task Force has reviewed the chapter.
4. The following paper walks through the development process used by the Task Force and staff and summarizes the natural resources-related information proposed to be presented.

Analysis

5. Chapter 6 of the CP was developed based on the principles in Chapter 8 of the Conceptual Framework, which discusses information selection, information location, and information organization.
6. The Task Force and staff made the decision to focus on information selection, as it would be difficult to consider the location and organization of information without first deciding on what information to present.
7. The Task Force and staff considered the Conceptual Framework, the IPSASB's existing Recommended Practice Guidelines (RPGs), and private sector practices, and developed the following proposed disclosures:

Basis of Proposed Disclosures	Proposed Disclosures	CP Reference
Conceptual Framework	Financial information that can help a user understand the General Purpose Financial Statements	6.10-6.12
	Non-Financial information that is important to understanding an entity's finances and ability to deliver services	6.13-6.15

RPGs	Information relating to how natural resources impact an entity's: <ul style="list-style-type: none"> • Long-term sustainability; • Financial position, financial performance cash flows, and principal risks and uncertainties; and • Service performance information 	6.16-6.19
Private Sector Practices	If a public sector entity participates in the extraction of subsoil resources, an assessment of the feasibility of the extraction project	6.23

8. The proposed disclosures are summarized in Preliminary View 10. To facilitate review by the IPSASB, the preliminary view has been reproduced below:

Preliminary View 10—Chapter 6

Based on the discussion in paragraphs 6.7-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented:

Financial Information

- (a) The measurement basis used for determining the gross carrying amount, including, if applicable, the valuation date, method used to determine fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period;
- (c) 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, depreciation and impairment;
- (d) Information regarding the sale of subsoil resources, water, living resources, or the right to exploit or access these resources (i.e., quantities of resources given up and the consideration received), as well as the significant accounting policies relating to these transactions; and
- (e) For natural resources not recognized due to measurement uncertainty:
 - (i) The difficulties in obtaining a reliable measurement the prevented recognition;
 - (ii) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (iii) If available, the range of possible outcomes and point estimates of the unrecognized item.

Non-Financial Information

- (f) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity;

- (g) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above;
- (h) 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.

Information Prepared in Accordance with RPGs 1-3

- (i) 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*;
- (j) 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;
- (k) 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*; and

Other Information

- (l) For public sector entities which participate in the extraction of subsoil resources, discussion of the feasibility of an extraction project.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Decision Required

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

Revisions to Chapter 5: Living Resources

Question

1. Does the IPSASB agree with the changes made to Chapter 5 of the draft Natural Resources Consultation Paper (CP) to address the June 2021 IPSASB meeting and July 2021 IPSASB check-in instructions?

Recommendation

2. The Natural Resources Task Force (Task Force) recommends the revised text of chapter 5 for inclusion in the draft CP.

Background

3. At the June 2021 IPSASB meeting and the July 2021 IPSASB check-in, the IPSASB provided staff with a number of instructions on Chapter 5: Living Resources. These instructions are summarized in [Agenda Item 5.1.2](#).
4. The following paper walks through the revisions made to the draft CP to address the instructions from the IPSASB relating to living resources.

Analysis

Clarify the Boundaries Between a Natural Resource, When the Item has been Subject to Human Intervention, and When the Item Falls Within the Scope of an Existing IPSAS

5. At the June 2021 meeting, a number of IPSASB members noted that there could be situations where an item which otherwise would be a natural resource has been subject to human intervention, but the item is not within the scope of an existing IPSAS. Such an item would neither be a natural resource, nor an asset accounted for under an existing IPSAS.
6. Staff noted that this issue is relevant for living resources and added paragraphs 5.6-5.9 and a flowchart to the CP to address this instruction.
7. The new text explains the following:
 - (a) Living resources only include living organisms which have not been subject to human intervention. A living organism which has been subjected to human intervention is no longer a living resource as described in the CP;
 - (b) The accounting for such a living organism will depend on whether the item meets the definition of an asset:
 - (i) If the item is an asset, the nature of the human intervention that took place will need to be considered:
 - a. An asset which was subjected to agricultural activities will be within the scope of IPSAS 27, *Agriculture*; and
 - b. For an asset which was subjected to other forms of human intervention, the nature of the asset is considered, and the asset is accounted for using an applicable IPSAS based on its nature. Typically, IPSAS 12, *Inventories*, or IPSAS 17, *Property, Plant, and Equipment*, will be applicable in these situations.

- (ii) Living organisms which have been subjected to human intervention and do not meet the definition of an asset are not recognized in the General Purpose Financial Statements (GPFS). Staff and the Task Force recommend using the term “biological items” to describe these items.
8. The term “biological item” was chosen to provide contrast with “biological asset”, which is an item which has been subjected to a specific form of human intervention (agricultural activities as defined in IPSAS 27) and recognized as an asset in the GFRS. A “biological item” is also consistent with the term “heritage item”, which is used in ED 78, *Property, Plant, and Equipment*, to describe heritage items which are not necessarily recognized as assets in the GPFS.
9. In addition, paragraphs 5.21-5.23 were also added to explain that the accounting for activities related to biological items is driven by the nature of the activity, and an asset could be recognized if the asset recognition criteria in paragraph 14 of IPSAS 17 or paragraph 28 of IPSAS 31, *Intangible Assets*, are met. This approach is consistent with proposed accounting for activities related to unrecognized heritage items in ED 78. Staff also noted that consideration should be given to whether the costs of activities related to biological items could be accounted as inventory if the cost capitalization criteria of IPSAS 12 are met.

Revisit Conservation or Preservation Activities

10. The proposed accounting for conservation or preservation activities was added to paragraphs 5.16-5.18 of the CP. Similar to the accounting for activities related to biological items, the Task Force and staff agreed that the accounting for conservation or preservation activities should be driven by the nature of the specific activities performed and whether capitalization criteria are met.

Clarify the Distinction Between Human Intervention and Control

11. At the July 2021 IPSASB check-in, the IPSASB instructed staff to clarify that human intervention and control are not necessarily interdependent. To address this instruction, paragraphs 5.35-5.38 and a Venn diagram were added to the CP to explain that control and human intervention are separate concepts. Control is the ability to use a resource to derive economic benefits or service potential, whereas human intervention is merely an action which changes the quantity or quality of the resource.

Other Substantive Changes to Chapter 5: Living Resources

12. In response to general instructions from the IPSASB which applies to the entirety of the CP, the following substantive revisions were made to Chapter 5:
- (a) In accordance with the agreed-upon structure of Chapter 5 from the July 2021 IPSASB check-in, paragraphs 5.10-5.20 were added to discuss the accounting of activities related to living resources. The content of these paragraphs is based on Appendix D: Supplemental Information on Living Resources from the version of the CP which was presented to the IPSASB in June 2021.
 - (b) Paragraphs 5.47-5.48 and 5.53-5.54 were updated to clarify that the measurement of living resources which are held for operational capacity may not be feasible. Preliminary View (PV) 8 was updated to reflect this clarification:

Preliminary View 8—Chapter 5 (Significantly Revised¹)

Based on the discussions in paragraphs 5.23-5.52, the IPSASB's preliminary views are:

- (a) If a living resource is held for its 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; and
- (b) If a living resource is held for its operational capacity, even if the living resource meets the definition of an asset, it is unlikely for the resource to be feasibly measured in a way which achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. Therefore, such a living resource would not meet the criteria to be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

- (c) PV 9 was added to explicitly state the preliminary views regarding disclosures:

Preliminary View 9—Chapter 5 (New)

Regarding disclosures on living resources, the IPSASB's preliminary views are:

- (a) For a living resource which is recognized in the GPFS, the presentation of information such as the basis of what is displayed, or disaggregation of the amount could be useful for users of the GPFS.
- (b) For a living resource which exists with reasonable certainty, is controlled as the result of a past event, but cannot be reliably measured, if the living resource is relevant to the service objectives of the reporting entity, certain non-financial disclosures can be presented in the GPFRs.
- (c) For living resources which are not controlled, presentation of information is not required.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Decision Required

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

¹ The PV in the June 2021 version of the CP stated, "Subject to consideration of existence and measurement uncertainty, certain living resources meet the definition of an asset and are capable of being measured in a way that achieves the qualitative characteristics and takes account of constraints on information in the GPFRs. Therefore, certain living resources can be recognized as assets within the GPFS."

Revisions to Chapter 4: Water

Question

1. Does the IPSASB agree with the changes made to chapter 4 of the [draft] Natural Resources Consultation Paper (CP) to address the June 2021 IPSASB meeting and July 2021 IPSASB check-in instructions?

Recommendation

2. The Natural Resources Task Force (Task Force) recommends the revised text of chapter 4 for inclusion in the [draft] CP.

Background

3. At the June 2021 IPSASB meeting and the July 2021 IPSASB check-in, the IPSASB provided staff with a number of instructions on Chapter 4: Water. These instructions are summarized in [Agenda Item 5.1.2](#).
4. The following paper walks through the revisions made by the Task Force to chapter 4 of the [draft] CP to address the instructions from the IPSASB relating to water in its natural state. The most significant changes are discussed within the body of the paper.

Analysis

Clarify the Description of Water

5. As instructed by the IPSASB at the June 2021 meeting, staff and the Task Force have provided a plain language description of water in its natural state in paragraph 4.1 of the [draft] CP.

Provide Additional Guidance on Human Intervention in the Context of Water

6. At the June 2021 meeting, some IPSASB members questioned whether human intervention to collect and impound water in dams and canals and to reinforce riverbank channels meant that the water in the dams, canals and in the reinforced channels was extracted and no longer in its natural state.
7. Staff and the Task Force:
 - (a) Clarified in paragraph 4.2 of the [draft] CP that water in its natural state forms part of a natural water cycle which flows in a continuous loop within the earth and atmosphere.¹ Water evaporates into the atmosphere, cools and condenses and falls back to earth as rain or snow. The rain and snow accumulate in seas, rivers, streams, lakes, and infiltrates into the ground; and
 - (b) Provided additional guidance on human intervention in paragraphs 4.3-4.6 of the [draft] CP which explains that:
 - (i) Water is still in its natural state when human intervention does not stop or interfere with the natural water cycle or does not change or modify the quantity or quality of water from

¹ This was a departure from the guidance that was initially proposed that water in its natural state is free flowing. A number of IPSASB members noted that, water in its natural state may not always be free flowing. For example, a dam may restrict the flow of water downstream or down the river.

its natural condition. For example, water in dams and canals, artificial lakes and straightened riverbanks is still in its natural state because the human action or humanmade structures neither stops nor changes the water's natural cycle; and

- (ii) Water is extracted 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. For example, water drawn from groundwater sources and put in wells or put in enclosed tanks and water that enters a purification process and is filtered or treated.²

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

Consideration of Whether Water in its Natural State Meets the Definition of an Asset

8. At the June 2021 meeting, the IPSASB noted that control of water in its natural state should be reconsidered as there could be instances whereby water in dams and canals could be controlled by an entity.
9. Staff and the Task Force followed an approach consistent with the Conceptual Framework and considered whether water in its natural state satisfies the definition of an asset (see paragraphs 4.10-4.20 of the [draft] CP); considered existence uncertainty (see paragraphs 4.21-4.23 of the [draft] CP); and considered whether water in its natural state is measurable. (See paragraphs 4.24-4.28 of the [draft] CP.)
10. Therefore, staff and the Task Force clarified that:
 - (a) Water in seas, rivers, streams, lakes and groundwater aquifers do not satisfy the definition of an asset because it could be difficult to ascertain control as water from these sources cannot be actively managed and there is significant existence uncertainty because the water resources change as a result of natural causes, move freely and groundwater sources cannot be easily observed; and
 - (b) Water in dams and canals may satisfy the definition of an asset because an entity can demonstrate control when they actively manage the water levels. In addition, there is low existence uncertainty in instances where volumes of water are actively managed, tracked and monitored.

Consideration of Whether Water in its Natural State Meets is Measurable

11. Staff and the Task Force noted in paragraphs 4.24-4.29 of the [draft] CP that even though water in dams and canals meets the definition of an asset, it cannot be recognized because it may not be practicable to separately value the water in these circumstances. Water is important to the functioning of the humanmade structures and the lack of water in the dams and canals may have an adverse impact on the economic benefits or service potential of the human made structures which may trigger impairment.

² Water resources that have been extracted are no longer in the scope of chapter 4. Instead, an entity considers whether the principles in IPSAS 12, *Inventories* could be applied to account for these extracted resources.

Disclosures

12. At the June 2021 meeting, the IPSASB noted that when developing guidance on disclosure on water, reasons should be considered as to how information on water would be useful. Therefore, staff and Task Force clarified in paragraphs 4.29-4.31 of the [draft] CP that:
- (a) Non-financial disclosures of the volumes of water in dams and canals should be made in the GPFRs because water in dams and canals meets the definition of an asset and has low existence uncertainty but cannot be reliably measured; and
 - (b) No presentation is necessary for water in seas, rivers, streams, lakes and groundwater aquifers because water from these sources does not meet the definition of an asset (as they are not controlled) and has high existence uncertainty.
13. Preliminary View (PV) 7 was added to explicitly state the preliminary views regarding disclosures:

Preliminary View 7—Chapter 4

Based on the discussions in paragraphs 4.10-4.31 of the [draft] CP, the IPSASB's preliminary views are:

- (a) Water in seas, rivers, streams, lakes and groundwater aquifers cannot be recognized as an asset in the GPFS because they do not meet the definition of an asset;
- (b) While water in dams and canals meet the definition of an asset, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. As a result, water in dams and canals do not meet the criteria to be recognized in the GPFS;
- (c) For water in dams and canals which are controlled because the volumes of water are actively managed, if the water in dams and canals is relevant to the service objectives of the reporting entity, permit non-financial disclosures of the volumes of these resources; and
- (d) No presentation is necessary for water in seas, rivers, streams, lakes and groundwater aquifers because they are not controlled.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

Decision Required

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

Other Substantive Revisions to the [Draft] Natural Resources Consultation Paper

Question

1. Does the IPSASB agree with the changes made to the draft Natural Resources Consultation Paper (CP) to address comments from IPSASB members?

Recommendation

2. The Natural Resources Task Force (Task Force) recommends the revised text as referenced below for inclusion in the draft CP.

Background

3. In addition to the changes noted in Agenda Items [5.2.1-5.2.3](#), other changes were made to the draft CP to address minor comments received from IPSASB members after the June and July 2021 meetings.
4. The following paper walks through the substantive changes made to the draft CP to address these comments.

Analysis

Clarifying the Approach Used to Analyze the Asset Recognition Criteria

5. In Chapters 3-5, the analysis of the recognition of subsoil resources, water, and living resources as assets was structured as follows:
 - (a) Step 1: Consideration of whether an item meets the definition of an asset without the consideration of existence uncertainty;
 - (b) Step 2: Consideration of whether existence uncertainty impacts the conclusion from step (a); then
 - (c) Step 3: Consideration of whether an item can be reliably measured, including the impact of measurement uncertainty.
6. Staff received a question on why existence uncertainty was analyzed separately since uncertainty about the existence of an element is addressed by considering all facts and circumstances to determine if an item satisfies the essential characteristics of that element.
7. Staff noted that the above stepped approach is consistent with the structure of Chapter 6: Recognition in Financial Statements in the Conceptual Framework. Furthermore, separating the analysis of existence uncertainty from whether an item meets the definition of an asset will better isolate the reason(s) why a natural resource can or cannot be recognized as an asset.
8. The Task Force agreed with the above reasons and paragraphs 3.15, 4.11, and 5.25 were added to the draft CP to explicitly explain the approach used.

Clarifying How Uncertainties Regarding Subsoil Resources Contribute to Existence Uncertainty or Measurement Uncertainty

9. Staff received a question on whether the risks inherent in the location and estimation of subsoil resource deposits relate to existence uncertainty or measurement uncertainty.

10. Staff noted that the uncertainties over subsoil resources prior to their extract can relate to both existence and measurement uncertainty. Until a certain level of exploration and testing has been done, it is possible for the quantities of a specific subsoil resource in a given area to be zero. Even once there are indications of a subsoil resource deposit, uncertainties over whether an entity can feasibly access and extract the deposit will impact whether the deposit can meet the definition of a resource. In addition, uncertainties over the quantities and the per-unit price of the resources can impact the measurement of the value of the deposit.
11. The Task Force agreed with above explanations, and paragraphs 3.33-3.34 and 3.39 were added to the draft CP.

Changes Made to the Appendices

12. At the July 2021 IPSASB check-in, staff proposed to revise the appendices for subsoil resources, water, and living resources into tables showing the guidance from IFRS, national accounting standards, and international statistical standards, as they relate to the topics discussed in Chapters 3-5. The tabular format was meant to facilitate comparison of the various frameworks against the proposals in the draft CP.
13. Staff noted within the broader international statistical standards, certain natural resources are reported under the System of National Accounts 2008 (2008 SNA) or Government Finance Statistics Manual 2014 (GFSM 2014). Under the 2008 SNA and GFSM 2014, these natural resources are considered economic assets, which could be comparable to assets recognized in the GPFS.
14. Other natural resources are reported under the System of Environmental-Economic Accounting 2012 Central Framework (SEEA Central Framework) and are considered environmental assets. Some environmental assets are only measured and reported by their quantities and are not ascribed with a monetary value. Therefore, it would be difficult to compare all aspects of international statistical standards with IPSAS, IFRS or national accounting standards.
15. As a result, staff proposed, and the Task Force agreed, that the international statistical standards column in appendices C-E should only include the guidance on natural resources which are considered economic assets within the 2008 SNA. A footnote was added to explain that the GFSM 2014 is derived from the 2008 SNA, so the guidance from the two sources is consistent.
16. In addition, to demonstrate that all aspects of international statistical standards were considered, staff and the Task Force propose to include a separate appendix (Appendix F) to summarize the guidance on natural resources from both the 2008 SNA and the SEEA Central Framework.

Decision Required

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

[Draft] Natural Resources Consultation Paper

1. Staff has included the revised [draft] Natural Resources Consultation Paper. To facilitate review, a clean version and a version with tracked changes have been included.
2. In the clean version of the [draft] Consultation Paper:
 - Significant changes in Chapters 1-2 since the July 2021 IPSASB check-in have been highlighted in yellow;
 - Significant changes in Chapters 3 and 5 since the June 2021 IPSASB meeting have been highlighted in yellow;
 - The entirety of Chapter 4 has been substantially revised and is not highlighted;
 - Chapter 6 consists of entirely new text and is not highlighted;
 - Changes which were editorial in nature or consisted of relocation of text have not been highlighted; and
 - Even though the appendices have been significantly reformatted, the changes have not been highlighted, as the underlying content remained largely unchanged since June 2021.

Consultation Paper
[April] 2022
Comments due: [July 31, 2022]

Natural Resources

IPSASB

International Public
Sector Accounting
Standards Board®

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

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

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

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

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

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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 [July 31, 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?

If not, please provide your reasons.

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, its existence is certain, and it can be reliably measured;
- (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.

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*, subject to any specific IASB plans to revise these standards.

Do you agree with the IPSASB's 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 IPSAS31, *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, setting aside the issue of existence uncertainty, is it 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 the development of a relevant, faithfully representative, and verifiable measurement basis for subsoil resources involves a high level of measurement uncertainty. Based on this view, subsoil resources are too uncertain to be recognized as assets in the GPFS.

The IPSASB also noted that despite not being recognized as assets in the GPFS, the disclosure of information regarding subsoil resources that are not recognized due to measurement uncertainty could be useful for users of the GPFRs. Such information could include information on the estimated physical quantities of the resource or other supplemental information prepared using the IPSASB's RPGs.

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

In addition, do you agree that the certain information regarding subsoil resources could be useful for users of the GPFRs and should be presented as supplemental information or disclosed in the financial statements?

If not, please provide the reasons supporting your view.

Preliminary View 7—Chapter 4

Based on the discussions in paragraphs 4.10-4.31, the IPSASB's preliminary views are:

- (a) Water in seas, rivers, streams, lakes and groundwater aquifers cannot be recognized as an asset in the GPFS because they do not meet the definition of an asset;
- (b) While water in dams and canals meet the definition of an asset, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. As a result, water in dams and canals do not meet the criteria to be recognized in the GPFS;
- (c) For water in dams and canals which are controlled, if the water in dams and canals is relevant to the service objectives of the reporting entity, permit non-financial disclosures of the volumes of these resources; and
- (d) No presentation is necessary for water in seas, rivers, streams, lakes and groundwater aquifers because they are not controlled.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

Preliminary View 8—Chapter 5

Based on the discussions in paragraphs 5.23-5.52, the IPSASB's preliminary views are:

- (a) If a living resource is held for its 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; and
- (b) If a living resource is held for its operational capacity, even if the living resource meets the definition of an asset, it is unlikely for the resource to be feasibly measured in a way which achieves the qualitative

characteristics and takes account of the constraints on information in the GPFRs. Therefore, such a living resource would not meet the criteria to 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 9—Chapter 5

Regarding disclosures on living resources, the IPSASB's preliminary views are:

- (a) For a living resource which is recognized in the GPFS, the presentation of information such as the basis of what is displayed, or disaggregation of the amount could be useful for users of the GPFS.
- (b) For a living resource which exists with reasonable certainty, is controlled as the result of a past event, but cannot be reliably measured, if the living resource is relevant to the service objectives of the reporting entity, certain non-financial disclosures can be presented in the GPFRs.
- (c) For living resources which are not controlled, presentation of information is not required.

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 6.7-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented:

Financial Information

- (a) The measurement basis used for determining the gross carrying amount, including, if applicable, the valuation date, method used to determine fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period;
- (c) 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, depreciation and impairment;

- (d) Information regarding the sale of subsoil resources, water, living resources, or the right to exploit or access these resources (i.e., quantities of resources given up and the consideration received), as well as the significant accounting policies relating to these transactions; and
- (e) For natural resources not recognized due to measurement uncertainty:
 - (i) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (ii) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (iii) If available, the range of possible outcomes and point estimates of the unrecognized item.

Non-Financial Information

- (f) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity;
- (g) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above;
- (h) 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.

Information Prepared in Accordance with RPGs 1-3

- (i) 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*;
- (j) 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;
- (k) 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*; and

Other Information

- (l) For public sector entities which participate in the extraction of subsoil resources, discussion of the feasibility of an extraction project.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

NATURAL RESOURCES

CONTENT

	Page
Guide for Respondents	3
Preliminary View 1—Chapter 1	3
Preliminary View 2—Chapter 2	3
Preliminary View 3—Chapter 3	4
Preliminary View 4—Chapter 3	4
Preliminary View 5—Chapter 3	4
Preliminary View 6—Chapter 3	4
Preliminary View 7—Chapter 4	5
Preliminary View 8—Chapter 5	5
Preliminary View 9—Chapter 5	6
Preliminary View 10—Chapter 6	6
Chapter 1: Project Purpose, Scope, and General Description	11
Reasons for Undertaking the Project	11
Project Aims.....	12
Project Scope	12
Developing a General Description of Natural Resources.....	13
Proposed General Description of Natural Resources	13
Preliminary View 1—Chapter 1	14
Application of the General Description to Resources within the Scope of the Consultation Paper.....	14
Structure of the Remaining Sections of this Consultation Paper	14
Chapter 2: Should a Natural Resource be Recognized?	15
General Recognition Principles in the Conceptual Framework.....	15
Recognition Criteria	15
The Definition of an Asset	15
Application of the Definition of an Asset to Natural Resources.....	17
Existence Uncertainty and Asset Recognition.....	17
Capable of Being Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFRs	18
Measurement Uncertainty	19

NATURAL RESOURCES

General Measurement Principles	20
Application of the General Measurement Principles to Natural Resources	20
Overall Approach to the Recognition and Measurement of Natural Resources	20
Preliminary View 2—Chapter 2	21
Chapter 3: Subsoil Resources	22
Description of Subsoil Resources.....	22
Accounting for Activities Related to Subsoil Resources.....	22
Preliminary View 3—Chapter 3	23
Preliminary View 4—Chapter 3	23
Application of the Asset Recognition Criteria to Subsoil Resources	24
Preliminary View 5—Chapter 3	27
Measurement and Potential Disclosures	30
Preliminary View 6—Chapter 3	30
Chapter 4: Water	32
Description of Water	32
Accounting for Activities Related to Water	33
Application of the Asset Recognition Criteria to Water in its Natural State	34
<i>Consideration of control</i>	35
<i>Consideration of whether there has been a past event giving rise to control</i>	36
<i>Consideration of existence uncertainty</i>	36
<i>Capable of Being Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFs</i>	36
Conclusion on the Recognition of Water in its Natural State as an Asset.....	37
Measurement and Potential Disclosures	37
Preliminary View 7—Chapter 4	38
Chapter 5: Living Resources.....	39
Description of Living Resources	39
Accounting for Activities Related to Living Resources	39
Application of the Asset Recognition Criteria to Living Resources	43
Conclusion on the Recognition of a Living Resource as an Asset.....	47
Measurement.....	47
Preliminary View 8—Chapter 5	48
Disclosures	48

NATURAL RESOURCES

Preliminary View 9—Chapter 5	49
Chapter 6: Presentation	50
Summary of the Principles on Presentation in General Purpose Financial Reports in the Conceptual Framework.....	50
Application to Natural Resources	51
Comparison to IFRS and Private Sector Practices	53
Preliminary View 10—Chapter 6	54
Appendix A: Accounting for a Government's Sovereign Power to Issue Licenses.....	56
Background.....	56
Example.....	56
Appendix B: Development of the General Description of Natural Resources	58
Plain English Definition	58
Definition from Economic Literature	58
Definitions from International Statistical Standards.....	58
South African GRAP	58
FASAB Definition.....	59
Appendix C: Existing International, National, and Statistical Guidance on Subsoil Resources and Related Activities.....	60
Appendix D: Existing International, National, and Statistical Guidance on Water and Related Activities	66
Appendix E: Existing International, National, and Statistical Guidance on Living Resources and Related Activities.....	69
Appendix F: International Statistical Standards Guidance.....	72
Introduction	72
Identification and Objectives of the International Statistics Standards.....	72
2008 SNA Guidance	72
SEEA Central Framework	75
GFSM 2014	79

Chapter 1: Project Purpose, Scope, and General Description

Reasons for Undertaking the Project

- 1.1. 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.
- 1.2. 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.¹ 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 presentation² 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, sustainability³ 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 general purpose financial statements (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.

¹ 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.

² 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.

³ 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

- 1.3. 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 General Purpose Financial Reports (GPFs) for accountability purposes and for decision-making purposes.
- 1.4. 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.
- 1.5. As this project is a financial reporting project, any resulting IPSAS guidance will be developed in accordance with *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* (Conceptual Framework).
- 1.6. 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.
- 1.7. 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.⁴ 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.

Project Scope

- 1.8. This project focuses on the accounting for *tangible*, naturally occurring resources, including subsoil resources, water, and living resources in their natural state.
- 1.9. Other resources such as air and the electromagnetic spectrum may be considered natural resources in other contexts. However, these items have been excluded from this project, as the issues raised by constituents relate to the right to access these resources. Unlike subsoil resources, water, and living resources, the access and use of air and the electromagnetic spectrum does not result in consumption of the underlying resource. As a result, the accounting for the right to access these resources are more in line with the scope of IPSAS 31, *Intangible Assets*.⁵
- 1.10. In addition, the cost of activities relating to natural resources (for example, the maintenance of the resources), will not be the main focus of this project, as the accounting for many of these costs is already addressed by existing IPSAS.
- 1.11. The accounting for land is also excluded from the project, as there is already sufficient guidance regarding land in IPSAS.⁶

⁴ For more information on the IPSASB's initiatives on sustainability reporting, please see: <https://www.ipsasb.org/focus-areas/sustainability-reporting>

⁵ The IPSASB is currently considering a project to update IPSAS 31 and whether additional guidance is needed in areas such as electromagnetic spectrum rights.

⁶ Depending on the facts and circumstances, land falls within the scope of either IPSAS 12, *Inventories*, or IPSAS 17, *Property, Plant and Equipment*.

- 1.12. Furthermore, a government's sovereign power to issue licenses is excluded. While the exercise of sovereign powers can facilitate transactions that can result in the recognition of an asset, such an asset would arise from the transaction itself rather than from the sovereign power. This issue is further explained in [Appendix A: Accounting for a Government's Sovereign Power to Issue Licenses](#).

Developing a General Description of Natural Resources

- 1.13. IPSAS literature currently does not have explicit guidance on natural resources or an explicit description or definition of what constitutes a natural resource. Therefore, by using a principled approach to develop a general description of natural resources and by proposing accounting guidance for these described items, the project effectively fills a gap in IPSAS literature.
- 1.14. In this Natural Resources CP, the IPSASB has developed a proposed general description of natural resources. 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. The general description 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](#).

Proposed General Description of Natural Resources

- 1.15. Based on the key aspects that are common among the definitions in Appendix B, a natural resource can be generally described as a tangible item which has the following attributes:
- (a) Is a resource as described in the IPSASB's Conceptual Framework⁷;
 - (b) Is naturally occurring; and
 - (c) Is in its natural state.
- 1.16. 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 service potential.
- 1.17. Naturally occurring means that the resource came into existence without the actions of humankind.
- 1.18. To be in its natural state, a natural resource must not have been subjected to human intervention, which in general, include human actions which modify the quantity and/or quality of a natural resource. 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.

⁷ Conceptual Framework, paragraph 5.7, states that a resource is an item with service potential or the ability to generate economic benefits.

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?

If not, please provide your reasons.

Application of the General Description to Resources within the Scope of the Consultation Paper

- 1.19. The above attributes are useful in setting boundaries for what are included or excluded from the project. The first attribute is important as it aligns the general description of natural resources with the recognition criteria in the Conceptual Framework. That is, if an item is not a resource, it will not be possible for the item to be recognized as an asset. However, the lack of recognition and measurement in the financial statements does not preclude the IPSASB from proposing presentation of information regarding natural resources in either the note disclosures to the financial statements or as supplementary information in an entity’s broader GPFRs.
- 1.20. The second and third attributes both reinforce the principle that this project only considers resources which have not already been subjected to human intervention. This delineation is important as the development of guidance on the described resources is expected to result in new information which improves transparency, accountability, and decision-making over natural resources.
- 1.21. If an item does not fit within the above general description of a natural resource but is still relevant to an entity’s general purpose financial statements (GPFS), the entity should consider if an existing IPSAS would be relevant to the accounting of that item.⁸ Otherwise, if the item is not relevant to an entity’s GPFS, the rest of this CP will likely not be relevant.

Structure of the Remaining Sections of this Consultation Paper

- 1.22. For items qualifying as natural resources, chapter 2 of this CP considers the general recognition principles within the Conceptual Framework and addresses the issue of whether a natural resource should be recognized.
- 1.23. 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.
- 1.24. Finally, chapter 6 of this CP address the potential presentation of natural resources.

⁸ In some cases, the IPSASB may need to clarify that these items are included in the scope of the existing IPSAS.

Chapter 2: Should a Natural Resource be Recognized?

General Recognition Principles in the Conceptual Framework

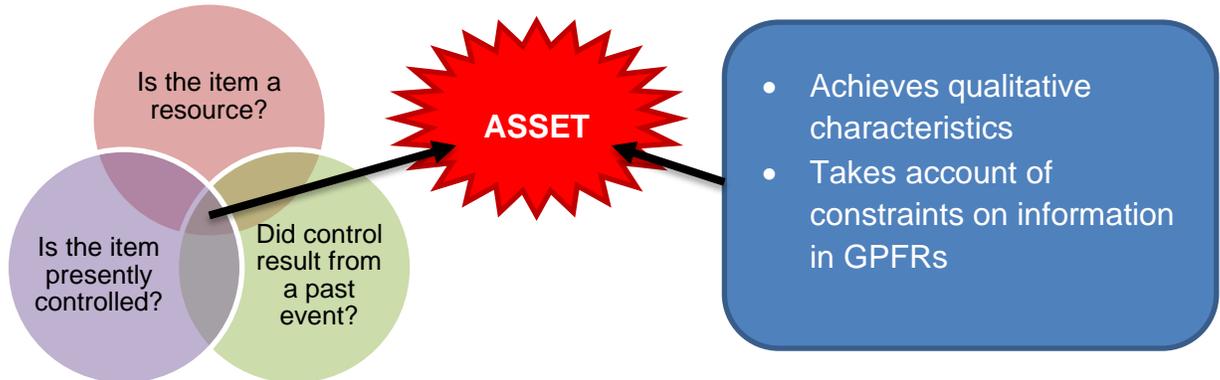
- 2.1. The core accounting question in this CP is whether a natural resource which meets the description in chapter 1 can be recognized as an asset in the GPFS prepared under IPSAS. The IPSASB's Conceptual Framework provides the principles to be used in developing IPSAS, including principles on asset 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.⁹
- 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.¹⁰ 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.

⁹ Conceptual Framework, paragraph 5.11.

¹⁰ 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.¹¹
- 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.¹²
- 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 or disclosed in the entity’s GPFS.
- 2.18. If an entity concludes that there is no existence uncertainty over whether an item meets the definition 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.

¹¹ Conceptual Framework paragraphs 6.5 and BC6.2.

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

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

- 2.19. 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.¹³
- 2.20. 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

- 2.21. 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.¹⁴
- 2.22. 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.¹⁵
- 2.23. 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

- 2.24. 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.¹⁶
- 2.25. For the measurement basis of a natural resource to faithfully represent 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.

¹³ Conceptual Framework, paragraphs 3.6-3.42.

¹⁴ 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."

¹⁵ ED 76, paragraph 7.3.

¹⁶ Conceptual Framework, paragraph 3.10.

Verifiability

- 2.26. 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.¹⁷
- 2.27. 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

- 2.28. 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, as noted in paragraph 2.1, 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, such a measure would likely not be relevant.
- 2.29. 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.¹⁸
- 2.30. 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.¹⁹ 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

- 2.31. 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 can be used to appropriately reflect the uncertainty inherent within the information available at reporting date.
- 2.32. 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 become questionable.²⁰ In such situations, the IPSASB is considering disclosures such as:

¹⁷ Conceptual Framework, paragraph 3.26.

¹⁸ Conceptual Framework, paragraph 3.32.

¹⁹ Conceptual Framework, paragraph 3.39.

²⁰ Conceptual Framework paragraphs 6.6 and 6.8.

- (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.
- 2.33. 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

- 2.34. 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.
- 2.35. An entity should 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.²¹

Application of the General Measurement Principles to Natural Resources

- 2.36. The selection of measurement bases and techniques will vary significantly based on the specific facts and circumstances surrounding each natural resource. 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

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

²¹ See ED 76 at: <https://www.ifac.org/system/files/publications/files/ED-76-Chapter-7.pdf>.

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, its existence is certain, and it can be reliably measured;
- (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.

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 C: 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 F: 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*.²² 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 A: Accounting for a Government’s Sovereign Power to Issue Licenses](#).

Exploration, Evaluation and Development Activities

- 3.5. Prior extraction, 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 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.²³ It should be noted that IPSAS 31 is drawn primarily from IAS 38, so the guidance on development costs is already in current IPSAS.

²² 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*.

²³ 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. Therefore, 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*, subject to any specific IASB plans to revise these standards.

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, 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:

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 powers²⁴ 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 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:

²⁴ 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.

- (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 extreme 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, setting aside the issue of existence uncertainty, is it 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 paragraph 2.15, 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.

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

- 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 2.19-2.30, 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,"²⁵ and would most readily reflect the asset's ability to generate economic benefits through sale.
- 3.39. However, for such a current value to faithfully represent the economics of subsoil resources, the value should 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) The estimated costs of extraction and depending on the legal requirement in the jurisdiction, restoration costs.
- 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

²⁵ ED 76, paragraph 7.36.

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 these estimates may not be appropriate for use in the financial statements. This is because the same set of data can result in materially different estimates based on interpretation by difference specialists.
- 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.
- 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.²⁶
- 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.²⁷

²⁶ IASB Discussion Paper DP/2010/1, *Extractive Activities*, paragraph 4.83.

²⁷ GRAP 110.BC15-BC16.

- 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.²⁸ 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 **(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.

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 6—Chapter 3

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

The IPSASB also noted that despite not being recognized as assets in the GPFS, the disclosure of information regarding subsoil resources that are not recognized due to measurement uncertainty could be

²⁸ SFFAS 38, paragraphs A36 and A38.

NATURAL RESOURCES

useful for users of the GPFRs. Such information could include information on the estimated physical quantities of the resource or other supplemental information prepared using the IPSASB's RPGs.

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

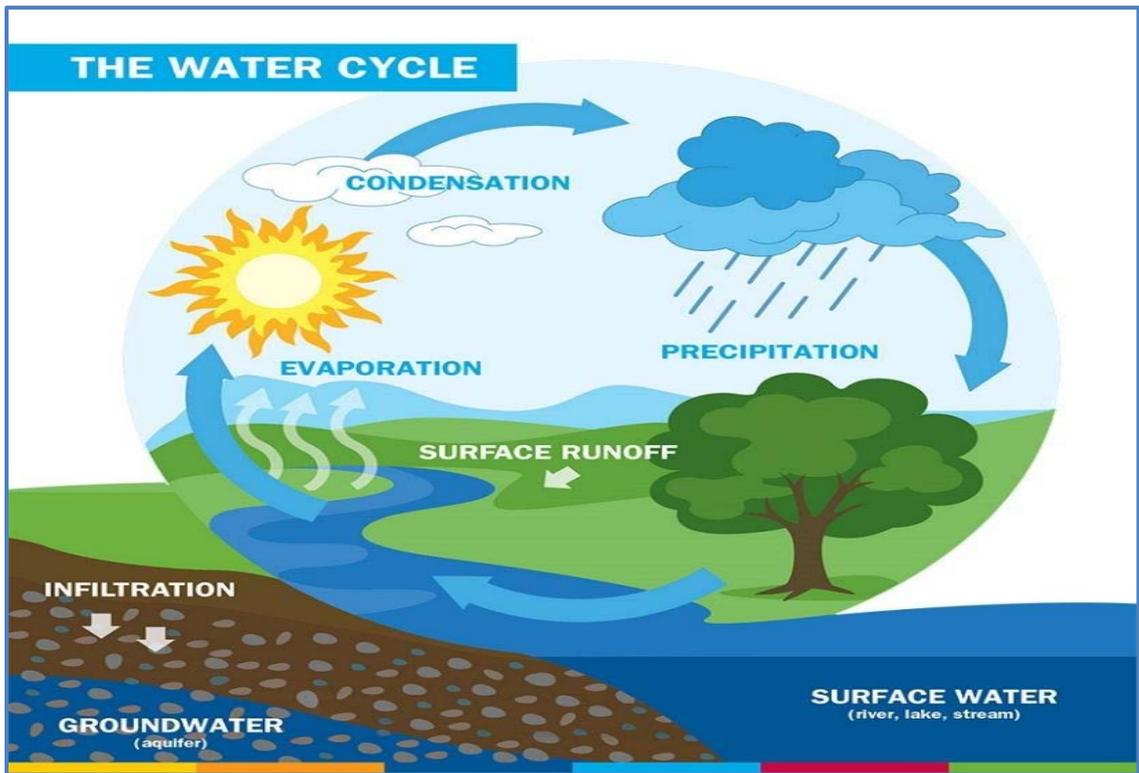
In addition, do you agree that the certain information regarding subsoil resources could be useful for users of the GPFRs and should be presented as supplemental information or disclosed in the financial statements?

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 that have not yet been extracted. Water in its natural state comprise of surface water in seas, rivers, streams, lakes, groundwater aquifers and water impounded in dams 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. Liquid water evaporates, condenses to form clouds, and precipitates back to earth in the form of rain and snow. The rain and snow accumulate 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 1.18, 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 handmade structures are used to impound water in dams and canals, to erect artificial lakes, or to straighten, divert or reinforce riverbanks, the water in dams and canals, water in the artificial lakes and water in the straightened riverbanks is still in its natural state because the human action neither stops nor changes the water’s natural cycle.
- 4.5. Water may be extracted when it:

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

- (a) Is drawn from groundwater sources and put in wells or put in enclosed tanks controlled by an entity;
 - (b) Is moved from dams and canals into turbines to generate hydroelectricity power and then stored in closed reservoirs³⁰; or
 - (c) Flows from a sea or river and enters 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 extracted 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 extracted resources. This is because the extracted water resources may meet the definition of inventory because these resources are materials or work in progress to be consumed in the production process or finished goods (products) to be sold and the entity that extracts 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.³¹
- 4.7. 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 D: Existing International, National, and Statistical Guidance on Water and Related Activities](#). Additional information on international statistical standards guidance can also be found in [Appendix F: International Statistical Standards Guidance](#).

Accounting for Activities Related to Water

- 4.8. 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 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.
- 4.9. Costs of activities relating to water resources in their natural state are not in the scope of this chapter because there 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 probably be expensed as the entity may not control the water in its natural state (see paragraphs 4.15-4.18 for consideration of control);
 - (b) Costs incurred to treat water that has been extracted from underground sources, and costs incurred to treat water in the purification process and in pipes may be recognized as inventory

³⁰ The point of extraction for hydroelectricity power stations may depend on how the power station is designed. For example, water in turbines is still in its natural state if it circulates back to the water in dams and canals in the process of generating electricity and is extracted if the water does not circulate back to the water in dams and canals but is rather stored in closed reservoirs.

³¹ 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.

because the treatment costs are costs of conversion or costs incurred in bringing the inventories to their present location and condition.³² Costs incurred to treat water that has been extracted are subsequently expensed as the water is consumed or sold;

- (c) Costs of humanmade 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*³³; 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*.³⁴

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

- 4.10. 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 an entity to recognize water in its natural state as an asset under IPSAS, the item must:
- (a) Satisfy (meet) the definition of an element, in this case an asset; **and**
 - (b) Be measurable (measured) in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFs.
- 4.11. 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. Similar to the chapter on subsoil resources, the analysis below will first consider if an entity can control water in its natural state as the result of a past event, then whether existence uncertainty impacts if water in its natural state can meet the definition of an asset, then finally whether water in its natural state can be reliably measured. This approach will better isolate the reason(s) why water in its natural state can or cannot be recognized as an asset.
- 4.12. Water in its natural state generally can generate economic benefits because water in seas, rivers, streams, lakes, groundwater aquifers can be treated and sold as drinking water or can be used for agricultural purposes. In addition, water impounded in dams and canals may also be used in the production and supply of hydroelectricity power. Water in its natural state can also have service potential as it is part of the natural water cycle and helps to provide life and 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.

³² 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.

³³ 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>.

³⁴ 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>

- 4.13. Keeping the above process 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?
- 4.14. 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

- 4.15. 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.

- 4.16. An entity is unlikely to demonstrate control over water in seas, rivers, streams, lakes and groundwater aquifers because the water resources in these sources:
- (a) Cannot be easily tracked and monitored by management because the water levels reduce or increase 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. In such a case, human intervention is limited and hence this is an indication that there is no control; and
 - (b) Groundwater is underground and cannot be directly observable.
- 4.17. An entity may control water impounded in dams and canals when it:
- (a) **Actively manages the volumes of water in dams and canals to ensure that the resource is used to achieve the entity's objectives.** Dams 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 dams 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 dams and canals.** Access to dams and canals may be restricted through physical access.

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

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

- 4.19. For an item to meet the definition of an asset, there must also have been a past event which conferred control of the item to the entity. There is no need to consider if past event confers control for water in seas, rivers, streams, lakes and groundwater aquifers because an entity may find it difficult to demonstrate that it controls water in these sources.
- 4.20. For water in dams 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 dams and canals and then actively manage the volumes in dams and canals;
 - (b) Non-exchange transaction or where a dam 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 dams and canals due to rainfall.

Consideration of existence uncertainty

- 4.21. The issue of existence uncertainty is particularly important for water in seas, rivers, streams, lakes and groundwater aquifers because most water resources from these sources change as a result of natural causes, move freely and groundwater sources cannot be easily observed and/or accessed.
- 4.22. Conversely, the issue of existence uncertainty is somewhat minimal for water in dams 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

- 4.23. Based on the discussion in paragraphs 4.10-4.22, water in seas, rivers, streams, lakes and groundwater aquifers might not meet the definition of an asset because existence uncertainty is applicable in most situations. It is possible for water in dams and canals to meet the definition of an asset because existence uncertainty might not be applicable if 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

- 4.24. 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 2.19-2.30, 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.
- 4.25. 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 becomes questionable.

- 4.26. The measurability of water in seas, rivers, streams, lakes, and groundwater aquifers need not be considered because of the high level of existence uncertainty as the volumes of water in these sources change due to natural causes.
- 4.27. Even if water in dams and canals meets the definition of an asset, it may not be practicable to attribute a separate monetary value to the water, as its value is derived from its use in the dam or canal. Therefore, the value is attributed to the infrastructure asset or humanmade structures rather than the water itself. Since the water in dams and canals is important to the functioning and performance of the humanmade structures, natural causes such as drought may deplete the water resources in dams and canals and may affect the measurement of the humanmade structures (property, plant, and equipment) and result in an indicator of impairment.

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

- 4.28. Based on the discussion in paragraphs 4.10-4.27, the IPSASB's preliminary view concludes that water in seas, rivers, streams, lakes and groundwater aquifers and water impounded in dams and canals cannot be recognized as assets in the GPFS because:
- (a) Water in seas, rivers, streams, lakes, and groundwater aquifers do not meet the definition of an asset as there is a high level of existence uncertainty because the volumes of water in these sources change due to natural causes; and
 - (b) Even though it may be possible for water in dams and canals to be controlled as the result of a past event, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. This is because the value of water in dams and canals is included in the value of the humanmade structures which makes use of the impounded water.

Measurement and Potential Disclosures

- 4.29. As noted in paragraph 4.28, the IPSASB noted that it would be difficult to recognize water in its natural state as an asset due to the high levels of existence and measurement uncertainty. Therefore, there is no need to consider measurement of the water in its natural state within the financial statements.
- 4.30. Despite not being recognized as an asset for financial reporting purposes, 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 information regarding the volumes of water in dams and canals that are actively managed, if these resources are relevant to the service objectives of reporting entity and if operational information about the volumes of water is available.
- 4.31. The detailed consideration of presentation by disclosure within the GPFRs is explored in chapter 6 of this CP.

Preliminary View 7—Chapter 4

Based on the discussions in paragraphs 4.10-4.31, the IPSASB's preliminary views are:

- (a) Water in seas, rivers, streams, lakes and groundwater aquifers cannot be recognized as an asset in the GPFS because they do not meet the definition of an asset;
- (b) While water in dams and canals meet the definition of an asset, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFs. As a result, water in dams and canals do not meet the criteria to be recognized in the GPFS;
- (c) For water in dams and canals which are controlled because the volumes of water are actively managed, if the water in dams and canals is relevant to the service objectives of the reporting entity, permit non-financial disclosures of the volumes of these resources; and
- (d) No presentation is necessary for water in seas, rivers, streams, lakes and groundwater aquifers because they are not controlled.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

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:*
- (a) Is a resource, as described in the IPSASB's Conceptual Framework.
 - (b) Is naturally occurring; and
 - (c) Is in its natural state (i.e., the resource's natural biological transformation has not yet been changed due to human intervention).
- 5.2. 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."³⁵ As noted in paragraph 1.18, 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 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.³⁶
- 5.3. 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 could generate economic benefits or service potential. 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 or measuring their natural growth; and
 - (b) The biological transformation of the trees has not been interfered by human activity such as fertilization, pruning, or treatment for diseases.
- 5.4. 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 E: 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 F: International Statistical Standards Guidance](#).

Accounting for Activities Related to Living Resources

- 5.5. 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.

³⁵ IPSAS 27, paragraph 9.

³⁶ Paragraph 9 of IPSAS 27 defines harvest as, "the detachment of produce from a biological asset or the cessation of a biological asset's life processes." In IPSAS 27, the term applies to both plants and animals.

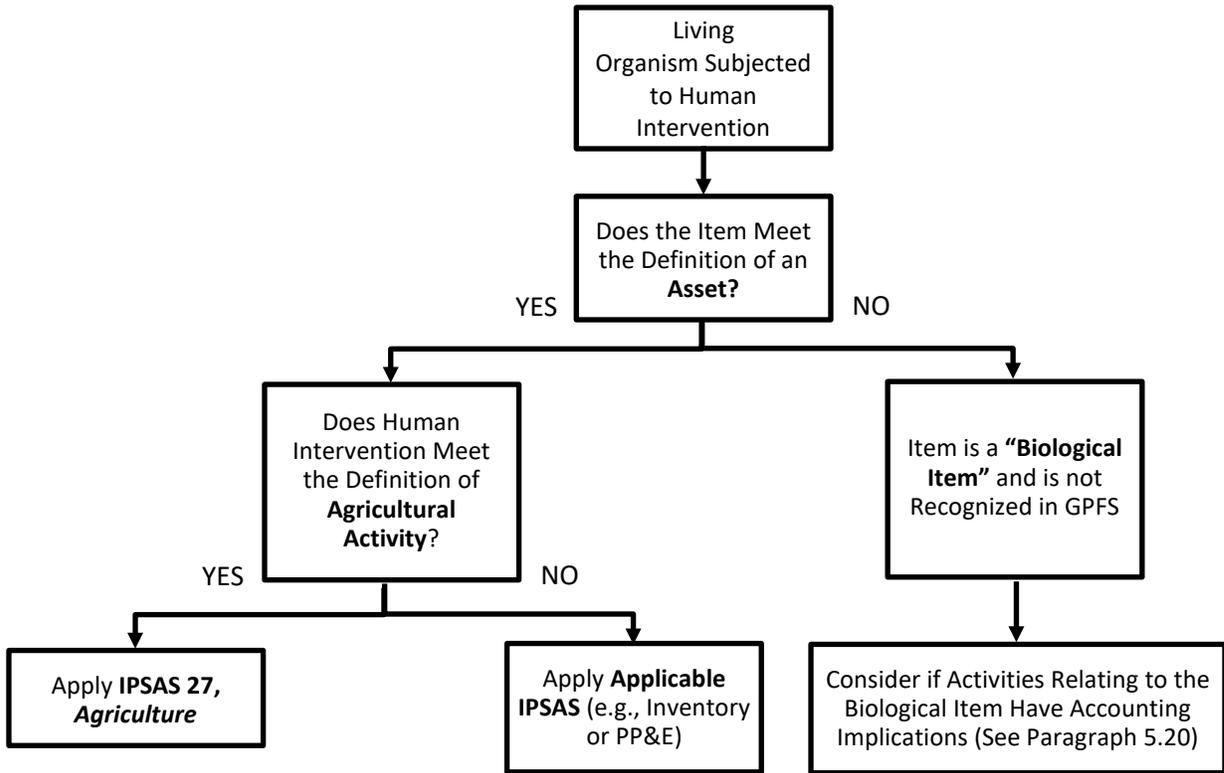
Relationship Between Living Resources and IPSAS 27, Agriculture

- 5.6. IPSAS 27, *Agriculture*, applies to the following when they relate to agricultural activity: biological assets, except for bearer plants (see paragraph 5.12), and agricultural produce at the point of harvest. Biological assets are defined in IPSAS 27 as a living animal or plant.³⁷
- 5.7. 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.”³⁸ Based on this definition, an agricultural activity would be considered a form of human intervention, as described in paragraph 5.2.
- 5.8. Based on these definitions and the description in paragraph 5.1, the relationship between living resources and biological assets within the scope of IPSAS 27 is as follows:
- (a) A living resource is a living organism which has not been subject to human intervention and is the subject matter of this chapter;
 - (b) When a living organism is subject to human intervention, the item is not a living resource. When this occurs:
 - (i) If the item meets the definition of an asset, the entity considers the nature of human intervention that took place:
 - 1. If the item was subjected to a form of human intervention which meets the definition of an agricultural activity, the item falls within the scope of IPSAS 27; or
 - 2. If the item was subjected to a form of human intervention which is not considered an agricultural activity, the item is neither a living resource within the scope of this CP nor a biological asset within the scope of IPSAS 27. In these situations, the reporting entity considers the nature of the item and accounts for it using an applicable IPSAS (e.g., IPSAS 12 or IPSAS 17);
 - (ii) If the item does not meet the definition of an asset, it is not recognized in the GPFS. For the purpose of this CP, such items will be referred to as “biological items”. Paragraph 5.20 considers the accounting of activities related to biological items.

³⁷ IPSAS 27, paragraphs 2 and 9.

³⁸ IPSAS 27, paragraph 9.

5.9. The decision tree for living organisms which have been subjected to human intervention is summarized in this flowchart:



Accounting for Agricultural Activities

- 5.10. IPSAS 27 does not provide explicit guidance on the costs of agricultural activities related to biological assets which are measured at fair value less costs to sell. This is because the decision to capitalize or expense these costs will have no impact on the net surplus (deficit) or financial position, as any capitalized costs will result in an equal adjustment in the gain or loss arising from the change in the fair value.
- 5.11. For biological assets measured at cost, an entity considers if the cost of agricultural activities can be capitalized by considering IPSAS 12, IPSAS 17, IPSAS 21, *Impairment of Non-Cash-Generating Assets*, and IPSAS 26, *Impairment of Cash-Generating Assets*.³⁹
- 5.12. After a biological asset or an agricultural produce has been harvested, paragraph 5 of IPSAS 27 states that the item is considered inventory within the scope of IPSAS 12.

Activities Relating to Bearer Plants and Biological Assets Held for the Provision or Supply of Services

- 5.13. Bearer plants are defined in paragraph 9 of IPSAS 27 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.”

³⁹ IPSAS 27, paragraph 37.

- 5.14. Bearer plants are excluded from the scope of IPSAS 27 and are accounted for as plant, property and equipment within the scope of IPSAS 17.⁴⁰
- 5.15. 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 plant, property, and equipment in accordance with IPSAS 12 or IPSAS 17. 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.

Conservation or Preservation Activities

- 5.16. 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 using a standard that aligns with the nature of the activity and the entity's reasons for preserving a resource.
- 5.17. Under this national accounting framework, the costs incurred for the conservation or preservation of biological assets may be accounted for as inventory, plant, property, and equipment, or intangible asset depending on the specific facts and circumstances regarding the activities performed and whether certain capitalization criteria have been met.⁴¹
- 5.18. 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.

Other Management Activities

- 5.19. 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.
- 5.20. 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 Biological Items

- 5.21. The term "biological item" is meant to provide contrast with "biological assets" from IPSAS 27, which are living organisms which are subject to human intervention (specifically, agricultural activities) and meet the definition of an asset. Like biological assets, biological items are living which organism which are subject to human intervention. However, biological items do not meet the definition of an asset and thus are not recognized in the GPFS.
- 5.22. 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. In the context of this CP, the entity would

⁴⁰ IPSAS 27, paragraph 3(b).

⁴¹ GRAP 110, paragraphs 3 and 6, and GRAP 27, paragraph 4.

consider these animals to be biological items because the animals' growth is subject to human intervention, but they are not controlled by the entity.

- 5.23. Although biological items themselves are not recognized in the GPFS, an entity may incur expenditures for activities related to biological items. An entity considers the nature of these activities and recognizes 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 expenditures are 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 or not the underlying biological item was recognized.

Application of the Asset Recognition Criteria to Living Resources

- 5.24. 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 GPFs.
- 5.25. 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.
- 5.26. Living resources generally can generate economic benefits through sale or have service potential. For example, certain organisms 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.
- 5.27. 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?
- 5.28. 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

- 5.29. 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

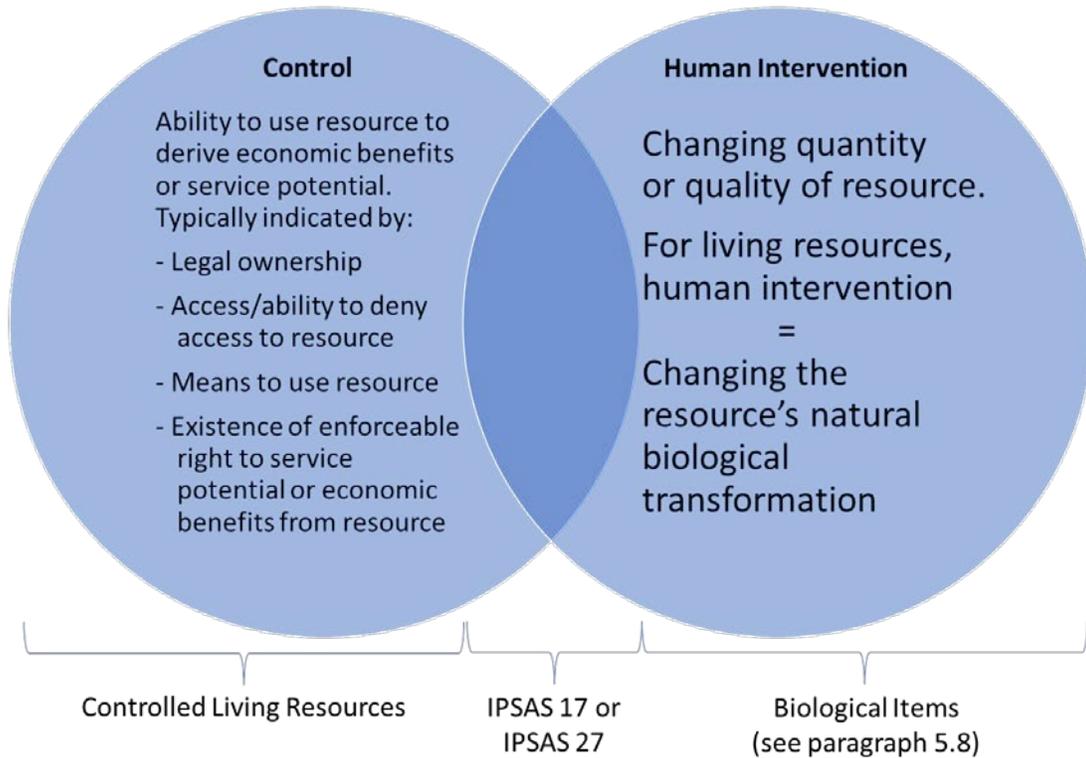
- (d) The existence of enforceable right to service potential or the ability to generate economic benefits arising from the resource.

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

- 5.30. 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.
- 5.31. 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 control.
- 5.32. 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.
- 5.33. 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.
- 5.34. In general, the control considerations will differ for sessile 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 leads to a rebuttable presumption that they cannot be controlled unless an entity has the means of limiting their movement. In contrast, sessile 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

5.35. It should be clarified that 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.



5.36. 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.

5.37. Conversely, there could be situations where an entity has intervened in the animals' natural biological transformation without gaining control. The example of a biological item as noted in paragraph 5.22 is one such situation.

5.38. 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.

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

- 5.39. 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. 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) A living resource having the ability to reproduce naturally, such as when offspring is born.

Consideration of existence uncertainty

- 5.40. 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.
- 5.41. 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 5.33, 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.
- 5.42. 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

- 5.43. 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 whether Living Resources are Measurable

- 5.44. 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.
- 5.45. Unlike subsoil resources, the quantification of some living resources may be more straight forward. Many living resources such as trees and other vegetation are sessile 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 5.39, 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.

- 5.46. 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.
- 5.47. 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 it is holding an uncultivated forest to serve multiple purposes at the same time, 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.
- 5.48. Based on the above, while the measurement of living resources held for financial capacity appears to be possible, the measurement of living resources which are held for operational capacity may not be 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

- 5.49. Based on the discussion in paragraphs 5.23-5.46, 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

- 5.50. As noted in paragraph 5.47, certain living resources can be recognized as an asset within the GPFS. The following discussion considers the application of the general measurement principles, summarized in paragraphs 2.34-2.36, 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 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.
- 5.51. As noted in paragraph 2.35, 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.
- 5.52. 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.

- 5.53. For living resources which are typically held for their operational capacity, 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 living resource, as well as the scientific knowledge and capabilities currently available to measure such an operational value.
- 5.54. In general, the development of a current operational value may involve significant management judgment and subjectivity. If an entity determines that a living resource is held for its operational capacity and 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 8—Chapter 5

Based on the discussions in paragraphs 5.23-5.52, the IPSASB's preliminary views are:

- (a) If a living resource is held for its 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; and
- (b) If a living resource is held for its operational capacity, even if the living resource meets the definition of an asset, it is unlikely for the resource to be feasibly measured in a way which achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. Therefore, such a living resource would not meet the criteria to be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Disclosures

- 5.55. 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.
- 5.56. 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.
- 5.57. The detailed consideration of presentation is discussed in chapter 6 of this CP.

Preliminary View 9—Chapter 5

Regarding disclosures on living resources, the IPSASB's preliminary views are:

- (a) For a living resource which is recognized in the GPFS, the presentation of information such as the basis of what is displayed, or disaggregation of the amount could be useful for users of the GPFS.
- (b) For a living resource which exists with reasonable certainty, is controlled as the result of a past event, but cannot be reliably measured, if the living resource is relevant to the service objectives of the reporting entity, certain non-financial disclosures can be presented in the GPFRs.
- (c) For living resources which are not controlled, presentation of information is not required.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

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.⁴²

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.⁴³
- 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.⁴⁴

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.⁴⁵

⁴² Conceptual Framework, paragraph 8.4.

⁴³ Conceptual Framework, paragraph 8.15.

⁴⁴ Conceptual Framework, paragraph 8.38.

⁴⁵ Conceptual Framework, paragraphs 8.45 and 8.47.

Application to Natural Resources

6.7. At this stage of the Natural Resources project, the focus on presentation will be on information selection. Once the IPSASB receives feedback on the preliminary views regarding what natural resources information should be presented, the details on information location and organization will be addressed in the next phase of the project.

Financial information

6.8. Based on the preliminary views in chapters 3-5, certain living resources may meet the criteria to be recognized as an asset. Paragraph 8.23 of the Conceptual Framework explains that 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).”

6.10. Based on the items listed in paragraphs 6.8 and 6.9, financial information that help a user understand the financial statements, provides on the context of the entity and its operating environment, and have a clear and demonstrable relationship to the information displayed in the financial statements could 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 fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period; and
- (c) 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, depreciation and impairment; and
- (d) 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.

- 6.11. As noted in paragraph 2.32, if the existence of an item is certain, but it is not recognized because of a high level of measurement uncertainty, disclosure of the following would also be helpful to users:
- (a) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (b) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (c) If available, the range of possible outcomes and point estimates of the unrecognized item.
- 6.12. The information in paragraphs 6.10 and 6.11 can be aggregated and disclosed for each class of natural resource recognized in the financial statements.
- 6.13. If the accounting for an activity related to natural resources falls within the scope of an existing IPSAS, additional disclosures may also be required by the IPSAS. In addition, the disclosure of certain non-financial information may also be applicable for items which are recognized in the financial statements—see paragraph 6.15.

Non-Financial Information

- 6.14. Based on the IPSASB's preliminary views put forth in chapters 3-5, with the currently available means of determining the existence and measurement of certain natural resources, it is likely that subsoil resources, water, and certain living resource cannot be recognized as assets in the GPFS. However, the disclosure of certain non-financial information could be useful for users of the GPFRs.
- 6.15. The selection of non-financial information for disclosure is supported by paragraph 8.24 of the Conceptual Framework, which lists the following items as examples of information disclosed in the notes:
- "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."
- 6.16. Non-financial information on natural resources that is important to understanding an entity's finances and ability to deliver services could include, but is not limited to:
- (a) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity. (At this stage, no decision has been made on how the disclosure of quantities should be impacted by the confidence levels inherent in the estimates);
 - (b) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above; and
 - (c) 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.

Recommended Practice Guidelines

- 6.17. In addition, 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. While entities applying the RPGs are required to apply them in their entirety, the application of the RPGs is currently optional. The reconsideration of whether the RPGs should be mandatory is not within the scope of this CP; however, the IPSASB may revisit this issue at a future date.
- 6.18. Where the 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.
- 6.19. Many of the natural resources related programs and services noted in paragraph 6.17 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.
- 6.20. 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

- 6.21. While there is little guidance on the presentation of information regarding water and living resources in IFRS, many jurisdictions require the presentation of information relating to subsoil resources in the broader GPFRs. For example, while the specific requirements of each jurisdiction or industry can vary broadly, the following information is typically required in the regulatory filings of publicly traded mining entities in the private sector:⁴⁶

⁴⁶ Based on the requirements from National Instrument 52-102 for publicly traded Canadian mining companies.

NATURAL RESOURCES

- (a) An estimate of reserves and resources, as prepared by a qualified person (e.g., a professional geologist). In this context, reserves are the physical quantities of minerals estimated with a high level of geological confidence while resources are estimates at lower levels of confidence;
 - (a) In cases where not enough information is available to formulate an estimate of reserves, a preliminary economic assessment which contains an estimate of resources and discusses the potential viability of an extraction project.
 - (b) Technical reports which include an assessment of whether extraction of the subsoil resource will be feasible. Technical reports are required to be filed upon first-time reporting in a jurisdiction or upon a material change (as defined by regulation in each jurisdiction) in reserves or resources; and
- 6.22. The information on the estimated physical quantities of subsoil resources in paragraphs 6.20(a) and (b) are consistent with the proposed disclosure of physical quantities in paragraph 6.15(a).
- 6.23. The number of public sector entities that are currently involved in the extraction of subsoil resources is relatively low, so the discussion of the feasibility of an extraction project may appear to be not applicable to the public sector. However, as many resource-rich jurisdictions are recently beginning to enter into production sharing or co-production agreements with private companies, where a public sector entity is involved with the extraction of subsoil resources, the disclosure of an assessment of whether the extraction of subsoil resources is feasible will be helpful information for users of the GPFRs. (It should be noted that if an entity has capitalized costs relating to the development and extraction of natural resources, such costs are subjected to the accounting and disclosure requirements of IPSAS 26, *Impairment of Cash-Generating Assets*, or IPSAS 21, *Impairment of Non-Cash-Generating Assets*.)

Preliminary View 10—Chapter 6

Based on the discussion in paragraphs 6.7-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented:

Financial Information

- (a) The measurement basis used for determining the gross carrying amount, including, if applicable, the valuation date, method used to determine fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period;
- (c) 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, depreciation and impairment;

- (d) Information regarding the sale of subsoil resources, water, living resources, or the right to exploit or access these resources (i.e., quantities of resources given up and the consideration received), as well as the significant accounting policies relating to these transactions; and
- (e) For natural resources not recognized due to measurement uncertainty:
 - (i) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (ii) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (iii) If available, the range of possible outcomes and point estimates of the unrecognized item.

Non-Financial Information

- (f) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity;
- (g) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above;
- (h) 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.

Information Prepared in Accordance with RPGs 1-3

- (i) 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*;
- (j) 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;
- (k) 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*; and

Other Information

- (l) For public sector entities which participate in the extraction of subsoil resources, discussion of the feasibility of an extraction project.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

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

Background

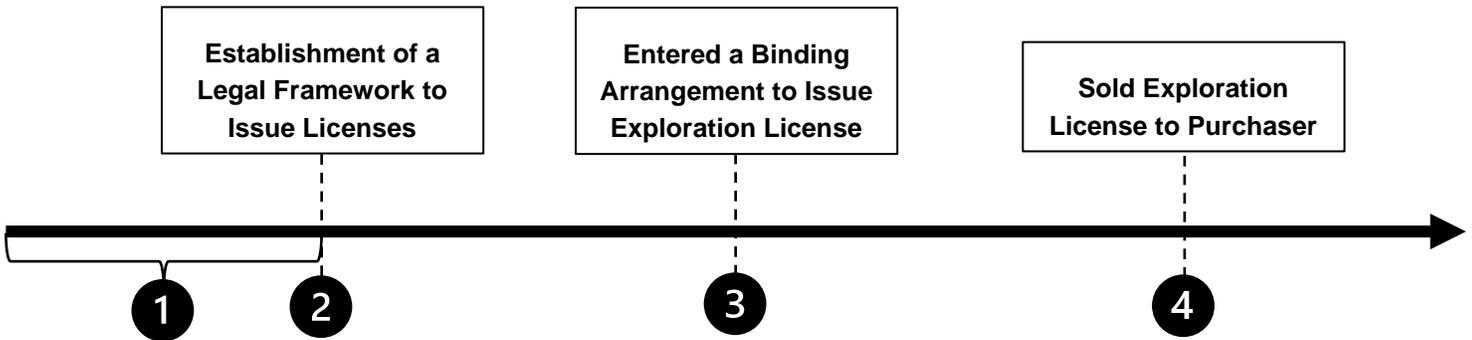
- A.1. In the Conceptual Framework, the IPSASB had previously decided that a government's sovereign power, in and of itself, did not meet the criteria to be recognized as an asset. The IPSASB's decision was driven by the conclusion that there was no past event to support the recognition of an asset. 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.⁴⁷ 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.
- A.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.
- A.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.⁴⁸

Example

- A.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.
- A.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.
- A.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.

⁴⁷ IPSASB Conceptual Framework, paragraph BC5.18.

⁴⁸ 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 B: Development of the General Description of Natural Resources

- B.1. As noted in paragraph 1.14, 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.⁴⁹

Definition from Economic Literature

- B.3. One economic text describes natural resources as follows:⁵⁰

“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:⁵¹

“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:

⁴⁹ https://en.wikipedia.org/wiki/Natural_resource; retrieved September 2020.

⁵⁰ 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.

⁵¹ The definitions of living and non-living resources are found in paragraph 8 of GRAP 110.

NATURAL RESOURCES

“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:⁵²

“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.”

⁵² FASAB Technical Bulletin 2011-1, Appendix C.

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

C.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 ⁵³
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

⁵³ 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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵³
	<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>
<p>Application of Asset Definition to Subsoil Resources</p>	<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

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵³
	tangible assets once they have been extracted. ⁵⁴		<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.

⁵⁴ IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 3.27.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵³
	<p>faithful due to the subjectivity and degree of estimation involved.⁵⁵</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.

⁵⁵ IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 4.83.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards⁵³
	accordance with regulatory requirements applicable to publicly traded companies in extractive industries.		

NATURAL RESOURCES

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

D.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 ⁵⁶	International Statistical Standards ⁵³
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.

⁵⁶ 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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards ⁵⁶	International Statistical Standards ⁵³
<p>Application of Asset Definition to Water in its Natural State</p>	<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).
<p>Existence Uncertainty</p>	<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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards ⁵⁶	International Statistical Standards ⁵³
		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 E: Existing International, National, and Statistical Guidance on Living Resources and Related Activities

E.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 ⁵³
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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵³
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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵³
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 F: International Statistical Standards Guidance

Introduction

- F.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 2008⁵⁷ (2008 SNA), the System of Environmental-Economic Accounting 2012–SEEA Central Framework⁵⁸ (SEEA Central Framework), and the Government Finance Statistics Manual 2014⁵⁹ (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.
- F.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

- F.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.
- F.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.
- F.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

- F.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.
- F.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 licences, and (ii) purchased goodwill and marketing assets.

⁵⁷ <https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf>

⁵⁸ https://seea.un.org/sites/seea.un.org/files/seea_cf_final_en.pdf

⁵⁹ <https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf>

NATURAL RESOURCES

- F.8. Natural resources consist of naturally occurring resources such as land, water resources, uncultivated forests and deposits of minerals that have an economic value.
- F.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.
- F.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).
- F.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).
- F.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

- F.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.
- F.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.
- F.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.⁶⁰
- F.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.⁶¹

⁶⁰ 2008 SNA.12.18

⁶¹ 2008 SNA.10.179

NATURAL RESOURCES

- F.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.⁶²
- F.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.⁶³ 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

- F.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.
- F.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.⁶⁴
- F.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.⁶⁵ 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.⁶⁶
- F.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.⁶⁷

Water resources

- F.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.⁶⁸
- F.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.

⁶² 2008 SNA 10.49

⁶³ 2008 SNA 10.50

⁶⁴ 2008 SNA.10.182

⁶⁵ 2008 SNA.12.19

⁶⁶ 2008 SNA.12.27

⁶⁷ 2008 SNA.13.51

⁶⁸ 2008 SNA.A3.84

NATURAL RESOURCES

- F.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.⁶⁹
- F.26. The discovery of water resources is recorded in the other changes in the volume of assets account.⁷⁰ 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.
- F.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.⁷¹ In case the net returns is not possible to measure, estimates based on access fees may be used.⁷²

Permits to Use Natural Resources

- F.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

- F.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.⁷³

General description of asset accounts

- F.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.⁷⁴
- F.31. The basic form of an asset account compiled for individual types of environmental assets is as follows:

⁶⁹ 2008 SNA.10.184

⁷⁰ 2008 SNA.12.19

⁷¹ 2008 SNA.13.51

⁷² 2008 SNA.A3.84

⁷³ SEEA Central Framework.2.21

⁷⁴ SEEA Central Framework.2.49

NATURAL RESOURCES

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

F.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.

F.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

F.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.⁷⁵

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

F.36. Physical flows are reflected in the movement and use of materials, water and energy corresponding to natural inputs, products and residuals.⁷⁶ Monetary flows are recorded in a manner completely

⁷⁵ SEEA Central Framework.2.69

⁷⁶ SEEA Central Framework.2.88

consistent with the SNA definition of economic flows⁷⁷ with two types being distinguished: transactions and other flows.

- F.37. The stocks of physical terms stocks refer to the total quantity of assets at a given point in time⁷⁸. The measurement of stocks in monetary terms focuses on the value of individual environmental assets and changes in those values over time.⁷⁹

Measurement in monetary terms

- F.38. The values reflected in the accounts are, in principle, the current transaction values or market prices for the associated goods, services, labour or assets that are exchanged.⁸⁰ 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”.⁸¹
- F.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.⁸²
- F.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.⁸³

Classification of environmental assets in the SEEA Central Framework

- F.41. The SEEA Central Framework classifies the environmental assets as follows:⁸⁴

⁷⁷ SEEA Central Framework.2.96

⁷⁸ SEEA Central Framework.2.99

⁷⁹ SEEA Central Framework.2.104

⁸⁰ SEEA Central Framework.2.143

⁸¹ SEEA Central Framework.2.144

⁸² SEEA Central Framework.5.32

⁸³ SEEA Central Framework.5.33

⁸⁴ SEEA Central Framework.5.15

NATURAL RESOURCES

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

- F.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.⁸⁵
- F.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.⁸⁶

Relationship between environmental and economic assets

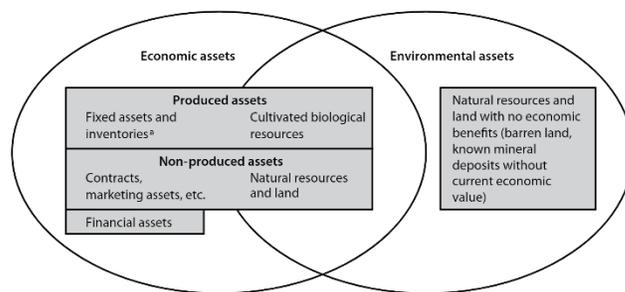
- F.44. Many environmental assets are also economic assets. In particular, natural resources and land are considered non-produced assets, and cultivated biological resources may be either fixed assets or inventories, depending on their role in production. The figures below displays the relationship between 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.⁸⁷

⁸⁵ SEEA Central Framework.5.18

⁸⁶ SEEA Central Framework.5.24

⁸⁷ SEEA Central Framework.5.38

NATURAL RESOURCES



^a Other than cultivated biological resources.

GFSM 2014

- F.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.
- F.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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Consultation Paper
[April] 2022
Comments due: [July 31, 2022]

Natural Resources

IPSASB

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

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

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

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

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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 [July 31, 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?

If not, please provide your reasons.

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, its existence is certain, and it can be reliably measured;
- (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.

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*, subject to any specific IASB plans to revise these standards.

Do you agree with the IPSASB's 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 IPSAS31, *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, setting aside the issue of existence uncertainty, is it 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 the development of a relevant, faithfully representative, and verifiable measurement basis for subsoil resources involves a high level of measurement uncertainty. Based on this view, subsoil resources are too uncertain to be recognized as assets in the GPFS.

The IPSASB also noted that despite not being recognized as assets in the GPFS, the disclosure of information regarding subsoil resources that are not recognized due to measurement uncertainty could be useful for users of the GPFRs. Such information could include information on the estimated physical quantities of the resource or other supplemental information prepared using the IPSASB's RPGs.

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

In addition, do you agree that the certain information regarding subsoil resources could be useful for users of the GPFRs and should be presented as supplemental information or disclosed in the financial statements?

If not, please provide the reasons supporting your view.

Preliminary View 7—Chapter 4

Based on the discussions in paragraphs 4.10-4.31, the IPSASB's preliminary views are:

- (a) Water in seas, rivers, streams, lakes and groundwater aquifers cannot be recognized as an asset in the GPFS because they do not meet the definition of an asset;
- (b) While water in dams and canals meet the definition of an asset, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. As a result, water in dams and canals do not meet the criteria to be recognized in the GPFS;
- (c) For water in dams and canals which are controlled, if the water in dams and canals is relevant to the service objectives of the reporting entity, permit non-financial disclosures of the volumes of these resources; and
- (d) No presentation is necessary for water in seas, rivers, streams, lakes and groundwater aquifers because they are not controlled.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

Preliminary View 8—Chapter 5

Based on the discussions in paragraphs 5.23-5.52, the IPSASB's preliminary views are:

- (a) If a living resource is held for its 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; and
- (b) If a living resource is held for its operational capacity, even if the living resource meets the definition of an asset, it is unlikely for the resource to be feasibly measured in a way which achieves the qualitative

characteristics and takes account of the constraints on information in the GPFRs. Therefore, such a living resource would not meet the criteria to 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 9—Chapter 5

Regarding disclosures on living resources, the IPSASB's preliminary views are:

- (a) For a living resource which is recognized in the GPFS, the presentation of information such as the basis of what is displayed, or disaggregation of the amount could be useful for users of the GPFS.
- (b) For a living resource which exists with reasonable certainty, is controlled as the result of a past event, but cannot be reliably measured, if the living resource is relevant to the service objectives of the reporting entity, certain non-financial disclosures can be presented in the GPFRs.
- (c) For living resources which are not controlled, presentation of information is not required.

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 6.7-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented:

Financial Information

- (a) The measurement basis used for determining the gross carrying amount, including, if applicable, the valuation date, method used to determine fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period;
- (c) 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, depreciation and impairment;

- (d) Information regarding the sale of subsoil resources, water, living resources, or the right to exploit or access these resources (i.e., quantities of resources given up and the consideration received), as well as the significant accounting policies relating to these transactions; and
- (e) For natural resources not recognized due to measurement uncertainty:
 - (i) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (ii) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (iii) If available, the range of possible outcomes and point estimates of the unrecognized item.

Non-Financial Information

- (f) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity;
- (g) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above;
- (h) 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.

Information Prepared in Accordance with RPGs 1-3

- (i) 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*;
- (j) 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;
- (k) 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*; and

Other Information

- (l) For public sector entities which participate in the extraction of subsoil resources, discussion of the feasibility of an extraction project.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

NATURAL RESOURCES

CONTENT

	Page
Guide for Respondents	3
Preliminary View 1—Chapter 1	3
Preliminary View 2—Chapter 2	3
Preliminary View 3—Chapter 3	4
Preliminary View 4—Chapter 3	4
Preliminary View 5—Chapter 3	4
Preliminary View 6—Chapter 3	4
Preliminary View 7—Chapter 4	5
Preliminary View 8—Chapter 5	5
Preliminary View 9—Chapter 5	6
Preliminary View 10—Chapter 6	6
Chapter 1: Project Purpose, Scope, and General Description	11
Reasons for Undertaking the Project	11
Project Aims.....	12
Project Scope	12
Developing a General Description of Natural Resources.....	13
Proposed General Description of Natural Resources	13
Preliminary View 1—Chapter 1	14
Application of the General Description to Resources within the Scope of the Consultation Paper.....	14
Structure of the Remaining Sections of this Consultation Paper	14
Chapter 2: Should a Natural Resource be Recognized?	16
General Recognition Principles in the Conceptual Framework.....	16
Recognition Criteria	16
The Definition of an Asset	16
Application of the Definition of an Asset to Natural Resources.....	18
Existence Uncertainty and Asset Recognition.....	18
Capable of Being Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFs	19
Measurement Uncertainty	21

NATURAL RESOURCES

General Measurement Principles	22
Application of the General Measurement Principles to Natural Resources	22
Overall Approach to the Recognition and Measurement of Natural Resources	22
Preliminary View 2—Chapter 2	23
Chapter 3: Subsoil Resources	25
Description of Subsoil Resources.....	25
Accounting for Activities Related to Subsoil Resources.....	25
Preliminary View 3—Chapter 3	26
Preliminary View 4—Chapter 3	27
Application of the Asset Recognition Criteria to Subsoil Resources	27
Preliminary View 5—Chapter 3	30
Measurement and Potential Disclosures	35
Preliminary View 6—Chapter 3	35
Chapter 4: Water	38
Description of Water	38
Accounting for Activities Related to Water	39
Application of the Asset Recognition Criteria to Water in its Natural State	41
<i>Consideration of control</i>	42
<i>Consideration of whether there has been a past event giving rise to control</i>	43
<i>Consideration of existence uncertainty</i>	43
<i>Capable of Being Measured in a Way that Achieves the Qualitative Characteristics and Takes Account of Constraints on Information in GPFs</i>	44
Conclusion on the Recognition of Water in its Natural State as an Asset.....	44
Measurement and Potential Disclosures	44
Preliminary View 7—Chapter 4	45
Chapter 5: Living Resources.....	46
Description of Living Resources	46
Accounting for Activities Related to Living Resources	47
Application of the Asset Recognition Criteria to Living Resources	50
Conclusion on the Recognition of a Living Resource as an Asset.....	54
Measurement.....	55
Preliminary View 8—Chapter 5	56
Disclosures	56

NATURAL RESOURCES

Preliminary View 9—Chapter 5	56
Chapter 6: Presentation	57
Summary of the Principles on Presentation in General Purpose Financial Reports in the Conceptual Framework.....	57
Application to Natural Resources	58
Comparison to IFRS and Private Sector Practices	60
Preliminary View 10—Chapter 6	61
Appendix A: Accounting for a Government’s Sovereign Power to Issue Licenses.....	63
Background.....	63
Example.....	63
Appendix B: Development of the General Description of Natural Resources	65
Plain English Definition	65
Definition from Economic Literature	65
Definitions from International Statistical Standards.....	65
South African GRAP	65
FASAB Definition.....	66
Appendix C: Existing International, National, and Statistical Guidance on Subsoil Resources and Related Activities.....	67
Appendix D: Existing International, National, and Statistical Guidance on Water and Related Activities	79
Appendix E: Existing International, National, and Statistical Guidance on Living Resources and Related Activities.....	82
Appendix F: International Statistical Standards Guidance.....	90
Introduction	90
Identification and Objectives of the International Statistics Standards.....	90
2008 SNA Guidance	90
SEEA Central Framework	93
GFSM 2014	97

Chapter 1: Project Purpose, and Scope, and General Description

Reasons for Undertaking the Project

- 1.1. 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.
- 1.2. 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.¹ Therefore, the reporting of natural resources ~~as assets~~ 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 - Based on In responses to the strategy consultation, ~~the IPSASB noted a lack of guidance over the accounting of natural resources, as~~ respondents were concerned that there is a gap in the IPSASB's accounting guidance on the recognition, measurement, ~~disclosure,~~ and presentation² 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, sustainability³ 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 general purpose financial statements (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, ~~and~~ 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

¹ 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.

² 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.

³ 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*.

accounting guidance on the recognition, measurement, and/or presentation⁴ of natural resources within a reasonable time period.

Project Aims

- 1.3. 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 General Purpose Financial Reports (GPFs) for accountability purposes and for decision-making purposes.
- 1.4. The aim of the project is to develop IPSAS guidance relating to the accounting—i.e., the recognition, measurement, and presentation, ~~and disclosure~~—of natural resources by public sector entities.
- 1.5. As this project is a financial reporting project, any resulting IPSAS guidance will be developed in accordance with *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* (Conceptual Framework).
- 1.6. 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.
- 1.7. 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 and intergenerational equity are important. However, these issues ~~do not directly relate to accounting for natural resources in GPFs~~ are addressed by the IPSASB outside the natural resources project. Accordingly, and this CP will not provide guidance on these broader issues.⁵ 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.

Project Scope

- 1.8. This project focuses on the accounting for *tangible*, naturally occurring resources, including subsoil resources, water, and living resources, ~~and water~~ in their natural state.
- 1.9. Other resources such as air and the electromagnetic spectrum may be considered natural resources in other contexts. However, these items have been excluded from this project, as the issues raised by constituents relate to the right to access these resources. Unlike subsoil resources, water, and living resources, the access and use of air and the electromagnetic spectrum does not result in consumption of the underlying resource. As a result, the accounting for the right to access these resources are more in line with and may be within the scope of IPSAS 31, *Intangible Assets*.⁶
- 1.10. In addition, the cost of activities relating to natural resources (for example, the maintenance of the resources), will not be the main focus of this project, as the accounting for many of these costs is already addressed by existing IPSAS.

⁴ ~~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.~~

⁵ For more information on the IPSASB's initiatives on sustainability reporting, please see: <https://www.ipsasb.org/focus-areas/sustainability-reporting>

⁶ The IPSASB is currently considering a project to update IPSAS 31 and whether additional guidance is needed in areas such as electromagnetic spectrum rights.

~~1.11.~~ The accounting for land is also excluded from the project, as [there is already sufficient guidance regarding land in IPSAS.⁷](#) ~~land is already within the scope of IPSAS 17, *Property, Plant and Equipment*.~~

~~1.10-1.12.~~ Furthermore, a government's sovereign power to issue licenses is excluded. While the exercise of sovereign powers can facilitate transactions that can result in the recognition of an asset, such an asset would arise from the transaction itself rather than from the sovereign power. This [issue](#) is further explained in [Appendix A: Accounting for a Government's Sovereign Power to Issue Licenses](#).

Developing a General Description of Natural Resources

~~1.11-1.13.~~ IPSAS literature currently does not have explicit guidance on natural resources or an explicit description or definition of what constitutes a natural resource. Therefore, by using a principled approach to develop a general description of natural resources and by proposing accounting guidance for these described items, the project effectively fills a gap in IPSAS literature.

~~1.12.~~ In this Natural Resources CP, the IPSASB has developed a proposed general description of natural resources. ~~A formal definition of natural resources may be developed later in the project based on constituent feedback and once the IPSASB has formulated more PVs.~~

~~1.13-1.14.~~ 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. The general description 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](#).

Proposed General Description of Natural Resources

~~1.14-1.15.~~ Based on the key aspects that are common among the definitions in Appendix [AB](#), a natural resource can be generally described as a [tangible](#) item which has the following attributes:

- (a) Is a resource as described in the IPSASB's Conceptual Framework⁸;
- (b) Is naturally occurring; and
- (c) Is in its natural state.

~~1.15-1.16.~~ 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 service potential.⁹ ~~When considering this characteristic, items can only be considered natural resources if they are capable of being extracted or harvested for their economic benefits or service potential.~~

⁷ [Depending on the facts and circumstances, land falls within the scope of either IPSAS 12, *Inventories*, or IPSAS 17, *Property, Plant and Equipment*.](#)

⁸ [Conceptual Framework, paragraph 5.7, states that a resource is an item with service potential or the ability to generate economic benefits.](#)

⁹ [Conceptual Framework, paragraph 5.7.](#)

4.16-1.17. Naturally occurring means that the resource came into existence without the actions of humankind.

4.17-1.18. To be in its natural state, a natural resource must not have been subjected to human intervention, ~~which –~~in general, ~~human intervention~~ include ~~any human~~ actions which modify the quantity and/or quality of a natural resource. 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.

Preliminary View 1—Chapter 1

The IPSASB's ~~p~~Preliminary ~~y~~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?

If not, please provide your reasons.

Application of the General Description to Resources within the Scope of the Consultation Paper

4.18-1.19. The above attributes are useful in setting boundaries for what are included or excluded from the project. The first attribute is important as it aligns the general description of natural resources with the recognition criteria in the Conceptual Framework. That is, if an item is not a resource, it will not be possible for the item to be recognized as an asset. However, the lack of recognition and measurement in the financial statements does not preclude the IPSASB from proposing presentation of information regarding natural resources in either the note disclosures to the financial statements or as supplementary information in an entity's broader GPFRs.

4.19-1.20. The second and third attributes both reinforce the principle that this project only considers resources which have not already been subjected to human intervention. This delineation is important as the development of guidance on the described resources is expected to result in new information which improves transparency, accountability, and decision-making over natural resources.

4.20-1.21. If an item does not fit within the above general description of a natural resource but is still relevant to an entity's general purpose financial statements (GPFS), the entity should consider if an existing IPSAS would be relevant to the accounting of that item.¹⁰ Otherwise, if the item is not relevant to an entity's GPFS, the rest of this CP will likely not be relevant.

Structure of the Remaining Sections of this Consultation Paper

4.21-1.22. For items qualifying as natural resources, chapter 2 of this CP considers the general recognition principles within the Conceptual Framework and addresses the issue of whether a natural resource should be recognized.

¹⁰ In some cases, the IPSASB may need to clarify that these items are included in the scope of the existing IPSAS.

NATURAL RESOURCES

1.22-1.23. 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, ~~which include that is,~~ subsoil resources, water, and living resources.

1.23-1.24. Finally, chapter 6 of this CP address the potential presentation of natural resources.

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).

~~2.5. In general, the natural resources within the scope of this project do meet the definition of a resource as set out in the Conceptual Framework:~~

~~(a) Subsoil resources such as minerals or fossil fuels can generate economic benefits through sale. Extracted subsoil resources can also be used in construction or the manufacture of goods, or combusted as fuel;~~

~~(b) Water can be treated and sold as drinking water. In addition, water can also be used in the production and supply of electricity; and~~

~~(c) Some living resources can be harvested for a wide variety of uses. For example, an uncultivated forest can be harvested and processed into timber, which then can be used in construction or sold.~~

~~2.6. The natural resources within the scope of this project may also have service potential. For example, the utilization of harvested living resources for research purposes or in training colleges.~~

Presently Controlled by the Entity

~~2.7.2.5.~~ 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.¹¹

~~2.8.2.6.~~ 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.

~~2.9.2.7.~~ 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, and water are explored in chapters 3-5 of this CP.

¹¹ Conceptual Framework, paragraph 5.11.

Past Event

~~2.10.2.8.~~ 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, ~~by developing the resource, or~~ obtaining control through a non-exchange transaction, ~~or by the exercise of sovereign powers.~~¹² Other examples of past events could include obtaining control via treaty or inheritance.

~~2.11.2.9.~~ 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. ~~Therefore, it~~ is possible for an entity to gain control of a natural resource through methods ~~other than acquisition, which is the typical means to obtain control of an asset 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.

Application of the Definition of an Asset to Natural Resources

~~2.12.2.10.~~ Since the general description of natural resources already ~~addresses~~ considers 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.

~~2.13.2.11.~~ 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.

~~2.14.2.12.~~ 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 ~~there would be no requirement to the item should not be~~ recognized or disclosed in the GPFSs the item.

Existence Uncertainty and Asset Recognition

~~2.15.2.13.~~ 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.

~~2.16.2.14.~~ 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. ~~In other words, uncertainty over the existence of an element should be considered in the first recognition criterion when determining whether the item satisfies the definition of an element.~~¹³

~~2.17.2.15.~~ 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

¹² Conceptual Framework, paragraph 5.13.

¹³ Conceptual Framework paragraphs 6.5 and BC6.2.

economic benefits is a more appropriate approach. ~~The IPSASB also noted that existence uncertainty could relate to more than one specific characteristic of an element.~~¹⁴

~~2.18. The Conceptual Framework's basis for conclusions explains that when determining if an item meets the definition of an asset, there could be uncertainty over whether a resource presently exists, uncertainty over whether the entity controls the resource, or uncertainty over the existence of a past event giving rise to control. All three sources of uncertainty should be considered when determining if the item meets the definition of an asset.~~

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 or disclosed in the entity's GPFS.

~~2.19-2.18. If an entity concludes that there is no existence uncertainty over whether an item meets the definition 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 contracts-constraints on information in the GPFRs. In situations where an entity concludes that there is uncertainty over the existence of an item, the item does not meet the definition of an asset and should not be recognized or disclosed in the entity's GPFS.~~

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

~~2.20-2.19.~~ 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.¹⁵

~~2.24-2.20.~~ 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).

¹⁴ Conceptual Framework, paragraphs BC6.3-BC6.7.

¹⁵ Conceptual Framework, paragraphs 3.6-3.42.

Relevance

~~2.22-2.21.~~ 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.¹⁶

~~2.23-2.22.~~ 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.¹⁷

~~2.24.~~ In general, if an entity gains control of a natural resource because of the laws and regulations and incurred little or no acquisition costs, it is unlikely that there is a material amount to be recognized from a historical cost perspective. The discovery of new resources may also lead to obtaining control of a natural resource without incurring material acquisition costs (as the costs of exploration may be recognized as a separate asset as discussed in chapter 2). Furthermore, such a historical cost measure would not reflect the economic benefit or service potential embodied by the natural resource. Therefore, it is unlikely that historical cost would be relevant for natural resources.

~~2.25.~~ For natural resources which are typically removed from their natural state for the purpose of being sold—for example, mineral ore or fossil fuels—a current value measurement basis such as fair value may be the most relevant. This is because as 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,” and therefore would most readily reflect the asset's ability to generate economic benefits through sale.

~~2.26.~~ Other natural resources may be controlled for their operational capacity. For example, an entity which controls an uncultivated forest may choose to leave it in its natural state to maintain natural diversity or for the purpose of absorbing carbon dioxide. For these types of natural resources, a current operational value is likely to be the most relevant in providing information on operational capacity.

~~2.27-2.23.~~ 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, ~~and water~~ is addressed in detail in chapters 3-5.

Faithful Representation

~~2.28-2.24.~~ 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.¹⁸

¹⁶ 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 GPFs for accountability purposes and for decision-making purposes.”

¹⁷ ED 76, paragraph 7.3.

¹⁸ Conceptual Framework, paragraph 3.10.

2.29-2.25. For the measurement basis of a natural resource to faithfully represent 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

2.30-2.26. 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.¹⁹

2.31-2.27. 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

2.32-2.28. 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, as noted in paragraph 2.1, 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, such a measure would likely not be relevant.

2.33-2.29. 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.²⁰ *In many cases, a natural resource will likely be material due to the quantity and value of the resources.*

2.34-2.30. 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.²¹ 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

2.35-2.31. 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 can be used to appropriately reflect the uncertainty inherent within the information available at reporting date.

¹⁹ Conceptual Framework, paragraph 3.26.

²⁰ Conceptual Framework, paragraph 3.32.

²¹ Conceptual Framework, paragraph 3.39.

~~2.36-2.32.~~ ~~In rare instances~~ ~~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 become questionable.²² In such situations, the IPSASB is considering ~~non-financial disclosures~~ ~~such as similar to those proposed in ED 78, *Property, Plant, and Equipment*. These proposals include the disclosure of:~~

- (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.

~~2.37-2.33.~~ If an entity concludes that the level of measurement uncertainty is ~~sufficiently low~~ ~~not so high~~ that ~~the~~ recognition and measurement of the natural resource ~~does not~~ becomes 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

~~2.38-2.34.~~ 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 GPFs, the final step in the recognition and measurement of an asset is to select ~~an~~ appropriate basis of measurement ~~for initial and subsequent measurement~~.

~~2.39-2.35.~~ An entity should 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.²³

~~2.40.~~ ~~The measurement bases proposed in ED 77, *Measurement*, and include historical costs basis under the historical cost model, or current operational value and fair value under the current value model.~~

Application of the General Measurement Principles to Natural Resources

~~2.41-2.36.~~ The selection of measurement bases and techniques will vary significantly based on the specific facts and circumstances surrounding each natural resource. 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

~~2.42-2.37.~~ After considering the recognition and measurement principles together, the IPSASB developed the following preliminary view on the recognition of natural resources:

²² Conceptual Framework paragraphs 6.6 and 6.8.

²³ See ED 76 at: <https://www.ifac.org/system/files/publications/files/ED-76-Chapter-7.pdf>.

Preliminary View 2—Chapter 2

For items which meet the general description of natural resources, the IPSASB's ~~p~~Preliminary ~~v~~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, its existence is certain, and it can be reliably measured;
- (b) If the natural resource meets the definition of an asset, but ~~is either uncertain, and/or~~ cannot be measured reliably, ~~non-financial disclosure of~~ the natural resource should be presented in the GPFS via disclosure~~should be considered~~; and
- (c) If the natural resource does not meet the definition of an asset, which includes situations where ~~or meets~~ the definition is not met due to ~~but is too~~ existence uncertainty, no recognition or disclosure presentation of the item is required.

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

If not, please provide your reasons.

NATURAL RESOURCES

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 C: 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 F: International Statistical Standards Guidance.
- ~~3.2. To be considered a natural resource in the context of this CP, the subsoil resource must be in its natural state—i.e., prior to its extraction. Once a subsoil resource has been extracted, it is no longer a natural resource for accounting purposes and will often be accounted for as inventory under IPSAS 12.~~

Clarification of what is Considered a “Subsoil Resource” 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, clarify what exactly is meant by “subsoil resources”.

Costs of Licenses

- 3.4. The direct costs of a license granting an entity the right to explore or extract subsoil resources are generally recognized by the license holder as an asset under IPSAS 31. From the perspective of the entity granting the license, the arrangement is typically accounted for as a revenue arrangement under IPSAS 9, *Revenue from Exchange Transactions*.²⁴ 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 A: Accounting for a Government’s Sovereign Power to Issue Licenses.

Exploration, Evaluation and Development Activities

- 3.5. Prior extraction, 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 exploration and evaluation expenditures as an exploration and evaluation asset.

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

- 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.²⁵ It should be noted that IPSAS 31 is drawn primarily from IAS 38, so the guidance on development costs is already in current IPSAS.
- 3.8. 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. Therefore, 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*, subject to any specific IASB plans to revise these standards.

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, 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:

²⁵ IFRS 6, paragraph 10.

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.

~~3.4. In general, the underlying subsoil resources—that is, the physical metalliferous ore and fossil fuels—are not accounted for until they have been removed from their natural state. To illustrate the various activities related to subsoil resources and how these are distinct from the underlying resources themselves, an illustrative timeline is included in Appendix C: Supplemental Information on Subsoil Resources. This timeline and the accompanying discussion explain the typical stages in the extraction process and how the related activities are accounted for under existing IPSAS or IFRS.~~

Application of the Asset Recognition Criteria to Subsoil Resources

~~3.5-3.14.~~ Applying the general principles set out in chapter 24 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 paragraph 1.27-1.28, subsoil resources generally can generate economic benefits or have service potential. However, a~~As noted in paragraphs 2.13-2.181.50-1.53, 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.

~~3.6-3.16.~~ 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.

~~3.7-3.17.~~ Keeping the above ~~concepts-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?

3.8-3.18. 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

3.9-3.19. 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.

3.10-3.20. 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.

3.11-3.21. 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.

3.12.3.22. 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.

3.13.3.23. 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.

3.14.3.24. 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.

3.15.3.25. 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.

3.16.3.26. 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	✓	✓	x	x
Access	✓	Depends*	x	x
Enforceable Rights	✓	Depends*	x	x

*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

3.17.3.27. 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.”

[3.18-3.28.](#) 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 powers²⁶ to establish the laws and regulations could result in a past event which results in control over the resources.

[3.19-3.29.](#) 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 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.

[3.20-3.30.](#) 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 extreme 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](#)

²⁶ 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.

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, setting aside the issue of existence uncertainty, is it possible for an unextracted subsoil resource to meet the definition of an asset?

Please provide the reasons supporting your view.

Consideration of existence uncertainty

3.21-3.32. As noted in paragraph 2.15, 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.

3.22-3.35. 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. (See Measurement considerations section below.)

~~3.23.~~ ~~During the development of this CP, one constituent noted that, in their view, an entity can never have control over subsoil resources, as the entity does not readily have physical access to the underground resources. Without physical access to the subsoil resource, it is difficult to verify that the resource actually exist, and thus difficult to conclude that control exists.~~

~~3.24.~~ ~~As the above discussion is based on a limited number of responses from an informal survey, the IPSASB noted that it would be prudent to solicit constituents' views on the matter and incorporated this issue into the Specific Matter for Comment following paragraph 2.25.~~

Overall conclusion on whether a subsoil resource can meet the definition of an asset

~~3.25.~~ ~~Based on the above preliminary research, a number of constituents are of the view that an item of subsoil resource can be an asset as defined in the Conceptual Framework. However, there were also concerns from other constituents over the existence of an inflow of economic benefits or service potential (i.e., whether the subsoil resource is a "resource" as defined in the Conceptual Framework) or whether control over a subsoil resource can exist. Therefore, the IPSASB would~~

~~like to formally solicit feedback from constituents on this matter in the following Specific Matter for Comment.~~

Specific Matter for Comment 1—Chapter 2

~~Based on the discussion in paragraphs 2.5-2.20, one potential view is that an 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.~~

~~Alternatively, it could be argued that because of the uncertainty over the existence of subsoil resources, an entity which does not readily have physical access to the resource will have difficulties verifying that the resource exists and challenges in demonstrating that it has control over the resource. Under this view, an item of subsoil resource cannot meet the definition of an asset for the purposes of recognition in the financial statements.~~

~~In your view, is it possible for an unextracted subsoil resource to meet the definition of an asset?~~

~~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 GPFs

~~3.26-3.36. Once it has been determined that an item~~ In addition to ~~satisfying~~ the definition of an asset, an item entity must also be able to reliably measure the item for it to be recognized in the financial statements. Applying the principles set out in paragraphs 2.19-2.30, 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.

~~3.27-3.37.~~ 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,”²⁷ and would most readily reflect the asset’s ability to generate economic benefits through sale.

~~3.28-3.39. As noted in paragraphs 1.39-1.40, a current value would be a more relevant measurement model for subsoil resources.~~ However, for such a current value to faithfully represent the economics of subsoil resources, the value should approximate the economic benefit or service potential embodied in the resources. Determination of this estimated value will 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

²⁷ ED 76, paragraph 7.36.

entity-specific factors such the estimated timing of when resources are extracted, as well as the grade of the extracted resources; and

- (c) The estimated costs of extraction and depending on the legal requirement in the jurisdiction, restoration costs.

3.29-3.40. 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.

3.30-3.41. 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.

3.31-3.42. 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 these estimates may not be appropriate for use in the financial statements. This is because the same set of data can result in materially different estimates based on interpretation by difference specialists.

3.32-3.43. 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.

3.33-3.44. 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.

3.34-3.45. 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 ~~would~~[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 GPFs.

Comparison of the above view with other accounting frameworks

3.35-3.46. 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.²⁸

~~3.36-3.47.~~ 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.²⁹

~~3.37-3.48.~~ [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 [general purpose financial statements](#) ~~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.³⁰ 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 **(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

~~3.38-3.49.~~ ~~Based on the above discussion~~ [Consistent with the private sector](#), the IPSASB noted ~~de~~ that [it would be difficult to conclude that both existence uncertainty and measurement uncertainty are sufficiently low to recognize for subsoil resources as assets in the GPFs.](#) ~~it would be difficult to develop a measurement basis that is relevant, faithfully representative of the underlying economics and verifiable. However, the IPSASB also noted that it would be helpful to solicit feedback from constituents on this matter. Therefore, the IPSASB would welcome input into the following Specific Matter for Comment.~~

Specific Matter for Comment 2—Chapter 2

~~The IPSASB noted that regardless of whether a public sector entity can demonstrate that a subsoil resource exists or that it controls a subsoil resource, it would be difficult to develop a relevant, faithfully representative, and verifiable measurement basis for the resource using information from geological studies and models. Based on this view, it would be difficult for a subsoil resource to meet the criteria to be recognized as an asset under IPSAS.~~

²⁸ IASB Discussion Paper DP/2010/1, *Extractive Activities*, paragraph 4.83.

²⁹ GRAP 110.BC15-BC16.

³⁰ SFFAS 38, paragraphs A36 and A38.

~~In your view, are there any alternative measurement approaches that could be used to develop a measurement basis that would be appropriate for financial reporting purposes?~~

~~If so, please provide a detailed explanation of your alternative measurement approach. Please also comment on whether this alternative approach resulted in recognized amounts in the financial statements that have been audited without qualification of the audit opinion.~~

Measurement and Potential Disclosures

~~3.39-3.50.~~ As noted in paragraph ~~3.49462-38~~, the IPSASB highlighted that it would be very challenging to ~~develop a measurement basis for a subsoil resource that would be relevant, faithfully representative, and verifiable, and thus it would be difficult to recognize a subsoil resource as an asset~~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.

~~3.40-3.51.~~ Despite not being recognized as an asset in the financial statements, the ~~disclosure 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~~ disclosures within the GPFS GPFRs is explored in chapter 65 of this CP. ~~For presentation of supplemental information outside the GPFS in the broader GPFRs, the applicability of the IPSASB's RPGs 1-3 is discussed in chapter 1 starting at paragraph 1.62.~~

Specific Matter for Comment 3Preliminary View 6—Chapter 32

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

The IPSASB also noted that despite not being recognized as ~~an assets~~ in the ~~financial statements~~GPFS, the disclosure of information regarding subsoil resources that are not recognized due to measurement uncertainty could be useful for users of the GPFRs. Such information could include information on the estimated physical quantities of the resource or be presented as other supplemental information prepared using the IPSASB's RPGs ~~or as additional financial statement disclosures, as discussed in chapter 5.~~

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

In addition, dDo you agree that the certain information regarding subsoil resources cwould be useful for users of the GPFRs and should be presented as supplemental information or disclosed in the financial statements?

If not, please provide the reasons supporting your view.

Accounting for the Costs of Activities Related to Subsoil Resources

~~3.41.~~ ~~In the preliminary outreach stages of the project, the IPSASB noted that some public sector entities in certain resource-rich jurisdictions have recently entered into production sharing or co-production~~

~~agreements with private companies, rather than the traditional licensing or royalty agreements. From the public sector entities' perspective, such agreements may be accounted for as joint arrangements, so the accounting for the activities relating to subsoil resources, including exploration, evaluation, and development, will be relevant in the public sector.~~

~~3.42. The IPSASB considered the following IFRS guidance applicable to exploration and evaluation expenditures, as well as development and production costs:~~

- ~~(a) Under IFRS 6, *Exploration for and Evaluation of Mineral Resources*, entities have an accounting policy choice to capitalize exploration and evaluation expenditures;~~
- ~~(b) Development costs which meet the capitalization criteria in IAS 38, *Intangible Assets*, are required to be capitalized. (It should be noted that IPSAS 31, *Intangible Assets*, is drawn primarily from IAS 38, so this guidance is already in current IPSAS);~~
- ~~(c) Based on the guidance in IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*, certain production costs involving the removal of waste materials can be capitalized as inventory or a non-current asset. Direct costs of extraction are also capitalized as inventory; and~~
- ~~(d) Under certain conditions, the above capitalized costs are subject to recoverability assessments and impairment testing.~~

~~For a more detailed discussion of the above IFRS guidance, please see paragraphs C.1-C.4 of [Appendix C: Supplemental Information on Subsoil Resources](#).~~

~~3.43. The IPSASB reached a preliminary view to adopt the above IFRS guidance, subject to any specific IASB plans to revise the above standards, particularly IFRS 6. This decision was based on the fact that the guidance from IFRS 6 and IFRIC 20 fills a gap in the current IPSASB literature. Furthermore, in the 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. Therefore, the IPSASB noted that guidance which was aligned with IFRS 6 should also result in useful information for preparers and users in the public sector. Finally, maintaining alignment with IFRS is one of the key themes of the IPSASB's strategic objective, so alignment with the above guidance is consistent with the IPSASB's previous strategic decisions.~~

Preliminary View 2—Chapter 2

~~The IPSASB's preliminary view is to provide guidance on exploration and evaluation expenditures, as well as development and production costs, based on the guidance from IFRS 6, *Exploration for and Evaluation of Mineral Resources*, IAS 38, *Intangible Assets*, and IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*, subject to any specific IASB plans to revise these standards.~~

~~Do you agree with the IPSASB's adoption of this guidance?~~

~~If not, please provide your reasons.~~

~~3.44. There are a number of potential options on how the guidance from IFRS 6 and IFRIC 20 could be incorporated into IPSAS:~~

- ~~(a) One option is to incorporate the guidance from IFRS 6 and IFRIC 20 along with any guidance on the underlying natural resources in one newly developed IPSAS on natural resources;~~

~~(a) As noted in paragraphs C.1-C.4 of Appendix C: Supplemental Information on Subsoil Resources, the costs of natural resource-related activities are of a different nature and separate from the underlying natural resources. This difference and separation would suggest that a logical way to incorporate the guidance would be to develop a separate IPSAS specifically on the guidance from IFRS 6 and IFRIC 20;~~

~~(a) Alternatively, the guidance can be incorporated by direct reference to IFRS 6 and IFRIC 20 in an existing IPSAS such as IPSAS 1, *Presentation of Financial Statements*.~~

~~3.45. The IPSASB noted that all of the above options are viable and would like to solicit constituents' feedback in the following Specific Matter for Comment:~~

~~**Specific Matter for Comment 4—Chapter 2**~~

~~With respect to the guidance on exploration, evaluation, development, and production costs, the IPSASB noted the following options for incorporating this guidance into IPSAS:~~

~~(a) Incorporate the guidance on natural resource-related activities with the guidance developed for natural resources in one IPSAS;~~

~~(b) Develop a separate IPSAS specifically for the guidance from IFRS 6 and IFRIC 20; or~~

~~(c) Directly refer to IFRS 6 and IFRIC 20 in an existing IPSAS, such as IPSAS 1, *Presentation of Financial Statements*.~~

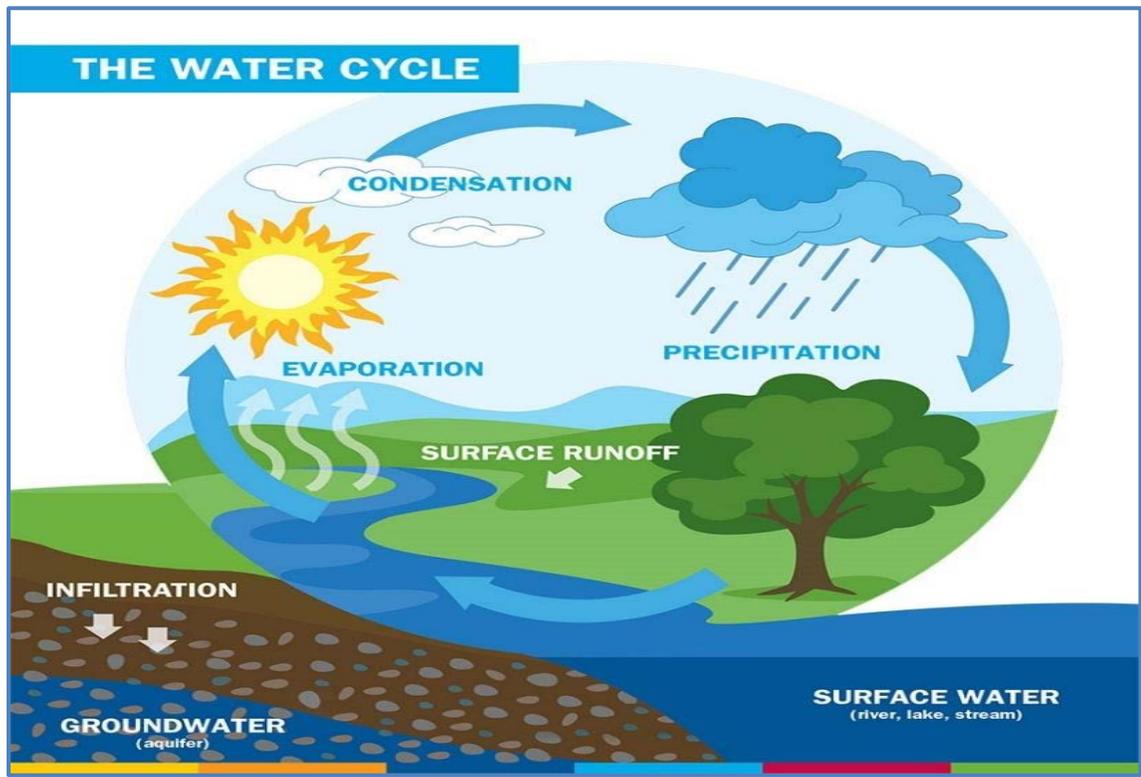
~~Which of the above options do you prefer? Are there any other approaches that could be used to incorporate IFRS 6 and IFRIC 20 into IPSAS?~~

~~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 that have not yet been extracted. Water in its natural state comprise of surface water in seas, rivers, streams, lakes, groundwater aquifers and water impounded in dams and canals. In general terms, water is a chemical compound that is composed of the elements hydrogen and oxygen and exists in gaseous (steam), liquid (water), and solid (ice) states. This CP addresses the potential accounting for water that:
- 4.2. Is naturally occurring, free flowing and is found in various natural forms, such as rivers, streams, estuaries, lakes, natural fountains, springs, seas, and glaciers;
- 4.3. Remains in its natural state (and has not been extracted through human action); and
- 4.4.4.1. Is a resource, as described in the IPSASB's Conceptual Framework.
- 4.2. Determining whether water meets the description of natural resource is not only influenced by the structure in which water is held, but also by the occurrence of an action whereby the water is extracted. Therefore, water held in humanmade structures may still be in its natural state if it has not been extracted. Water in its natural state forms part of a natural water cycle which flows in a continuous loop or movement within the earth and atmosphere. Liquid water evaporates, condenses to form clouds, and precipitates back to earth in the form of rain and snow. The rain and snow accumulate in seas, rivers, streams, lakes, and infiltrates into the ground. The diagram below illustrates the natural water cycle.³¹



³¹ Source: <https://www.teachengineering.org>.

- 4.3. As noted in paragraph 1.18, 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 humanmade structures are used to impound water in dams and canals, to erect artificial lakes, or to straighten, divert or reinforce riverbanks, the water in dams and canals, water in the artificial lakes and water in the straightened riverbanks is still in its natural state because the human action neither stops nor changes the water’s natural cycle.
- 4.5. Water may be extracted when it:
- (a) Is drawn from groundwater sources and put in wells or put in enclosed tanks controlled by an entity;
 - (b) Is moved from dams and canals into turbines to generate hydroelectricity power and then stored in closed reservoirs³²; or
 - (c) Flows from a sea or river and enters 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 extracted 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 extracted resources. This is because the extracted water resources may meet the definition of inventory because these resources are materials or work in progress to be consumed in the production process or finished goods (products) to be sold and the entity that extracts 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.³³ ~~Water in its natural state is a resource as described in the IPSASB’s Conceptual Framework because it is capable of being extracted for generating economic benefits or service potential, but have not yet been extracted.~~
- 4.5.4.7. 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 D: Existing International, National, and Statistical Guidance on Water and Related Activities. Additional information on international statistical standards guidance can also be found in Appendix F: International Statistical Standards Guidance.

Clarification of what is Considered “Accounting for Activities Related to Water”

- 4.6. 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 ~~(for example, such as~~ the cost of improving the quality of water through

³² The point of extraction for hydroelectricity power stations may depend on how the power station is designed. For example, water in turbines is still in its natural state if it circulates back to the water in dams and canals in the process of generating electricity and is extracted if the water does not circulate back to the water in dams and canals but is rather stored in closed reservoirs.

³³ 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.

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

~~4.7. Legislation exists in many jurisdictions that requires certain public sector entities to regulate water in its natural forms such as rivers, streams, natural fountains, and springs. There is currently no accounting guidance for such water resources in their natural state, which is the subject matter for this chapter.~~

~~4.8. Water which has been extracted and held in humanmade structures such as reservoirs is not in the scope of this chapter and is accounted for as inventory (see paragraph 4.2).~~

~~4.9. Costs of activities relating to water resources in their natural state are not in the scope of this chapter because there are distinct from the underlying water resources and are separately accounted for by 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. This does not change the natural state (quantity or quality) of the water. The costs incurred to maintain or treat water are not in the scope of this chapter of the CP because the activities to treat the water are distinct and do not infer that water will be brought to its natural state when its maintained and treated. The eCosts incurred to treat water in its natural state will probably be expensed because as the entity does may not control the water that is free flowing in its natural state. (See paragraphs 4.15-4.18 for consideration of control); -~~

~~(b) In contrast, eCosts incurred to treat water that has been extracted from underground sources, and costs incurred to treat water in the purification process and in pipes are may be capitalized recognized as inventory because the as underlying water resources that are extracted are inventory if and the treatment costs are costs of conversion or costs incurred meet the recognition principle in bringing the inventories to their present location and condition.³⁴ For example, treatment costs incurred for water that has been extracted and held in man-made structures may be capitalized as inventory if the costs are recoverable, (that is, it is probable that future economic benefits or service potential associated with the item will flow to the entity and the cost of the item can be measured reliably) Costs incurred to treat water that has been extracted are and subsequently expensed as the water is consumed or sold;~~

~~(c) Costs of The humanmade structures such as dams, canals, reservoirs, pipes, and treatment plants that holding and transport the water in its natural state or extracted water are accounted for as property, plant, and equipment within the scope of IPSAS 17, *Property, Plant, and Equipment*³⁵; and~~

~~(d) The entity that acquires and holds the right or license to extract the water accounts for, may treat the license as an intangible asset in IPSAS 31, *Intangible Assets*. Public sector The entities may may that also issues the licenses to other public or private sector entities to extract~~

³⁴ 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.

³⁵ 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>.

water from their jurisdiction ~~recognizes~~. ~~The sale of the water licenses is recognized as revenue in terms of IPSAS 9, *Revenue from Exchange Transactions*.³⁶ The entity that holds the right or license to extract the water, treats the license as an intangible asset in IPSAS 31. The entities that extract the water will account for the water as inventories in terms of IPSAS 12.~~

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

~~4.8.4.10.~~ 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 an entity to recognize water in its natural state to be recognized as an asset under IPSAS, the item must:

- (a) Satisfy (meet) the definition of an element, in this case an asset; **and**
- (b) Be measurable (measured) in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFs.

~~4.11.~~ 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. Similar to the chapter on subsoil resources, the analysis below will first consider if an entity can control water in its natural state as the result of a past event, then whether existence uncertainty impacts if water in its natural state can meet the definition of an asset, then finally whether water in its natural state can be reliably measured. This approach will better isolate the reason(s) why water in its natural state can or cannot be recognized as an asset.

~~4.12.~~ As noted in paragraphs 1.27-1.28, wWater in its natural state generally can generate economic benefits or have service potential because water in seas, rivers, streams, lakes, groundwater aquifers can be treated and used sold as drinking water and sold for economic benefits or can be used for agricultural purposes. In addition, water impounded in dams and canals may also be used in the production and supply of hydroelectricity power. Water in its natural state can also have service potential as it is part of the natural water cycle and helps to provide life and 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.

~~4.9.~~ Also, as noted in paragraphs 1.50-1.53, the IPSASB 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.

~~4.10.4.13.~~ Keeping the above ~~concepts-process~~ 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?

³⁶ 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>

- (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?

4.11.4.14. 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

4.12.4.15. As discussed in paragraphs 2.51.30-2.61.34 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.

4.16. An entity is unlikely to demonstrate ~~that it control~~ overs water in seas, rivers, streams, lakes and groundwater aquifers because the water resources in these sources that it finds in its natural state before it is extracted. This is because water is free flowing (mobile) and reduces or increases as a result of natural causes such as evaporation, rainfall, seepage into the water table, ocean currents, or other movement due to gravitational or tidal forces.

- (a) Cannot be easily tracked and monitored by management because the water levels reduce or increase 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. In such a case, management's human intervention is limited and hence this is an indication that there is no control; and
- (b) Groundwater is underground and cannot be directly observable.

4.17. ~~Entities that have a license to extract water only control and access to the water that is extracted. The water that is extracted is inventory. An entity may control water impounded in dams and canals when it:~~

- (a) Actively manages the volumes of water in dams and canals to ensure that the resource is used to achieve the entity's objectives. Dams and canals may be built with full knowledge of the capacity of volumes or specific quantities of water it holds. Management An entity could actively manage monitor volumes of water in dams 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 monitor change the volumes of water in canals by opening and closing gates to determine arrive at the volumes of water suitable for ships to pass or cross the canal; and
- (b) Has the ability to restrict the access to the water in dams and canals. Access to dams and canals may be restricted through physical access.

~~4.18. Based on these observations above, it appears can be concluded that unless there has been human intervention, it may be difficult for entities to demonstrate that they control water held in its natural state seas, rivers, streams, lakes and groundwater aquifers should not be recognized by an entity in its financial statements because control is unlikely to exist because the water levels change as a result of natural causes unless there has been human intervention. Conversely, an entity may demonstrate that they control water in dams and canals if volumes are actively monitored managed and if access is restricted.~~

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

~~4.13. Based on the above conclusion that water in its natural state cannot be controlled (see paragraphs 4.14-4.16-4.16-4.18), there is no need to consider if there has been a past event giving rise to control.~~

Overall conclusion on whether water meets the definition of an asset

~~4.19. For an item to meet the definition of an asset, there must also have been a past event which conferred control of the item to the entity. Based on the above discussion, it appears that water in its natural state does not meet the definition of an asset as it cannot be controlled. There is no need to consider if past event confers control for water in seas, rivers, streams, lakes and groundwater aquifers because an entity may find it difficult to demonstrate that it controls water in these sources.~~

~~4.20. For water in dams 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 dams and canals and then actively monitor manage the volumes in dams and canals;~~
- ~~(b) Non-exchange transaction or where a dam 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 dams and canals due to rainfall.~~

Consideration of existence uncertainty

~~4.21. The issue of existence uncertainty is particularly important for water in seas, rivers, streams, lakes and groundwater aquifers because most water resources from these sources change as a result of natural causes, move freely and groundwater sources cannot be easily observed and/or accessed.~~

~~4.22. Conversely, the issue of existence uncertainty is somewhat minimal for water in dams and canals, especially in instances where volumes of water are management actively managed monitors and tracks the volumes of water to ensure that the resource is used available to achieve the entity's objectives, such as consumption, industry and or power generation.~~

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

~~4.23. Based on the discussion in paragraphs 4.10-4.22, water in seas, rivers, streams, lakes and groundwater aquifers might not meet the definition of an asset because existence uncertainty is applicable in most situations. It is possible for water in dams and canals to meet the definition of an asset because existence uncertainty might not be applicable if volumes are actively monitored 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 GPFRs

- 4.24. 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 2.19-2.30, 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.
- 4.25. 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 becomes questionable.
- 4.26. The measurability of water in seas, rivers, streams, lakes, and groundwater aquifers need not be considered because of the high level of existence uncertainty as the volumes of water in these sources change due to natural causes.
- 4.27. Even though if water in dams and canals meets the definition of an asset, ~~water in dams and canals is not measurable because~~ it may not be practicable to attribute a separate monetary value to and separately value the water, as its in dams and canals and the value of the water is derived from its use in the dam or canal. Therefore, the value is attributed to the infrastructure asset or humanmade structures rather than the water itself. Since the water in dams and canals is important to the functioning and performance of the humanmade structures, natural causes such as drought may deplete the water resources in dams and canals and may affect the measurement of the humanmade structures (property, plant, and equipment) and result in an indicator ~~offer~~ impairment, and may also impact the residual value and useful life of these humanmade structures.

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

- 4.28. Based on the discussion in paragraphs 4.10-4.27, the IPSASB's preliminary view concludes that water in seas, rivers, streams, lakes and groundwater aquifers and water impounded in dams and canals cannot be recognized as assets in the GPFS because:
- (a) Water in seas, rivers, streams, lakes, and groundwater aquifers do not meet the definition of an asset as there is a high level of existence uncertainty because the volumes of water in these sources change due to natural causes; and
- (b) Even though it may be possible for water in dams and canals to be controlled as the result of a past event, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. This is because, the value of water in dams and canals is included in the value of the humanmade structures which makes use of the impounded water.

Measurement and Potential Disclosures

- 4.29. As noted in paragraphs 4.28, the IPSASB noted that it would be difficult to recognize water in its natural state as an asset ~~because it cannot be controlled due to the high levels of existence and measurement uncertainty. Therefore, there is no need to consider measurement of the water in its natural state within the financial statements. It is also difficult to attach monetary value and reliably measure water in its natural state because it is free flowing (its volumes increase from rainfall and decrease because of evaporation or water seeping into the water table).~~

~~4.30. Despite not being recognized as an asset for financial reporting purposes, the presentation of certain information regarding water in its natural state via disclosure could be useful for users of the GPFs. Such disclosures may include non-financial disclosures of information regarding unextracted water (the volumes of water in its natural state) dams and canals that are actively monitored/managed, could be useful for users of the GPFs if these resources are relevant to the service objectives of reporting entity and if operational information about the volumes of water is available.~~

~~4.14.4.31. is required controlled by the entity. The detailed consideration of presentation by disclosures within the GPFs is explored in chapter 56 of this CP. For presentation of supplemental information outside the GPFS in the broader GPFs, the applicability of the IPSASB's RPGs 1-3 is discussed in chapter 1 starting at paragraph 1.62.~~

Preliminary View 7—Chapter 4

Based on the discussions in paragraphs ~~4.10-4.31~~, the IPSASB's ~~came to the following P~~preliminary ~~V~~views ~~are~~: ~~is that water in its natural state cannot to meet the definition of an asset because it cannot be controlled and cannot be reliably measured for financial reporting purposes. Therefore, water should not be recognized in the financial statements.~~

- ~~(a) Water in seas, rivers, streams, lakes and groundwater aquifers cannot be recognized as an asset in the GPFS because they do not meet the definition of an asset;~~
- ~~(b) While water in dams and canals meet the definition of an asset, it is unlikely that an entity can feasibly measure water in dams and canals in a way that achieves the qualitative characteristics and takes account of the constraints on information in the GPFs. As a result, water in dams and canals do not meet the criteria to be recognized in the GPFS;~~
- ~~(c) For water in dams and canals which are controlled because the volumes of water are actively managed, if the water in dams and canals is relevant to the service objectives of the reporting entity, permit non-financial disclosures of the volumes of these resources; and~~
- ~~(d) No narrative or financial reporting presentation is necessary for water in seas, rivers, streams, lakes and groundwater aquifers because they are not controlled.~~

~~However, water in its natural state has economic value and should be disclosed in the financial statements and GPFs.~~

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons supporting your view.

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:*

~~(a) Is a resource, as described in the IPSASB's Conceptual Framework.~~

~~(a)(b) Is naturally occurring; and~~

~~(b)(c) Remains in its natural state (i.e., the resource's natural biological transformation has not yet been changed due to any human intervention); and~~

~~(c) Is a resource, as described in the IPSASB's Conceptual Framework.~~

5.2. 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."³⁷ As noted in paragraph 1.18, human intervention refers to ~~interference by humans in the living resource's natural biological transformation~~ 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 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.³⁸

~~5.3. Furthermore, living organisms can only be considered living resources if they are capable of being developed and harvested for their economic benefits or service potential, but their biological transformation has not yet been subject to human interference.~~

~~5.4.5.3.~~ The specific actions that constitute "human ~~interference~~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 could generate economic benefits or service potential. The trees ~~would remain~~ are in their natural state if:

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

(b) The biological transformation of the trees has not ~~yet~~ been interfered by human activity ~~such as fertilization, pruning, or treatment for diseases.~~ ~~that is, the forest has not been fertilized, pruned, treated for disease, etc.~~

~~5.5. If the soil in a part of the forest is fertilized to promote tree growth, the trees growing in the fertilized area are no longer in their natural state, and it may be more appropriate to account for these specific trees and the related activities under other existing IPSAS (see Appendix D: Supplemental Information on Living Resources).~~

~~5.6. As another example, an entity may erect a barrier to restrict access to the animals in a reservation. If the barrier fences off an area that is significantly larger than the range where the animals would naturally roam, the barrier would not interfere in the animals' biological transformation. However, if the barrier prevents the animals from moving in their natural migration path or redirects the animals~~

³⁷ IPSAS 27, paragraph 9.

³⁸ 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 ~~can~~ applies to both plants and animals.

~~to a food source that is outside their natural grazing areas, the barrier would be considered human interference and the animals would no longer be in their natural state.~~

5.7. —

Preliminary View 3—Chapter 3

~~Based on the discussions in paragraphs 3.1-3.6, the IPSASB's Preliminary View is that a living resource is a living organism which:~~

- ~~(a) Occurs naturally;~~
- ~~(b) Remains in its natural state (i.e., the resource's natural biological transformation has not yet been changed due to any human intervention); and~~
- ~~(c) Is a resource, as described in the IPSAS's Conceptual Framework.~~

~~Based on the above description, only a living organism, which has service potential or is capable of generating economic benefits, and whose biological transformation has not yet been subject to human interference, are considered a living resource.~~

~~Do you agree with the IPSASB's Preliminary View?~~

~~If not, please provide your reasons.~~

5.4. 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 E: 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 F: International Statistical Standards Guidance.

Accounting for Activities Related to Living Resources

5.8-5.5. 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

5.6. IPSAS 27, Agriculture, applies to the following when they relate to agricultural activity: biological assets, except for bearer plants (see paragraph 5.12), and agricultural produce at the point of harvest. Biological assets are defined in IPSAS 27 as a living animal or plant.³⁹

5.7. 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.”⁴⁰ Based on this definition, an agricultural activity would be considered a form of human intervention, as described in paragraph 5.2.

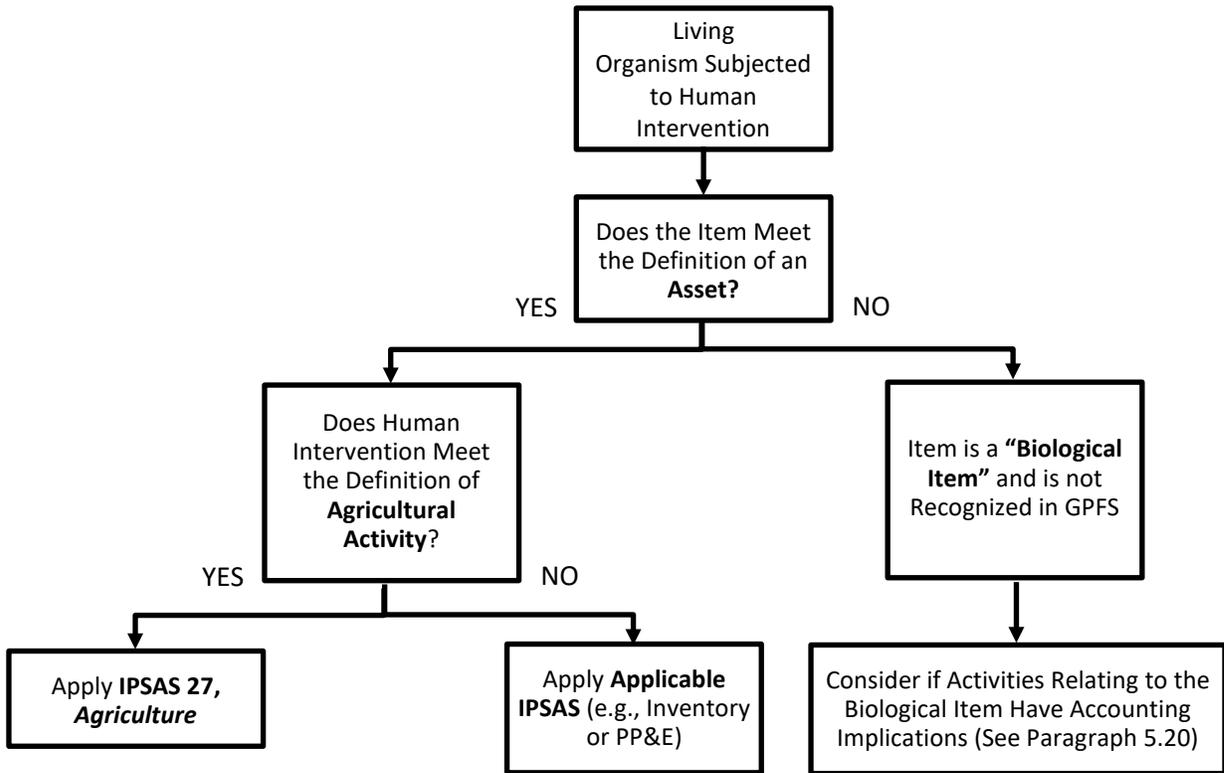
³⁹ IPSAS 27, paragraphs 2 and 9.

⁴⁰ IPSAS 27, paragraph 9.

5.8. Based on these definitions and the description in paragraph 5.1, the relationship between living resources and biological assets within the scope of IPSAS 27 is as follows:

- (a) A living resource is a living organism which has not been subject to human intervention and is the subject matter of this chapter:
- (b) When a living organism is subject to human intervention, the item is not a living resource. When this occurs:
 - (i) If the item meets the definition of an asset, the entity considers the nature of human intervention that took place:
 1. If the item was subjected to a form of human intervention which meets the definition of an agricultural activity, the item falls within the scope of IPSAS 27; or
 2. If the item was subjected to a form of human intervention which is not considered an agricultural activity, the item is neither a living resource within the scope of this CP nor a biological asset within the scope of IPSAS 27. In these situations, the reporting entity considers the nature of the item and accounts for it using an applicable IPSAS (e.g., IPSAS 12 or IPSAS 17);
 - (ii) If the item does not meet the definition of an asset, it is not recognized in the GPFS. For the purpose of this CP, such items will be referred to as “biological items”. Paragraph 5.20 considers the accounting of activities related to biological items.

5.9. The decision tree for living organisms which have been subjected to human intervention is summarized in this flowchart:



Accounting for Agricultural Activities

- 5.10. IPSAS 27 does not provide explicit guidance on the costs of agricultural activities related to biological assets which are measured at fair value less costs to sell. This is because the decision to capitalize or expense these costs will have no impact on the net surplus (deficit) or financial position, as any capitalized costs will result in an equal adjustment in the gain or loss arising from the change in the fair value.
- 5.11. For biological assets measured at cost, an entity considers if the cost of agricultural activities can be capitalized by considering IPSAS 12, IPSAS 17, IPSAS 21, *Impairment of Non-Cash-Generating Assets*, and IPSAS 26, *Impairment of Cash-Generating Assets*.⁴¹
- 5.12. After a biological asset or an agricultural produce has been harvested, paragraph 5 of IPSAS 27 states that the item is considered inventory within the scope of IPSAS 12.

Activities Relating to Bearer Plants and Biological Assets Held for the Provision or Supply of Services

- 5.13. Bearer plants are defined in paragraph 9 of IPSAS 27 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.”
- 5.14. Bearer plants are excluded from the scope of IPSAS 27 and are accounted for as plant, property and equipment within the scope of IPSAS 17.⁴²
- 5.15. 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 plant, property, and equipment in accordance with IPSAS 12 or IPSAS 17. 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.

Conservation or Preservation Activities

- 5.16. 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 using a standard that aligns with the nature of the activity and the entity’s reasons for preserving a resource.
- 5.17. Under this national accounting framework, the costs incurred for the conservation or preservation of biological assets may be accounted for as inventory, plant, property, and equipment, or intangible asset depending on the specific facts and circumstances regarding the activities performed and whether certain capitalization criteria have been met.⁴³
- 5.18. 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.

⁴¹ IPSAS 27, paragraph 37.

⁴² IPSAS 27, paragraph 3(b).

⁴³ GRAP 110, paragraphs 3 and 6, and GRAP 27, paragraph 4.

Other Management Activities

- 5.19. 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.
- 5.20. 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 Biological Items

- 5.21. The term “biological item” is meant to provide contrast with “biological assets” from IPSAS 27, which are living organisms which are subject to human intervention (specifically, agricultural activities) and meet the definition of an asset. Like biological assets, biological items are living which organism which are subject to human intervention. However, biological items do not meet the definition of an asset and thus are not recognized in the GPFS.
- 5.22. 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. In the context of this CP, the entity would consider these animals to be biological items because the animals’ growth is subject to human intervention, but they are not controlled by the entity.
- 5.23. Although biological items themselves are not recognized in the GPFS, an entity may incur expenditures for activities related to biological items. An entity considers the nature of these activities and recognizes 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 expenditures are 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 or not the underlying biological item was recognized.

Application of the Asset Recognition Criteria to Living Resources

~~5.9.5.24.~~ 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.

5.25. 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.

~~5.10.5.26.~~ As noted in paragraph 1.21-1.22, living resources generally can generate economic benefits through sale or have service potential. For example, certain organisms 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. Also, as noted in

~~paragraphs 1.41-1.44, 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.~~

~~5.11-5.27.~~ Keeping the above concepts in mindAs 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?

~~5.12-5.28.~~ 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

~~5.13-5.29.~~ The general concept of control is discussed in paragraph ~~2.52-51.30~~ 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.

~~5.14-5.30.~~ The above list of indicators is not comprehensive and need not all be met simultaneously to demonstrate control of a living resource. Similar to subsoil resources, wWhether 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.

~~5.15-5.31.~~ In general, Aan 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 control.

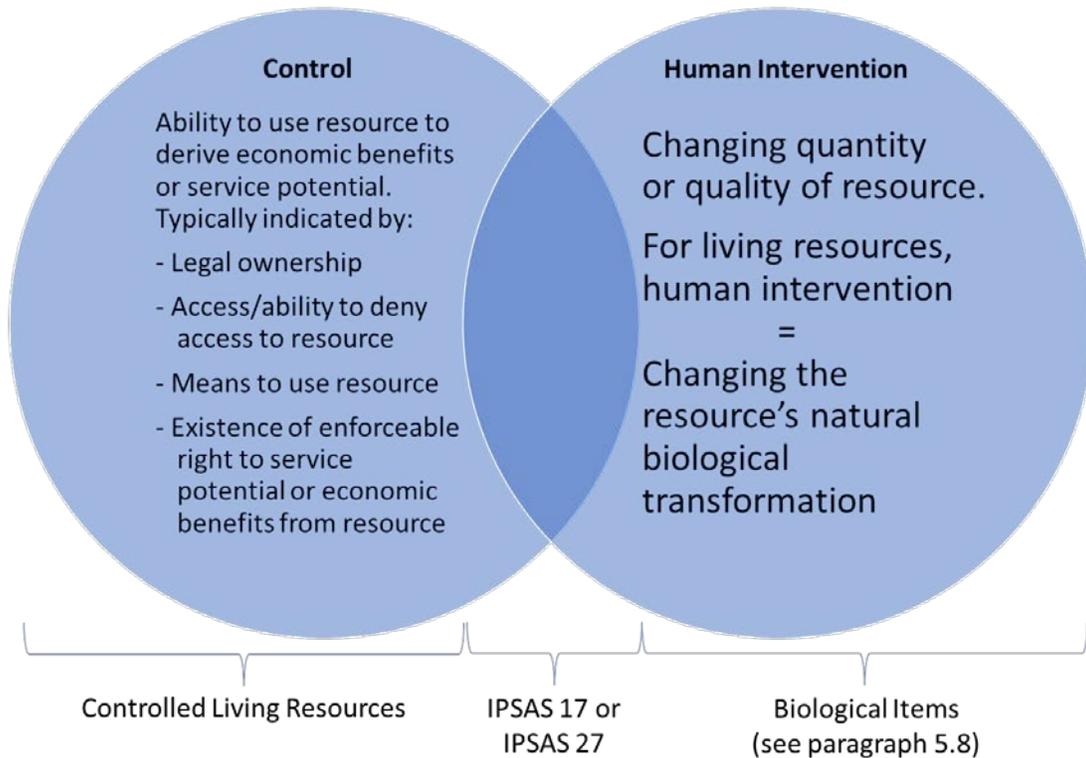
~~5.16-5.32.~~ An entity's ability to access the living resource or to prevent others from access is also an indicator of control. For example, an entity could physically deny access to a living resource by setting up fences and other physical barriers. Alternatively, there may be laws and regulations with enforceable penalties which act as a deterrent for others who may wish to access the resource. For an example of how physical restriction of access to a living resource is possible without removing the living resource from its natural state, please see paragraph 03.6.

5.17-5.33. 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.

5.34. In general, the control considerations will differ for sessile 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 leads to a rebuttable presumption that they cannot be controlled unless an entity has the means of limiting their movement. In contrast, sessile 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

5.35. It should be clarified that 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.



5.36. 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.

5.37. Conversely, there could be situations where an entity has intervened in the animals' natural biological transformation without gaining control. The example of a biological item as noted in paragraph 5.22 is one such situation.

5.38. 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.

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

~~5.18-5.39.~~ 5.39. 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. 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) A living resource having the ability to reproduce naturally, such as when offspring is born.

Consideration of existence uncertainty

~~5.19-5.40.~~ 5.40. 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.

~~5.20-5.41.~~ 5.41. 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. ~~However, these~~ As noted in paragraph 5.33, 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.

~~5.21-5.42.~~ 5.42. As noted in paragraph ~~2.142-141.54~~, 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

~~5.22-5.43.~~ 5.43. Based on the above discussion, in many situations where existence uncertainty is not applicable, ~~it is clear that~~ a living resource could be a resource which is presently controlled by an entity as the result of a past event. ~~That is~~ As a result, it is possible for a living resource to meet the definition of an asset.

Preliminary View 4—Chapter 3

~~Based on the discussion in paragraphs 5.183.8-5.313.21, the IPSASB's Preliminary View is that, subject to specific facts and circumstances involving existence uncertainty, it is possible for a living resource to meet the definition of an asset as set out in the Conceptual Framework.~~

~~Do you agree with the IPSASB's Preliminary View?~~

~~If not, please provide your reasons.~~

Consideration of whether Living Resources are Measurable

~~5.23-5.44.~~ 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.

~~5.24-5.45.~~ Unlike subsoil resources, the quantification of some living resources may be more straight forward. Many living resources such as trees and other vegetation are ~~immobile-sessile~~ 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 5.39 as another example,~~ it may be difficult to count animals which can ~~roam~~ freely ~~roam in and out of a jurisdiction~~. Unless there is some tracking mechanism, an entity may have difficulties to determine the quantities of a living resource.

~~5.46.~~ ~~Furthermore, m~~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.

~~5.25-5.47.~~ ~~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 it is holding an uncultivated forest to serve multiple purposes at the same time, 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.~~

~~5.26-5.48.~~ Based on the above, ~~while the measurement of living resources held for financial capacity appears to be possible, the measurement of living resources which are held for operational capacity may not be 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. to develop a measurement basis that is relevant, representatively faithful, and verifiable. Therefore, an entity should be able to measure the certain living resources in a way that achieves the qualitative characteristics and takes account of constraints on information in GPFRs.~~

Conclusion on the Recognition of a Living Resource as an Asset

~~5.27.~~ Based on the discussion in paragraphs ~~5.235.23-5.465.46,~~ 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.:](#)

5.49. [_____](#)

Measurement

~~5.28-5.50.~~ As noted in [paragraph 5.47 Preliminary View 4](#), certain living resources can be recognized as an asset within the [GPFSGeneral purpose financial statements](#). The following discussion considers the application of the general measurement principles, summarized in paragraphs 2.34-2.36, 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 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.

~~5.29-5.51.~~ As noted in paragraph 2.35, 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.:

~~5.30-5.52.~~ 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.

~~5.31-5.53.~~ For living resources which are typically held for their operational capacity, 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 living resource, [as well as the scientific knowledge and capabilities currently available to measure such an operational value](#). ~~For example, an entity may determine that it is holding an uncultivated forest for the purpose of carbon dioxide absorption. In such a situation, the entity will need to determine if there is an appropriate method of quantifying the carbon dioxide expected to be absorbed by the forest then attach a monetary value to this quantity. Such a monetary value may be derived from the price of carbon offsetting credits, if it has been determined that the prices in a carbon offset credit trading scheme can serve as an appropriate proxy.~~

~~5.32-5.54.~~ In general, the development of a current operational value may involve significant management judgment and subjectivity. If an entity ~~concludes-determines~~ that [a living resource is held for its operational capacity and 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. but a relevant, representatively faithful, and verifiable fair value is available, the entity should consider if the fair value measure can be used as a proxy for living resource's current operational value.~~

Preliminary View 8—Chapter 5

Based on the discussions in paragraphs 5.23-5.52, the IPSASB's preliminary views are:

- (a) If a living resource is held for its 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; and
- (b) If a living resource is held for its operational capacity, even if the living resource meets the definition of an asset, it is unlikely for the resource to be feasibly measured in a way which achieves the qualitative characteristics and takes account of the constraints on information in the GPFRs. Therefore, such a living resource would not meet the criteria to be recognized as an asset in the GPFS.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

Disclosures

5.55. 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.

5.56. 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.

~~5.33-5.57. The detailed consideration of presentation is discussed in chapter 6 of this CP. For living resources that are recognized within the financial statements, the detailed consideration of disclosures within the GPFS is considered in chapter 5 of this CP. For other living resources, despite not being recognized as an asset for financial reporting purposes, the disclosure of information regarding unrecognized resources could be useful for users of the GPFRs. For presentation of supplemental information outside the GPFS in the broader GPFRs, the applicability of the IPSASB's RPGs 1-3 is discussed in chapter 1 starting at paragraph 1.62.~~

Preliminary View 9—Chapter 5

Regarding disclosures on living resources, the IPSASB's preliminary views are:

- (a) For a living resource which is recognized in the GPFS, the presentation of information such as the basis of what is displayed, or disaggregation of the amount could be useful for users of the GPFS.
- (b) For a living resource which exists with reasonable certainty, is controlled as the result of a past event, but cannot be reliably measured, if the living resource is relevant to the service objectives of the reporting entity, certain non-financial disclosures can be presented in the GPFRs.
- (c) For living resources which are not controlled, presentation of information is not required.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

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.⁴⁴

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.⁴⁵
- 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.⁴⁶

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.⁴⁷

⁴⁴ Conceptual Framework, paragraph 8.4.

⁴⁵ Conceptual Framework, paragraph 8.15.

⁴⁶ Conceptual Framework, paragraph 8.38.

⁴⁷ Conceptual Framework, paragraphs 8.45 and 8.47.

Application to Natural Resources

6.7. At this stage of the Natural Resources project, the focus on presentation will be on information selection. Once the IPSASB receives feedback on the preliminary views regarding what natural resources information should be presented, the details on information location and organization will be addressed in the next phase of the project.

Financial information

6.8. Based on the preliminary views in chapters 3-5, certain living resources may meet the criteria to be recognized as an asset. Paragraph 8.23 of the Conceptual Framework explains that 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).”

6.10. Based on the items listed in paragraphs 6.8 and 6.9, financial information that help a user understand the financial statements, provides on the context of the entity and its operating environment, and have a clear and demonstrable relationship to the information displayed in the financial statements could 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 fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period; and
- (c) 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, depreciation and impairment; and
- (d) 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.

- 6.11. As noted in paragraph 2.32, if the existence of an item is certain, but it is not recognized because of a high level of measurement uncertainty, disclosure of the following would also be helpful to users:
- (a) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (b) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (c) If available, the range of possible outcomes and point estimates of the unrecognized item.
- 6.12. The information in paragraphs 6.10 and 6.11 can be aggregated and disclosed for each class of natural resource recognized in the financial statements.
- 6.13. If the accounting for an activity related to natural resources falls within the scope of an existing IPSAS, additional disclosures may also be required by the IPSAS. In addition, the disclosure of certain non-financial information may also be applicable for items which are recognized in the financial statements—see paragraph 6.15.

Non-Financial Information

- 6.14. Based on the IPSASB's preliminary views put forth in chapters 3-5, with the currently available means of determining the existence and measurement of certain natural resources, it is likely that subsoil resources, water, and certain living resource cannot be recognized as assets in the GPFS. However, the disclosure of certain non-financial information could be useful for users of the GPFRs.
- 6.15. The selection of non-financial information for disclosure is supported by paragraph 8.24 of the Conceptual Framework, which lists the following items as examples of information disclosed in the notes:
- "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."
- 6.16. Non-financial information on natural resources that is important to understanding an entity's finances and ability to deliver services could include, but is not limited to:
- (a) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity. (At this stage, no decision has been made on how the disclosure of quantities should be impacted by the confidence levels inherent in the estimates);
 - (b) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above; and
 - (c) 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.

Recommended Practice Guidelines

- 6.17. In addition, 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. While entities applying the RPGs are required to apply them in their entirety, the application of the RPGs is currently optional. The reconsideration of whether the RPGs should be mandatory is not within the scope of this CP; however, the IPSASB may revisit this issue at a future date.
- 6.18. Where the 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.
- 6.19. Many of the natural resources related programs and services noted in paragraph 6.17 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.
- 6.20. 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

- 6.21. While there is little guidance on the presentation of information regarding water and living resources in IFRS, many jurisdictions require the presentation of information relating to subsoil resources in the broader GPFRs. For example, while the specific requirements of each jurisdiction or industry can vary broadly, the following information is typically required in the regulatory filings of publicly traded mining entities in the private sector:⁴⁸

⁴⁸ Based on the requirements from National Instrument 52-102 for publicly traded Canadian mining companies.

NATURAL RESOURCES

- (a) An estimate of reserves and resources, as prepared by a qualified person (e.g., a professional geologist). In this context, reserves are the physical quantities of minerals estimated with a high level of geological confidence while resources are estimates at lower levels of confidence;
 - (a) In cases where not enough information is available to formulate an estimate of reserves, a preliminary economic assessment which contains an estimate of resources and discusses the potential viability of an extraction project.
 - (b) Technical reports which include an assessment of whether extraction of the subsoil resource will be feasible. Technical reports are required to be filed upon first-time reporting in a jurisdiction or upon a material change (as defined by regulation in each jurisdiction) in reserves or resources; and
- 6.22. The information on the estimated physical quantities of subsoil resources in paragraphs 6.20(a) and (b) are consistent with the proposed disclosure of physical quantities in paragraph 6.15(a).
- 6.23. The number of public sector entities that are currently involved in the extraction of subsoil resources is relatively low, so the discussion of the feasibility of an extraction project may appear to be not applicable to the public sector. However, as many resource-rich jurisdictions are recently beginning to enter into production sharing or co-production agreements with private companies, where a public sector entity is involved with the extraction of subsoil resources, the disclosure of an assessment of whether the extraction of subsoil resources is feasible will be helpful information for users of the GPFRs. (It should be noted that if an entity has capitalized costs relating to the development and extraction of natural resources, such costs are subjected to the accounting and disclosure requirements of IPSAS 26, *Impairment of Cash-Generating Assets*, or IPSAS 21, *Impairment of Non-Cash-Generating Assets*.)

Preliminary View 10—Chapter 6

Based on the discussion in paragraphs 6.7-6.22, the IPSASB's preliminary view is that the following natural resources-related information should be presented:

Financial Information

- (a) The measurement basis used for determining the gross carrying amount, including, if applicable, the valuation date, method used to determine fair value, and significant judgments and assumptions applied in estimating the fair value of recognized natural resource;
- (b) If applicable, the depreciation method used, useful lives or the depreciation rates used, and the gross carrying amount aggregated with accumulated depreciation and accumulated impairment losses at the beginning and end of the period;
- (c) 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, depreciation and impairment;

- (d) Information regarding the sale of subsoil resources, water, living resources, or the right to exploit or access these resources (i.e., quantities of resources given up and the consideration received), as well as the significant accounting policies relating to these transactions; and
- (e) For natural resources not recognized due to measurement uncertainty:
 - (i) The difficulties in obtaining a reliable measurement that prevented recognition;
 - (ii) The significance of the unrecognized asset(s) in relation to delivery of the entity's objectives; and
 - (iii) If available, the range of possible outcomes and point estimates of the unrecognized item.

Non-Financial Information

- (f) Information on the physical quantities of natural resources that are estimated to be in the areas controlled by the entity;
- (g) Narrative description (e.g., type, location, etc.) of the natural resources noted in (a) above;
- (h) 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.

Information Prepared in Accordance with RPGs 1-3

- (i) 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*;
- (j) 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;
- (k) 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*; and

Other Information

- (l) For public sector entities which participate in the extraction of subsoil resources, discussion of the feasibility of an extraction project.

Do you agree with the IPSASB's Preliminary View?

If not, please provide your reasons.

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

Background

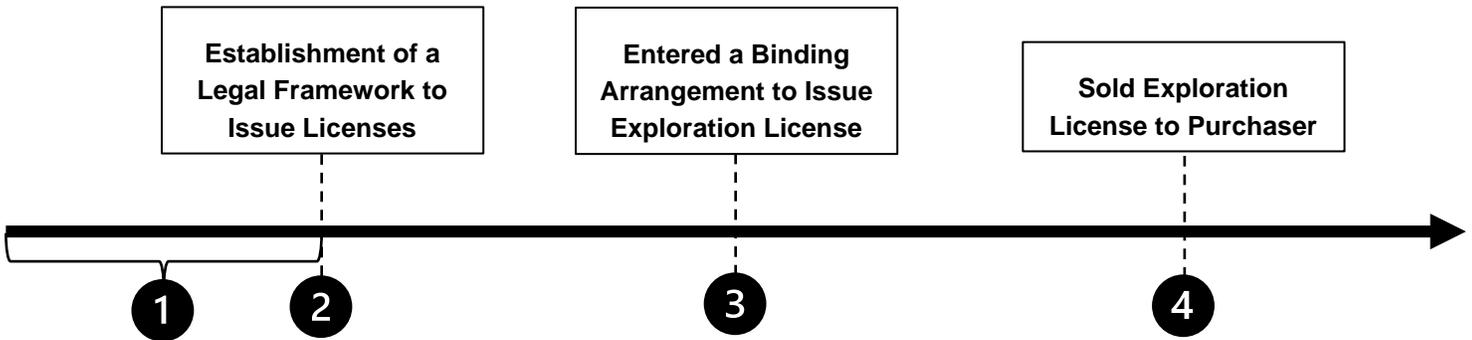
- A.1. In the Conceptual Framework, the IPSASB had previously decided that a government's sovereign power, in and of itself, did not meet the criteria to be recognized as an asset. The IPSASB's decision was driven by the conclusion that there was no past event to support the recognition of an asset. 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.⁴⁹ 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.
- A.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.
- A.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.⁵⁰

Example

- A.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.
- A.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.
- A.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.

⁴⁹ IPSASB Conceptual Framework, paragraph BC5.18.

⁵⁰ 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 B: Development of the General Description of Natural Resources

- B.1. As noted in paragraph 1.14, 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.⁵¹

Definition from Economic Literature

- B.3. One economic text describes natural resources as follows:⁵²

“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:⁵³

“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:

⁵¹ https://en.wikipedia.org/wiki/Natural_resource; retrieved September 2020.

⁵² 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.

⁵³ The definitions of living and non-living resources are found in paragraph 8 of GRAP 110.

NATURAL RESOURCES

“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:⁵⁴

“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.”

⁵⁴ FASAB Technical Bulletin 2011-1, Appendix C.

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

C.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 ⁵⁵
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

⁵⁵ 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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁵
	<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>
<p>Application of Asset Definition to Subsoil Resources</p>	<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

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁵
	tangible assets once they have been extracted. ⁵⁶		<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.

⁵⁶ IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 3.27.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁵
	<p>faithful due to the subjectivity and degree of estimation involved.⁵⁷</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.

⁵⁷ IASB Discussion Paper DP/2010/1. *Extractive Activities*, paragraph 4.83.

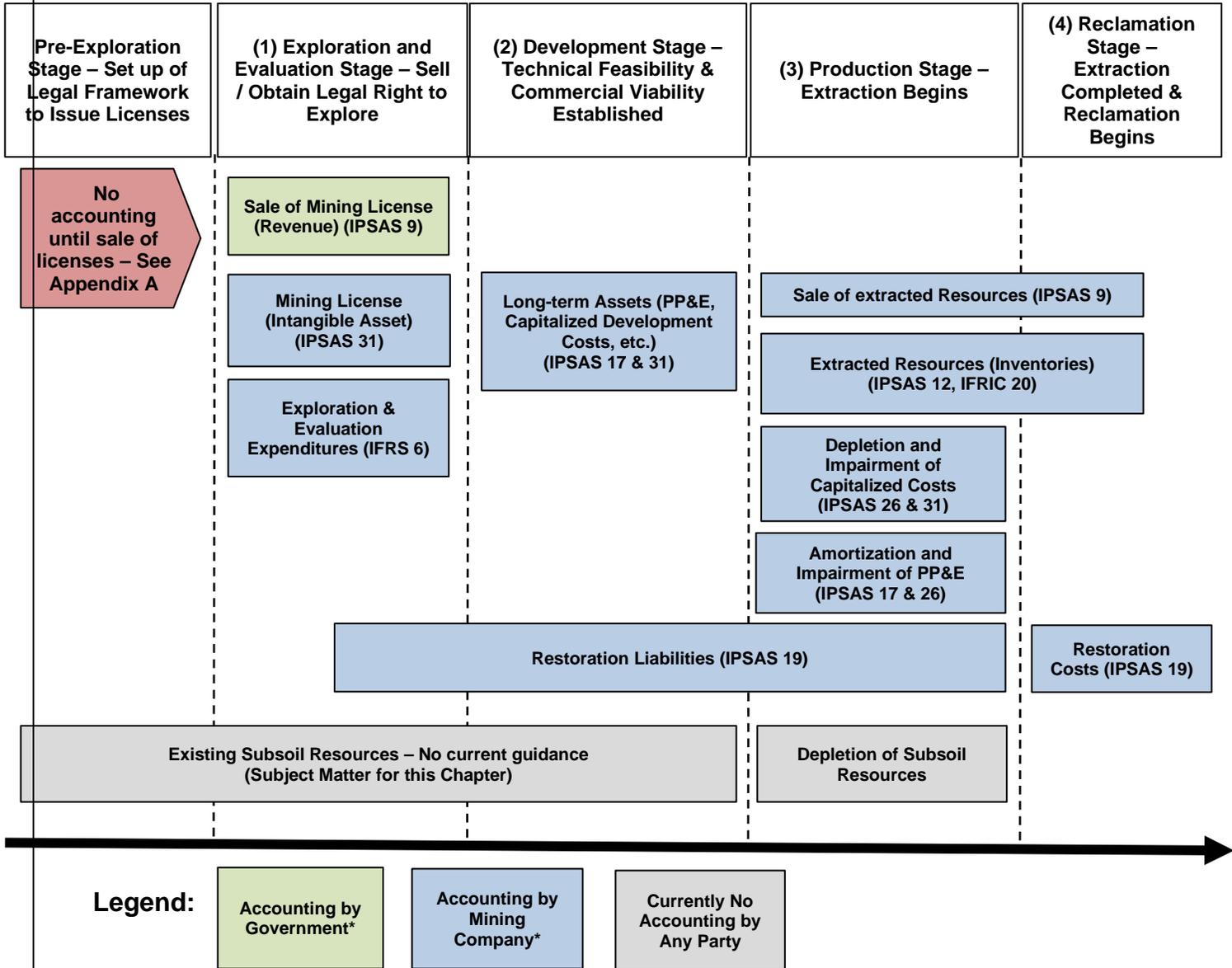
NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁵
	accordance with regulatory requirements applicable to publicly traded companies in extractive industries.		

Clarification of what is Considered a “Subsoil Resources” – Example Timeline

C.2. To illustrate the various concepts of what is and is not a “subsoil resource”, the following example timeline summarizes the main stages in the mining process and the key events or activities undertaken by the parties involved. While the general stages and key events in both mining and oil and gas industries are similar, please note that there may be other activities and processes applicable specifically to the oil and gas industry. These considerations are not discussed in the following example. Some aspects such as jurisdictional differences are also not explained in the following discussion as the example is only meant to provide a general overview.

Illustrative Timeline of the Mining Process



*Accounting based on current IPSAS & IFRS. A private sector mining company would typically report under IFRS, but references to the equivalent IPSAS are provided to illustrate the subject matter of this chapter.

Pre-Exploration Stage—Before a government can sell the legal right to explore to entities, it will need to establish a licensing framework. Until a license is sold or issued, there is no transaction to be accounted for. This is discussed in detail in [Appendix A: Accounting for a Government's Sovereign Power to Issue Licenses](#). It should be noted that under existing accounting guidance, the physical subsoil resources that are in their natural state—that is, one of the three subject matters of this CP—are not accounted for by any party.

- (1) **Exploration & Evaluation Stage**—The mining process typically begins with an entity (e.g., the “Mining Company”) obtaining the legal right to explore an area for subsoil resources from a government entity (the “Government”). At this stage, the Mining Company performs activities such as surveys and geological studies to determine if there are any technically feasible and commercially viable resources—i.e., resources which can physically be extracted at a cost below their expected realizable value.

For illustration purposes, this timeline assumes that the Mining Company reports their accounting results using IFRS. From the Mining Company’s perspective, the legal right (i.e., the license) is typically accounted for as an intangible asset under IAS 38, *Intangible Assets*. At this stage, the Mining Company would also account for the costs of exploration or evaluation activities using IFRS 6, *Exploration for and Evaluation of Mineral Resources*. If the activities were performed by a public sector entity (either directly or through a joint arrangement), the potential treatment of exploration and evaluation activities are discussed in this CP starting at paragraph 2.41.

From the Government’s perspective, prior to the sale of the legal right, there is no revenue to be recognized under IPSAS 9, *Revenue from Exchange Transactions*.⁵⁸ This is because the existence of a government’s sovereign powers allowing it to sell licenses does not give rise to a past event until the licenses are sold. See [Appendix A](#) of this CP for further information on sovereign powers.

- (2) **Development Stage**—Once the technical feasibility and commercial viability of a site has been established, the site progresses to the development stage and the Mining Company begins to construct infrastructure to facilitate access to the mine site, as well as processing facilities in preparation for the extraction of resources.

The costs incurred by the Mining Company at this stage are capitalized as a long-term asset using the principles from the IASB’s Conceptual Framework and IAS 38.⁵⁹ It should be emphasized that these costs relate entirely to the development activities and do not relate to the underlying subsoil resources. These development costs are recognized as assets when their development is technically feasible, and they are commercially viable, and it is probable that the costs will be recoverable.

Subsequent to initial measurement, the geological studies are typically updated periodically, and the results are normally disclosed as part of regulatory requirements. The Mining Company will also use the information from the geological studies when considering if the

⁵⁸—The IPSASB currently has a project to replace IPSAS 9. More details on the revenue project can be found at <http://www.ipsasb.org/consultations-projects/revenue>.

⁵⁹—IFRS 6, paragraph 10.

~~estimated useful life of its capitalized development costs continues to be appropriate, and if applicable, in any impairment analysis of these capitalized costs.~~

~~However, the underlying mineral resources are not recognized under IFRS. While the feasibility study and other geological studies provide some information to support the recoverability of costs incurred, they do not provide information with sufficient reliability or precision to support the recognition of the unextracted subsoil resources within an area as a separate asset. This is further discussed in beginning in paragraph C.5 of this appendix.~~

~~At this stage, unless the Government issues a separate license for the Mining Company to move on to the development stage, or unless the Government is involved in the development activities, there are typically no transactions or events which would impact the Government.~~

- ~~(3) **Production Stage**—Once the necessary infrastructure and processing facilities have been established, the Mining Company will begin extraction of the underlying subsoil resources, and the production stage of the mine begins. As resources are extracted, they are recognized by the Mining Company as inventory under IAS 2, *Inventories*. During this stage, the Mining Company will typically continue to update its geological studies for regulatory compliance purposes as well as for its analysis of the capitalized development costs' useful life and potential impairment. If the extraction involves surface mining, the Mining Company may also need to remove surface waste materials to gain access to mineral deposits. The costs incurred in this waste removal activity is accounted for as a long-term asset or inventory under IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*, depending on whether there are any recoverable resources within the waste material.~~

~~It is important to note that upon extraction, the cost of the recognized inventory consists of any direct extraction costs as well as depletion of the capitalized development costs—i.e., a systematic allocation of the capitalized development costs based on an estimate of total extractable resources. Even at this stage, any unextracted subsoil resources are not recognized due to the reasons noted above in the development stage.~~

~~Similar to the development stage, the accounting by the Government entity at the production stage will depend on whether the Mining Company requires a separate license to begin production. In some cases, the initial legal right issued in the exploration stage includes subsequent payments to the Government based on actual quantities of resources extracted.~~

- ~~(4) **Reclamation Stage**—At this stage, the amount of commercially viable resources left is minimal and the mine is considered depleted. Typically, the Mining Company would be responsible for activities such as remediation and restoration of the area, while the Government would monitor the execution and completion of these activities.~~

~~C.3.—In the example timeline above, “subsoil resources” narrowly refers to the physical mineral resources which are within the earth prior to their extraction. In the production stage in the timeline, these mineral resources become inventory assets once they have been extracted and are no longer considered subsoil resources. Furthermore, although closely related to subsoil resources, the costs incurred for exploration, evaluation, development, and extraction activities are not themselves considered subsoil resources.~~

Private Sector Practices and Accounting under IFRS

C.4. As noted in paragraph 35 of the introduction, the underlying natural resources are typically not recognized or measured under IFRS due to concerns over existence and measurement uncertainty. Under IFRS, the following accounting requirements are applicable for items or transactions which *indirectly* relate to the underlying natural resources:

- (c) In situations where a developed property with natural resources or a property with potential resources is acquired, IFRS 3, *Business Combinations*, requires the recognition of the property at fair value. The recognized fair value is based on the estimated quantities of resources valued at long-term commodity prices at the time of acquisition and supported by the amount of consideration exchanged in the business combination. While these estimates are periodically updated, these updates are only used for impairment and depletion purposes and are not used for revaluation of the asset or to recognize any new assets. This is because, absent the exchange of consideration, the resource and reserve estimates are not sufficiently reliable to support revaluation or recognition of an asset;
- (d) Expenditures related to the exploration and evaluation of a property with potential natural resources are accounted for using IFRS 6, *Exploration for and Evaluation of Mineral Resources*⁶⁰, which provides entities with an accounting policy choice to recognize these expenditures as an asset or expense as they are incurred. IFRS 6 also refers to the IASB's Conceptual Framework for Financial Reporting (IASB's Conceptual Framework) as well as IAS 38, *Intangible Assets*, for guidance on the recognition of assets arising from the development of resources;
- (e) IFRIC 20, *Stripping Costs in the Production Phase of a Surface Mine*, provides guidance on the recognition and measurement of costs incurred to remove surface materials during the development and production phases of a mine; and
- (f) Similar to the IPSASs as discussed in paragraphs 17-21 of the introduction to the CP, IAS 16, *Property, Plant and Equipment*, IAS 38, *Intangible Assets*, IAS 2, *Inventories*, IAS 41, *Agriculture*, IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, and IAS 36, *Impairment of Assets*, provide guidance on items or transactions which indirectly relate to natural resources.

C.5. In addition to the above accounting practices, many jurisdictions require the disclosure of information relating to natural resources in their broader GPFs. For example, while the specific requirements of each jurisdiction can vary broadly, the following information is typically required in the regulatory filings of mining entities in the private sector⁶⁴:

- (a) An estimate of reserves and resources, as prepared by a qualified person (e.g., a professional geologist). Reserves are quantities of minerals estimated with a high level of geological confidence while resources are estimates at lower levels of geological confidence;
- (a) Technical reports which include an assessment of whether exploitation of the natural resource will be feasible. Technical reports are required to be filed upon first-time reporting in the jurisdiction or upon a material change (as defined by regulation in each jurisdiction) in reserves or resources; and

⁶⁰—It should be noted that IFRS 6 defines mineral resources to include minerals, as well as oil, natural gas and similar non-regenerative resources.

⁶⁴—Based on requirements from National Instrument 51-102 for Canadian mining companies.

- ~~(b) In cases where not enough information is available to formulate an estimate of reserves, a preliminary economic assessment which contains an estimate of resources and discusses the potential viability of a project.~~

~~Resource Estimation Practices in the Private Sector~~

- ~~C.6. There is currently no available technological means to quantify subsoil resources with complete accuracy without first extracting the resources from the ground. As a result, the quantity of the units of account for a subsoil resource (i.e., the amount of resources in the ground) needs to be estimated, and it is possible for the true quantity of resources to differ significantly from estimated amounts.~~
- ~~C.7. 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).~~
- ~~C.8. These models are commonly used by entities which invest in the exploration and development of subsoil resources, and the degree of confidence in the estimated quantities and grade quality of resources, as well as the costs to develop these resources, depends on the level of geological testing performed. While the details of the models for mineral ore and fossil fuel deposits do differ, in general, the modelling process involves:

 - ~~(a) Obtaining a number of samples by drilling in an area where subsoil resource deposits could potentially exist;~~
 - ~~(a) Analysis of these samples to determine if any deposits exist in the locations probed by the drilling tests. If resources are found in the samples, the concentration of the resources is analyzed to determine if further testing and modelling should be performed. It is also important to note that in the modelling process, the only resources that are known to exist with 100% certainty are the amounts that have been extracted and found in these samples;~~
 - ~~(b) Consideration of any other available geological data on the area being tested. Such data could include information from seismic tomography (imaging the subsurface of the earth using data produced by earthquakes or explosions), ground penetrating radar readings, and observation of vegetation growth anomalies for certain minerals resources;~~
 - ~~(c) Consideration of the extraction technologies available and extraction methods that can be applied in the area; and~~
 - ~~(d) Based on the data from steps (a) to (d) above, the quantity and quality of deposits in the area are estimated. These estimates are then combined with any estimates of potential costs to derive an estimate of recoverable resources. An entity exploring for subsoil resources will typically focus on recoverable resources, as this estimate takes into account the economic viability and physical feasibility of extracting the resources.~~~~
- ~~C.9. As discussed in the illustrative timeline in paragraphs C.1-C.2, the information from these models is used as a basis to estimate the useful life and recoverability of capitalized development costs in financial reporting in the private sector. However, despite the use of these models, the level of~~

~~uncertainty over the quantities of unextracted subsoil resources continues to be too high for recognition of subsoil resources in the private sector.~~

~~C.10. As noted in a presentation by a former Chair of the JORC, "Resource [and] reserve estimates are estimates, not calculations. New information or a different geological interpretation can materially change estimates. There is no single correct resource or reserve estimate for a given deposit." In financial accounting terms, this view means that **resource and reserve estimates derived from geological studies and models are not verifiable measures**, as experts with the same set of data could come up with materially different results. This issue also highlights that **it would be difficult to develop an estimate which faithfully represents the underlying economic information**—that is, the actual quantities of unextracted subsoil resources.~~

~~C.11. The presentation then elaborates that the estimation of mineral resources and reserves is akin to trying to determine the contents of a large room by penetrating the room with large knitting needles. The needles and other available data on the room, analogous to available geological data, can be used to estimate the room's contents, but until the entire room is excavated, a high degree of uncertainty continues to exist.⁶²~~

⁶²—Stephenson, Pat, Associate Principal Geologist at AMC Consultants. *Mineral Resources, Mineral Reserves or Pie in the Sky?* January 2017, https://www.e4m.fsg.ulaval.ca/fileadmin/documents/Evenements/Distinguished_Lecture_presentation_to_E4m_Laval_University_Quebec_City_PS.pdf. PowerPoint Presentation to the Faculté des Sciences et de Génie—Université Laval.



Pictorial Analogy of a Resource Estimation Model – The “knitting needles” (the grey lines) in the picture represents the drilling tests used to estimate the quantities of subsoil resources in geological models, and the individuals are analogous to deposits of subsoil resources. In this analogy, objects that intersect with the needles will be detected and the resulting data will be combined with any other available information on the room (analogous to geological data) to construct a model of the contents of the room. The picture illustrates that even though a model could provide an estimate on some of the room’s contents, a great deal of uncertainty remains over how many individuals are actually in the room.

C.12. ~~Because of the difficulties in developing a faithfully representative and verifiable estimate, both preparers and auditors in the private sector have not been able to rely on these estimates for asset recognition in the financial statements. This is consistent with the IASB’s view that subsoil resources cannot be recognized in the financial statements. (See paragraph 2.35 for more details.)~~

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

D.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 ⁶³	International Statistical Standards ⁵⁵
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.

⁶³ 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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards ⁶³	International Statistical Standards ⁵⁵
<p>Application of Asset Definition to Water in its Natural State</p>	<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).
<p>Existence Uncertainty</p>	<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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards ⁶³	International Statistical Standards ⁵⁵
		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 E: Existing International, National, and Statistical Guidance on Living Resources and Related Activities

E.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 ⁵⁵
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.

NATURAL RESOURCES

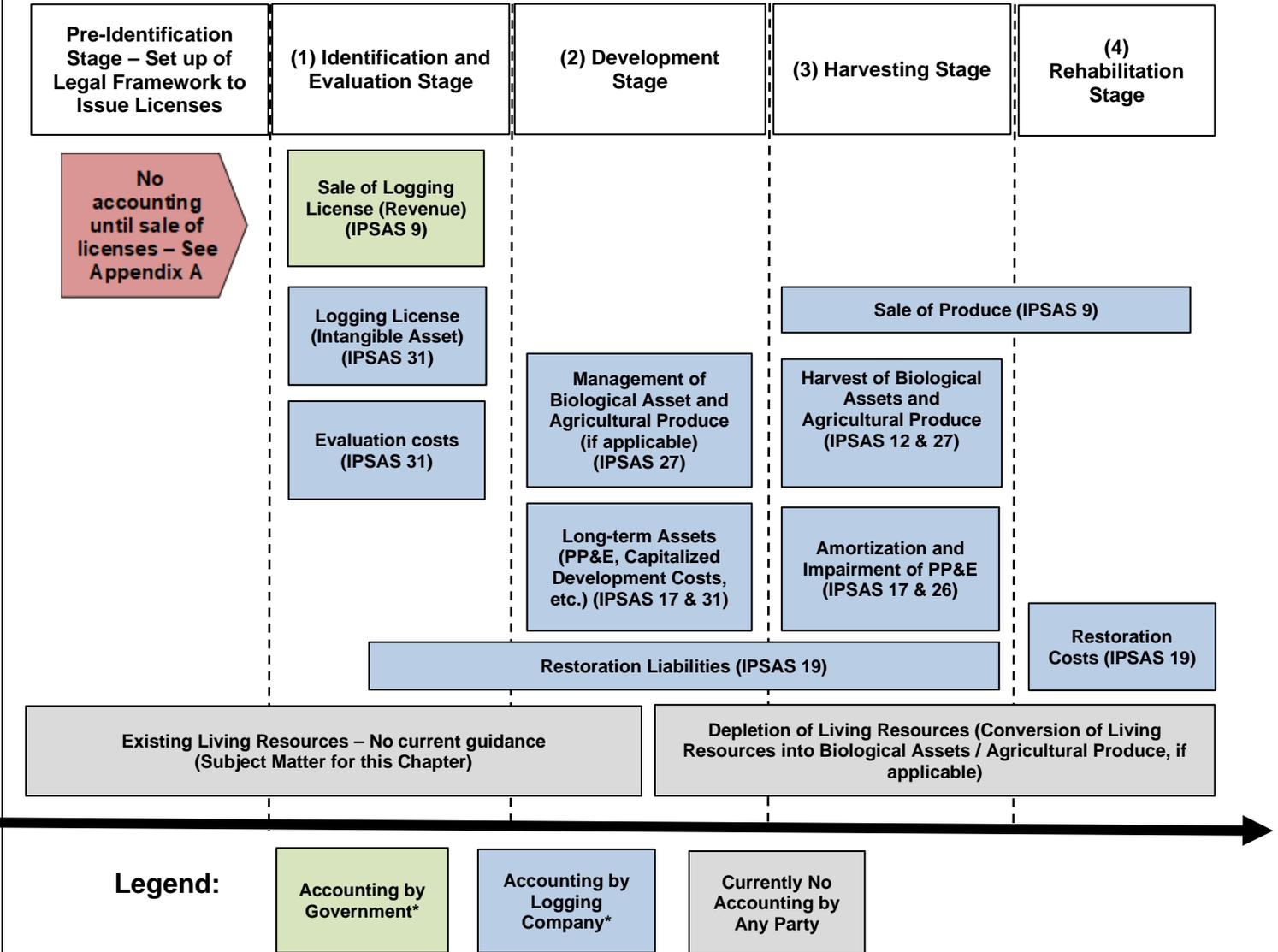
Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁵
<p>Application of Asset Definition to Living Resources</p>	<ul style="list-style-type: none"> No explicit guidance on living resources. 	<ul style="list-style-type: none"> SA GRAP: Living resources are recognized as an asset 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).
<p>Existence Uncertainty</p>	<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.

NATURAL RESOURCES

Topic	IFRS	National Accounting Standards	International Statistical Standards ⁵⁵
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.

- ~~E.1. During the initial outreach stage of the Natural Resources project, the IPSASB staff noted confusion among constituents in distinguishing between the underlying living resources and the costs incurred for activities related to these resources. For example, an entity may construct infrastructure to access an uncultivated forest. The entity may also compensate the rangers employed to ensure that no other parties are accessing the forest.~~
- ~~E.2. These costs, while related to the uncultivated forest, are not part of the underlying living resource itself. Therefore, before the analysis of whether living resources can be recognized or measured, it is important to clarify what exactly is meant by living resources.~~
- ~~E.3. To illustrate the various concepts, the following example timelines summarize the main stages and key events in the process for how a living resource (specifically an uncultivated forest) can be harvested for economic benefits or service potential. Furthermore, there may be jurisdiction-specific factors which could impact certain living resources (e.g., legislation prohibiting the harvest of endangered species). The following timeline is not meant to address all situations and is only meant to provide a general overview.~~
- ~~E.4. It should be noted that some living resources are held for preservation or conservation rather than held with the intent for harvest. Based on preliminary research, conservation activities are considered agricultural activities within the scope of IPSAS 27 in some jurisdictions, as the biological transformation of the living resource being conserved is managed by an entity for the conversion into additional biological assets.~~

Illustrative Timelines of Living Resources held for Harvest



*Accounting based on current IPSAS & IFRS. A private sector forestry company would typically report under IFRS, but references to the equivalent IPSAS are provided to illustrate the subject matter of this chapter.

Pre-Identification Stage – Before a government can sell the legal right to harvest a living resource to entities, it will need to establish a licensing framework. Until a license is sold or issued, there is no transaction to be accounted for. See [Appendix A: Accounting for a Government’s Sovereign Power to Issue Licenses](#) for more details.

(1) Identification and Evaluation Stage – The logging process typically begins with an entity identifying a potential area that suitable for logging and evaluating whether there are any commercially viable resources (i.e., resources which can be physically harvested at a cost below their expected realizable value). Once the logging entity concludes that commercial logging is viable, it will typically purchase a logging license from the government entity as described in the Pre-Identification Stage.

At this point, the government entity will typically account for the sale of a license using IPSAS 9, *Revenue from Exchange Transactions*. For illustration purposes, this timeline

assumes that the logging entity reports its accounting results using IPSAS. From the logging entity's perspective, the legal right (i.e., the license) is typically accounted for as an intangible asset under IPSAS 31, *Intangible Assets*. At this stage, the logging entity may also capitalize certain evaluation costs if they meet the capitalization criteria in IPSAS 31.

- (2) **Development Stage** — Once the commercial viability of a site has been established and a license has been acquired, the site progresses to the development stage and the logging entity begins to construct infrastructure to facilitate access to the logging site, as well as processing facilities in preparation for the logging or harvesting of resources. These infrastructure and processing facilities are within the scope of IPSAS 17, *Property, Plant, and Equipment*.

At the development stage, an entity may begin to actively manage the growth of a living resource. If any of these management activities interfere with the natural biological transformation of the forest, some of these activities may result in conversion of the trees into biological assets or agricultural produce within the scope of IPSAS 27, *Agriculture*. However, in a typical logging scenario, there is often little or no management of the biological transformation, and trees are harvested directly from their natural state.

- (3) **Harvesting Stage** — Once the necessary infrastructure and processing facilities have been established, the logging entity will begin harvesting the trees. Paragraph 10(b) of IPSAS 27 specifies that the harvest from unmanaged sources is not an agricultural activity. Therefore, the harvested trees will be recognized as inventory under IPSAS 12, *Inventories*. For other living resources, it is possible for the harvested items to be used as bearer plants, which would be within the scope of IPSAS 17, or as biological assets, which will be within the scope of IPSAS 27.

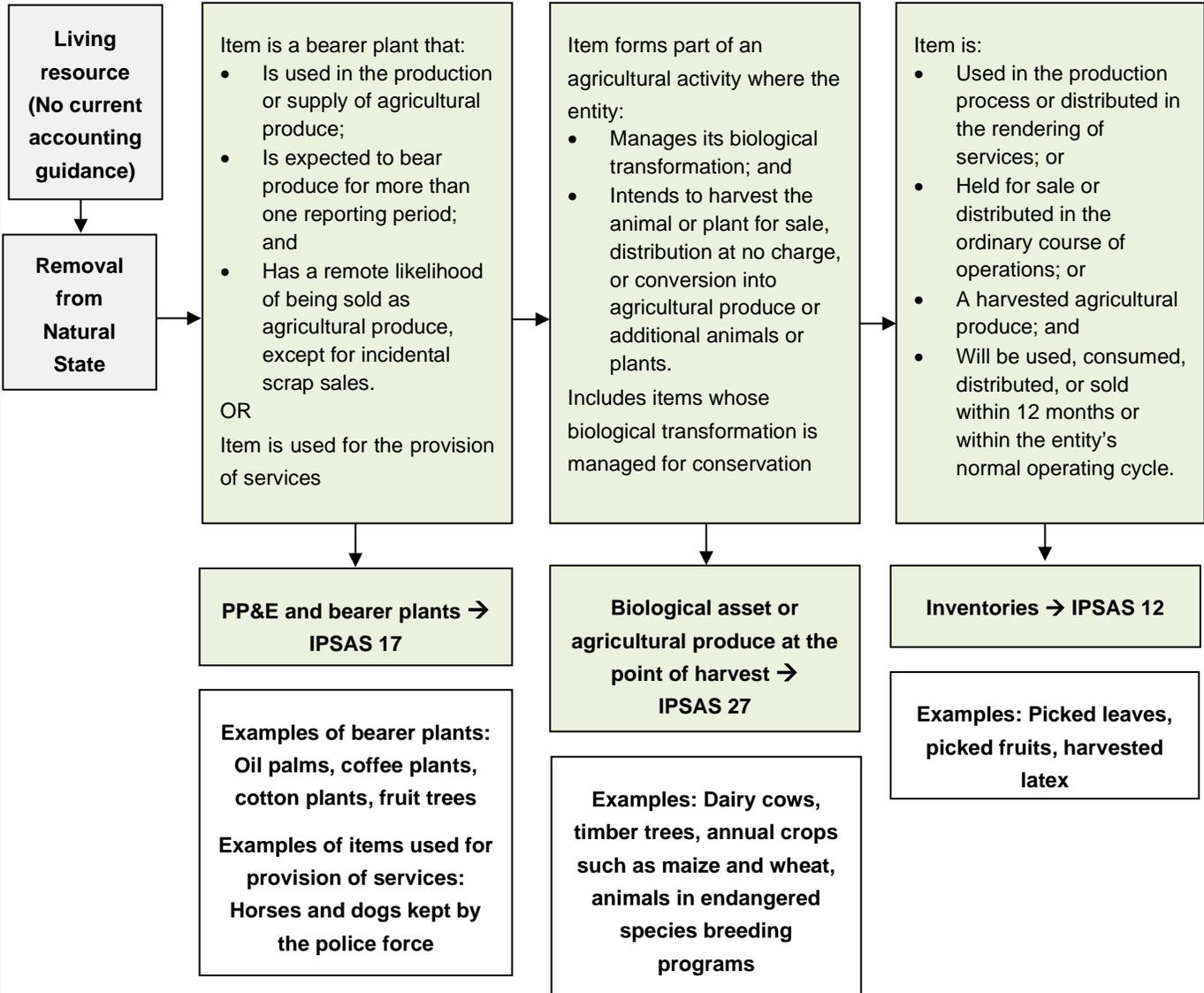
- (4) **Rehabilitation Stage** — At this stage, the amount of commercially viable resources left is minimal and the living resource has been depleted. Typically, the logging entity would be responsible for activities such as remediation and restoration of the area, while the Government would monitor the execution and completion of these activities.

E.5. — The above example timeline shows that the living resources are separate from the activities that are performed to develop and prepare the resource for harvest. There is currently no existing accounting guidance regarding the living resource while it is still in its natural state (for logging, this would be prior to harvest), and living resources are currently not recognized in the financial statements.

Interaction of Living Resources with Existing IPSAS Guidance

E.6. — Once a living resource has been taken out of its natural state, the item would fall within the scope of IPSAS 12, IPSAS 17, or IPSAS 27, depending on its intended use as explained in the following flowchart.

Diagram Illustrating the Application of Existing IPSAS to Living Resources that have been Removed from their Natural State



E.7. — Certain harvested agricultural produce can be further processed into products that could be used or sold. For example, picked leaves may be processed into tea leaves and harvested latex can be processed into rubber products. These resulting products are typically accounted for as inventories within the scope of IPSAS 12.

E.8. — It should also be noted that IPSAS 27 does not provide explicit guidance on the accounting for costs relating to agricultural activities, which includes conservation activities. However, as the biological asset is measured at fair value less costs to sell, the decision to capitalize or expense

NATURAL RESOURCES

~~these costs will have no impact on the net operating results or financial position of an entity. This is because any capitalized costs will result in an equal adjustment in the gain or loss arising from the change in the fair value less costs to sell of the biological asset.~~

Appendix E: International Statistical Standards Guidance

Introduction

- F.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 2008⁶⁴ (2008 SNA), the System of Environmental-Economic Accounting 2012–SEEA Central Framework⁶⁵ (SEEA Central Framework), and the Government Finance Statistics Manual 2014⁶⁶ (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.
- F.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

- F.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.
- F.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.
- F.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

- F.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.
- F.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 licences, and (ii) purchased goodwill and marketing assets.

⁶⁴ <https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf>

⁶⁵ https://seea.un.org/sites/seea.un.org/files/seea_cf_final_en.pdf

⁶⁶ <https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf>

NATURAL RESOURCES

- F.8. Natural resources consist of naturally occurring resources such as land, water resources, uncultivated forests and deposits of minerals that have an economic value.
- F.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.
- F.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).
- F.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).
- F.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

- F.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.
- F.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.
- F.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.⁶⁷
- F.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.⁶⁸

⁶⁷ 2008 SNA.12.18

⁶⁸ 2008 SNA.10.179

NATURAL RESOURCES

- F.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.⁶⁹
- F.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.⁷⁰ 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

- F.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.
- F.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.⁷¹
- F.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.⁷² 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.⁷³
- F.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.⁷⁴

Water resources

- F.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.⁷⁵
- F.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.

⁶⁹ 2008 SNA 10.49

⁷⁰ 2008 SNA 10.50

⁷¹ 2008 SNA.10.182

⁷² 2008 SNA.12.19

⁷³ 2008 SNA.12.27

⁷⁴ 2008 SNA.13.51

⁷⁵ 2008 SNA.A3.84

NATURAL RESOURCES

- F.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.⁷⁶
- F.26. The discovery of water resources is recorded in the other changes in the volume of assets account.⁷⁷ 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.
- F.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.⁷⁸ In case the net returns is not possible to measure, estimates based on access fees may be used.⁷⁹

Permits to Use Natural Resources

- F.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

- F.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.⁸⁰

General description of asset accounts

- F.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.⁸¹
- F.31. The basic form of an asset account compiled for individual types of environmental assets is as follows:

⁷⁶ 2008 SNA.10.184

⁷⁷ 2008 SNA.12.19

⁷⁸ 2008 SNA.13.51

⁷⁹ 2008 SNA.A3.84

⁸⁰ SEEA Central Framework.2.21

⁸¹ SEEA Central Framework.2.49

NATURAL RESOURCES

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

F.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.

F.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

F.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.⁸²

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

F.36. Physical flows are reflected in the movement and use of materials, water and energy corresponding to natural inputs, products and residuals.⁸³ Monetary flows are recorded in a manner completely

⁸² SEEA Central Framework.2.69

⁸³ SEEA Central Framework.2.88

NATURAL RESOURCES

consistent with the SNA definition of economic flows⁸⁴ with two types being distinguished: transactions and other flows.

- F.37. The stocks of physical terms stocks refer to the total quantity of assets at a given point in time⁸⁵. The measurement of stocks in monetary terms focuses on the value of individual environmental assets and changes in those values over time.⁸⁶

Measurement in monetary terms

- F.38. The values reflected in the accounts are, in principle, the current transaction values or market prices for the associated goods, services, labour or assets that are exchanged.⁸⁷ 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”.⁸⁸
- F.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.⁸⁹
- F.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.⁹⁰

Classification of environmental assets in the SEEA Central Framework

- F.41. The SEEA Central Framework classifies the environmental assets as follows:⁹¹

⁸⁴ SEEA Central Framework.2.96

⁸⁵ SEEA Central Framework.2.99

⁸⁶ SEEA Central Framework.2.104

⁸⁷ SEEA Central Framework.2.143

⁸⁸ SEEA Central Framework.2.144

⁸⁹ SEEA Central Framework.5.32

⁹⁰ SEEA Central Framework.5.33

⁹¹ SEEA Central Framework.5.15

NATURAL RESOURCES

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

- F.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.⁹²
- F.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.⁹³

Relationship between environmental and economic assets

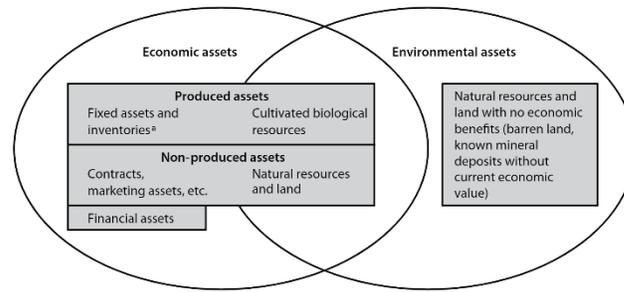
- F.44. Many environmental assets are also economic assets. In particular, natural resources and land are considered non-produced assets, and cultivated biological resources may be either fixed assets or inventories, depending on their role in production. The figures below displays the relationship between 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.⁹⁴

⁹² SEEA Central Framework.5.18

⁹³ SEEA Central Framework.5.24

⁹⁴ SEEA Central Framework.5.38

NATURAL RESOURCES



* Other than cultivated biological resources.

GFSM 2014

- F.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.
- F.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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