Chapter 9
Accounting for heritage assets and biological assets

Objectives of this lecture
• Understand what items constitute heritage assets, and be familiar with the attributes of heritage assets that differentiate them from other assets
• Understand what types of assets can be classified as biological assets and know the unique attributes of such assets
• Be able to explain whether heritage assets appear to conform with accepted asset definition and recognition criteria as provided in the Conceptual Framework

Objectives (cont.)
• Explain the arguments for and against placing a valuation on heritage assets
• Be aware of the alternative approaches to valuing heritage assets
• Be able to explain how the nature of biological assets differs from many other assets
• Be able to explain why net market value or fair value has been suggested by some researchers as the appropriate basis for valuation of biological assets pertaining to agricultural activity
Objectives (cont.)

- Understand the various issues associated with changes in the market value of biological assets, and explain when such changes in value should be recognised in profit and loss.
- Be aware of some ongoing accounting debates in relation to heritage assets and biological assets and be able to evaluate the logic of the various arguments supporting or opposing particular valuation and disclosure approaches.

Accounting for heritage assets

Definition of heritage assets

- No single accepted definition.
- Accounting Standards Board (UK, 2006) suggests:
  An asset with historic, artistic, scientific, technological, geophysical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.
- Includes national parks, national monuments, museum and library collections, historic buildings, etc.
- Unique and have no alternative use.
- Generally cannot be replaced.

Accounting for heritage assets (cont.)

Key issues

- Should heritage assets be treated in the same manner as other assets?
- Would heritage assets be considered assets in accordance with the Conceptual Framework definition of assets?
- Are definitions and recognition criteria provided in conceptual frameworks such as the Conceptual Framework appropriate for public sector assets?
- How are heritage assets financially measured?
- Should heritage assets be financially measured?
- No consensus on these issues—answers will depend on personal views.
Accounting for heritage assets (cont.)

According to the IASB/AASB Conceptual Framework, three essential characteristics are required of an asset:

1. The asset is expected to provide future economic benefits.
2. The asset must be controlled (as opposed to legally owned).
3. The transaction or event giving rise to the control must already have occurred.

Accounting for heritage assets (cont.)

Do heritage assets provide future economic benefits?

- Heritage assets typically lead to net cash outflows rather than net cash inflows.
- Heritage assets provide necessary or desired services to beneficiaries but do they generate probable economic benefits to the entity that controls them?
- Can benefits from heritage assets be considered economic?

Accounting for heritage assets (cont.)

- AASB 116 *Property, Plant and Equipment* specifically addresses heritage assets. According to paragraph Aus6.2:
  - Examples of property, plant, and equipment held by not-for-profit public sector entities and for-profit government departments include, but are not limited to, infrastructure, cultural, community, and heritage assets.
  - Therefore, it is accepted that 'property, plant and equipment' held by not-for-profit public sector entities and for-profit government departments can include 'heritage assets'.
Accounting for heritage assets (cont.)

The ‘Australian Implementation Guidance’ (found at the end of AASB 116) states:

- This guidance accompanies, but is not part of, AASB 116. This guidance is pertinent to not-for-profit public sector entities and for-profit government departments that hold heritage or cultural assets
- G1. In accordance with paragraphs 7(b), 15 and Aus15.1 of AASB 116, only those heritage and cultural assets that can be reliably measured are recognised. It depends on the circumstances as to whether the reliable measurement recognition criterion can be satisfied in relation to a particular heritage or cultural asset. Heritage and cultural assets acquired at no cost, or for a nominal cost, are required to be initially recognised at fair value as at the date of acquisition

Accounting for heritage assets (cont.)

‘Australian Implementation Guidance’ (found at the end of AASB 116) (cont.)

Depending on circumstances, it may not be possible to reliably measure the fair value as at the date of acquisition of a heritage or cultural asset
- G2. Of those heritage and cultural assets that satisfy the reliable measurement criterion for initial recognition purposes, paragraph 29 of AASB 116 permits, but does not require, revaluation

Accounting for heritage assets (cont.)

Hence, from the previous slides we can see that the AASB (and IASB) believe that heritage assets can, and should, be measured and disclosed in financial terms

But, some key issues to consider would include:

- Is it appropriate to consider a fair value when, realistically, for some heritage assets no market exists?
- Is the IASB/AASB Conceptual Framework, as currently developed, appropriate for issues associated with financial recognition of heritage assets?
- Should ‘all’ assets be defined in terms of their probability of generating future economic benefits?
Accounting for heritage assets (cont.)

Who controls heritage assets (and remember, ‘control’ is a necessary attribute of assets)?
There are a number of control-related issues that can lead to questions about whether the objects in question should be recognised as assets:

- Which government department ultimately controls the asset?
- Is the asset controlled at the federal, state or local government level?
- It is difficult to prevent access to public heritage assets (e.g. parks)
- There might be restrictions on what can be done with the asset (e.g. museum collections)

Accounting for heritage assets (cont.)

Are the benefits measurable with reasonable accuracy?

- Heritage assets are unique so access to a written-down current cost is problematic
- Values for similar assets are generally not available
- Raises questions about how an external auditor might determine the reasonableness of a particular valuation

Accounting for heritage assets (cont.)

Demand for financial information about heritage assets

- If there is limited demand for information, are resources being wasted to provide the data?
- Need to ensure benefits from increased disclosures exceed costs incurred in generating disclosures
- Evidence suggests that, for example, arts institutions in the English-speaking world do not report their collections as assets for financial reporting purposes
- Questionable whether financial information about various forms of heritage assets is really necessary
Accounting for heritage assets (cont.)

Measuring heritage assets in financial terms

- Major purpose of financial reporting is for management to demonstrate accountability for resources entrusted to them
  - Should only be accountable for things under their control
- Should those in charge of looking after heritage assets be assessed in terms of financial criteria?

Accounting for heritage assets (cont.)

Measuring heritage assets in financial terms (cont.)

- Must accountability be assessed in terms of financial indicators alone? Views held on this issue will directly affect an individual’s perception of whether heritage assets should be measured in financial terms
- However, accountability itself does not have to be addressed in financial terms alone—arguments for a broader scope of accountability taking into account a combination of several qualitative and quantitative performance indicators, e.g. for museums the ‘quality of experience’ provided to visitors

Accounting for heritage assets (cont.)

Summary—Arguments against financial disclosure

- Often do not provide economic benefits
- Determination of ‘control’ is problematic
- Benefits are difficult to quantify in monetary terms
- Demand for financial information not established
- Accountability of those charged with managing heritage assets not well assessed in financial terms
Accounting for heritage assets (cont.)

Approaches to the valuation of heritage assets

• Absence of a “market” for heritage assets—number of alternative approaches have been developed to place a value on them

• Alternative methods include:
  – contingent valuation method (CVM), which relies upon a survey administered to a sample of individuals who are asked how much they would be willing to pay to retain a particular resource

Accounting for heritage assets (cont.)

Approaches to the valuation of heritage assets (cont.)

• Alternative methods include (cont.):
  – travel-cost method (TCM)—collecting data about costs incurred by individuals who visit a particular location to determine what individuals are paying to use that resource
  – valuation based on market values of surrounding private properties
  – past practice of using a notional value of $1, i.e. on basis that asset would never become available for sale or alternative development (e.g. art gallery or museum)

Accounting for biological assets

• Relevant standard applying to agricultural activity is AASB 141 Agriculture

• ‘Agricultural activity’ is defined in AASB 141 as ‘management by an entity of the biological transformation of biological assets for sale, into agricultural produce, or into additional biological assets’

• Biological assets defined as ‘a living animal or plant’
Accounting for biological assets (cont.)

Definition of biological asset (also referred to as self-generating and regenerating assets—SGARAs)

Examples of directly attributable costs are:

- costs of materials and services used or consumed in generating the intangible asset
- costs of employee benefits (as defined in AASB 119 Employee Benefits) arising from generation of the intangible asset
- fees to register a legal right
- amortisation of patents and rights that are used to generate the intangible asset

Accounting for biological assets (cont.)

Definition of biological asset (cont.)

- Would include:
  - trees held as part of a forestry operation
  - animals held as part of a livestock operation
  - orchards and vineyards
  - aquaculture and fishery holdings
- Accounting issues arise as a result of the unique attributes of biological assets

Accounting for biological assets (cont.)

AASB 141 does not apply to:
- an investment in a forest as a carbon sink, which gives rise to carbon credits that can either be sold or used to offset pollution caused by the entity
- greyhounds, horses, pigeons, and whippets used for racing
- performing animals held by theme parks
- non-human living assets other than animals and plants, such as viruses and blood cells
Accounting for biological assets (cont.)

AASB 141 also applies to agricultural produce, which is defined as ‘the harvested product of the entity’s biological assets’.

However, AASB 141 does not apply to products that are the result of processing after harvest. For example, AASB 141 would apply to grape vines (the biological asset), and grapes (agricultural produce), but not to wine. The wine, which is a product that results from processing after harvest, would be covered by AASB 102 Inventories.

Accounting for biological assets (cont.)

AASB 141 adopts directly the definition of assets provided by the IASB/AASB Conceptual Framework (AASB 141, par. 10)

An entity shall recognise a biological asset or agricultural produce when, and only when:

(a) the entity controls the asset as a result of past events

(b) it is probable that future economic benefits associated with the asset will flow to the entity, and

(c) the fair value or cost of the asset can be measured reliably.

Accounting for biological assets (cont.)

Key issues associated with biological assets:

• Since they are unique, do they need a dedicated accounting standard?

• How should biological assets be classified and presented in financial statements?

• How should biological assets be measured?

• When and how should revenue associated with biological assets be recognised?
Accounting for biological assets (cont.)

Unique nature of biological assets
- Natural capacity to grow and/or procreate directly impacts on value
- Great deal of increase in value owing to input of ‘free goods’ (sun, air, water)
- Great deal of cost incurred early in the asset’s life but economic benefits derived much later
- Production cycle might be very long
- Not necessarily any direct relationship between expenditure on asset and ultimate return

So we can see that biological assets pose a number of fairly unique issues for accountants and accounting standard-setters.

Accounting for biological assets (cont.)

Classification and reporting in financial statements
- Prior to the standard, various classification systems used
- Forestry was classified as:
  - property, plant and equipment, a separate class of ‘regenerative’ assets
- Livestock was classified as:
  - inventory, current (intended for meat) and non-current inventory (intended for breeding)
- Comparability an important attribute of general-purpose financial reports

Accounting for biological assets (cont.)

AASB 141—Classification requirements
- Biological assets are required to be presented separately in the statement of financial position (balance sheet)
- Does not prohibit classification into current and non-current elements
  - Classification as current and non-current will depend on management’s intentions
Accounting for biological assets (cont.)

How should biological assets be measured?

• Prior to AASB 1037 and AASB 141 there was great variation in valuation methods

• For example, valuation of forests in Australia was done on a historical-cost basis, replacement-cost basis and/or a market-value basis

Refer to Exhibit 9.2 on page 319—Some valuation policies adopted in relation to forestry assets

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Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

• Limitations in using the historical cost method in relation to biological assets include:
  – It ignores accretion in value through natural events
  – It ignores price changes
  – It provides irrelevant information
  – It does not reflect relative values of comparable forests
  – It does not satisfy management’s accountability obligations and provides irrelevant information on performance
  – It ignores the value of native forests

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Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

Alternative measurement models problematic

• Net present value requires numerous decisions or estimates to be made

• Current market values or fair values are difficult to assess

However:

• while the market can be volatile, fair value reflects the actual economic value of the assets at a particular time and is considered appropriate

• there is an active market for livestock at all stages of development so this approach is easy and more reliable
Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

• Fair value less selling costs to be used to value biological assets as at the reporting date

• Specifically, AASB 141 (par. 12) states:
  – A biological asset shall be recognised on initial recognition and at the end of each reporting period at its fair value less estimated point-of-sale costs, except for the case where the fair value cannot be measured reliably

Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

• 'Fair value' less estimated point-of-sale costs is essentially the same as ‘net market value’

• ‘Fair value’ is defined by AASB 141 as

  the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date

Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

• Gains and losses associated with holding biological assets (AASB 141, par. 26):

  A gain or loss arising on initial recognition of a biological asset at fair value less estimated point-of-sale costs and from a change in fair value less estimated point-of-sale costs of a biological asset shall be included in profit or loss for the period in which it arises
Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

- Point-of-sale costs (AASB 141, par. 14)
  - Includes commissions to brokers and dealers, levies by regulatory agencies and commodity exchanges, and transfer taxes and duties
  - Does not include transport and other costs necessary to get assets to a market

Accounting for biological assets (cont.)

Assessing fair value

- AASB 141 requires that quoted prices from ‘active markets’ be used with deductions made for transaction costs such as costs associated with transportation to point of sale or sale yard commissions.
- Active market defined in AASB 141 as a market where all of the following conditions exist:
  - The items traded within the market are homogeneous
  - Willing buyers and sellers can normally be found at any time
  - Prices are made available to the public

Accounting for biological assets (cont.)

AASB 141 states that where there is no active market for particular biological assets, an entity is to use one or more of the following, when available, to determine fair value:

- The most recent market transaction price, provided that there has not been a significant change in economic circumstances between the date of that transaction and the reporting date
- Market prices for similar assets with adjustment to reflect differences
- Sector benchmarks such as the value of an orchard expressed per export tray, bushel, or hectare, and the value of cattle expressed per kilogram of meat
Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

Where market-determined prices or values are not available for biological assets in their present condition, AASB 141 suggests that an entity use the present value of expected net cash flows from the asset discounted at a current-market-determined pre-tax rate in determining fair value.

Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

Where a biological asset is not separate from other assets, AASB 141 (par. 25) states:

- Biological assets are often physically attached to land (e.g. trees in a plantation forest). There may be no separate market for biological assets that are attached to the land but an active market may exist for the combined assets, that is for the biological assets, raw land, and land improvements, as a package. An entity may use information regarding the combined asset to determine fair value of biological assets. For example, the fair value of raw land and land improvements may be deducted from the fair value of the combined assets to arrive at a fair value of biological assets.

Accounting for biological assets (cont.)

How should biological assets be measured? (cont.)

• Should it still not be possible to measure fair value reliably on initial recognition, AASB 141 requires biological assets to be measured at cost less any accumulated depreciation and any accumulated impairment losses.

• Once the fair value of the biological asset can be measured reliably, the biological asset is measured at the fair value, less point-of-sale costs (under AASB 141, par. 30).
Accounting for biological assets (cont.)
When and how should revenue associated with biological assets be recognised?
AASB 141 (par. 26)

- A gain or loss arising from initial recognition of a biological asset at fair value less estimated point-of-sale costs and from a change in fair values less estimated point-of-sale costs of a biological asset shall be included in profit or loss for the period in which it arises

Accounting for biological assets (cont.)
AASB 141 also 'encourages' disclosures that differentiate between changes in fair values, which are based upon price changes and physical changes—AASB 141 (par. 51)

- The fair value less estimated point-of-sale costs of a biological asset can change due to both physical changes and price changes in the market
- Separate disclosure of physical and price changes is useful in appraising current period performance and future prospects, particularly when there is a production cycle of more than one year
- In such cases, an entity is encouraged to disclose, by group or otherwise, the amount of the change in fair value less estimated point-of-sale costs included in profit or loss owing to physical changes and owing to price changes
- This information is generally less useful when the production cycle is less than one year (e.g. when raising chickens or growing cereal crops)

Accounting for biological assets (cont.)
Accounting for agricultural produce

- Agricultural produce of a biological asset is defined by AASB 141 as 'the harvested product of the entity’s biological assets'
- Includes fruit pulled from trees, wool shorn from sheep, felled logs, slaughtered livestock
- AASB 102 'Inventory' requires inventory to be valued at the lower of cost and net realisable value—what is the cost of agricultural produce?
  - AASB 141 (par. 13) states that 'agricultural produce harvested from an entity’s biological assets shall be measured at its fair value less point-of-sale costs at the point of harvest. Such measurement is the cost at the date when applying AASB 102 or another similar standard'
Accounting for biological assets (cont.)

Disclosure

- AASB 141 (par. 41) requires that an entity provide a description of each group of biological assets
- Par. Aus43.1 states:
  
  An entity shall disclose the nature of biological assets and an estimate or relevant indication of their physical quantity, separately classified between ‘plants’ and ‘animals’ and sub-classified as appropriate to the circumstances of the entity, showing separately those biological assets subject to a lease arrangement

Accounting for biological assets (cont.)

Opposition to AASB 1037 and AASB 141

- These standards are the subject of sustained criticism from members of industries affected by them
- Criticisms include:
  - too academic
  - provide ‘nothing positive’ for local companies
  - make payout ratio look unfavourable
  - alienate US investors

Summary

Main topics addressed in the lecture include:

- Accounting for heritage assets
- Accounting for biological assets that relate to agricultural activities
- Various arguments as to how these assets should be valued and disclosed were addressed
- Arguments for and against the accounting valuation of heritage assets were set out, with different views being held by some members of the accounting profession regarding whether and how heritage assets should be recognised for accounting purposes
Summary (cont.)

- Also considered were the unique accounting attributes of biological assets—living animals and plants.
- Relative merits of historical cost vs market-based valuations were considered.
- The lecture noted that accounting regulators have opted to adopt market-based/fair valuations for the agriculture accounting standard.
- The changes in fair value from one period to the next are treated as part of the entity’s profit or loss—a departure from conventional approaches such as historical cost.