STAFF PAPER

January 2012

IFRS Interpretations Committee Meeting

Project	**IAS 41 *Agriculture***
Paper topic	Disclosure of the components of changes in fair value and associated valuation techniques

CONTACT(S)	Gary Berchowitz	gberchowitz@iasb.org	+44 (0) 20 7246 6914

Introduction

1. The IFRS Interpretations Committee (the Committee) received a request to address an issue related to a disclosure requirement of IAS 41 *Agriculture* and the implication that this disclosure may have on the valuation of some biological assets measured at fair value less costs to sell (refer to Appendix A for a copy of the submission).

2. Specifically, the submitter requested that the Committee clarify the disclosure requirement in paragraph 51 of IAS 41, which encourages an entity to disclose the amount of the change in the fair value of a biological asset for the period attributable to physical changes and to price changes:

> The fair value less costs to sell 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 change in fair value less costs to sell included in profit or loss due to physical changes and due to price changes. This information is generally less useful when the

production cycle is less than one year (for example, when raising chickens or growing cereal crops).

3. The submitter's concern is that the disclosure in paragraph 51 may, in their view, be contributing to an unacceptable application of the market approach valuation technique (the market approach is described in IFRS 13 *Fair Value Measurement* paragraphs B5 – B7 included in Appendix B to this paper).

4. The submitter is recommending that the Committee amend paragraph 51 to explain more clearly that the disclosure is only encouraged to be provided if the biological asset's fair value is measured using a market approach based on current market prices for the assets multiplied by the volume or quantity of the biological assets held by the entity. In other words, the disclosure would only be encouraged when the entity's biological assets are at the same level of biological transformation as those quoted in an active market. The submitter believes that clarifying when the disclosure in paragraph 51 is encouraged will help entities to understand how to apply the market approach appropriately.

Explanation of the issue

5. In some cases, an entity is able to determine the fair value of biological assets in their current condition based directly on quoted prices in an active market. However, in other cases quoted prices are not available for some types of biological assets, for example, a timber plantation that is not fully grown where there is no quoted price for a partially grown timber plantation.

6. When quoted prices in an active market representing the biological asset in its current stage of transformation are not available, an entity that measures its biological assets at fair value less costs to sell uses a valuation technique in accordance with paragraph 20 of IAS 41 (IFRS 13 deleted this paragraph because IFRS 13 has guidance for using valuation techniques to measure fair value).

7. The submitter states that some entities use a valuation technique to measure fair value of partially grown biological assets that, in their view, does not comply with the requirements of IAS 41 (or IFRS 13) for determining fair value. The valuation

technique that the submitter is concerned about can best be explained by way of example:

> Consider an entity that owns a timber plantation that has advanced 40% towards harvest based on the volume of timber (growing biological asset). The entity observes market prices of CU100,000[1] for plantations of the same quantity of trees that are fully grown (100% ready for harvest). The entity adjusts the fair value of the fully transformed plantation by a multiple to measure the fair value of its plantation which is 40% grown. The multiple is based on the physical proportion that the biological asset has grown towards harvest, ie 40/100 or 0.4. Consequently, the entity measures the fair value of its plantation at CU40,000. If the plantation has grown a total of 60% towards harvest at the next measurement date and the fair value of a plantation ready for harvest is still CU100,000, the fair value of the plantation that has grown 60% would be CU60,000 (CU100,000 * 0.6).

8. The submitter is concerned that using this type of methodology (ie assuming a linear relationship between physical growth and fair value) does not represent the fair value of the biological asset because the submitter thinks that the pattern of physical growth may differ from the pattern of change in fair value due to factors that affect fair value differently, for example:

    a. time value of money;

    b. the pattern of risk over the period to the biological asset becoming marketable; and

    c. market participants’ expectations regarding the future prices that will be obtained for the biological asset.

9. The submitter further thinks that paragraph 51 of IAS 41 is contributing to the use of such a methodology.

[1] In the examples in this paper, monetary amounts are denominated in ‘currency units (CU)’.

Staff Analysis

Appropriateness of assuming a linear relationship between physical growth quantity and fair value

10. Because IFRS 13 has replaced the guidance in IAS 41 for measuring fair value, we have performed our analysis based on the requirements of IFRS 13.

11. We note that IFRS 13 does not provide specific guidance on how the valuation of biological assets should be performed. However, IFRS 13 provides the principle for the manner in which fair value should be measured and paragraph 61 of IFRS 13 requires an entity to use a valuation technique that is appropriate to the circumstances that maximises the use of relevant observable inputs and that minimises the use of unobservable inputs.

12. A market approach valuation technique that makes use of observable inputs in the case of a biological asset would be the quoted prices in an active market for an identical biological asset at the measurement date (refer to paragraph 76 of IFRS 13). However, for a biological asset to be identical, it must have the same characteristics as the biological asset subject to the valuation, including its condition and advancement towards harvest, which might be challenging.

13. When an identical biological asset cannot be found in an active market or when no active market exists for the biological asset during its biological transformation ('growing biological asset'), the entity would be required to measure fair value using a valuation technique that uses Level 2 and/or Level 3 inputs as described in IFRS 13 paragraphs 81-90. Such a valuation technique might be a market approach (using prices for comparable biological assets or identical biological assets in an inactive market), an income approach (discounted cash flows) or a cost approach (current replacement cost).

14. The 'linear relationship between physical growth quantity and fair value' methodology is a technique that the submitter thinks some entities are using when applying the market approach. When using the market approach these entities rely on prices generated by market transactions involving similar assets, ie the observed price for the same or a similar biological asset that has completed its

biological transformation (ie 100% grown), and then multiplying that observed price by a multiple representing the extent of growth of the entity's biological asset to measure the fair value of the growing biological asset.

15. We think that an income approach for a biological asset should provide the same fair value as a market approach because in theory the fair value of a biological asset at the measurement date should be the same regardless of which valuation technique is used. Where the income approach incorporates the risks in either the discount rate or expected cash flows, the market approach incorporates the risks in the pricing multiple and for a specific biological asset, *the risks are the same* and therefore the fair value should also be the same.

16. Consequently, for the fact pattern presented in the example in paragraph 7, if the pricing multiple used (which is based on the extent of growth) incorporated all of the risks that are relevant to the asset being valued, then the estimate of fair value would be the same as that estimated using other valuation techniques. Using only the extent of growth to incorporate the risk in a market approach might be appropriate in some cases (for example when the biological asset is close to a harvestable condition and a market price exists for fully grown biological assets of the same type), however it might not be appropriate in other cases where the extent of growth does not incorporate all of the relevant risk factors, for example:

    a) the expected growth pattern for the biological asset;
    b) the current condition or health of the biological asset;
    c) the location of the biological asset which might take into account expected future weather conditions and quality of the biological environment;
    d) the historical volatility and hence expected future price of the biological asset;
    e) the entity's previous experience in managing the biological transformation.

17. Consequently, we think that it is not possible to determine whether a market approach that uses a linear relationship between physical growth quantity and fair value is appropriate (or not appropriate) for valuations of all biological assets because it will depend on the specific facts and circumstances.

Question for the Committee

1. Does the Committee agree that it is not possible for the Committee to determine whether a market approach that uses a linear relationship between physical growth quantity and fair value is acceptable (or not acceptable) for all biological asset valuations?

Outreach conducted

18. We sent out a request for information to the National Standard Setters Group in order to help assess the Committee's agenda criteria. Specifically, we asked:

    a) *How common or widespread, in your jurisdiction of influence, is the use of the linear growth methodology described above for measuring the fair value of biological assets within the scope of IAS 41?*

    b) *If the use of such a methodology is common, do entities justify the use of a linear growth methodology based on paragraph 51 of IAS 41? If entities are not using paragraph 51 as the basis for using this methodology, what is their basis for using it or are they using other valuation methodologies (please describe them if applicable)?*

    c) *Are there specific types of biological assets for which this methodology is commonly used?*

19. The views expressed below are informal feedback from the National Standard Setters Group. They do not reflect the formal views of the Boards of those organisations. In addition they exclude the views of the submitter as the submitter is also a National Standard Setter. The geographic breakdown for the responses is as follows:

Geographic area	**Number of respondents**
South America	1
Asia/Oceania	1
Africa	1

Europe	2
North America	2
Total respondents	**7**

20. The result from the outreach indicated the following:

a) Only two of the respondents indicated that they are aware of a linear growth methodology being used in measuring fair value for the biological assets in their jurisdictions.

b) Both respondents that indicated that the linear growth methodology is being used stated that paragraph 51 of IAS 41 was *not* the justification for using this methodology.

c) The two types of biological assets identified for which the linear growth methodology is being used were identified as:

   a. forestry plantations; and

   b. fish farming.

21. One of the National Standard Setters helped to arrange a call between the staff and two of the companies which apply the linear growth methodology in the forestry industry. One of the company's ('Entity A') explained, at a high level, the methodology employed as follows:

a) Entity A groups their plantation into specific areas / compartments based on the trees' relative ages. Entity A has about 22,000 compartments.

b) Entity A's trees have relatively short lives until harvest (approx. 8 years) compared with some other types of trees in the industry.

c) Entity A's trees grow in a uniform manner during their biological transformation. For example, at the end of year three, on average a tree will have a volume of 3/8 of the total volume that it will have when it is ready for harvest. Tree prices are based on volume of wood.

d) The method that Entity A is using to measure the fair value of its plantation is based on the age of the tree compared to its age when it is ready for harvest, for example, if a tree takes eight years to be ready for harvest and is three years along, Entity A uses the current price of an eight year old tree and multiples it by 3/8 because

a. The two main risks for trees in Entity A's jurisdiction are fire and bugs, both of which are just as likely in year one as they are in year seven. Consequently, the main risks are the same throughout the biological transformation process.

b. The risks are adjusted based on the different geographical areas / compartments, for example, if one area is more likely to have a fire, it will be adjusted accordingly.

e) Entity A does not provide the disclosure in paragraph 51 of IAS 41. However, Entity A provide a sensitivity analysis for price and conversion rate.

Disclosure in paragraph 51 of IAS 41

22. The disclosure in paragraph 51 of IAS 41 is *encouraged*, but not required. Paragraphs B75 and B76 of the Basis for Conclusions to IAS 41 explain the reason why:

> B75 Some argue that the separate disclosure should be required since it is useful in appraising current period performance and future prospects in relation to production from, and maintenance and renewal of, biological assets. Others argue that it may be impracticable to separate these elements and the two components cannot be separated reliably.
>
> B76 The Board concluded that the separate disclosure should not be required because of practicability concerns. However, the Board decided to encourage the separate disclosure, given that such disclosure may be useful and practically determinable in some circumstances...

23. We note that the Committee considered the issue of encouraged disclosures at its September 2010 meeting. The relevant extract of the September 2010 IFRIC Update stated that:

> The Committee decided at its meeting in May 2009 to recommend that the Board should undertake a review of all disclosures encouraged (but not required) by IFRSs with the objective of either confirming that they are required or eliminating them. Following the subsequent involvement of the Committee in Annual Improvements the issue was presented for discussion at this Committee meeting.
>
> The Committee was informed that current Board projects are proposing the inclusion of disclosure principles in IFRSs, supplemented by example disclosures. In light of this approach to disclosure requirements, the Committee assessed the issue against Annual Improvements current criteria of non-urgent but necessary.
>
> The Committee decided that it was not necessary to address this issue and that the criteria for including it within Annual Improvements were not met. Consequently, the Committee decided to propose that the Board should not add this issue to Annual Improvements.

The Board agreed with the Committee's recommendation as stated in the October 2010 IASB Update.

24. We think that amending paragraph 51 of IAS 41 will not address the submitter's concern (ie, that this disclosure may be contributing to an unacceptable application of the market approach valuation technique) because:

  a) We think that, depending on the facts and circumstances, a linear relationship between physical growth quantity and fair value may be an acceptable valuation approach;
  b) Paragraph 51 of IAS 41 is a disclosure paragraph and not a measurement paragraph;
  c) The basis for conclusions to IAS 41 already provides an explanation of what the disclosure in paragraph 51 of IAS 41 is attempting to accomplish and

implies that the use of appropriate valuation techniques might mean that it is not practicable to provide the disclosures; and

d) The Board has considered the issue of encouraged disclosures and previously decided not to address this issue through annual improvements.

Question for the Committee
2. Does the Committee agree that amending paragraph 51 of IAS 41 will not address the valuation concern raised by the submitter?

IFRS 13 educational material regarding biological assets

25. We also note that the IFRS Foundation plans to publish educational material relating to the application of the principles for measuring fair value included in IFRS 13. We understand that one of the topics that will be covered by the educational material will be the valuation of biological assets.

26. The educational material is expected to be published in the third quarter of 2012. More information about the plans for developing educational material can be found on the IASB's website:

    a) http://www.ifrs.org/NR/rdonlyres/8C57E129-F5C1-4583-A897-B0712983D79D/0/FVM1011b05.pdf.

    b) http://www.ifrs.org/Use+around+the+world/Education/FVM/FVM.htm.

Staff Recommendation

27. We recommend that the Committee not amend paragraph 51 of IAS 41 through annual improvements or take this issue onto its agenda based on the following:

    a) We think that the appropriateness of using a market approach will depend on the facts and circumstances specific to entities' biological assets as well as the way in which the market approach is applied. Consequently, we do not think that the Committee is able to conclude that the valuation technique described by the submitter is never acceptable;

b) IAS 41 paragraph 51 is an encouraged disclosure requirement and not a measurement requirement;

c) The outreach conducted indicated that the issue is not widespread and that the use of a market approach that assumes a linear relationship between physical growth quantity and fair value is not based on paragraph 51 of IAS 41; and

d) The IFRS Foundation is planning on providing educational material which will address fair value measurement of biological assets.

28. We have included draft rejection wording in appendix C to this paper.

Question for the Committee
3. Does the Committee agree with the staff recommendation not to take this issue onto its agenda or address the issue through the Annual Improvements process? 4. If the Committee agrees with the staff recommendation, does the Committee agree with the proposed rejection wording in Appendix C?

Appendix A – Submission

Australian Government

Australian Accounting Standards Board

Level 7, 600 Bourke Street
MELBOURNE VIC 3000
Postal Address
PO Box 204
Collins Street West VIC 8007
Telephone: (03) 9617 7600
Facsimile: (03) 9617 7608

6 June 2011

Sir David Tweedie
Chairman
International Accounting Standards Board
30 Cannon Street
London EC4M 6XH
UNITED KINGDOM

Dear David

IAS 41 *Agriculture*

The AASB is writing to recommend an improvement to paragraph 51 of IAS 41 *Agriculture*. Paragraph 51 encourages separate disclosure of the components of the change in the fair value less costs to sell of biological assets due to physical changes and due to price changes. The AASB recommends limiting this encouraged disclosure to biological assets with fair value determined through current volume/price multiples. Its reasons are set out below.

Under the AASB's recommendation, the current encouraged disclosure would not apply to fair value estimates based on the present value of future cash flows. In present value based estimates of the fair value of biological assets (referred to in paragraph 20 of IAS 41), current physical quantities are not multiplied by a price to determine present fair value and, therefore, separating physical change and price change components would be infeasible.

The AASB is concerned that the unrestricted nature of the encouraged disclosure in paragraph 51 of IAS 41 may contribute to misinterpretation of how fair value should be determined under that Standard. The AASB understands that, in respect of biological assets without observable market prices in their present condition, some entities have inappropriately estimated fair value (and changes therein) on the basis of an assumed linear relationship with physical growth. This assumption is a problem because the pattern of physical growth may differ from the pattern of change in fair value due to factors that affect fair value differently, including the time value of money, the pattern of risk over the period to the biological asset becoming marketable, and market participants' expectations regarding the future prices that will be obtained for the biological asset.

The AASB's recommendation would reinforce the IASB's removal from IAS 41 (in May 2008) of a potential source of confusion regarding the treatment of physical growth. In that amendment, the IASB removed the prohibition on an entity taking into account the cash flows resulting from 'additional biological transformation' when estimating the fair value of a biological asset using discounted cash flows.

If you have any questions about the AASB's recommended amendment of IAS 41, please do not hesitate to contact Jim Paul (jpaul@aasb.gov.au).

Yours sincerely

Kevin M. Stevenson
Chairman and CEO

Appendix B – Extract from IFRS 13

Market approach

B5 The market approach uses prices and other relevant information generated by market transactions involving identical or comparable (ie similar) assets, liabilities or a group of assets and liabilities, such as a business.

B6 For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might be in ranges with a different multiple for each comparable. The selection of the appropriate multiple within the range requires judgement, considering qualitative and quantitative factors specific to the measurement.

B7 Valuation techniques consistent with the market approach include matrix pricing. Matrix pricing is a mathematical technique used principally to value some types of financial instruments, such as debt securities, without relying exclusively on quoted prices for the specific securities, but rather relying on the securities' relationship to other benchmark quoted securities

Appendix C – Proposed wording for tentative agenda decision

IAS 41 *Agriculture*—Disclosure of the components of changes in fair value and associated valuation techniques

The Interpretations Committee received a request to address an issue related to a disclosure requirement of IAS 41 *Agriculture* and the implication that this disclosure may have on the valuation of some biological assets measured at fair value less costs to sell. Specifically, the submitter's concern is that the disclosure in paragraph 51 of IAS 41 may, in their view, be contributing to an unacceptable application of the market approach valuation technique for biological assets.

The Committee noted that IFRS 13 *Fair Value Measurement*, does not prohibit the use of a market approach in estimating the fair value of biological assets. The Committee further noted that there may be circumstances in which a market approach would be an acceptable valuation methodology assuming that the pricing multiple that was used appropriately incorporated all of the risks specific to the biological asset. The Committee noted that paragraph 51 addresses disclosures in IAS 41, not measurement, and that the guidance in measuring fair value is contained within IFRS 13. The Committee also noted that the IFRS Foundation is planning to provide educational material to supplement IFRS13 in the third quarter of 2012 and that this educational material will include biological asset valuations as one of the topics.

Consequently, the Committee [decided] not to add this issue to its agenda because it thinks that IFRS 13 provides the principles that need to be applied in measuring fair value; paragraph 51 of IAS 41 is a disclosure requirement and not a measurement requirement; and educational material is expected in the foreseeable future that will further help preparers in applying the principles of IFRS 13 to biological assets.