

STAFF PAPER

20-24 May 2013

IASB Meeting

Project	Matters Arising from the IFRS Interpretations Committee		
Paper topic	IAS 41 <i>Agriculture</i> and IFRS 13 <i>Fair Value Measurement</i> —Valuation of biological assets		
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This paper has been prepared by the staff of the IFRS Foundation for discussion at a public meeting of the IASB and does not represent the views of the IASB or any individual member of the IASB. Comments on the application of IFRSs do not purport to set out acceptable or unacceptable application of IFRSs. Technical decisions are made in public and reported in IASB *Update*.

This paper is a copy of Staff Paper 7 presented at the September 2012 IFRS Interpretations Committee meeting. This paper is presented as additional information in support of Staff Paper 16 for the May 2013 IASB meeting.



STAFF PAPER

September 2012

IFRS Interpretations Committee Meeting

Project	IAS 41 <i>Agriculture</i> and IFRS 13 <i>Fair Value Measurement</i>		
Paper topic	Valuation of biological assets using a residual method		
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Introduction

1. At the May 2012 meeting, the Interpretations Committee (the Committee) discussed a request seeking clarification on paragraph 25 of IAS 41 *Agriculture*. This paragraph permits the use of a residual method to arrive at the fair value of biological assets that are physically attached to land, if the biological assets have no separate market but an active market exists for the combined assets.
2. The Committee considered the staff analysis and proposal, as well as comment letters received from the International Forum of Accounting Standard-Setters (IFASS) and two separate comments to the staff paper (hereinafter ‘May outreach’ collectively). We orally introduced them to the Committee at the meeting, but have reproduced them in this paper for ease of reference.
3. At the May meeting, the Committee observed that it is unlikely that the residual method will be appropriate if it returns a minimal or nil fair value for the biological assets. The Committee decided not to propose an amendment to IFRSs with respect to this issue, and asked the staff to bring back proposed wording to the next meeting for a tentative agenda decision.
4. However, after the May meeting, we received a comment, via the submitter, from a valuation expert who has specialist expertise in valuing biological assets in the

submitter's jurisdiction. According to the valuer, there is no separate market for biological assets attached to land in its jurisdiction. The valuer therefore advocates that the use of the residual method would be the only way to value such biological assets.

5. After we received this comment, we met with an auditor who is experienced in auditing the fair value measurement of biological assets. Our initial discussions suggest that other views exist on the ability to estimate fair value of biological assets attached to land other than by the residual method.
6. In response to the differing views expressed in the comments received, and taking into account the potential significance for the basis of the Committee's tentative decision at the May 2012 meeting, we have conducted further outreach in July (hereinafter 'July outreach') to valuation specialists, including with members of the IASB's Valuation Expert Group.
7. This agenda paper is organised as follows:
 - (a) Summary of the issue
 - (b) Summary of comments received from the May outreach
 - (c) Discussions and agreements made by the Committee at the May meeting
 - (d) Summary of comments received from the July outreach
 - (e) Staff analysis and recommendation to the Committee
 - (f) Question for the Committee
 - (g) Appendix A—Proposed wording for tentative agenda decision

Summary of the issue

8. Paragraph 25 of IAS 41 addresses the fair value measurement of biological assets that are physically attached to land (emphasis added).

Biological assets are often physically attached to land (for example, 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, the biological assets, raw land, and land improvements, as a package. An entity may use information regarding the combined assets to measure the fair value of the 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 the fair value of biological assets.

9. Paragraph 27 of IFRS 13 *Fair Value Measurement* requires that a fair value measurement of a non-financial asset must take into account its highest and best use:

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its *highest and best* use or by selling it to another market participant that would use the asset in its highest and best use.

10. The submitter's concern is that, when using the residual method, the use of the fair value of land (ie based on its highest and best use as required by IFRS 13) when its highest and best use is different from its current use, might result in a minimal or nil fair value for the biological assets. This causes tension between IAS 41 and IFRS 13 when using the residual method.
11. According to the submitter, there are mixed views in their jurisdiction on the application of paragraph 25 of IAS 41. Some think that the value of raw land to be deducted from the fair value of combined assets should be the value of the land based on its current use. Others think that the value of raw land should be its fair value, which would reflect the land's highest and best use in accordance with IFRS 13.

Summary of comments received from May outreach

Outreach to IFASS

12. In the May outreach we specifically asked:

Q1. In your jurisdiction, is it common for entities reporting under IFRSs to have any biological assets physically attached to land that should be accounted for under IAS 41?

If yes to Q1:

Q2. If you have not yet applied IFRS 13, what is the prevalent approach used to determine fair value for such biological assets?

Q3. If you have already applied IFRS 13, what is the prevalent approach used to determine fair value for such biological assets?

Q4. Based on your response to Q2 or Q3, would your view be that there is diversity in practice for such biological assets?

Q5. Do any of the entities affected in your jurisdiction apply the IAS 16 revaluation model to the land, and if so, does this affect how the biological assets are valued?

13. We received 13 responses on these questions. Below is a summary of the responses, followed by the detail of each response in the form of a table:

- (a) Seven respondents answered that the issue is not relevant to their jurisdiction or the number of entities affected is very limited.
- (b) Five respondents identified cases in which there are bearer biological assets physically attached to land. Some of them introduced different valuation approaches for the fair value of biological assets, but generally the residual method is either not causing any issue or not common in the first place.
- (c) One respondent does not see a conflict between IAS 41 and IFRS 13 on this issue.

Respondent A	The issue has practically no relevance for our jurisdiction.
B	An anomaly or a conflict is not seen between IAS 41 and IFRS 13 on this issue and the situation is not different from the very common situation where an old building sits on a valuable site.
C	We did not identify a significant number of entities that are relevant to the outreach question.

D	The number of entities applying IAS 41 or equivalent local standard is very limited. We did not understand why the concept of highest and best use is ignored when valuing the combined assets in the submission.
E	Very few entities are subject to the requirement under IAS 41. No entities affected are applying the revaluation model under IAS16 to land.
F	IFRSs are not yet adopted. Once adopted, one entity will apply IAS41.30—inability to measure reliably the fair value of biological assets physically attached to land (sugar cane).
G	<p>We have observed a number of cases where there are bearer biological assets physically attached to land. The biological assets are accounted for under IAS 41. The entities are listed, but their agricultural activities are based overseas. We have seen cases involving palm oil plantations and tea gardens.</p> <p>From the small number of cases reviewed, we are not aware of any cases where the residual method has given rise to the concerns raised by the submitter.</p>
H	Although the number of entities currently reporting under IFRSs is limited, it is not common for those entities to have biological assets physically attached to land that should be accounted for under IAS 41.
I	The vast majority of entities in the agricultural sector are non-publicly accountable and they generally do not follow IFRSs. Many entities are able to establish fair value for biological assets (ie use of the residual method as set out in IAS 41.25 does not appear to be common).
J	There are a number of cases where there are bearer biological assets physically attached to land. The cases seen were in relation to: palm oil plantations, tea gardens, trees in a plantation forest, pulp and paper industry, hevea (<i>rubber tree</i>) plantations. From the small number of cases reviewed, we are not aware of any cases where the residual method has given rise to the concerns raised by the submitter.
K	It is common for forestry entities such as pulp or wood products companies to have biological assets physically attached to land that should be accounted for under IAS 41. We understand that it can be also common for entities with other types of agricultural business such as orange juice plantations and sugar mill companies that depend on different kinds of plantations to produce their final products. We have not seen entities that apply revaluation model to their lands.

L	<p>We do not have any instances where we determine the value of the trees by deducting the fair value of the land from the value in total. However, if we were to do the valuation in such a way, it seems logical that the only correct valuation of the land is to use the value of the land based on its current use. To use the fair value based on highest and best use would be misleading as the valuation of the asset in total is then not determined on a consistent basis with the value of its component parts. If a user wanted to value the land at fair value based on highest and best use, this would be a secondary exercise after determining the calculated fair value of the agricultural asset.</p>
M	<p>Being a country with extensive agricultural activities, the existence of biological assets physically attached to land is very common, including forests and bearer biological assets like lemon, peach, apples, etc., trees. However, because the only entities applying IFRSs at the moment are listed companies and IFRSs reporting is not yet required, we do not have sufficient experience about the application of IAS 41.</p>

Two separate comments to staff paper

14. We have received two comments to the May staff paper.
15. The first comment is a personal view of a staff of a national accounting standard setter. In summary, it states that the use of a residual method would be appropriate only when the highest and best use of a group of assets is the group's existing use. Otherwise, the appropriate valuation premise would be to value each asset on a stand-alone basis. Under the residual method, the value of each asset deducted from the group's fair value should be measured at fair value in its current use. It is not relevant whether those 'deducted assets' are measured at fair value in the entity's financial statements.
16. The second comment is a preliminary view of a national accounting standard setter. In summary, it states that the main issue is how to allocate fair value of a group of assets to each of the individual assets. In their view, amending IAS 41 would not resolve the issue, but instead a possible approach would be to amend IFRS 13. They think that IFRS 13 is not clear about how to allocate fair value of a group of assets to the individual assets within the group.

Discussions and agreements made by the Committee at May meeting

17. The Committee noted that IFRS 13 requires an entity to determine whether a non-financial asset's fair value would be maximised by using it on a stand-alone basis or in combination with other assets (ie its valuation premise). When measuring fair value, assumptions about the highest and best use and valuation premise of a non-financial asset must be consistent for all the assets (for which highest and best use is relevant) within an asset group.
18. The Committee also noted that IFRS 13 presumes that an entity's current use of a non-financial asset is its highest and best use unless market or other factors suggest that a different use by market participants would maximise the value of the asset. Consequently, if the valuation premise for the biological assets is to measure them in combination with other assets, and the highest and best use of the biological assets is their current use, the other assets in the combined assets (including land) would generally also reflect their values in their current use.
19. However, the Committee observed that, in the situation submitted, the highest and best use of the land would provide maximum value to market participants on an alternative use basis (ie a stand-alone basis). Following the valuation premise set out in IFRS 13, the valuation premise for the land would be a stand-alone basis. The land would, therefore, regardless of the valuation premise for the biological assets, be valued at fair value based on its highest and best use in the calculation of residual method. This might lead to a minimal or nil fair value for the biological assets.
20. The Committee, notwithstanding the preceding observations, noted that such an approach would be inappropriate because the objective in IAS 41 is to measure the fair value of the biological assets, not all the assets in the group. In addition, the Committee noted that the use of the residual method is not required by IAS 41.
21. The Committee therefore noted that the Standards require that judgement must be used to select an appropriate valuation method that not only meets the requirements of IFRS 13 in the circumstances but that also achieves the measurement objective of IAS 41 of measuring the fair value of the biological assets.

22. The Committee noted that, having clarified above the interaction of the two Standards, any further guidance it could give would be on the application of judgement in selecting an appropriate valuation method, which would be circumstance-specific. Accordingly, the Committee tentatively decided not to take this issue onto its agenda.

Summary of comments received from July outreach

23. In the July outreach we specifically asked the following question to valuation specialists:

From your experience what alternative ways of valuing biological assets attached to land have you seen in circumstances when there is no market for the biological assets on their own? (Please provide details).

24. We received six responses that were relevant to this question. Below is a summary of the responses, followed by the detail of each response in the form of a table:
- (a) Two respondents stated that entities generally have the ability to measure the land and the biological assets separately using the market based approach. One of them introduced some exceptions where the residual method is used. Another of them pointed out that the residual method should have a limited application because the use of the method may result in nil fair value and impair comparability among biological assets.
 - (b) Two respondents stated that either only a limited number of entities have adopted IFRSs or very few entities have applied IFRS 13. One of them noted that the residual method is an example and thus it is unlikely that the residual method is the only method that can be used.
 - (c) One respondent stated that the residual method can be used if the valuation premise for land is to use it in combination with biological assets. If, however, that is not the case, then the land and biological assets should be separately valued.

- (d) One respondent stated that they measure the fair value of bearer biological assets using the residual method, but it is technically possible to measure it separately from the land using the multi-period excess earnings method.

Respondent A	<p>Most entities have the ability to measure the land and the biological asset separately, generally using the market based approach. In doing this they discount the future cash flows for the asset based on the maturity profile of the particular asset. To determine the selling price a 12 month average of prices paid is used to arrive at a reasonable market estimate. Costs are based on the annual average of actual costs with an inflationary increase adjustment.</p> <p>However, one response indicated that the residual approach is quite commonly used by investor owners as well as fully diversified and multi locational agricultural businesses. Another response addressed the situation where the biological assets cannot be separated from the land and would thus need to be valued with the land. In this case a depreciated replacement cost approach is used.</p>
B	<p>Given the fact that there are only a limited number of entities that have adopted IFRSs and limited experiences in the subject matter in our jurisdiction, we are afraid we are not able to provide you detail information on this matter.</p>
C	<p>Very few entities have applied IFRS 13 before its effective date, but this issue is not likely to apply to many entities that use IAS 41.</p> <p>Nevertheless, it is unlikely that we would be of the view that the residual method is the only method that could be used. Paragraph 25 of IAS 41 refers to the residual method as an example and thus this is interpreted as implying it is a suggested method and that other methods could be used.</p>
D	<p>Based on four responses received, either sales comparison or DCF is used for valuing biological assets both as combined and separately, regardless of the fact that there is market for the biological assets on their own. Three of them use a DCF and one uses a sales comparison approach. One of the three that use a DCF approach does not own the land and values trees only, of which fair value is obtained through external valuation experts.</p> <p>It is of our view that the residual method has a limited application given that the use of residual method may result in 'zero' fair value and hinder comparison between biological assets.</p>

E	<p>We think that the first step in valuing biological assets attached to land is to determine the highest and best use of the land - whether on a stand-alone basis or together with the biological assets. We consider that if the highest and best use is the combined asset (i.e. land and biological assets), then the residual method can be used by determining a value for the combined asset using comparable sales (market based valuation) or another appropriate approach and deducting the value of the land based on its current use. It would not be appropriate in this instance to use a value for the land based on an alternative use (as its highest and best use is deemed to be as a combined asset with the biological assets).</p> <p>If, however, the combined asset is not the highest and best use of the land, then we think the land and biological assets should be separately valued - the land and land improvements using a valuation for its best alternative use and the biological assets using a valuation of the optimum "salvage" value.</p>
F	<p>In estimating the fair value of bearer biological assets we usually use the residual method. The highest and best use of the biological assets is their current use. The highest and best use of the land is also their current use because it is not legally permissible to utilise the land for another use. However, it is technically possible to calculate the fair value of the biological assets alone using the multi-period excess earnings method. The multi-period excess earnings method is a variation of the income approach valuation technique. When there is an identifiable stream of future cash flows for a collection of assets (ie an asset group, such as a plantation), a multi-period excess earnings method may provide an indication of the fair value of a specific asset (such as a biological asset).</p> <p>As for the concern by the submitter of this issue, if the raw land has a significantly higher value in an alternative use, we think that the consequence for the fair value of the biological assets being minimal or nil, does make sense and does provide useful information to investors. This is because it tells them that the entity should switch to that alternative use of the land.</p>

Staff analysis and recommendation to the Committee

25. We think that the comments from the July outreach are generally in line with the Committee’s view at the May meeting, in that the use of the residual method could be inappropriate in some circumstances. The result of the July outreach also indicates that there are several valuation techniques that can be used to measure the fair value of biological assets attached to land in addition to a residual

method. In addition, we have found one entity that describes in their financial statements that they measure the fair value of biological assets using a DCF approach.

26. We acknowledge the comment from respondent F that recognising minimal or nil fair value of biological assets under the residual method would provide useful information to investors (View A). However, this view is contrary to the Committee's view at the May meeting (View B) and therefore we analyse each view in the following paragraphs. There is a presumption in both views that there is no separate market for biological assets that are attached to the land, but that an active market exists for the combined assets. Therefore, the use of a residual method is the starting point for both views.

View A: biological assets have a minimal or nil fair value

27. Under this view, the entity's financial statements reflect the cost¹ of the land and a minimal or nil fair value for the biological assets.
28. In using a residual method, the deduction that is made for the land is based on its highest and best use as required by IFRS 13. In that calculation, the entity uses:
- (a) the forecast of future cash flows from using the biological assets in their current use (because that is the highest and best use for the biological assets); less
 - (b) a "charge" for the use of the land to determine the level of cash flows generated solely by the biological assets based on their current use². This charge is based on the highest and best use of the land, because that is the amount that the entity would need to pay if it were to lease the land for plantation purposes. The lessor would expect to be

¹ Unless revalued under the revaluation model or depreciated in some exceptional cases (eg rock or minerals are extracted from the quarries).

² There would also be charges for the use of other assets, such as equipment, that are used in the generation of cash flows. Those are not explicitly discussed in this paper because the fair value of such assets is normally not going to be high enough to affect the fair value of the biological assets using the residual method.

compensated for the land's highest and best use (otherwise it would lease the land to a property developer).

It is the consequence of the interaction of (a) and (b) that could lead to a minimal or nil fair value for the biological asset.

29. Proponents of this view think that the objective of the residual method is to value the biological assets. In their view, recognising a minimal or nil fair value for the biological assets is relevant to users of the financial statements because it indicates that management could better employ the entity's resources by switching to the alternative use of the land.

View B: biological assets without a minimal or nil fair value

30. Like View A, under View B the entity's financial statements reflect the cost³ of the land. However, the fair value of the biological assets in View B would not necessarily be minimal or nil. Proponents of this view think that, even if raw land in an asset group has a significantly higher value in an alternative use, the biological assets still have a fair value independently of the group.
31. Proponents of View B note that IAS 41 requires the fair value of biological assets to be presented in the statement of financial position, and the changes in the fair value as a result of the biological transformation to be presented in the statement of comprehensive income. Recognising a minimal or nil fair value for the biological assets would distort such measurement objectives of IAS 41. Therefore, the fair value of biological assets should be presented fairly in the financial statements.
32. In addition, the use of the residual method is not required by IAS 41. If the use of the residual method could lead to a minimal or nil fair value for the biological assets, the entity should apply its judgement in selecting an appropriate valuation method not only to meet the requirements of IFRS 13 but also achieves the measurement objective of IAS 41.

³ The same comment in footnote 1 applies.

33. Accordingly, the entity measures the fair value of the biological assets on a stand-alone basis and, as a result, the entity's financial statements reflect the cost⁴ of the land and the fair value of the biological assets.

Staff analysis

34. We agree with View B that, regardless of a higher value of the land in its alternative use, the biological assets still have a fair value independently of the asset group. In our view, the fair value of the biological assets in such a case would be the value an entity can obtain from selling the biological assets in the principal market for the asset as partially grown biological produce in their current state (less any costs to sell).
35. View A might reflect a pure application of IFRS 13 because it follows the requirements for valuation premise for non-financial assets. We think, however, that it does not meet the objective of IAS 41 because the fair value of biological assets (as selling in the principal market) will not be presented fairly in the financial statements. The objective of IFRS 13 is to provide guidance when another IFRS requires or permits fair value measurements or disclosures about fair value measurements. We do not think that applying IFRS 13 should affect the objective of IAS 41.
36. In addition, we think that the residual method is no more than a practical expedient when there is a difficulty in computing the fair value of biological assets. IFRS 13 requires that the use of the non-financial assets within the asset group must be consistent and must maximise the value of the assets as a group. We think, however, that the methodology for allocation and determining the unit of valuation will depend on the circumstances. If the highest and best use of the land is not its current use and the use of the residual method could lead to a minimal or nil fair value for the biological assets, the residual method is a valuation technique that is not appropriate in the circumstances. We have sufficient evidence of the availability of other valuation techniques, which we think supports this argument.

⁴ The same comment in footnote 1 applies.

37. Consequently, we support View B. We think that the residual method should not be used if the use of the method leads to a minimal or nil fair value for the biological assets, because it does not achieve the objective of IAS 41 to reflect the fair value of biological assets and the biological transformation of the biological assets.

Staff recommendation

38. On the basis of the above analysis, we think that the Committee should affirm its decision not to add this issue to its agenda. The proposed wording of the tentative agenda decision is included in Appendix A to this Agenda Paper.

Question for the Committee

Question to the Committee

Does the Committee agree with the staff recommendation and proposed wording in Appendix A for the tentative agenda decision?

Appendix A—Proposed wording for tentative agenda decision**IAS 41 *Agriculture* and IFRS 13 *Fair Value Measurement*—Valuation of biological assets using a residual method**

The IFRS Interpretations Committee (the Committee) received a request seeking clarification on paragraph 25 of IAS 41. This paragraph permits the use of a residual method to determine the fair value of biological assets that are physically attached to land, if the biological assets have no separate market but an active market exists for the combined assets. The submitter's concern is that, when using the residual method, the use of the fair value of land (ie based on its highest and best use as required by IFRS 13) when its highest and best use is different from its current use, might result in a minimal or nil fair value for the biological assets.

The Committee observed that, in the situation submitted, the highest and best use of the land would provide maximum value to market participants on an alternative use basis (ie a stand-alone basis). Following the valuation premise set out in IFRS 13, the valuation premise for the land would be a stand-alone basis. The land would, regardless of the valuation premise for the biological assets, therefore be valued at fair value based on its highest and best use in the calculation of residual method. This might lead to a minimal or nil fair value for the biological assets.

The Committee, notwithstanding the preceding observations, noted that in such circumstances using the residual approach would be inappropriate because the objective in IAS 41 is to measure the fair value of the biological assets, not all the assets in the group. In addition, the Committee noted that the use of the residual method is not required by IAS 41.

The Committee therefore noted that the Standards require that judgement must be used to select an appropriate valuation method that not only meets the requirements of IFRS 13 in the circumstances but that also achieves the measurement objective of IAS 41 of measuring the fair value of the biological assets.

The Committee noted that, having clarified above the interaction of the two Standards, any further guidance it could give would be on the application of judgement in selecting an appropriate valuation method, which would be circumstance-specific. Accordingly, the Committee [decided] not to take this issue onto its agenda.