

IFRS Developments

Accounting for trees held to generate carbon offsets for use or sale

What you need to know

- ▶ Many entities are investing in trees as a means to offset their carbon emissions (a carbon sink) or to generate carbon offsets for sale
- ▶ An entity's intention to harvest the trees and sell the lumber will be important in determining which standard applies under IFRS
 - ▶ The requirements of IAS 41 or IAS 16 will apply
 - ▶ Different trees might be within the scope of different standards

Background

Climate change and carbon emissions are a global concern. In an effort to offset some of their emissions, entities may buy or plant trees that will absorb carbon dioxide (i.e., act as carbon sinks) and thereby generate carbon offsets. Similarly, forestry companies might change their business models to defer, or cease, planned harvests to generate carbon offsets. In light of the current demand, some entities may also sell carbon credits generated by the trees over time.

Entities that directly owns such trees (rather than indirectly through investments in entities that owns the trees) will need to determine whether the trees are:

- ▶ Biological assets related to agricultural activity to which IAS 41 *Agriculture* applies
- ▶ Bearer plants related to agricultural activity to which IAS 16 *Property, Plant and Equipment* applies

Or

- ▶ Assets not related to agricultural activity, in which case, it is likely an entity would apply the requirements in IAS 16

In this publication, we discuss relevant considerations for determining the nature of the asset. We also outline the measurement requirements that apply to each type of asset.

Determining the nature of the asset

1. Identify the unit of account

Although IFRS may need to be applied to the individual trees (i.e., the unit of account), in practice, entities may be able to assess each stand¹ of trees or groups of stands if the intended use of those trees is consistent. It may not be possible to account for an entire forest in the same way if an entity intends to use different parts of the forest in different ways.

2. Determine whether there is agricultural activity

Trees are living plants and, therefore, meet the definition of a biological asset in IAS 41.² However, to be within the scope of IAS 41 or to be a bearer plant within the scope of IAS 16, they must relate to agricultural activity.³

Agricultural activity is “the management by an entity of the biological transformation and harvest of biological assets for sale or for conversion into agricultural produce or into additional biological assets”. By their very nature, trees will be subject to biological transformation (growth, degeneration, production and procreation processes), which will result in qualitative and quantitative changes over time. Such change for trees can be measured.⁴ However, for there to be agricultural activity, as defined in IAS 41, the entity also needs both of the following:

► Management of change

This is described in IAS 41 as facilitating the change “enhancing, or at least stabilising, conditions necessary for the process to take place (for example nutrient levels, moisture, temperature, fertility, and light).” For trees, management normally includes silviculture activities, such as planting, pruning, thinning, and fertilising. Harvesting unmanaged sources (deforestation) will not meet the definition of agricultural activity.⁵

► Harvest of agricultural produce

IAS 41 limits the definition of agricultural produce to that which can be harvested. This includes harvesting produce growing on, or in, the trees (e.g., fruit, latex) and felling the trees. The harvested produce need not be solely be for sale; an entity might also harvest for its own use (e.g., lumber used by an entity in constructing a building for its own use).⁶

How we see it

While carbon dioxide is absorbed and oxygen is produced by the trees, the oxygen cannot be captured at the point of production and detached in the manner contemplated by the definition of agricultural produce in IAS 41. Similarly, in our view, carbon offsets are not agricultural produce of trees.

IAS 41 does not provide guidance on the extent of harvest needed to qualify as an agricultural activity. If the entity actively manages the trees, thinning will involve harvesting. Trees may also be felled to create, or maintain, an access road. Even if the entity does not plan to harvest, a wind or a water event might naturally fell the trees. It is not clear the extent to which such felling might constitute harvesting of agricultural produce (and, therefore, agricultural activity) if the entity were to sell (e.g., at stump) or use the logs.

¹ A group of trees occupying a specific area that are sufficiently uniform (e.g., species, age).
² IAS 41.5.
³ IAS 41.1(a).
⁴ IAS 41.5, 6-7.
⁵ IAS 41.6.
⁶ IAS 41.B8.

Whether the entity manages the trees and harvests any agricultural produce will be key to determining the nature of the asset

How we see it

The definition of a bearer plant (see 3 below) permits incidental scrap sales (e.g., trees sold for firewood) not to taint the definition of bearer plants. It is not clear whether an entity could analogise to this guidance. That is, would it be possible not to meet the definition of agricultural activity if the only harvesting were for incidental scrap sales? While very limited scrap sales might not prevent an entity from applying the bearer plant guidance by analogy, more extensive sales would generally lead to a conclusion that the entity is engaged in agricultural activity.

3. If there is agricultural activity, determine whether the trees are bearer plants

If an entity determines there is agricultural activity, it will need to determine whether the trees are bearer plants. Trees related to agricultural activity will be within the scope of IAS 41, unless they meet the definition of a bearer plant. IAS 16 applies to the bearer plants, however, any produce growing in, or on, the trees would be treated as biological assets under IAS 41 until harvest (i.e., as two units of account).

Bearer plants are a subset of biological assets. They are living plants that: are used in the production or supply of agricultural produce; are expected to bear produce for more than one period; and have a remote likelihood of being sold as agricultural produce themselves, except for incidental scrap sales. Examples might include rubber trees, oil palms and fruit trees. However, IAS 41 makes it clear that “plants cultivated to be harvested as agricultural produce (for example, trees grown for use as lumber)”, and “trees that are cultivated both for their fruit and their lumber” (i.e., those with dual purpose) are not bearer plants.⁷

Since bearer plants must relate to agricultural activity, trees held solely to produce carbon offsets will not be bearer plants. However, it is likely that some bearer plants might also produce carbon offsets.

4. Determine the nature of the asset

The considerations discussed above will, in turn, determine the nature of the asset.

Nature of the asset	Agricultural activity	Bearer plant definition	Example
Biological asset related to agricultural activity	Yes	Not met	Trees in a plantation forest with deferred harvest to allow generation of carbon offsets
Bearer plant related to agricultural activity	Yes	Met	Rubber trees held to generate carbon offsets as well as harvest produce in those trees
Asset not related to agricultural activity	No	Not met	Trees held to generate carbon offsets that are unmanaged and/or not harvested

How we see it

If the trees are held solely to generate carbon offsets, whether sold or used, determining the nature of the asset may require judgement.

After initial recognition, it is not clear whether reassessment might be required should circumstances change. For example, assume an entity had no intention of felling the trees, but that subsequently changed for some of the trees due to windthrow. If these circumstances were to arise, an entity would need to apply the hierarchy in IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* to develop an appropriate policy.

⁷ IAS 41.5-5B.

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EYG No. 010441-21Gb1

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Applicable standard and measurement requirements

Nature of the asset	Applicable standard(s)	Measurement
Biological asset related to agricultural activity	IAS 41	Fair value less costs to sell at initial recognition and subsequently ⁸
Bearer plant related to agricultural activity	<ul style="list-style-type: none"> ▶ Produce growing on, or in, the bearer plant: IAS 41 (treated as biological assets under that standard) ▶ Trees: IAS 16 	
Asset not related to agricultural activity	IAS 16	Initial recognition at cost. Choice between cost or revaluation model subsequently

If IAS 41 applies, the trees (or produce growing on a bearer plant) are measured at fair value less costs to sell both at initial recognition and subsequently (unless the measurement exception applies because fair value cannot be reliably measured), with recognition of those changes through profit or loss.⁸

If IAS 16 applies, the initial measurement requirements will differ depending on whether the asset is a bearer plant or not:

- ▶ Bearer plants: they are measured at their accumulated cost, similar to the accounting treatment for a self-constructed item of plant and equipment before it is 'available for use', which is typically when they are mature
- ▶ Other assets: they are measured at their accumulated cost until they are available for use, which will generally be as soon as they are planted. An entity would not need to apply the requirements for bearer plants.

Subsequently, under IAS 16, entities have a policy choice to measure trees (whether bearer plants or not) using either the cost model or the revaluation model.

- ▶ If the revaluation model is selected, revaluations will need to take place with sufficient regularity to ensure the carrying amount does not differ materially from the asset's fair value had it been measured at the end of the reporting period. In addition, unlike IAS 41, revaluation changes will be recognised through other comprehensive income.
- ▶ Entities following either model will need to determine the useful life of the trees in order to depreciate them. The useful life will need to be re-evaluated each year.
- ▶ Unlike biological assets in the scope of IAS 41, property, plant and equipment is not scoped out of IAS 36 *Impairment of Assets*. Entities will, therefore, need to assess whether there are indicators that the trees are impaired at the end of each reporting period. If such indicators exist, an impairment loss will be recognised if the carrying value is higher than the asset's recoverable amount (being the higher of the asset's fair value less costs of disposal and its value in use).

How we see it

While measurement of fair value can be complex and subject to measurement uncertainty, determining the cost of growing trees can also be challenging. For example, pruning and thinning maintains the trees in the forest, but can also improve yield. It may be difficult to determine an appropriate useful life for a growing asset. Therefore, regardless of the measurement requirements, entities may need to apply judgement in accounting for such trees.

⁸ If the presumption that fair value can be reliably measured is rebutted on initial recognition, IAS 41.30 permits an entity to measure a biological asset at its cost less any accumulated depreciation until fair value becomes reliably measurable.