



# Case Report

<b>1</b>	<b>Case Number</b>	<b>0180/15</b>
<b>2</b>	<b>Advertiser</b>	<b>Planet ARK</b>
<b>3</b>	<b>Product</b>	<b>Other</b>
<b>4</b>	<b>Type of Advertisement / media</b>	<b>TV - Free to air</b>
<b>5</b>	<b>Date of Determination</b>	<b>13/05/2015</b>
<b>6</b>	<b>DETERMINATION</b>	<b>Dismissed</b>

## ISSUES RAISED

Green Code 1 - Truthful and Factual 1)i not misleading or deceptive

## DESCRIPTION OF THE ADVERTISEMENT

The advert shows architect Peter Maddison explaining the carbon storage attributes of wood and encouraging viewers to choose sustainably sourced wood to help tackle climate change.

## THE COMPLAINT

A sample of comments which the complainant/s made regarding this advertisement included the following:

*The claim that using wood in products leads to carbon sequestering is factually incorrect. It overstates the CO2 sequestered by the wood by neglecting to include the CO released in the harvesting, processing and transport of the wood, which is significant - perhaps negating all the carbon absorbed by the tree initially.*

## THE ADVERTISER'S RESPONSE

Comments which the advertiser made in response to the complainant/s regarding this advertisement include the following:

*The complaint received is as stated below:*

*The claim that using wood in products leads to carbon sequestering is factually incorrect. It overstates the CO2 sequestered by the wood by neglecting to include the CO released in the harvesting, processing and transport of the wood, which is significant – perhaps negating all the carbon absorbed by the tree initially*

As a starting point we assume that the reference to CO (carbon monoxide) is a typographical error and that the author meant CO<sub>2</sub> (carbon dioxide). Carbon monoxide would not be produced during normal forestry operations.

The carbon sequestration capacity of responsibly harvested wood is a scientific fact. We note that the complainant offers scientific evidence to support their concern.

There are multiple studies from Australia and around the world that support the claims made in our advertisement. For the sake of ease we have chosen to highlight the State of the Forests Report which is published by the Australian Government through the Department of Agriculture. The latest version (SOFR 2013) is the fourth in the series of State of the Forests Reports. The purpose of the report is to keep the public informed about Australia's forests, their management, use and conservation, and to provide information on how they are changing. It is also used to report on the state of Australia's forests to the world. This document is prepared by the Montreal Process Implementation Group for Australia and the National Forest Inventory Steering Committee on behalf of the Australian, state and territory governments and published by Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). The SOFR is significant in its level and breadth of information covered.

Link Attachment - 1

<http://www.agriculture.gov.au/abares/forestsaustralia/Documents/sofr2013-web2.pdf>

Specific to this complaint is:

Criterion 5. Maintenance of forest contribution to global carbon cycles

Link Attachment 2 -

<http://www.agriculture.gov.au/abares/forestsaustralia/Documents/criterion5-web.pdf>

The key findings address the specific complaint on emissions associated with forestry are summarised below (page 233)

"Harvested logs contain sequestered carbon. On average, one cubic metre of plantation softwood logs contains sequestered carbon equivalent to 787 kilograms of CO<sub>2</sub>, while on average one cubic metre of native forest hardwood logs contains sequestered carbon equivalent to 982 kg of CO<sub>2</sub>. The total amount of greenhouse gases emitted by forestry operations to produce a given volume of logs is, on average, equivalent to 3.2% (for softwoods) and 7.3% (for hardwoods) of the amount of CO<sub>2</sub> sequestered in that volume of logs."

The contribution of timber to sequestering carbon and the benefits for greenhouse gas mitigation is also summarised:

"Increasing the use of wood products in place of greenhouse gas-intensive construction materials could increase the greenhouse gas mitigation benefits of forest management".

To address the complaint in more detail:

The carbon cycle and the ability of wood to sequester carbon are discussed in more detail on page 235.

"Forests absorb CO<sub>2</sub> from the atmosphere during photosynthesis and store carbon in biomass, litter and soil organic matter. A significant amount of carbon is stored in wood. Annual growth is marked by the rings we observe in wood. During photosynthesis and active growth, carbon dioxide (CO<sub>2</sub>) captured from the atmosphere is combined with water taken up from the soil to produce wood and return oxygen to the atmosphere; about 1 tonne of CO<sub>2</sub> is captured to produce 1 cubic metre of wood containing 0.27 tonnes of carbon. Carbon is released from forests by respiration, and by the decay and combustion of plant material. The rate of storage of carbon in woody tissue is highest in early-age to mid-age growth phases of trees (regenerating and regrowth forests). In mature and older forests, net exchange of carbon with the atmosphere is usually low—slower growth is balanced by death and decay." The amount of carbon stored in wood products in service and landfill is discussed on page

242. The relative changes in carbon stored in products over time are discussed along with the impacts of disposal to landfill. The figures in Table 5.3 (page 244) show an increase in carbon stored in wood products in service and in landfill shows the increase over time. To address the specific issue of forest operations this is detailed on page 244 with the conclusion that the percentages associated with forest operations are quite low, contrary to the complaint.

"Total greenhouse gas emissions from forestry operations for production of an average log varied from 3.2% of the CO<sub>2</sub>-e sequestered (plantation softwood log) to 7.3% of the CO<sub>2</sub>-e sequestered (native forest hardwood log)."

To contextualise this further there is a section "consequences for greenhouse gas mitigation of forest management" page 245. Case study 5.1 (page 246) provides a useful insight into how the benefits are modelled over time along with Figure 5.7 demonstrating the cumulative carbon being sequestered from a harvest scenario (yellow) compared to a conservation only scenario (black line).

This study (Ximenes et al 2012a, 2012b) looks at the full lifecycle of the timber and all components involved in timber production (including harvesting, processing and transport) and the impact of various 'end of life' scenarios for the wood products. The study supports the view that with a full lifecycle approach then carbon storage in timber products can be increased over time. In essence the study compares leaving the trees untouched/conservation scenario with a harvest/replanting scenario. If the study is extended over a reasonable period and that typically associated with forests then the harvest/replanting scenario allows for greater storage of carbon. In essence after harvest trees grow again, removing more carbon, repeating this over regular cycles allows for the accumulation of carbon in products along with further extraction by the growing trees. The data allows for the emissions associated with harvest and the life cycle of the wood (including processing, transport and end of life) showing that harvesting as a viable means to remove and store carbon from the atmosphere. Further supporting studies for sequestration of carbon in wood construction.

Note these two studies include the harvesting stage of timber production.

#### Study 1

RMIT study: Comparative Life Cycle Assessment of Alternative Constructions of a Typical Australian House Design. FWPA report.

According to a recent RMIT study, substituting wood products for more greenhouse gas intensive building products could reduce the emissions of a typical house by up to 18 tonnes across the whole life of the house - more than a medium-sized car emits over seven years.

#### Attachment 3:

<http://www.fwpa.com.au/rd-and-e/market-access/204-comparative-life-cycle-assessment-of-alternative-constructions-of-a-typical-australian-house-design.html>

#### Study 2

Quantifying the greenhouse benefits of the use of wood products in two popular house designs in Sydney, Australia

Fabiano A. Ximenes, Tim Grant, 2012

As the average wood products usage per unit of floor area in Australia has decreased significantly over time, there is potential for increased greenhouse gas (GHG) mitigation benefits through an increased use of wood products in buildings. This study determined the GHG outcomes of the extraction, manufacture, transport, use in construction, maintenance and disposal of wood products and other building materials for two popular house designs in Sydney, Australia.

#### Additional Information

What is the difference between carbon and carbon dioxide (CO<sub>2</sub>)?

Carbon is a chemical element with the symbol C and atomic number 6. Carbon dioxide is a

*chemical compound composed of two oxygen atoms and a single carbon atom. One tonne of carbon equals 3.67 tonnes of carbon dioxide. Carbon is stored on the Earth in different ways. When carbon is in the atmosphere it takes the form of carbon dioxide. If too much carbon dioxide (CO<sub>2</sub>) builds up in the atmosphere it acts as a warming agent contributing to climate change. Trees can help restore a balance through the carbon cycle by absorbing carbon dioxide, storing it as carbon and releasing oxygen. Wood products store carbon for life. Unfortunately, the term "carbon" is often used (incorrectly) as shorthand for carbon dioxide (CO<sub>2</sub>), as in "carbon footprint".*

#### *What is CO<sub>2</sub>e*

*CO<sub>2</sub>e, or carbon dioxide equivalent, is a standard unit for measuring carbon footprints. The idea is to express the impact of each different greenhouse gas in terms of the amount of CO<sub>2</sub> that would create the same amount of warming. That way, a carbon footprint consisting of lots of different greenhouse gases can be expressed as a single number.*

#### *What is the difference between a carbon sink and a carbon store?*

*A carbon sink is active: a mechanism that actively absorbs carbon dioxide (like forests, oceans or the soil). A carbon store is passive: an object that holds carbon dioxide as carbon as part of its structure etc (like wood).*

*The carbon stored in the tree continues to be stored in the wood products made from the harvested tree for its lifetime, and beyond, through reuse and recycling.*

#### *What is life cycle assessment*

*Life cycle assessment (LCA) is a method of measuring the environmental impacts of building products over their whole life. The aim of a life cycle assessment is to identify, quantify and assess the impact of the energy and materials used and wastes released to the environment throughout the entire life of a building product.*

*The life cycle assessment of timber follows the piece of wood from harvesting, manufacture, construction and product life to recycling and disposal. Life cycle assessments of common alternative construction materials (like cement and aluminium) have shown that many other materials require larger energy inputs during manufacturing. This energy is typically sourced from high CO<sub>2</sub> emitting non-renewable fossil fuels. In contrast the manufacture of renewable wood products typically requires far less energy.*

## **THE DETERMINATION**

The Advertising Standards Board ("Board") considered whether this advertisement breaches the AANA Environmental Claims in Advertising and Marketing Code (the Environment Code).

The Board noted the complainant's concerns that the advertisement is incorrect in its claim that using wood in products leads to carbon sequestering and is misleading by neglecting to consider carbon released in the harvesting and other processes of the wood.

The Board viewed the advertisement and noted the advertiser's response.

The Board noted that the Environment Code applies to 'environmental claims' which are defined as 'any representation that indicates or suggests an Environmental Aspect of a

product or service, a component or packaging of, or a quality relating to, a product or service.'

An Environmental Aspect means 'the element of a product, a component or packaging or service that interacts with or influences (or has the capacity to interact with or influence) the Environment.'

The Environment is given a broad definition in the Code but, according to the dictionary definition means 'the broad natural surrounding conditions, such as the bush, the rivers, the air, the sea in which human beings live.'

The Board considered whether the advertisement contained any environmental claims ie: is there a representation that suggests that part of the product interacts with or influences the natural conditions in which we live.

The Board noted that the advertisement features images of an architect walking through a wood structure discussing the benefits of use of wood products. In particular the Board noted his comments that: 'Nearly half of a piece of wood is carbon removed from the atmosphere', 'Better for the environment to have carbon stored for life in [the wood product] than to have it out there', 'wood tackles climate change' and 'more people are saying wood is naturally better'.

The Board considered that the advertisement as a whole presented a representation that indicates that the ability of wood to sequester carbon improves the environment and that use of wood products is good for the environment.

The Board considered Section 1 (i) of the Environmental Code which provides that: "Environmental Claims in Advertising or Marketing Communications shall not be misleading or deceptive or be likely to mislead or deceive."

The Board noted that the practice note to the Environment Code does not require the Board to apply legal tests in its determination of whether advertisements are, or are likely to, mislead or deceive, or otherwise contravene prevailing community standards in the areas of concern to the Code but rather to determine whether statements would be reasonably understood to be literally true and therefore not require substantiation.

The Board noted the advertiser's reference to Australia's State of the Forests Report <http://www.agriculture.gov.au/abares/forestsaustralia/Documents/sofr2013-web2.pdf>. From that report in particular the Board noted:

'Forests are an important component of the global carbon cycle, because they store

substantial amounts of carbon, sequester carbon during growth, and release carbon during fire and decay. Forest carbon stocks vary over time according to natural processes of growth, disturbance and regeneration, and are also affected by forest management activities. There was a small increase in carbon stocks in Australia's forests (from 12,831 to 12,841 million tonnes) over the period 2005–10, driven by the recovery of forest from wildfires in the previous five years. Plantations accounted for 171 million tonnes of the forest carbon stock in 2010.

In addition, in 2010 a total of 103 million tonnes of carbon derived from forests was present in wood and wood products, including paper, in service (7 million tonnes more than in 2005 and 14 million tonnes more than in 2000); a further 123 million tonnes was present in wood and wood products, including paper, in landfill (6 million tonnes more than in 2005 and 13 million tonnes more than in 2000). The transfer of carbon from forests to wood products thus increased during the reporting period. The total amount of greenhouse gases emitted by forestry operations in producing logs represents only 3–7% of the equivalent amount of carbon dioxide sequestered in those logs.<sup>7</sup> (at page 7)

The Board also noted:

'The average plantation softwood log contains sequestered carbon equivalent to 787 kilograms of CO<sub>2</sub>-equivalents per cubic metre (kg CO<sub>2</sub>-e/m<sup>3</sup>), while the average native forest hardwood log contains sequestered carbon equivalent to 982 kg CO<sub>2</sub>-e/m<sup>3</sup>. Total greenhouse gas emissions from forestry operations for production of these average logs represent 3.2% of the CO<sub>2</sub> sequestered in the softwood log and 7.3% of the CO<sub>2</sub> sequestered in the hardwood log.'

Increasing the use of wood products in place of greenhouse gas-intensive construction materials could increase the greenhouse gas mitigation benefits of forest management.' (at page 233)

Based on the supporting information from the advertiser in referring to the Australian Government's report, the Board considered that the representation that wood stores carbon is accurate and that the advertisements claims about use of sustainably sourced wood is not misleading based on the information about greenhouse gas emissions in forestry operations.

Based on the above the Board determined that the advertisement's claims regarding sustainably sourced wood being better for the environment was not misleading. The Board determined that the advertisement did not breach Section 1 (i) of the Environment Code.

The Board then considered Section 3 of the Environmental Code which provides that:

'Environmental Claims in Advertising or Marketing Communications must be substantiated and verifiable. Supporting information must include sufficient details to allow evaluation of a claim.'

The Board considered that the information provided by the advertiser regarding the claims made in the advertisement and the environmental impact of forests substantiated the claims of the advertisement.

Finding that the advertisement did not breach the Environment Code on other grounds, the Board dismissed the complaint.