

Australian Standard<sup>®</sup>

**Quantification, monitoring and reporting  
of greenhouse gases in forest projects**

**Part 1: Afforestation and reforestation**

**STANDARDS**  
Australia



This Australian Standard® was prepared by Committee EV-015, Greenhouse Gas Measurement and Accounting. It was approved on behalf of the Council of Standards Australia on 19 October 2006.  
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- CRC for Greenhouse Accounting
- Consumers' Federation of Australia
- Department of Natural Resources and Water (Qld)
- Department of Primary Industries (NSW)
- Engineers Australia
- Minerals Council of Australia
- NSW Greenhouse Gas Abatement Scheme
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Additional Interests:

- Australian Greenhouse Office
  - Forestry South Australia
  - Forest Products Commission, WA
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee.

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RECONFIRMATION

OF

AS 4978.1–2006

Quantification, monitoring and reporting of greenhouse gases in forest projects  
Part 1: Afforestation and reforestation

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NOTES

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Australian Standard<sup>®</sup>

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**Part 1: Afforestation and reforestation**

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## PREFACE

This Standard was prepared by Standards Australia Committee EV-015, Greenhouse Gas Measurement and Accounting. It supersedes AS 4978.1(Int)—2002, *Carbon accounting for greenhouse sinks, Part 1: Afforestation and reforestation*.

This Standard is designed to be compatible with the general requirements of the International Standard for project level greenhouse gas reporting ISO 14064-2, *Greenhouse gases, Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions and removal enhancements*. However, this Standard deals with greenhouse gas accounting and reporting for forest projects at a more detailed level. The Kyoto Protocol and associated documents provide the international framework for accounting for greenhouse gas emissions and removals and have given direction to the various greenhouse gas abatement programs that are emerging. Publications that have been considered in the development of this Standard include the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), 1997, the Marrakesh Accords, 2001, and the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance for Land Use, Land-Use Change and Forestry, 2003.

The Committee was aware that a number of different greenhouse gas abatement programs have been established, each of which has developed specific policies and requirements with regard to quantification, monitoring and reporting of greenhouse gases in forest projects. This Standard is intended to be program neutral and concentrate on the technical aspects associated with transparent and rigorous greenhouse gas accounting. Where questions of policy arise, the Standard refers project proponents to the particular program or other arrangement under which they intend to operate. The specific requirements of a program are discussed in Appendix A.

This Standard allows for reporting of emissions and removals from afforestation and reforestation projects and for verification by an independent and suitably qualified person.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

## CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE .....	4
1.2 OBJECTIVE.....	4
1.3 DEFINITONS.....	4
SECTION 2 GENERAL REQUIREMENTS	
2.1 SCOPE OF SECTION .....	8
2.2 OVERVIEW OF THE PROCESS.....	8
2.3 PROJECT ELIGIBILITY .....	8
2.4 PROJECT DESCRIPTION .....	8
2.5 CALCULATIONS .....	10
2.6 REPORTING.....	10
2.7 MONITORING.....	11
2.8 DATA QUALITY AND DATA MANAGEMENT .....	11
SECTION 3 ESTIMATION OF CHANGE IN CARBON STOCKS	
3.1 SCOPE OF SECTION .....	12
3.2 REQUIREMENTS.....	12
SECTION 4 OTHER GREENHOUSE GAS EMISSIONS	
4.1 SCOPE OF SECTION .....	14
4.2 IDENTIFICATION OF POTENTIAL EMISSIONS.....	14
4.3 ESTIMATION OF EMISSIONS .....	14
SECTION 5 UNCERTAINTY ANALYSIS REQUIREMENTS	
5.1 SCOPE OF SECTION .....	15
5.2 ESTIMATION OF UNCERTAINTY .....	15
APPENDICES	
A SPECIFICATION ANTICIPATED TO BE PROVIDED BY THE PROGRAM.....	16
B GUIDANCE ON UNCERTAINTY ANALYSIS .....	18

**STANDARDS AUSTRALIA****Australian Standard****Quantification, monitoring and reporting of greenhouse gases in forest projects****Part 1 Afforestation and reforestation****SECTION 1 SCOPE AND GENERAL****1.1 SCOPE**

This Standard sets out the process for estimating and reporting greenhouse gas removals and emissions from forest projects over a set period of time as a result of afforestation and reforestation activities.

The Standard is intended to facilitate the consistent estimation and reporting of greenhouse gas emissions and removals from forest projects, and the verification of estimation and reporting processes.

NOTE: Future Parts of the AS 4978 series may address emissions and removals from forest projects as a result of activities other than afforestation and reforestation.

**1.2 OBJECTIVE**

The objective of this Standard is to provide a common approach to estimating changes in carbon stocks of living and dead vegetation and associated soil carbon pools and for the estimation of other relevant emissions of greenhouse gases in forest projects that is consistent, repeatable and transparent. The Standard is intended to support greenhouse gas abatement programs and to give confidence to those investing in forest projects.

**1.3 DEFINITIONS**

For the purposes of this Standard, the following definitions apply.

**1.3.1 Accuracy**

The degree to which the mean of the sample approaches the true mean of the population; lack of bias.

**1.3.2 Afforestation**

Direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.

NOTE: This definition is used in the Kyoto Protocol.

**1.3.3 Baseline scenario**

Hypothetical reference case that best represents the conditions most likely to have occurred in the absence of the project.

**1.3.4 Bias**

Systematic over- or under-estimation.